

FIRST-CLASS COMPONENTS FOR THE SANITARY INDUSTRY

RITH

**HEAD** 





# SMART WEBSITE

Sedal introduces its new website with lots of new features. Automated tools, easy navigation menus, intuitive filters and accessible information make this website the smartest we have ever had.

With this website renovation, Sedal continues its way to reach excellence in every detail. Continuous improvement is embeded in everything we do to offer the best user experience possible.

You are invited to visit www.sedal.com to feel the experience and quickly find the information you are looking for.



### **MULTI-PLATFORM SUPPORT**

<complex-block>

### **SMART PRODUCT SELECTOR**

The new Smart Product Selector is an intuitive and powerful tool to find the product you are looking for just in a few seconds.

You can filter the product porfolio by family, size, type and functions and the system interactively displays the products that match your search. Once you finish the search you will be able to navigate or download the Data Sheet, request samples or ask for additional information from the product.



## INDEX · CARTRIDGES FOR SINGLE LEVER FAUCETS







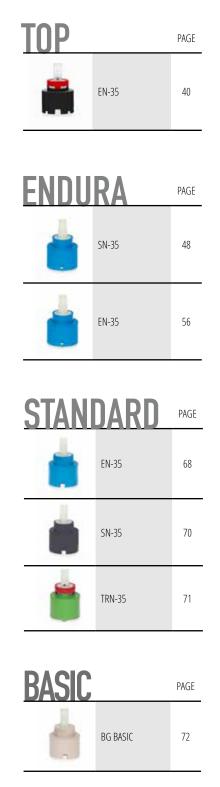






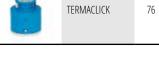
## MM

## MIXERS







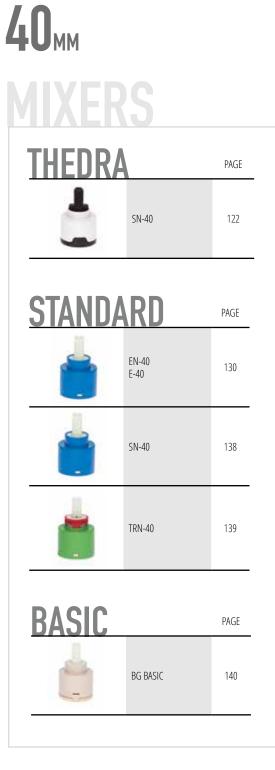








## INDEX · CARTRIDGES FOR SINGLE LEVER FAUCETS





FLUY		PAGE
	GC-40	144
	GC-45	148
SPEC		PAGE
6	REVOLVING	150
A.	DIVERTER	154
	JOYSTICK	156
	PRESSURE BALANCE	158
UPPE SEAL	R ING	PAGE
	UPPER SEALING	160
4	COMPACT	162

34&27<sub>MM</sub>





### **HEADWORKS**





### **SHOWER DIVERTERS**



### METERING VALVES



SELF-CLOSING VALVES PG.212

### **FLEXIBLE HOSES**



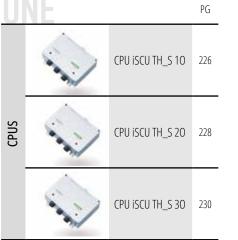
PG.218

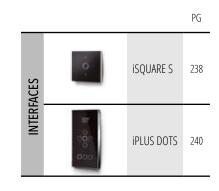
## **SHOWER SYSTEMS**

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## SUMMUM





S	JMMU	V	PG
	2	CPU IV2 20	232
CPUS	2	CPU IV2 30	234
	$\checkmark$	CPU IV2 40	236



## FAUCET SYSTEMS





H	<b>/DRON</b>		PG			PG			PG
		SENSE	252		S1	262		S6	262
JL BOX	-005	DUAL SENSE	254	IRS	52	262	SENSORS	S7	262
CONTROL BOX	100	iRED	256	INFRARED SENSORS	53	262	INFRARED SENSORS	58	262
	10.0	iRED+	258	N	54	262		S9	262
	0.0	iRED∙PRO	260		S5	262			

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# COMPANY: INNOVATING EVERYDAY

SEDAL Group is a leading global manufacturer of components for the faucet and sanitary industry. Founded in 1984, we have since then constantly grown and expanded our activities. Today we offer a wide range of products and solutions that meet the most demanding customer's requirements.

Headquartered in Spain, SEDAL is active in over 44 countries around the world, which provides us with a broad knowledge of the market. Following our vision, we pursue technical excellence in every single product we develop. Our team of engineers takes care of achieving new technical challenges to keep our customers satisfied. Deep know how in critical faucet components such as ceramic cartridges, headworks, thermostatic cartridges, flexible connections or diverters leads us to be the preferred supplier for some of the largest faucet manufacturers worldwide.

We invite you to learn more about our full product range on this catalogue and at www.sedal.com

Sedal

#### SEDAL GROUP COMPANIES





# CARTRIDGES FOR SINGLE LEVER FAUCETS

The ceramic cartridge is the component giving the faucet its main functionalities. SEDAL develops a range of cartridges starting from entry level valves to specific designs to improve our customer productivity and give the consumer an excellent balance between features and user experience.

We have identified each specification with an icon that is displayed along with the product name and reference.



# 25MM & 28MM CARTRIDGES FOR SINGLE LEVER FAUCETS

## INDEX · 25 & 28MM CARTRIDGES

## **25**MM

SN			METAL LEVER		CODE	PAGE
		SN-25	$\checkmark$	CD SD	08SN25LG000 08SN25FG000	16
25MM	-	COLD	$\checkmark$	CD SD	08SN25L1503 08SN25S1503	18
		COLD MIRROR	$\checkmark$	CD SD	08SN25L1504 08SN25S1504	20

EC	OFLC	W	METAL LEVER		CODE	PAGE
25MM		SN-25	✓	CD SD	08SN25L0001 08SN25S0002	22

SF	<b>ECIA</b>	LS	METAL LEVER		CODE	PAGE
		REVOLVING GI-25	$\checkmark$	SD	08GI25FBL00	24
25MM		DIVERTER GD-25	$\checkmark$	SD	08GD25FAZ00	26
		JOYSTICK JY-25	$\checkmark$	SD	08JY25S1101	28

UP SE	PER Alin	G	METAL LEVER		CODE	PAGE
25MM	1	UPPER SEALING GC-25	V	SD SD CLO	08GC25S0009 08GC25S0012	30

## **28**<sub>MM</sub>

SN		METAL LEVER		CODE	PAGE
28MM	SN-28	-	SD	08SN28S0002	32

UP SE	PER	G	METAL LEVER		CODE	PAGE
28MM		COMPACT EX-28	-	SD	08EX28L0002	33

## SN-25

#### DESCRIPTION

New SN-25 cartridges from SEDAL have been designed to perform above standards including robust lever design, smooth operation and higher flow than previous versions, providing great value-added products for the faucet's manufacturer.

#### FEATURES



SOFT Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

#### **LEVER VARIANTS** This cartridge allows

different lever versions, such as metal lever.

#### ADVANTAGES

IMPROVED PERFORMANCE

25mm cartridges are typically more sensitive to tough conditions, so we developed a new 25mm valve improving the technical specifications to achieve the best performance.

- +30% flow rate increase
- +20% smoothness operation torque
- -50% noise reduction

#### MORE ENDURANCE

The application of new technologies inside our cartridges has extended SN-25 endurance:

- 1x ASME / EN life cycle
- Improved plastic material robustness
- +50% Increased torque resistance
- +30% Increased flexion resistance

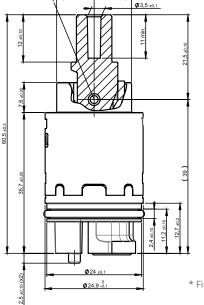
• TOUGH CONSTRUCTION FOR SMALL FAUCETS DESIGN

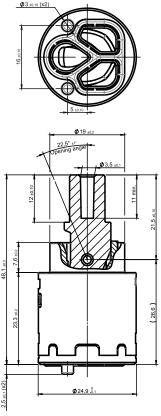
The small size of SN-25 makes it specially suitable for slim design faucets, allowing the manufacturer to innovate with its design without giving up the high-performance and robustness of the product.

#### DIFFERENT VERSIONS AVAILABLE

SN-25 cartridge is available with and without distributor. There is also a metal lever version compatible with C/D and S/D bases.







#### \* Find machinig requirements on pages 34-37.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.25	7-8Nm	7-8Nm
Opening angle	22.5°	22.5°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>35 bar	>35 bar
Life cycle - EN 817 ASME 112.18.1 M	70,000 cycles 500,000 cycles	70,000 cycles 500,000 cycles
Sensitivity (r=45mm)	>12 mm	>12 mm
Fidelity	<5°C	<5°C
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C
Max. hot water* Operation Torque	90 °C C/D	90 °C S/D
	50 2	30 0
Operation Torque	C/D	S/D
Operation Torque Open-close	<b>C/D</b> 0.20-0.40 Nm	S/D 0.20-0.40 Nm
Operation Torque Open-close Turn left-right	<b>C/D</b> 0.20-0.40 Nm 0.15-0.35 Nm	S/D 0.20-0.40 Nm 0.15-0.35 Nm
Operation Torque Open-close Turn left-right Flow rate (free flow)	C/D 0.20-0.40 Nm 0.15-0.35 Nm C/D (basin)	S/D 0.20-0.40 Nm 0.15-0.35 Nm S/D (basin)
Operation Torque Open-close Turn left-right Flow rate (free flow) at 0.2 bar	C/D 0.20-0.40 Nm 0.15-0.35 Nm C/D (basin) 5 l/min	S/D 0.20-0.40 Nm 0.15-0.35 Nm S/D (basin) 4.8 l/min
Operation Torque Open-close Turn left-right Flow rate (free flow) at 0.2 bar at 1 bar	C/D 0.20-0.40 Nm 0.15-0.35 Nm C/D (basin) 5 l/min 10.5 l/min	S/D 0.20-0.40 Nm 0.15-0.35 Nm S/D (basin) 4.8 l/min 10 l/min
Operation Torque Open-close Turn left-right Flow rate (free flow) at 0.2 bar at 1 bar at 3 bar	C/D 0.20-0.40 Nm 0.15-0.35 Nm C/D (basin) 5 l/min 10.5 l/min 17.2 l/min	S/D 0.20-0.40 Nm 0.15-0.35 Nm S/D (basin) 4.8 l/min 10 l/min 16.9 l/min
Operation Torque Open-close Turn left-right Flow rate (free flow) at 0.2 bar at 1 bar at 3 bar at 5 bar	C/D 0.20-0.40 Nm 0.15-0.35 Nm C/D (basin) 5 l/min 10.5 l/min 17.2 l/min 23.5 l/min	S/D           0.20-0.40 Nm           0.15-0.35 Nm           S/D (basin)           4.8 l/min           10 l/min           16.9 l/min           21 l/min
Operation Torque Open-close Turn left-right Flow rate (free flow) at 0.2 bar at 1 bar at 3 bar at 5 bar Flow rate (free flow)	C/D 0.20-0.40 Nm 0.15-0.35 Nm C/D (basin) 5 I/min 10.5 I/min 17.2 I/min 23.5 I/min C/D (bath)	S/D 0.20-0.40 Nm 0.15-0.35 Nm S/D (basin) 4.8 l/min 10 l/min 16.9 l/min 21 l/min S/D (bath)
Operation Torque Open-close Turn left-right Flow rate (free flow) at 0.2 bar at 1 bar at 3 bar at 5 bar Flow rate (free flow) at 0.2 bar	C/D 0.20-0.40 Nm 0.15-0.35 Nm C/D (basin) 5 I/min 10.5 I/min 17.2 I/min 23.5 I/min C/D (bath) 5.6 I/min	S/D 0.20-0.40 Nm 0.15-0.35 Nm S/D (basin) 4.8 l/min 10 l/min 16.9 l/min 21 l/min S/D (bath) 3.2 l/min

# SN-25

#### DESCRIPTION

New SN-25 cartridges from SEDAL have been designed to perform above standards including robust lever design, smooth operation and higher flow than previous versions, providing great value-added products for the faucet's manufacturer.

#### FEATURES



SOFT Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

> Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

COLD

LEVER VARIANTS

This cartridge allows different lever versions, such as metal lever.

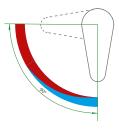
#### **ADVANTAGES**

ADDITIONAL FEATURES

SN-25 Cold has the same advantages than SN-25, but with cold technology as an additional feature.

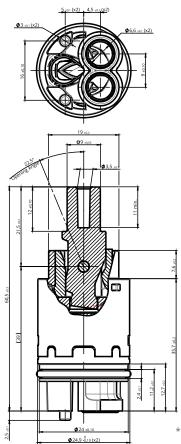
#### • COLD TECHNOLOGY

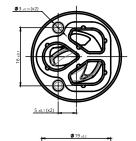
The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.

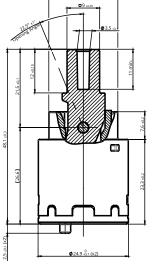




#### DIMENSIONS







#### \* Find machinig requirements on pages 34-37.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.25	7-8Nm	7-8Nm
Opening angle	22.5°	22.5°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>35 bar	>35 bar
Life cycle - EN 817 ASME 112.18.1 M	70,000 cycles 500,000 cycles	70,000 cycles 500,000 cycles
Sensitivity (r=45mm)	>12 mm	>12 mm
Fidelity	<5°C	<5°C
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.15-0.35 Nm	0.15-0.35 Nm

Flow rate (free flow)	C/D	S/D
at 0.2 bar	3 l/min	3.2 l/min
at 1 bar	7 l/min	7.4 l/min
at 3 bar	12 l/min	12.6 l/min
at 5 bar	15.30 l/min	16.1 l/min

## SN-25 Cold Mirror

#### DESCRIPTION

New SN-25 cartridges from SEDAL have been designed to perform above standards including robust lever design, smooth operation and higher flow than previous versions, providing great value-added products for the faucet's manufacturer.

#### FEATURES



Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

Energy saving feature

thanks to the internal

design of the cartridge, flowing cold water when the lever is centered.

SOFT

COLD



**LEVER VARIANTS** This cartridge allows different lever versions, such as metal lever.



**MIRROR** Movement from right to left to obtain hot water.

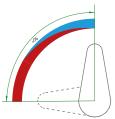
#### ADVANTAGES

ADDITIONAL FEATURES

SN-25 Cold mirror has the same advantages than SN-25, but with cold mirror technology as an additional feature.

#### • COLD TECHNOLOGY

The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.

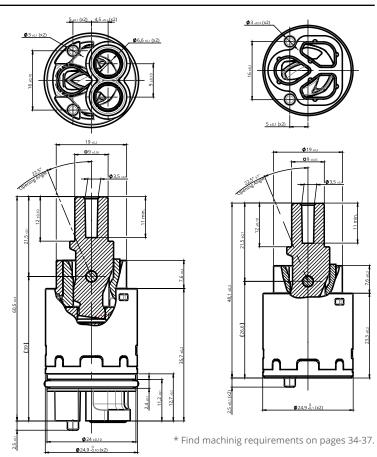


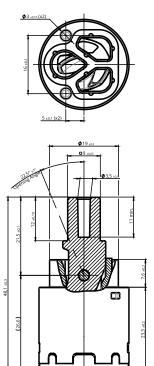
- SPECIALLY DESIGNED FOR KITCHEN APPLICATIONS
  - Mirror version has been specifically designed for kitchen applications, avoiding the inconvenience of the handle touching the wall.





#### DIMENSIONS





## **RECOMMENDED APPLICATIONS**



#### **KITCHENS** Specially designed for kitchens.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.25	7-8Nm	7-8Nm
Opening angle	22.5°	22.5°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>35 bar	>35 bar
Life cycle - EN 817 ASME 112.18.1 M	70,000 cycles 500,000 cycles	70,000 cycles 500,000 cycles
Sensitivity (r=45mm)	>12 mm	>12 mm
Fidelity	<5°C	<5°C
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.15-0.35 Nm	0.15-0.35 Nm

Flow rate (free flow)	C/D	S/D
at 0.2 bar	3 l/min	3.2 l/min
at 1 bar	7 l/min	7.4 l/min
at 3 bar	12 l/min	12.6 l/min
at 5 bar	15.30 l/min	16.1 l/min

## SN-25 ECOFLOW

#### DESCRIPTION

Ecoflow cartridges have been designed for applications where a low flow is required to fulfill the latest standards and market trends. The low flow that a manufacturer would normally reach with the use of restrictors, can be reached by using the Ecoflow cartridge with an aireator, suppressing the negative effects of the current solutions. The Ecoflow 25 is specifically designed to deliver 5.5 liters @3 bar without using restrictors. It also includes a clutch for a perfect operational feel and a high maximum torque resistance to withstand harsh environments.

#### FEATURES

ECO



REGULATIONS This cartridge is optimized according to WaterSense and Water Label requirements.

Cartridges identified

with an ECO icon offer at

least one environmental

sustainability feature.



**SOFT** Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.



The cartridge includes itself a restrictor that reduces the flow rate to save water.

#### **ADVANTAGES**

#### • SN TECHNOLOGY

Ceramics discs do not move in close position providing a unique smoothness of operation and higher durability (up to 20% longer life).

- IMPROVED FLOW-RATE VS HANDLE STROKE
  - Existing solutions offer a very limited opening stroke to regulate the flow. With ECOFLOW, the entire stroke is available.



#### REDUCES TEMPERATURE FLUCTUATION

When using a flow limiter in the spout combined with standard cartridges, the user can experience strong changes in water temperature. The new ECOFLOW Tech valves provide an excellent temperature stability in front of pressure variations in cold and hot water supply lines at low flow rates.

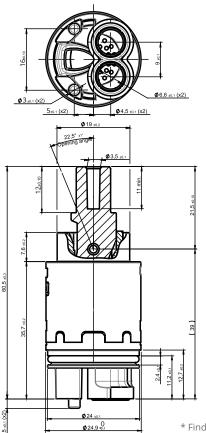


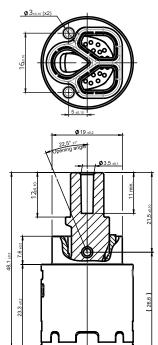
▶ THE USAGE OF A RESTRICTOR IS OPTIONAL

The flow rate reduction is carried out at the right place. With ECOFLOW the usage of a limiter or restrictor is optional.



#### DIMENSIONS





### RECOMMENDED APPLICATIONS



#### WASHBASINS Specially useful for low flow washbasins.

#### CERTIFICATIONS



\* Optimised for WaterSense and WaterLabel

#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	7-8Nm	7-8Nm
Opening angle	22.5°	22.5°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>35 bar	>35 bar
Life cycle - EN 817 ASME 112.18.1 M	70,000 cycles 500,000 cycles	70,000 cycles 500,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<3°	<3°
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.15-0.35 Nm	0.15-0.35 Nm

Flow rate (free flow)	C/D	S/D
at 0.2 bar	1.5 l/min	1.5 l/min
at 1 bar	3.7 l/min	3.7 l/min
at 3 bar	6.1 l/min	6.1 l/min
at 5 bar	7.3 l/min	7.3 l/min

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## REVOLVING GI-25

#### DESCRIPTION

Revolving cartridges include a turning lever in order to mix water and provide better control of the flow rate.

#### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

REVOLVING

to 180°.

This cartridge has a

turning lever from 0°



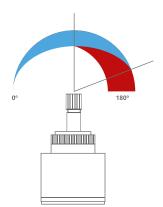
**COLD** Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

#### METALLIC LEVER This revolving cartridge has metallic lever

#### **ADVANTAGES**

REVOLVING MOVEMENT

25mm revolving cartridge has a rotation angle of 180° from cold to hot.



#### • COLD TECHNOLOGY

The cartridge starts in cold position by default, saving energy consumption related to plumbing products in the household.

HOUSEHOLD ENERGY CONSUMPTION RELATED TO CARTRIDGES IN %

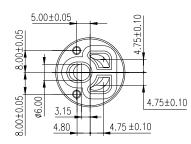


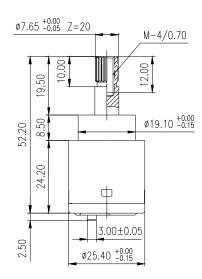






#### DIMENSIONS





#### **RECOMMENDED APPLICATIONS**



**DECORATIVE WASHBASINS** Specially designed for decorative faucets.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	S/D
Nut torque pitch M1.5	7-8Nm
Rotation angle	180°
Working pressure	1 - 5 bar
(recommended)	
Burst pressure	25-30 bar
Life cycle - EN 200	200,000 cycles
ASME 112.18.1 M	500,000 cycles
Max. hot water*	90 °C
`	
Operation Torque	S/D
Turn left-right	0.50-0.40 Nm
Flow rate (free flow)	S/D
at 0.5 har	2.0.1/min

S/D
3.9 l/min
5.6 l/min
9.6 l/min
12.4 l/min

## DIVERTER GD-25

#### DESCRIPTION

The GD25 diverter from Sedal is a high end 25mm valve that provides smooth operation along with a defined feeling of safety and precision thanks to the metallic lever and a high precision ceramic set. The operation torque has been improved while keeping a small footprint. Works perfectly paired with our TM006 Thermostatic cartridge for showers.

#### FEATURES



#### ADVANTAGES

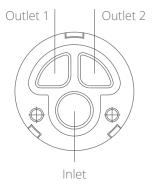
 SLIM BODY SHOWERS WITH HIGH FLOW
 The GD25 has a high flow rate @3 bar, allowing to build slim body showers

with 2 outlets providing a positive user experience while assuring an ecologic water consumption.

MORE ENDURANCE

Extended life time thanks to a high grade ceramic set made in our Technical Ceramics facilities. The metal lever improves the user perception of quality and precision in a small cartridge. DIVERTER FUNCTIONALITY

This cartridge fits specially good in bath showers because allows to have two different outlets while keeping slim designs. Mixed water entersinlet 3 and exits either outlet 1 or 2.

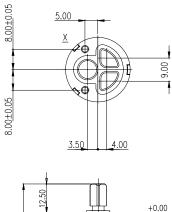


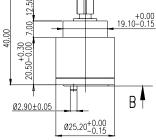






#### DIMENSIONS





#### **RECOMMENDED APPLICATIONS**



#### SHOWERS DIVERTERS

Specially designed for showers with diverters.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	S/D
Nut torque pitch M1.5	7-8Nm
Rotation angle	90°
Working pressure (recommended)	1 - 5 bar
Burst pressure	25 bar
Life cycle - EN 817	30,000 cycles
Max. hot water*	90 °C
Operation Torque	S/D
Turn left-right	0.15-0.30 Nm

S/D
6.8 l/min
9.3 l/min
16 l/min
20.4 l/min

## JOYSTICK JY-25

#### DESCRIPTION

Joystick cartridges have a similar functionality as standard cartridges, although the special design of their levers allows smooth 360° movements. Very popular in some countries, Joystick cartridges provide a natural movement especially with vertical levers. The JY25 from Sedal is a very compact Joystick cartridge specially developed for slim bodies or cascade tap designs.

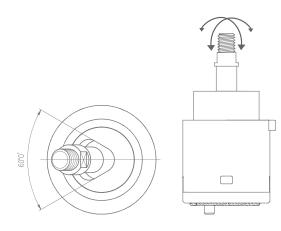
#### **ADVANTAGES**

SMALLEST IN THE MARKET

25mm joystick is the smallest in the industry, allowing the manufacturer to design slim faucets.

#### • NEW CERAMICS DISC GEOMETRY

JY-25 C/D has a new ceramics disc geometry that allows its smooth 360° movement.



#### FEATURES



JOYSTICK Joystick cartridge with smooth 360° movement.



**METALLIC LEVER** This joystick cartridge has metallic lever

ROBUST DESIGN

25mm joystick has a robust design, withstanding higher levels of burst pressure.

HIGHER FLOW RATE

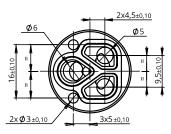
JY-25 C/D has higher flow rates than previous versions.

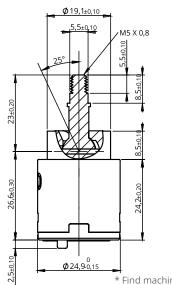
### **JY-25 S/D** REF. 08JY25S1101



DOWNLOAD DATA SHEET

#### DIMENSIONS





#### RECOMMENDED APPLICATIONS



WASHBASINS Specially designed for washbasins.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	S/D
Nut torque pitch M1.5	7-8 Nm
Opening angle	25°C
Rotation angle	80°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>35 bar
Life cycle - EN 817	70,000 cycles
Max. hot water*	90 °C

Operation Torque	S/D
Turn left-right	0.20-0.40 Nm

Flow rate (free flow)	S/D
at 0.5 bar	5.3 l/min
at 1 bar	7.3 l/min
at 3 bar	12.3 l/min
at 5 bar	15.9 l/min

## UPPER SEALING GC-25

#### DESCRIPTION

Upper sealed cartridges allow the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side.

Some of these cartridges also provide extra productivity thanks to their design.

#### FEATURES



METALLIC LEVER This joystick cartridge has metallic lever

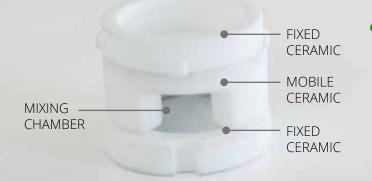
#### ADVANTAGES

• TRIALOX TECHNOLOGY

The new GC-25 Trialox features a new ceramic design that boosts its life expectancy while improving consistently the comfort of operation. Sedal's Trialox Technology is at the heart of this upper sealing 25mm cartridge to deliver a significant high flow for such a small footprint.

NEW REVOLUTIONARY CERAMIC SET

The GC-25 Trialox consists on a mobile ceramic sandwiched between two fixed ones, instead of the classic two ceramic construction. The water flows inside GC-25 through the lower ceramic to the mixing chamber. The upper fixed ceramic ensures leakage protection while keeping operation smooth.



• ALLOWS DIFFERENT FAUCET CONFIGURATIONS

Allows the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side.



#### • HIGH PERFORMANCE

Along with a high flow, the GC-25 Trialox ensures a full EN817 or ASME cycling while keeping the torque of operation and comfort parameters regularly.

#### DLC COATING

As an option, a Diamond Coated ceramic set can be ordered to improve the operation torque and the life expectancy, as well as a sensible reduction of the chatter effect in extremely high temperatures.









GC 25 S/D CLOSED



S/D S/D CLOSED

DLC Coated Ceramic

**OTHER VERSIONS** 

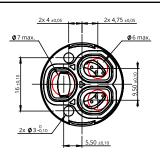
REF.00GC2550011

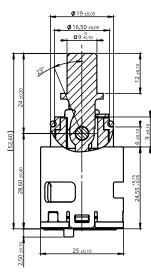
2x 4 ±0,05

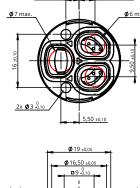
REF.08GC25S0013

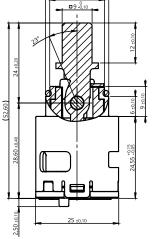
2x 4,75 ±0,05

#### DIMENSIONS









\* Find machinig requirements on pages 34-37.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	S/D	S/D CLOSED
Nut torque pitch M1.5	7-8 Nm	7-8 Nm
Opening angle	23°	23°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>35 bar	>35 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
ASME A112.18.1	500,000 cycles	500,000 cycles
Sensitivity (r=52mm)	11°-13° angle	11º-13º angle
Fidelity	<3°C	<3°C
Constant 63°C & 50°C (6 l/min - 3 l/min)	<4°C-<6°C	<4°C-<6°C
Max. hot water*	90 °C	90 °C
Operation Torque	S/D	S/D CLOSED
Turn left-right	0.15-0.40 Nm	0.15-0.40 Nm
Open-close	0.15-0.40 Nm	0.15-0.40 Nm

Flow rate (free flow)	S/D	S/D CLOSED
at 0.5 bar	6.2 l/min	6.2 l/min
at 1 bar	9.2 l/min	9.2 l/min
at 3 bar	16.1 l/min	16.1 l/min
at 5 bar	20.9 l/min	20.9 l/min

## SN-28 cartridges

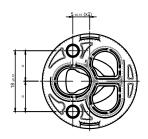
## SN-28 S/D

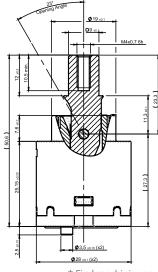
REF. 08SN28S0002





#### DIMENSIONS





## design capability but not as thin as 25mm cartridges, resulting in an interesting

cartridges, resulting in an interesting intermediate way in between 35mm and 25mm taps. It features soft operational movement thanks to a clutched ceramic movement and high grade ceramics.

The SN28 cartridge provides a slim

#### FEATURES

DESCRIPTION

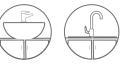


#### **SOFT** Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

#### ADVANTAGES

The manufacturer can keep a slim design but can obtain a higher flow rate.

#### **RECOMMENDED APPLICATIONS**



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	S/D
Nut torque pitch M1.5	7-8Nm
Opening angle	23°
Rotation angle	100°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>35 bar
ASME 112.18.1 M	500,000 cycles
Sensitivity (r=45mm)	>10 mm
Fidelity	<5°C
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4°C - <6°C
Max. hot water*	90 °C

Operation Torque	S/D
Open-close	0.15-0.30 Nm
Turn left-right	0.15-0.35 Nm

Flow rate (free flow)	S/D
at 0.2 bar	5.7 l/min
at 1 bar	12 l/min
at 3 bar	20.3 l/min
at 5 bar	25.8 l/min

## COMPACT EX-28

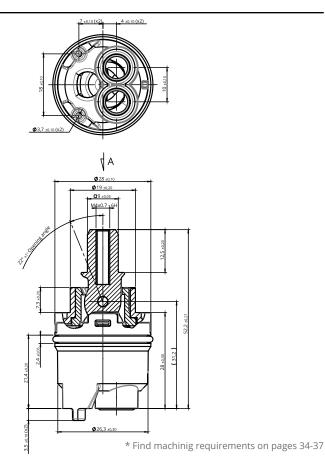
## **EX-28**

REF. 08EX28L0002





#### DIMENSIONS





LEVER	ciality	CODE	PAGE
	CD	08E25LBL02	23
-	SD	08E25FBL02	23

**'IMALISM WIT** 

DRMANCE mpact cartmuse ow the

to create minimalistic faucets without giving up the high-performance features of the cartridges.

#### **RECOMMENDED APPLICATIONS**



#### CONCEALED WASHBASINS

Specially designed for washbasins.

#### **CONCEALED SHOWERS**

Specially designed for one outlet showers.

#### **CONCEALED KITCHENS**

Suitable for use in kitchens.

#### CERTIFICATIONS



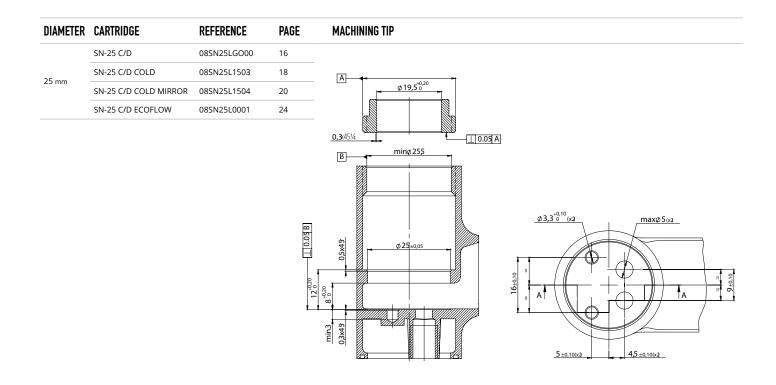
#### **TECHNICAL SPECIFICATIONS**

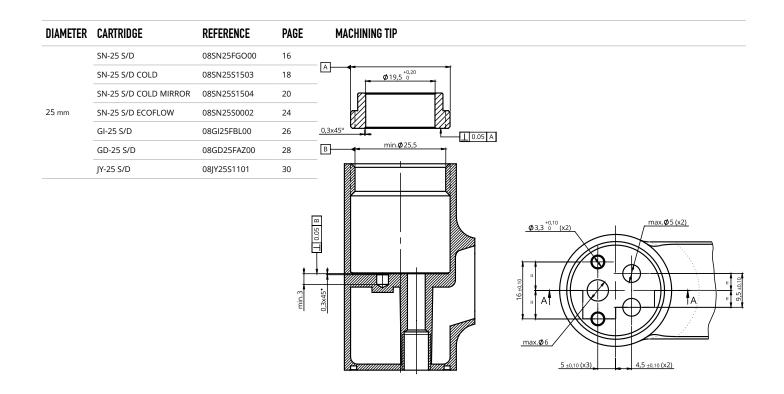
General	EX-28
Nut torque pitch M1.5	8 Nm
Opening angle	22°
Rotation angle	90°
Working pressure	1 - 5 bar
(recommended)	
Burst pressure	>35 bar
Life cycle - EN 817	140,000 cycles
ASME 112.18.1 M	500,000 cycles
Sensitivity	10°-12° angle
Fidelity	5 °C
Max. hot water*	90 °C

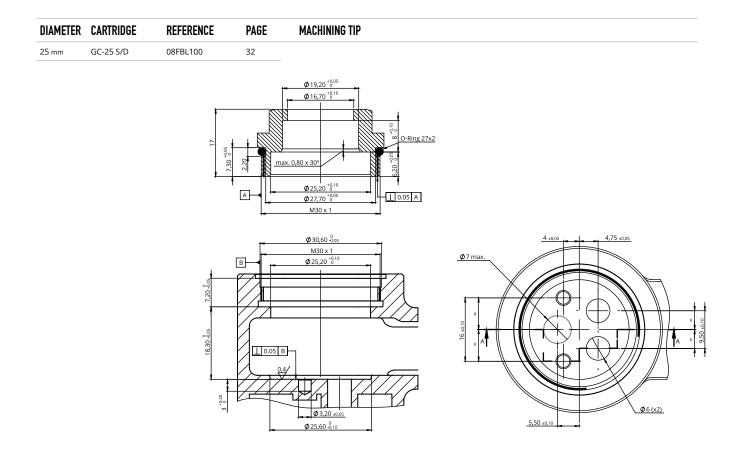
Operation Torque	EX-28
Open-close	0.15-0.25 Nm

Flow rate (free flow)	EX-28
at 0.5 bar	8.6 l/min
at 1 bar	12.2 l/min
at 3 bar	21.2 l/min
at 5 bar	27.5 l/min

## **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS

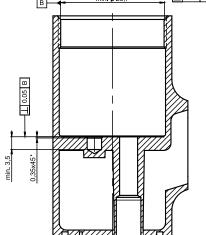


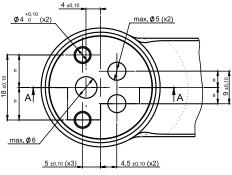




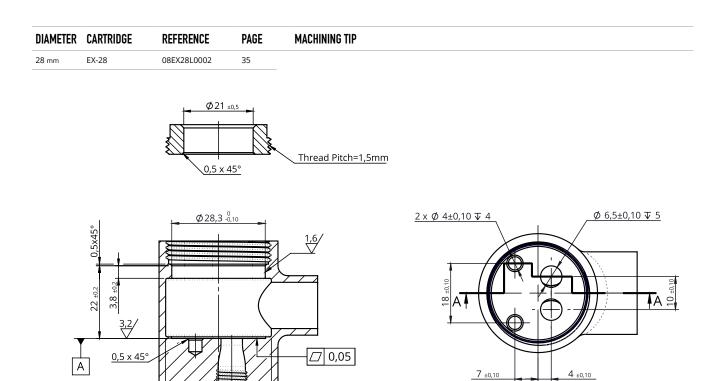
### **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS

DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP			
28 mm	SN-28	08SN28S0002	34				
		<del> =</del>	±0.50	<del></del>			
			Ø 20 0 0				
					4 ±0,		
		V//X					





4 ±0,10



min. Ø32

# 35MM CARTRIDGES FOR SINGLE LEVER FAUCETS

### INDEX · 35MM CARTRIDGES

			TEMP. LIMITER	FLOW LIMITER		CODE	PG
		TOP	$\checkmark$	$\checkmark$	CD SD	08EN35L0023 08EN35S0023	40
	4	DUE	$\checkmark$	$\checkmark$	CD SD	08EN35L3504 08EN35S3504	42
EN		COLD	$\checkmark$	$\checkmark$	CD SD	08EN35L2502 08EN35S4003	44
		COLD DUE	$\checkmark$	-	CD SD	08EN35L5002 08EN35S5002	46
			TEMP. LIMITER	FLOW LIMITER		CODE	PG
		ENDURA	~	$\checkmark$	CD SD	08SN35L0013 08SN35S0013	48
2		DUE	1	-	CD SD	08SN35L3001 08SN35S3001	50
SN		COLD	1	$\checkmark$	CD SD	08SN35L1502 08SN35S1502	52
		COLD DUE	1	1	CD SD	08SN35L0004 08SN35S0004	54
		ENDURA	$\checkmark$	$\checkmark$	CD SD	08EN35L0004 08EN35S0004	56
		DUE	~	-	CD SD	08EN35L3001 08EN35S3001	58
EN	-	COLD	1	$\checkmark$	CD SD	08EN35L1503 08EN35S1503	60
		COLD MIRROR	-	-	CD SD	08EN35L1505 08EN35S1505	62
		COLD DUE	1	$\checkmark$	CD SD	08EN35L0005 08EN35S0005	64
		COLD MIRROR DUE	-	-	CD SD	08EN35L2002 08EN35S2002	66
S	AND	ARD	TEMP. LIMITER	FLOW LIMITER		CODE	PG
EN		EN-35	-	-	CD SD	08EN35L0003 08EN35S0003	68
		EN-35 DUE	-	-	CD SD	08E35LAZ31 08E35FAZ31	69
SN		SN-35	-	-	CD SD	085N35LGO00 085N35FGO00	70
TRN		TRN-35	~	$\checkmark$	CD SD	08RN35LVE00 08RN35FVE00	71
B	SIC		temp. Limiter	FLOW LIMITER		CODE	PG
BASIC	ł	BG BASIC	-	-	CD SD	08EN35L0011 08EN35S0011	72
EC	OFL	.OW	TEMP. LIMITER	FLOW LIMITER		CODE	PG
SN		SN-35	-	-	CD SD	08SN35L0008 08SN35S0009	74

TE	RMA	CLCK	TEMP. LIMITER	FLOW LIMITER		CODE	PG
_		TERMACLICK	-	-	CD SD	08SN35L2003 08SN35S2003	76
SN		MIRROR	-	-	CD SD	08SN35L2004 08SN35S2004	78

<b>DI</b> <b>FA</b>		T	TEMP. LIMITER	FLOW LIMITER		CODE	PG
SN	4	BISO	-	-	2 3	085N35B0008 085N35B0007	80
S	1e1	SISO	-	-	2 3	08SN35A0008 08SN35A0007	82

S	PECIA	LS	TEMP. LIMITER	FLOW LIMITER		CODE	PG
9		GI-35	$\checkmark$	-	CD SD	08GI35LBE64 08GI35FBE64	84
REVOLVING	-	GI-35 L9	-	-	CD SD	08GI35LBE09 08GI35FBE09	86
RE	0	GI-35 Z20	-	-	CD SD	08GI35LBE01 08GI35FBE01	87
DIVERTERS		GD-35	-	-	CD SD	08GD35LBE00 08GD35FBE00	88
DIVE	100	GD-35 4	-	-	SD	08GD35S0001	90
JOYSTICK		JY-35	-	-	CD	08JY35L001	92

			EMP. MITER	FLOW LIMITER		CODE	PG
LING		G-35	$\checkmark$	$\checkmark$	CD	08RG35L4602	94
UPPER SEALING	3	G-35 DUE	$\checkmark$	$\checkmark$	CD	08G35L0002	96
UPPE	1	G-35 COLD	$\checkmark$	$\checkmark$	CD	08G35L1501	98
G-IN	4	CC-35	$\checkmark$	$\checkmark$	CD	08CC35L0003	100
DIRECT PLUG-IN		CC-35 BASIC	$\checkmark$	$\checkmark$	CD	08CC35L0016	100
DIRE		CC-35 BASIC DUE	$\checkmark$	$\checkmark$	CD	08CC35L4502	102
		EX-35 TOP	$\checkmark$	$\checkmark$	CD	08EX35L0504	104
	-	EX-35 TOP DUE	$\checkmark$	$\checkmark$	CD	08EX35L3503	106
PACT	<u>ی</u>	EX-35 TOP COLD	$\checkmark$	$\checkmark$	CD	08EX35L2502	108
COMPACT	-	EX-35 TOP COLD DUE	$\checkmark$	$\checkmark$	CD	08EX35L5002	110
		EX-35	$\checkmark$	$\checkmark$	CD	08EX35S0001	112
		EX-35 DUE	$\checkmark$	$\checkmark$	CD	08EX35S3501	114

# **EN-35 TOP**

#### DESCRIPTION

EN-35 TOP is a 35mm cartridge created to be the best in class, outstanding its competitors in all fields and offering the manufacturer a perfect balanced cartridge with an extraordinary endurance: 2x standard life cycling tests. It is also available with TRN technology for water and energy saving.

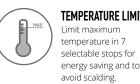
#### **FEATURES**



**FLOW LIMITER** Limit maximum water flow for water saving.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



**TEMPERATURE LIMITER** Limit maximum temperature in 7

#### **ADVANTAGES**

HIGHER FLOWRATE

TOP has a 5% more flowrate than the average in its market segment. It also has 3.5% more flowrate than its closest competitor and it is substantially better than the standard cartridges.

#### A PLUS IN SENSITIVITY

TOP has a 20% more sensitivity than its closest competitor. It has a 12% more sensitivity than the average cartridges in the market.

#### LOWER NOISE LEVEL

TOP produces only 16-18dB, 20% less noise than the average in its market segment and also than its closest competitor.

#### EXTRAORDINARY COMFORT

TOP has an extraordinary operational comfort, with smooth operation even in hot conditions, offering to the user a 11% more comfort than the average in its market segment.

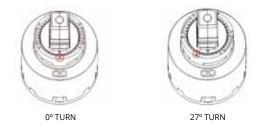
#### MECHANICAL STRENGHT

TOP has a 25% more mechanical strenght than Endura.

VERSIONS WITH LIMITERS

**TEMPERATURE LIMITER FUNCTION (TR)** 

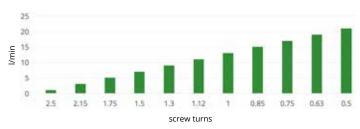
TOP cartridge has an optional ring called TR that allows limiting maximum temperature in 10 selectable stops (every 9°), enabling an anti-scalding safety feature.



#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.









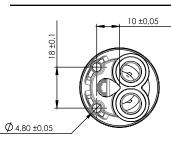


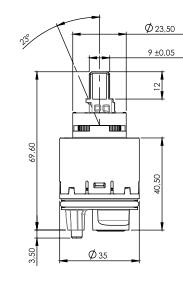


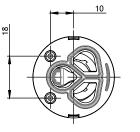
DOWNLOAD DATA SHEET

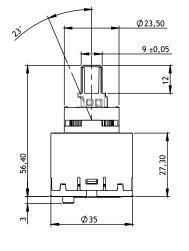
OTHER VERSIONS	C/D	S/D
Temperature limiter (TRN)	REF.08EN35L4505	REF. 08EN35S4505

#### DIMENSIONS













#### **BATH-SHOWERS** Specially designed for bath showers.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	100°	100°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>60 bar	>60 bar
Life cycle- x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 EN 817	140,000 cycles	140,000 cycles
NF-077 U3	175,000 cycles	175,000 cycles
x2 GB-18145	140,000 cycles	140,000 cycles
Sensitivity	>13.5 mm	>13.5 mm
Fidelity	<2°	<2°
Constant 63 ℃ & 50 ℃	<3°C - <4°C	<3°C - <4°C
(6 l/min - 3 l/min)		
Max. hot water*	90 °C	90 °C
		·

<b>Operation Torque</b>	C/D	S/D
Open-close	0.15-0.30 Nm	0.30 Nm
Turn left-right	0.15-0.30 Nm	0.30 Nm
	1	1
Noise level	C/D	S/D

Flow rate (free flow)	C/D	S/D
at 3 bar	28.2 l/min	27.4 l/min
	I	

#### -Hammer test NF-077.

-High temp. pressure test AS-NZS

# EN-35 TOP

#### DESCRIPTION

EN-35 TOP is a 35mm cartridge created to be the best in class, outstanding its competitors in all fields and offering the manufacturer a perfect balanced cartridge with an extraordinary endurance: 2x standard life cycling tests. It is also available with TRN and DUE technologies for water and energy saving.

#### FEATURES



**TEMPERATURE LIMITER** Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.

FLOW LIMITER

Limit maximum water

flow for water saving.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.

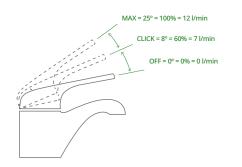
#### **ADVANTAGES**

ADDITIONAL FEATURES

EN-35 TOP Due has the same advantages than EN-35 Top, but with due technology as an additional feature.

#### DUE TECHNOLOGY

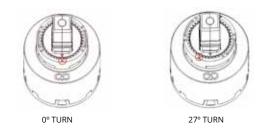
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



VERSIONS WITH LIMITERS

#### TEMPERATURE LIMITER FUNCTION (TR)

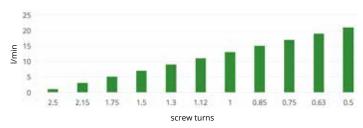
TOP cartridge has an optional ring called TR that allows limiting maximum temperature in 10 selectable stops (every 9°), enabling an anti-scalding safety feature.



#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.









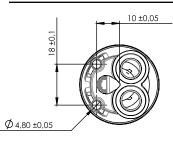
**EN-35 S/D** *TOP DUE* REF.08EN35S3504 (TR)

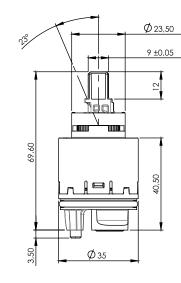


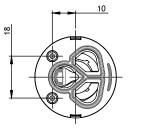
DOWNLOAD

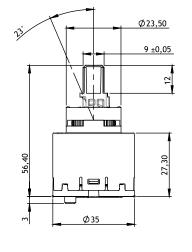
OTHER VERSIONS	C/D	S/D
Temperature & flow limiter (TRN)	on demand	on demand

#### DIMENSIONS













#### **KITCHENS** Suitable for use in kitchens.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	100°	100°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>60 bar	>60 bar
Life cycle- x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 EN 817	140,000 cycles	140,000 cycles
NF-077 U3	175,000 cycles	175,000 cycles
x2 GB-18145	140,000 cycles	140,000 cycles
Sensitivity	>13.5 mm	>13.5 mm
Fidelity	<2°	<2°
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<3°C - <4°C	<3°C - <4°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.15-0.30 Nm	0.30 Nm
Turn left-right	0.15-0.30 Nm	0.30 Nm

Noise level	C/D	S/D
Noise level (A2-NF077)	16 ± 2 dB	18 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 3 bar	28.2 l/min	27.4 l/min
-Hammer test <b>NF-077</b> . -High temp. pressure test <b>AS-NZS</b>		

\* Find machinig requirements on pages 116-119.

# EN-35 TOP

#### DESCRIPTION

EN-35 TOP is a 35mm cartridge created to be the best in class, outstanding its competitors in all fields and offering the manufacturer a perfect balanced cartridge with an extraordinary endurance: 2x standard life cycling tests. It is also available with TRN and COLD technologies for water and energy saving.

#### FEATURES



TEMPERATURE LIMITER Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.

FLOW LIMITER

Limit maximum water

flow for water saving.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

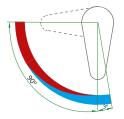
#### **ADVANTAGES**

ADDITIONAL FEATURES

EN-35 TOP Cold has the same advantages than EN-35 Top, but with cold technology as an additional feature.

#### COLD TECHNOLOGY

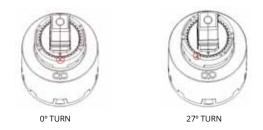
The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.



VERSIONS WITH LIMITERS

#### TEMPERATURE LIMITER FUNCTION (TR)

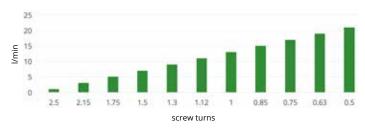
TOP cartridge has an optional ring called TR that allows limiting maximum temperature in 10 selectable stops (every 9°), enabling an anti-scalding safety feature.



**TEMPERATURE & FLOW LIMITER FUNCTION (TRN)** 

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.









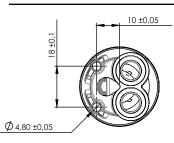


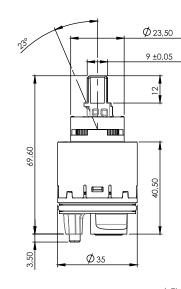


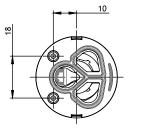
DOWNLOAD DATA SHEET

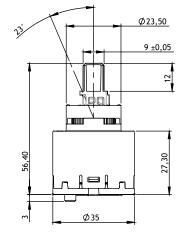
OTHER VERSIONS	C/D	S/D
Temperature limiter (TRN)	08EN35L4003	08EN35S2502

#### DIMENSIONS









### RECOMMENDED APPLICATIONS



#### WASHBASINS Specially designed for washbasins.



#### **KITCHENS** Suitable for use in kitchens.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	93°	93°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>60 bar	>60 bar
Life cycle-x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 EN 817	140,000 cycles	140,000 cycles
NF-077 U3	175,000 cycles	175,000 cycles
x2 GB-18145	140,000 cycles	140,000 cycles
Sensitivity	>13.5 mm	>13.5 mm
Fidelity	<2°	<2°
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<3°C - <4°C	<3°C - <4°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.15-0.30 Nm	0.30 Nm
Turn left-right	0.15-0.30 Nm	0.30 Nm

Noise level	C/D	S/D
Noise level (A2-NF077)	16 ± 2 dB	18 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 3 bar	28.2 l/min	27.4 l/min
-Hammer test <b>NF-077</b> . -High temp. pressure test <b>AS-NZS</b>		

\* Find machinig requirements on pages 116-119. Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

# EN-35 TOP

#### DESCRIPTION

EN-35 TOP is a 35mm cartridge created to be the best in class, outstanding its competitors in all fields and offering the manufacturer a perfect balanced cartridge with an extraordinary endurance: 2x standard life cycling tests. It is also available with TRN, COLD and DUE technologies for water and energy saving.

#### FEATURES



**DUE** Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.

Energy saving feature

thanks to the internal

design of the cartridge,

flowing cold water when the lever is centered.



#### **TEMPERATURE LIMITER**

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



#### FLOW LIMITER

Limit maximum water flow for water saving.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

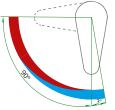
#### **ADVANTAGES**

#### ADDITIONAL FEATURES

EN-35 TOP Cold Due has the same advantages than EN-35 Top, but with cold and due technologies as an additional features.

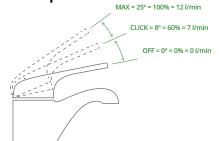
#### COLD TECHNOLOGY

The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.



#### DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.

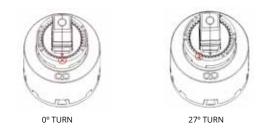


#### • VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

COLD

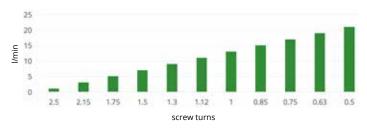
TOP cartridge has an optional ring called TR that allows limiting maximum temperature in 10 selectable stops (every 9°), enabling an anti-scalding safety feature.



#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.









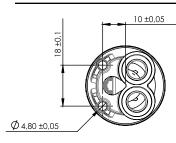


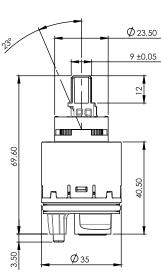
#### **EN-35 S/D** *TOP COLD DUE* REF.08EN35S5002 (TR)

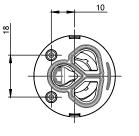


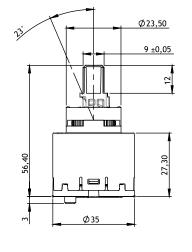


#### DIMENSIONS









### RECOMMENDED APPLICATIONS



#### WASHBASINS Specially designed for washbasins.



#### **KITCHENS** Suitable for use in kitchens.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	93°	93°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>60 bar	>60 bar
Life cycle-x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 EN 817	140,000 cycles	140,000 cycles
NF-077 U3	175,000 cycles	175,000 cycles
x2 GB-18145	140,000 cycles	140,000 cycles
Sensitivity	>13.5 mm	>13.5 mm
Fidelity	<2°	<2°
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<3°C - <4°C	<3°C - <4°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.15-0.30 Nm	0.15-0.30 Nm
Turn left-right	0.15-0.30 Nm	0.15-0.30 Nm

Noise level	C/D	S/D
Noise level (A2-NF077)	16 ± 2 dB	18 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 3 bar	28.2 l/min	27.4 l/min
-Hammer test <b>NF-077</b> . -High temp. pressure test <b>AS-NZS</b>		

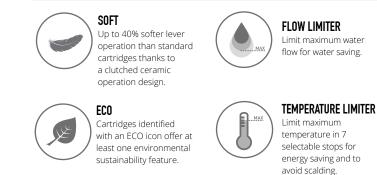
\* Find machinig requirements on pages 116-119. Only applies to c Tested at Sedal's

# SN-35 ENDURA

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. It also includes SN system, which provides the cartridge with a unique smoothness of operation and TRN technology for water and energy saving.

#### FEATURES



#### ADVANTAGES

SN TECHNOLOGY

Ceramics discs do not move in close position providing a unique smoothness of operation and higher durability (up to 20% longer life).

#### HIGH-PRECISION COMPONENTS

High precision components and excellent performing materials.

#### • A BUNCH OF TECHNOLOGY

A complete set of high tech solutions:

- Glide Feel Technology for a perfectly smooth operation
- Ceramic Nano Shelter Technology for extra durability,
- Noise Cancelling Technology
- AccuDue Technology to save water

#### • DOUBLE LIFE-CYCLE

The new ENDURA features SedalOX<sup>™</sup> 96, which allows an extended life cycling. The result is more than double ASME and EN standard cycles in life tests.

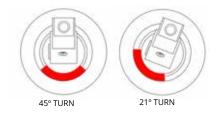
#### • GREAT RANGE. GREATER POSSIBILITIES

The new ENDURA 35 range provides the manufacturer with 18 different options to develop its products and more than 100 potential combinations.

#### VERSIONS WITH LIMITERS

#### TEMPERATURE LIMITER FUNCTION (TR)

Endura cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.

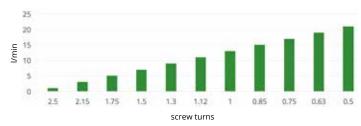


position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

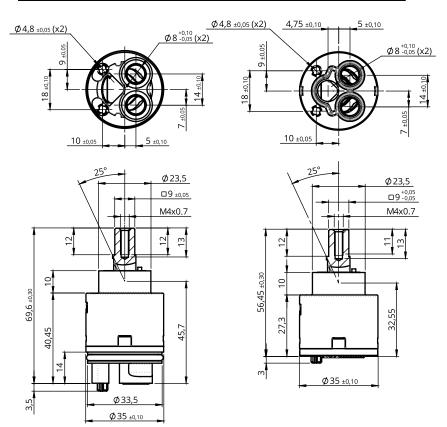
TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.







#### DIMENSIONS



\* Find machinig requirements on pages 116-119.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle-EN 817 NF U3 x2 ASME x2 GB18145	175,000 cycles 1,000,000 cycles 140,000 cycles	175,000 cycles 1,000,000 cycles 140,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<2°	<2°
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4°C - <6°C	<4 C - <6°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.35 Nm	0.20-0.35 Nm
Turn left-right	0.15-0.30 Nm	0.15-0.30 Nm

Noise level	C/D	S/D
Noise level	20 ± 2 dB	20 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 0.2 bar	7.8 l/min	7.4 l/min
at 1 bar	17.1 l/min	16.4 l/min
at 3 bar	29.5 l/min	28.2 l/min
at 5 bar	38 l/min	36.4 l/min

# SN-35 ENDURA

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. It also includes SN system, which provides the cartridge with a unique smoothness of operation, TR technology for temperature control and DUE technology for water saving.

#### FEATURES



DUE Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.



FLOW LIMITER

Limit maximum water flow for water saving.

#### TEMPERATURE LIMITER

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



#### ECO

Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

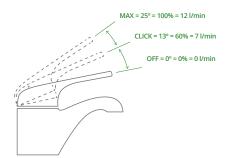
#### ADVANTAGES

#### ADDITIONAL FEATURES

SN-35 Endura Due has the same advantages than SN-35 Endura, but with due technology as an additional feature.

#### DUE TECHNOLOGY

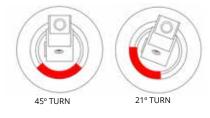
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



#### VERSIONS WITH LIMITERS

TEMPERATURE LIMITER FUNCTION (TR)

Endura cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.





SN-35 C/D ENDURA DUE REF.085N35L3001





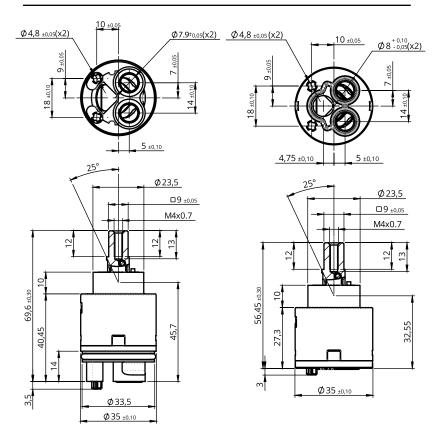




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OTHER VERSIONS	C/D	S/D
Temperature limiter (TR)	REF.08SN35L5701	REF.08SN35S5701
Temperature & flow limiter (TRN)	on demand	on demand

#### DIMENSIONS



\* Find machinig requirements on pages 116-119.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<2°	<2°
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4°C - <6°C	<4 C - <6°C
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.35 Nm	0.20-0.35 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Noise level	C/D	S/D
Noise level	20 ± 2 dB	20 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 0.2 bar	7.8 l/min	7.4 l/min
at 1 bar	17.1 l/min	16.4 l/min
at 3 bar	29.5 l/min	28.2 l/min
at 5 bar	38 l/min	36.4 l/min

# SN-35 ENDURA

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. It also includes SN system, which provides the cartridge with a unique smoothness of operation, TRN technology for maximum water saving and control. This cartridge opens in cold position, with an open angle of 20° to the right and 90° to the left.

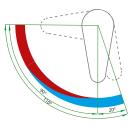
#### **ADVANTAGES**

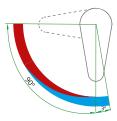
#### ADDITIONAL FEATURES

SN-35 Endura Cold C110 has the same advantages than SN-35 Endura, but with cold technology as an additional feature.

#### • COLD TECHNOLOGY

The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.





#### FEATURES



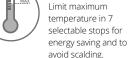
COLD Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.



#### FLOW LIMITER Limit maximum water

flow for water saving.

#### TEMPERATURE LIMITER



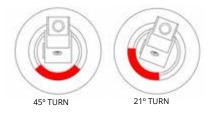


ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### VERSIONS WITH LIMITERS

TEMPERATURE LIMITER FUNCTION (TR)

Endura cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.

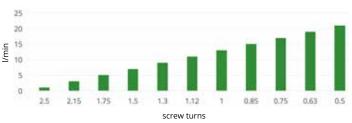


position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.







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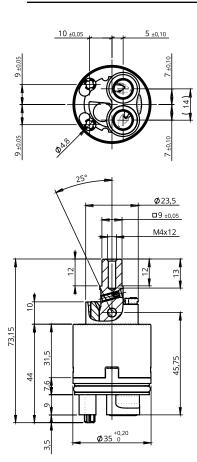


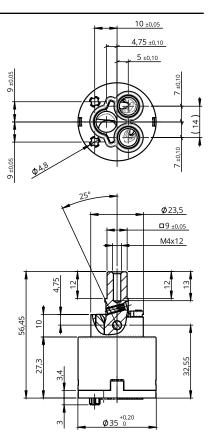


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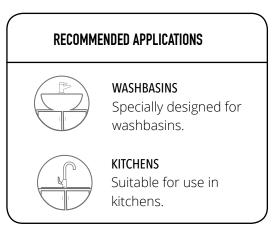
OTHER VERSIONS	C/D	S/D
Temperature limiter (TR)	REF.08SN35L2501	REF.08SN35S2501
Temperature & flow limiter (TRN)	REF.08SN35L4001	REF.08SN35S4001
Version 93° Rotation Angle	REF.08SN35L1504	REF.08SN35S1504

#### DIMENSIONS





#### \* Find machinig requirements on pages 116-119.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110º/ 93º	110º/ 93º
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<2°	<2°
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.35 Nm	0.20-0.35 Nm
Turn left-right	0.15-0.30 Nm	0.15-0.30 Nm

Noise level	C/D	S/D
Noise level	20 ± 2 dB	18.7 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 0.5 bar	5.4 l/min	5.4 l/min
at 1 bar	7.8 l/min	7.7 l/min
at 3 bar	13.6 l/min	13.5 l/min
at 5 bar	17.1 l/min	17.6 l/min

FLOW FIGURES AT COLD POSITION

### SN-35 ENDURA **COLD DUE**

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. It also includes SN system, which provides the cartridge with a unique smoothness of operation, DUE for water saving and TR and TRN versions for water flow and temperature control. This cartridge opens in cold position.

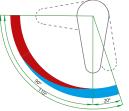
#### **ADVANTAGES**

#### ADDITIONAL FEATURES

SN-35 Endura C3 has the same advantages than SN-35 Endura, but with cold and due technologies as additional features.

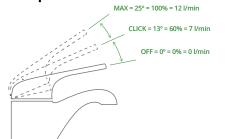
#### COLD TECHNOLOGY

The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products.



#### DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows saving up to 54% of daily water consumption.



#### **FEATURES**

SOFT

design.

DUE

Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.

Up to 40% softer lever

cartridges thanks to a

operation than standard

clutched ceramic operation

#### COLD

Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.



#### **TEMPERATURE LIMITER**

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



#### FLOW LIMITER

Limit maximum water flow for water saving.



with an ECO icon offer at least one environmental sustainability feature.

> °C 3bar

> > 26°

350 43° 50° 56°

61° 65°

#### VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

Endura cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.

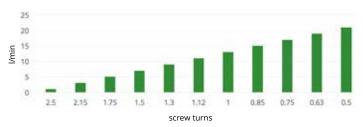


	position	15° I/min	65° I/min
/	1	16	4
	2	12,5	7,5
/	3	9	11
	4	5	15
	5	2	18
	6	1	19
	7	0	20

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.









SN-35 S/D ENDURA COLD DUE REF.08SN35S0004



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#### **OTHER VERSIONS**

Temperature limiter (TR) Temperature & flow limiter (TRN)

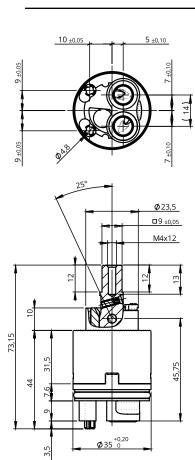
REF.08SN35L5001 REF.08SN35L5501

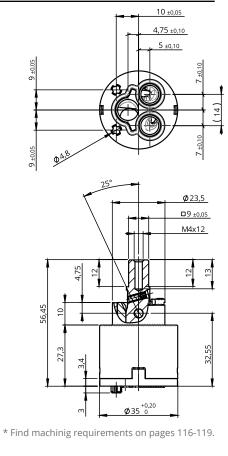
C/D

REF.08SN35S5001 REF.08SN35S5505

S/D

DIMENSIONS





#### **RECOMMENDED APPLICATIONS** WASHBASINS Specially designed for washbasins. KITCHENS Suitable for use in kitchens.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110°	110°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<2°	<2°
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.15-0.35 Nm	0.15-0.35 Nm
Turn left-right	0.15-0.35 Nm	0.15-0.35 Nm

Noise level	C/D	S/D
Noise level	20 ± 2 dB	18.7 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 0.5 bar	5.4 l/min	5.4 l/min
at 1 bar	7.8 l/min	7.7 l/min
at 3 bar	13.6 l/min	13.5 l/min
at 5 bar	17.1 l/min	17.6 l/min

# EN-35 ENDURA

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. It also includes TR and TRN versions for water and energy saving.

#### FEATURES



**TEMPERATURE LIMITER** Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.

FLOW LIMITER Limit maximum water

flow for water saving.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### **ADVANTAGES**

- HIGH-PRECISION COMPONENTS
   High precision components and excellent performing materials.
- A BUNCH OF TECHNOLOGY
  - A complete set of high tech solutions:
  - Glide Feel Technology for a perfectly smooth operation
  - Ceramic Nano Shelter Technology for extra durability,
  - Noise Cancelling Technology
  - AccuDue Technology to save water

#### DOUBLE LIFE-CYCLE

The new ENDURA features SedalOX<sup>™</sup> 96, which allows an extended life cycling. The result is more than double ASME and EN standard cycles in life tests.

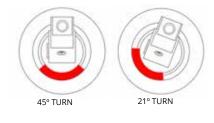
#### • GREAT RANGE. GREATER POSSIBILITIES

The new ENDURA 35 range provides the manufacturer with 18 different options to develop its products and more than 100 potential combinations.

#### VERSIONS WITH LIMITERS

#### TEMPERATURE LIMITER FUNCTION (TR)

Endura cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.

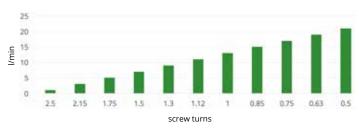


position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.











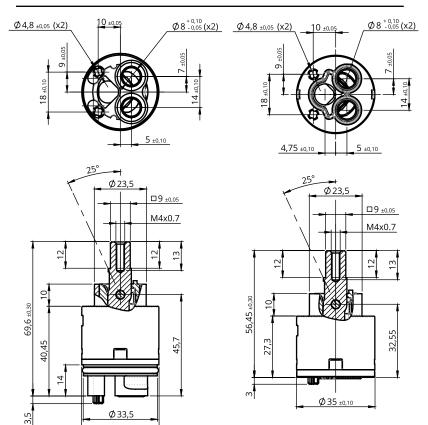




DOWNLOAD DATA SHEET

OTHER VERSIONS	C/D	S/D
Temperature limiter (TR)	REF.08EN35L5401	REF.08EN35S5401
Temperature & flow limiter (TRN)	REF.08EN35L4501	REF.08EN35S4501

#### DIMENSIONS



Ø 35 ±0,10

\* Find machinig requirements on pages 116-119.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3 x2 ASME x2 GB18145	175,000 cycles 1,000,000 cycles 140,000 cycles	175,000 cycles 1,000,000 cycles 140,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<2°	<2°
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4°C - <6°C	<4 C - <6°C
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.35 Nm	0.20-0.35 Nm
Turn left-right	0.20-0.35 Nm	0.20-0.35 Nm

Noise level	C/D	S/D
Noise level	20 ± 2 dB	20 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 0.2 bar	7.4 l/min	7 l/min
at 1 bar	16 l/min	15.4 l/min
at 3 bar	27.7 l/min	26.1 l/min
at 5 bar	36 l/min	33.9 l/min

# EN-35 ENDURA

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. It also includes DUE and TR technologies for water saving and control.

#### FEATURES

DUE



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

Water flow optimization

stop at 60% of the lever stroke that provides up

thanks to a mid-way

to 50% water saving.

#### FLOW LIMITER Limit maximum water

flow for water saving.

#### TEMPERATURE LIMITER

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.

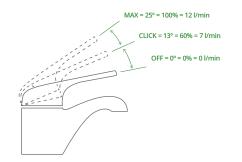
#### ADVANTAGES

ADDITIONAL FEATURES

EN-35 Endura Due has the same advantages than EN-35 Endura, but with due technology as an additional feature.

#### DUE TECHNOLOGY

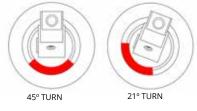
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



#### VERSIONS WITH LIMITERS

#### TEMPERATURE LIMITER FUNCTION (TR)

Endura cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.

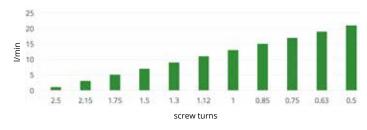


	position	15° I/min	65° I/min	°C 3bar
	1	16	4	26°
)	2	12,5	7,5	35°
/	3	9	11	43°
	4	5	15	50°
	5	2	18	56°
	6	1	19	61°
	7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.











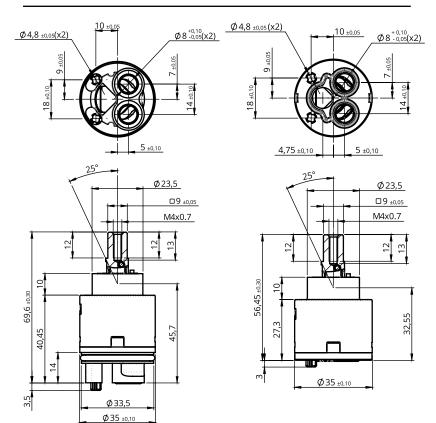




DOWNLOAD DATA SHEET

OTHER VERSIONS	C/D	S/D
Temperature limiter (TR)	REF.08EN35L5701	REF.08EN35S5701
Temperature & flow limiter (TRN)	on demand	on demand

#### DIMENSIONS





#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<2°	<2°
Constant 63 ℃ & 50 ℃	<4°C - <6°C	<4 C - <6°C
(6 l/min - 3 l/min)		
Max. hot water*	90 °C	90 °C
Operation Torque	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm
Noise level	C/D	S/D
Noise level	22 ± 2 dB	24,5 ± 2 dB
Flow rate (free flow)	C/D	S/D
at 0.2 bar	7.4 l/min	7 l/min
at 1 bar	16 l/min	15.4 l/min
at 3 bar	27.7 l/min	26.1 l/min
at 5 bar	36 l/min	33.9 l/min

# EN-35 ENDURA

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. It also includes TRN technology for maximum water saving and control. This cartridge opens in cold position, with an open angle of 20° to the right and 90° to the left.

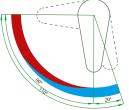
#### ADVANTAGES

#### ADDITIONAL FEATURES

EN-35 Endura Cold C110 has the same advantages than EN-35 Endura, but with cold technology as an additional feature.

#### • COLD TECHNOLOGY

The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.



**FEATURES** 



COLD

Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

Energy saving feature thanks

to the internal design of the

cartridge, flowing cold water

when the lever is centered.



#### TEMPERATURE LIMITER

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



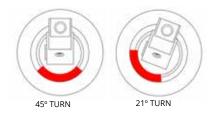
#### FLOW LIMITER

Limit maximum water flow for water saving.

#### • VERSIONS WITH LIMITERS

TEMPERATURE LIMITER FUNCTION (TR)

Endura cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.

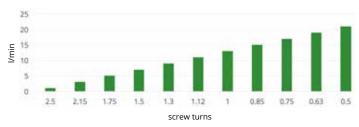


position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.









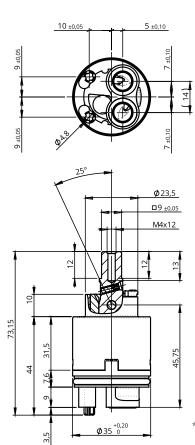
EN-35 S/D ENDURA COLD REF.08EN35S1503

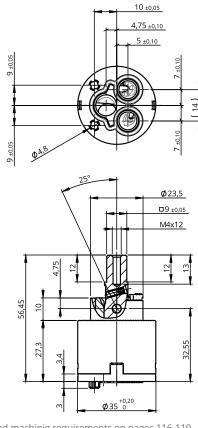


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OTHER VERSIONS	C/D	S/D
Temperature limiter (TR)	REF.08EN35L2501	REF.08EN35S2501
Temperature & flow limiter (TRN)	REF.08EN35L4001	REF.08EN35S4001

#### DIMENSIONS





#### \* Find machinig requirements on pages 116-119.

# RECOMMENDED APPLICATIONS WASHBASINS Specially designed for washbasins. Image: Colspan="2">Image: Colspan="2" Image: Colspan="2" Image:

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110° ± 2	110° ± 2
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	55-60 bar	55-60 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	12º-14º angle	12º-14º angle
Fidelity	<1°	<1°
Constant 63 ℃ & 50 ℃	<0.5°C - <1.2°C	<0.5°C - <1.2°C
(6 l/min - 3 l/min)		
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Flow rate (free flow)	C/D	S/D
at 0.2 bar	3.4 l/min	3 l/min
at 1 bar	8 l/min	6.7 l/min
at 3 bar	13.8 l/min	11.8 l/min
at 5 bar	18.5 l/min	15.3 l/min

### EN-35 ENDURA Cold Mirror

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. This cartridge is specially useful for kitchen applications in which the handle would touch the wall. It includes COLD technology for energy saving.

#### **ADVANTAGES**

ADDITIONAL FEATURES

EN-35 Endura Cold Mirror has the same advantages than EN-35 Endura, but with cold and mirror technologies as additional features.

#### • SPECIALLY DESIGNED FOR KITCHEN APPLICATIONS

Mirror version has been specifically designed for kitchen applications, avoiding the inconvenience of the handle touching the wall.

#### FEATURES



**COLD** Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

Cartridges identified with an ECO icon offer at

least one environmental sustainability feature.

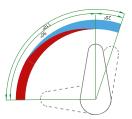
ECO



**MIRROR** Movement from right to left to obtain hot water.



The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.





EN-35 C/D ENDURA COLD MIRROR REF.08EN35L1505





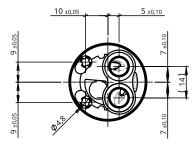


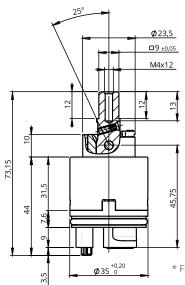
EN-35 S/D

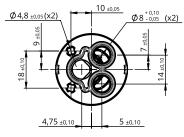
ENDURA COLD MIRROR

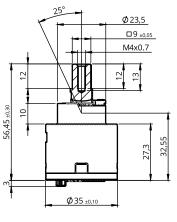
> DOWNLOAD DATA SHEET

#### DIMENSIONS









\* Find machinig requirements on pages 116-119.

#### **RECOMMENDED APPLICATIONS**



**KITCHENS** Suitable for use in kitchens.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110° ± 2	110°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	55-60 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	12º-14º angle	>12 mm
Fidelity	<1°	<2°
Constant 63 ℃ & 50 ℃	<0.5°C - <1.2°C	<4 C - <6°C
(6 l/min - 3 l/min)		
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Noise level	C/D	S/D
Noise level	-	24.5 ± 2 dB

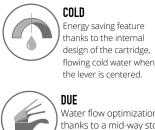
Flow rate (free flow)	C/D	S/D
at 0.5 bar	3.4 l/min	4.8 l/min
at 1 bar	8 l/min	6.7 l/min
at 3 bar	13.8 l/min	11.8 l/min
at 5 bar	18.5 l/min	15.3 l/min

# EN-35 ENDURA

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. It also includes TRN technology for temperature and flow control and DUE for water saving. This cartridge opens in cold position.

#### FEATURES



Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.



#### TEMPERATURE LIMITER

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



#### ECO

Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

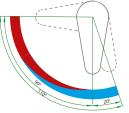
#### ADVANTAGES

#### ADDITIONAL FEATURES

EN-35 Endura C3 has the same advantages than EN-35 Endura, but with cold and due technologies as additional features.

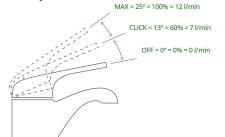
#### • COLD TECHNOLOGY

The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products.



#### DUE TECHNOLOGY

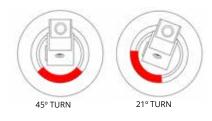
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



#### • VERSIONS WITH LIMITERS

TEMPERATURE LIMITER FUNCTION (TR)

Endura cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.

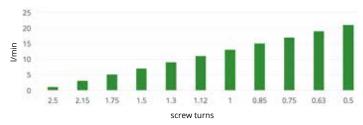


position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.









EN-35 S/D ENDURA COLD DUE REF.08EN35S0005



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#### **OTHER VERSIONS**

Temperature limiter (TR) Temperature & flow limiter (TRN)

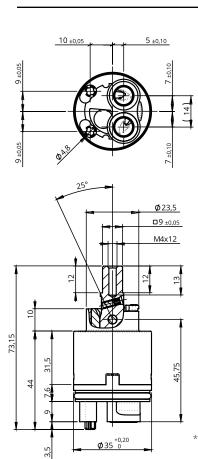
REF.08EN35L5001 REF.08EN35L5501

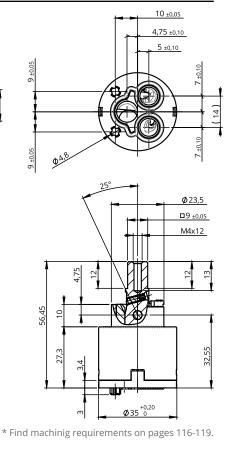
C/D

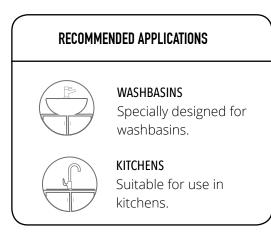
REF.08EN35S5001 REF.08EN35S5501

S/D

DIMENSIONS







#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110° ± 2	110° ± 2
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	55-60 bar	55-60 bar
Life cycle - EN 817 NF U3 x2 ASME x2 GB18145	175,000 cycles 1,000,000 cycles 140,000 cycles	175,000 cycles 1,000,000 cycles 140,000 cycles
Sensitivity	12º-14º angle	12º-14º angle
Fidelity	<1°	<1°
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<0.5°C - <1.2°C	<0.5°C - <1.2°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Flow rate (free flow)	C/D	S/D
at 0.2 bar	3.4 l/min	3 l/min
at 1 bar	8 l/min	6.7 l/min
at 3 bar	13.8 l/min	11.8 l/min
at 5 bar	18.5 l/min	15.3 l/min

### EN-35 ENDURA COLD MIRROR DUE

#### DESCRIPTION

35mm cartridge with an extraordinary endurance: 2x standard life cycling tests, thanks to SedalOX® ceramics reinforced with our exclusive Nano Shelter Technology and a complete set of technologies. This cartridge is specially useful for kitchen applications in which the handle would touch the wall. It also includes COLD technology for energy saving and DUE for water saving.

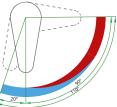
#### **ADVANTAGES**

ADDITIONAL FEATURES

EN-35 Endura C3 mirror has the same advantages than EN-35 Endura, but with cold, due and mirror technologies as additional features.

• COLD TECHNOLOGY

The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.



#### FEATURES



**COLD** Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

#### ECO

Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



DUE

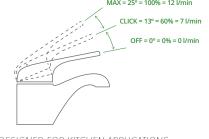
Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.

#### MIRROR

Movement from right to left to obtain hot water.

• DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



SPECIALLY DESIGNED FOR KITCHEN APPLICATIONS Mirror version has been specifically designed for kitchen applications, avoiding the inconvenience of the handle touching the wall.







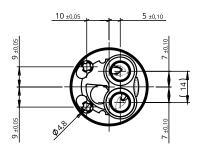


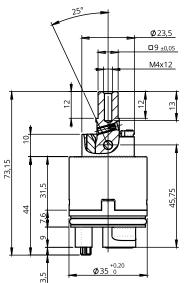
#### EN-35 S/D ENDURA COLD MIRROR DUE REF.08EN35S2002

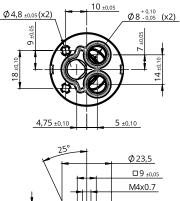


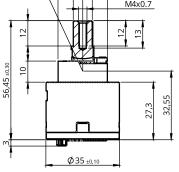
DOWNLOAD DATA SHEET

#### DIMENSIONS









\* Find machinig requirements on pages 116-119.

#### **RECOMMENDED APPLICATIONS**



**KITCHENS** Suitable for use in kitchens.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110° ± 2	110°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	55-60 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	12°-14° angle	>12 mm
Fidelity	<1°	<2°
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<0.5°C - <1.2°C	<4 C - <6°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.35 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.35 Nm
Noise level	C/D	S/D
Noise level	24.5 ± 2 dB	24.5 ± 2 dB

Flow rate (free flow)	C/D	S/D
at 0.5 bar	3.4 l/min	5 l/min
at 1 bar	8 l/min	12.5 l/min
at 3 bar	13.8 l/min	21 l/min
at 5 bar	18.5 l/min	28 l/min

### STANDARD Cartridges

EN-35 C/D REF.08EN35L0003



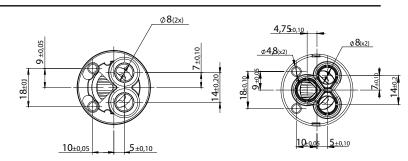


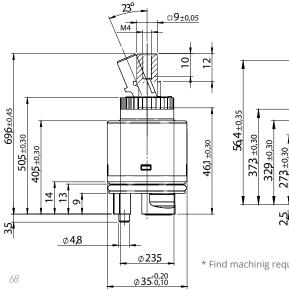


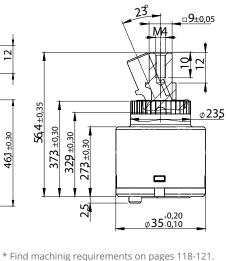




#### DIMENSIONS





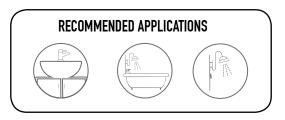


#### DESCRIPTION

35 mm cartridge.

#### ADVANTAGES

The classic standard cartridge of Sedal has shown its good performance thorough the years.



#### CERTIFICATIONS



#### TECHNICAL SPECIFICATIONS

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
GB18145	70,000 cycles	70,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<3°	<3°
Constant 63 ℃ & 50 ℃	<2°C - <4.5°C	<2°C - <4.5°C
(6 l/min - 3 l/min)		
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.25-0.40 Nm	0.25-0.40 Nm
Turn left-right	0.15-0.40 Nm	0.15-0.40 Nm

Noise level	C/D	S/D
Noise level	24 ± 2 dB	26 ± 2 dB
Flow rate (free flow)	C/D	S/D
at 0.2 bar	6.1 l/min	5.8 l/min
at 1 bar	13.1 l/min	13.4 l/min
at 3 bar	22.3 l/min	23.1 l/min
at 5 bar	29 l/min	29.7 l/min





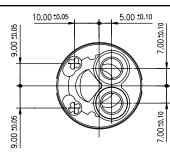




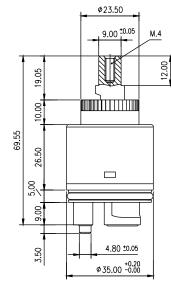
REF. 08E35FAZ31

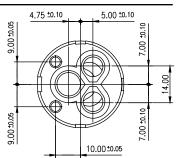


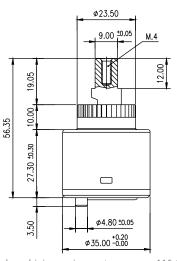
#### DIMENSIONS



4







\* Find machinig requirements on pages 116-119.

#### DESCRIPTION

35 mm cartridge.

#### ADVANTAGES

The classic standard cartridge of Sedal has shown its good performance thorough the years. Due technology for water saving.



#### CERTIFICATIONS



#### TECHNICAL SPECIFICATIONS

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>25 bar	>25 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
GB18145	70,000 cycles	70,000 cycles
Sensitivity	10º-11º	10°-11°
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.25-0.40 Nm	0.25-0.40 Nm
Turn left-right	0.15-0.40 Nm	0.15-0.40 Nm
Noise level	C/D	S/D
Noise level	24 ± 2 dB	26 ± 2 dB
Flow rate (free flow)	C/D	S/D
at 0.2 bar	6.1 l/min	5.8 l/min
at 1 bar	13.1 l/min	13.4 l/min
at 3 bar	22.3 l/min	23.1 l/min
at 5 bar	29 l/min	29.7 l/min

### STANDARD CARTRIDGES

SN-35 C/D REF.08SN35LG000





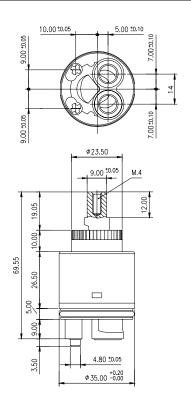


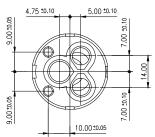
SN-35 S/D

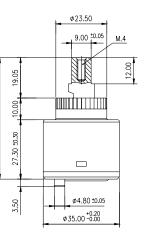
REF.08SN35FG000



#### DIMENSIONS







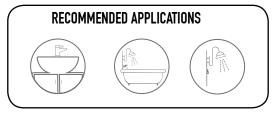
56.35

#### DESCRIPTION

35 mm cartridge.

#### ADVANTAGES

The classic standard cartridge with SN technology. Ceramics discs do not move in close position providing a unique smoothness of operation and higher durability (up to 20% longer life).



#### CERTIFICATIONS



#### TECHNICAL SPECIFICATIONS

General	CD	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	55-60 bar	50-60 bar
Life cycle - EN 817	175,000 cycles	175,000 cycles
ASME 118.12.1 M	500,000 cycles	500,000 cycles
x2 GB18145	140,000 cycles	70,000 cycles
Sensitivity	11º-14º angle	13°-15° angle
Max. hot water	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.25 Nm	0.20-0.30 Nm
		·

Flow rate (free flow)	C/D	S/D
at 0.5 bar	9.9 l/min	8.7 l/min
at 1 bar	13.5 l/min	12.2 l/min
at 3 bar	23.4 l/min	21 l/min
at 5 bar	30.1 l/min	26.9 l/min
· · · · ·		







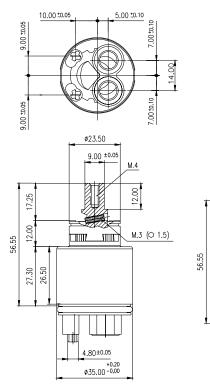


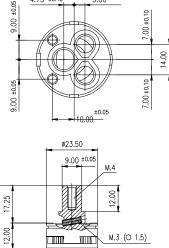




4.75 ±0.10

#### DIMENSIONS





5.00

#### DESCRIPTION

35 mm cartridge.

#### ADVANTAGES

Sedal standard cartridge includes flow and temperature limiters to save water and energy, offering an environmental sustainability feature.



#### CERTIFICATIONS

(KTW) (WRAS) (AS/NZS) (NSF) (ACS)

#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	28-35 bar	28-35 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
Sensitivity	10°-11° angle	8.9° -9.2° angle
Max. hot water	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.22-0.25 Nm	0.21-0.25 Nm
Turn left-right	0.24-0.33 Nm	0.22-0.31 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	10.7 l/min	9.2 l/min
at 1 bar	14.9 l/min	12.9 l/min
at 3 bar	25.3 l/min	22.3 l/min
at 5 bar	33 l/min	28.7 l/min

\* Find machinig requirements on pages 116-119.

ø4.80±0,05

¢35.00 +0.20

27.30

22

### **BASIC** CARTRIDGES

### DESCRIPTION

35mm basic cartridge with ACS certification and available with and without distributor. This Sedal valve is specially designed for washbasins, bath-showers and kitchen faucets.

### **ADVANTAGES**

Entry-level product with Sedal high-reliability.





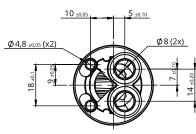


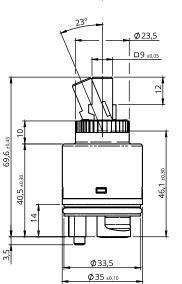


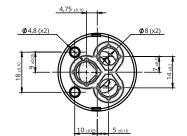


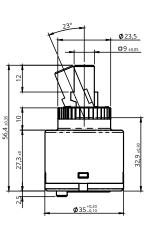
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### DIMENSIONS









bath showers. KITCHENS Suitable for use in kitchens. CERTIFICATIONS (ACS)

**RECOMMENDED APPLICATIONS** 

WASHBASINS

washbasins.

**BATH-SHOWERS** 

Specially designed for

Specially designed for

### TECHNICAL SPECIFICATIONS

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	35 bar	35 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
ASME 118.12.1 M	500,000 cycles	500,000 cycles
GB18145	70,000 cycles	70,000 cycles
Sensitivity	12º-14º angle	12º-14º angle
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<1.2°C - <1.2°C	<1.1°C - <1.4°C
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.15-0.40 Nm	0.15-0.40 Nm
Turn left-right	0.15-0.40 Nm	0.15-0.40 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	9.3 l/min	8.8 l/min
at 1 bar	13.1 l/min	12.6 l/min
at 3 bar	22.3 l/min	22.1 l/min
at 5 bar	29 l/min	28 l/min

#### Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

### **SN-35 ECOFLOW**

### DESCRIPTION

Ecoflow cartridges have been designed for applications where a low flow is required to fulfill the latest standards and market trends. The low flow that a manufacturer would normally reach with the use of restrictors, can reached by using the Ecoflow cartridge with an aireator, suppressing the negative effects of the current solutions. The Ecoflow 35 is specifically designed to deliver 7.8 liters @3 bar without using restrictors. It also includes a clutch for a perfect operational feel and a high maximum torque resistance to withstand harsh environments.

### **FEATURES**





#### SOFT

Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

#### RESTRICTOR

The cartridge includes itself a restrictor that reduces the flow rate to save water.

### **ADVANTAGES**

### SN TECHNOLOGY

Ceramics discs do not move in close position providing a unique smoothness of operation and higher durability (up to 20% longer life)

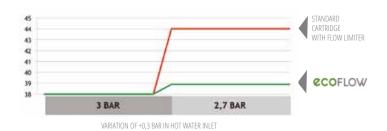
### IMPROVED FLOW-RATE VS HANDLE STROKE

Existing solutions offer a very limited opening stroke to regulate the flow. With ECOFLOW, the entire stroke is available.



#### REDUCES TEMPERATURE FLUCTUATION

When using a flow limiter in the spout combined with standard cartridges, the user can experience strong changes in water temperature. The new ECOFLOW Tech valves provide an excellent temperature stability in front of pressure variations in cold and hot water supply lines at low flow rates.



THE USAGE OF A RESTRICTOR IS OPTIONAL The flow rate reduction is carried out at the right place. With ECOFLOW the usage of a limiter or restrictor is optional.







111 I

3,5

Ø33,5

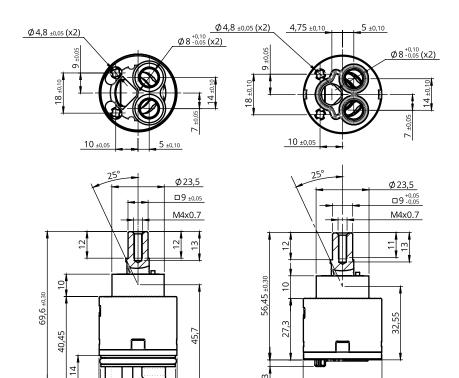
Ø35 ±0,10







### DIMENSIONS





### CERTIFICATIONS



 $^{*}$  Optimised for WaterSense and WaterLabel

### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	7-8Nm	7-8Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 ASME 112.18.1 M	70,000 cycles 500,000 cycles	70,000 cycles 500,000 cycles
Sensitivity	>10-12 mm	>10-12 mm
Fidelity	<3°	<3°
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.35 Nm	0.20-0.35 Nm
Turn left-right	0.15-0.35 Nm	0.15-0.35 Nm

Flow rate (free flow)	C/D	S/D
at 0.2 bar	2.3 l/min	2.3 l/min
at 1 bar	5.3 l/min	5.3 l/min
at 3 bar	9 l/min	9 l/min
at 5 bar	11.5 l/min	11.5 l/min

Ø35 ±0,10

### TERMACLICK

### DESCRIPTION

Thanks to a mid-stroke click at the temperature comfort point, the new termaclick cartridge prevents waste of energy as the user enjoys a unique smoothness of operation. This valve, which includes cold start, is available in 35mm and mirrored for kitchen application.

### FEATURES

Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

### COLD

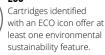
SOFT

Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

### TERMACLICK

Mid-way click at comfort temperature and energy saving feature thanks to a cold opening. Left to hot.

#### ECO Carti with least



### ADVANTAGES

### • ENERGY SAVING

Termaclick cartridge helps saving energy thanks to:

- Cold start opening, which flows cold water when the lever is centered.
- Mid-way stroke that clicks at the theoretical point of 38°C water outlet, making the user aware of the saving point.

### • SAFETY CLICK AT COMFORT TEMPERATURE

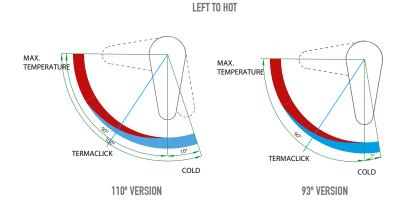
The user detects the click point and enjoys comfort temperature of water without risks at the safety temperature. This feature allows completely safe usage for children.

### SEDALOX CERAMIC SET

Termaclick incorporates SedalOX ceramics for a superior endurance.

### DIFFERENT VERSIONS AVAILABLE

Termaclick is a 35mm cartridge, comprising high and low base versions. The manufacturer can also choose the rotation angle (110° or 90°).



### • GLIDE FEEL TECHNOLOGY

This technology ensures the user a unique smoothness of operation.







**OTHER VERSIONS** 

Rotation angle at 93°

SN-35 S/D TERMACLICK REF.085N3552003

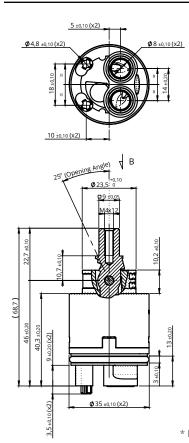


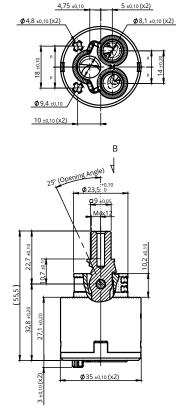
DOWNLOAD DATA SHEET

C/D S/D

REF.08SN35L2005 REF.08SN35S2005

### DIMENSIONS







### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100º/ 93º	100°/ 93°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>35 bar	>35 bar
Life cycle - x2 EN 817	140,000 cycles	140,000 cycles
x2 GB18154	140,000 cycles	140,000 cycles
Sensitivity (r=45mm)	>10 mm	>10 mm
Fidelity	<5°C	<5°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.15-0.35 Nm	0.15-0.35 Nm
Turn left-right	0.15-0.35 Nm	0.15-0.35 Nm

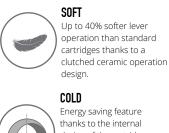
Flow rate (free flow)	C/D	S/D
at 0.2 bar	6.4 l/min	5.6 l/min
at 1 bar	13.3 l/min	12.2 l/min
at 3 bar	24.9 l/min	21.4 l/min
at 5 bar	32.3 l/min	27.8 l/min

### TERMACLICK MIRROR

### DESCRIPTION

Thanks to a mid-stroke click at the temperature comfort point, the new termaclick cartridge prevents waste of energy as the user enjoys a unique smoothness of operation. This valve, which includes cold start, is available in 35mm and mirrored for kitchen application.

### FEATURES



Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered. Mid-w tempo saving

**TERMACLICK MIRROR** Mid-way click at comfort temperature and energy saving feature thanks to a cold opening. Right to hot.

### ECO

Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

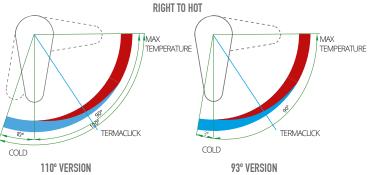
### ADVANTAGES



SN-35 Termaclick mirror has the same advantages than Termaclick, but with mirror base as an additional feature.

• SPECIALLY DESIGNED FOR KITCHEN APPLICATIONS

Mirror version has been specifically designed for kitchen applications, avoiding the inconvenience of the handle touching the wall.







DOWNLOAD

**OTHER VERSIONS** 

Rotation angle at 93°

SN-35 S/D TERMACLICK MIRROR REF.085N3552004



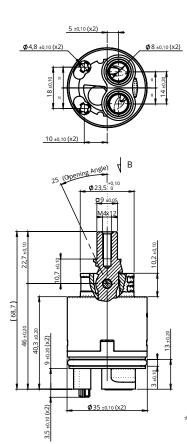
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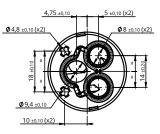
S/D

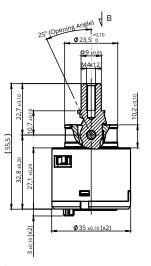
REF.08SN35L2006 REF.08SN35S2006

C/D

### DIMENSIONS







\* Find machinig requirements on pages 116-119.



### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°/ 93°	100°/ 93°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>35 bar	>35 bar
Life cycle - x2 EN 817	140,000 cycles	140,000 cycles
x2 GB18154	140,000 cycles	140,000 cycles
Sensitivity (r=45mm)	>10 mm	>10 mm
Fidelity	<5°C	<5°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.15-0.35 Nm	0.15-0.35 Nm
Turn left-right	0.15-0.35 Nm	0.15-0.35 Nm

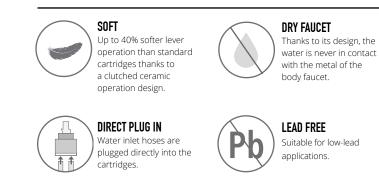
Flow rate (free flow)	C/D	S/D
at 0.2 bar	6.4 l/min	5.6 l/min
at 1 bar	13.3 l/min	12.2 l/min
at 3 bar	24.9 l/min	21.4 l/min
at 5 bar	32.3 l/min	27.8 l/min

### **DRY FAUCET** BISO CARTRIDGES

### DESCRIPTION

Dry faucet range is an optimal solution for leadfree policy products, as there is no contact between the water and the metal of the body. It helps to save costs because faucets bodies and spouts can be manufactured with different materials while allowing brass weight reduction in the faucet body.

### FEATURES



### **ADVANTAGES**

- LIGHTER BODY
   BISO cartridge allows lighter body design and easier casting.
- LEAD-FREE

Optimal solution for lead-free policy products, because there is no contact between water and metal.



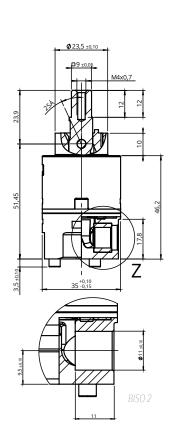
### DIFFERENT OPTIONS AVAILABLE

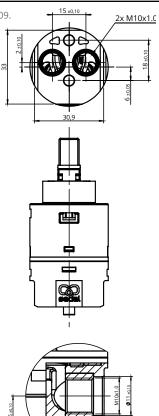
Different configurations as it is part of Endura family, such as STD, Cold or Ecoflow options.



### DIMENSIONS

\* Find machinig requirements on pages 106-109.





## RECOMMENDED APPLICATIONS



Specially designed for washbasins.

### CERTIFICATIONS



### **TECHNICAL SPECIFICATIONS**

General	BISO 2	BISO 3
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity (r	>10 mm	>12 mm
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4°C - <6°C	<4 C - <6°C
Max. hot water*	90 °C	90 °C

Operation Torque	BISO 2	BISO 3
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Flow rate (free flow)	BISO 2	BISO 3
at 0.2 bar	5.3 l/min	5.3 l/min
at 1 bar	12 l/min	12 l/min
at 3 bar	20.8 l/min	20.8 l/min
at 5 bar	26.5 l/min	26.5 l/min

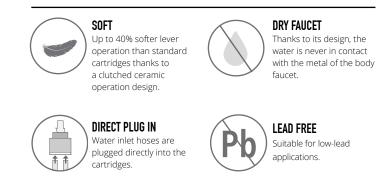
Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

### **DRY FAUCET** SISO CARTRIDGES

### DESCRIPTION

Dry faucet range is an optimal solution for leadfree policy products, as there is no contact between the water and the metal of the body. It helps to save costs because faucets bodies and spouts can be manufactured with different materials while allowing brass weight reduction in the faucet body.

### FEATURES



### **ADVANTAGES**

- LIGHTER BODY
   SISO cartridge allows lighter body design and easier casting.
- LEAD-FREE POLICY

Optimal solution for lead-free policy products, because there is no contact between water and metal.



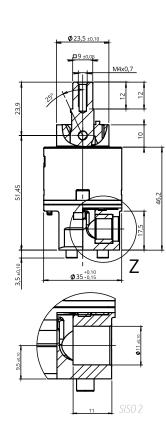
DIFFERENT OPTIONS AVAILABLE

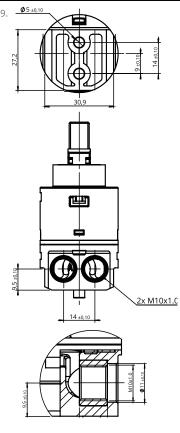
Different configurations as it is part of Endura family, such as Standard, Cold or Ecoflow options.



### DIMENSIONS

\* Find machinig requirements on pages 106-109.









### KITCHENS Specially designed for washbasins.

### CERTIFICATIONS



### **TECHNICAL SPECIFICATIONS**

General	SISO 2	SISO 3
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3 x2 ASME x2 GB18145	175,000 cycles 1,000,000 cycles 140,000 cycles	175,000 cycles 1,000,000 cycles 140,000 cycles
Sensitivity (r	>10 mm	>12 mm
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<4°C - <6°C	<4 C - <6°C
Max. hot water*	90 °C	90 °C

Operation Torque	SISO 2	SISO 3
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Flow rate (free flow)	SISO 2	SISO 3
at 0.2 bar	5.3 l/min	5.3 l/min
at 1 bar	12 l/min	12 l/min
at 3 bar	20.8 l/min	20.8 l/min
at 5 bar	26.5 l/min	26.5 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

### REVOLVING GI-35

### DESCRIPTION

Revolving cartridges include a turning lever in order to mix water and provide better control of the flow rate.

### FEATURES



METALLIC LEVER This revolving cartridge has metallic lever



**TEMPERATURE LIMITER** 

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.





Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

### **ADVANTAGES**

• 180° ROTATION ANGLE

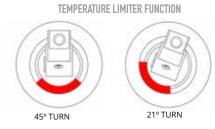
35mm revolving cartridge has a rotation angle of 180° from cold to hot.

• EASY REVOLVING MOVEMENT

Smooth revolving movement for a comfort operation to the user.

### TR TECHNOLOGY

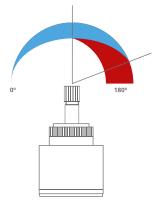
The TR technology allows energy saving thanks to temperature limiters. It also enables an anti-scalding safety feature. This function allows limiting maximum temperature in 7 selectable stops.



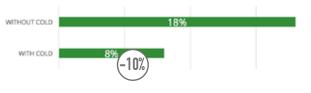
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

### • COLD TECHNOLOGY

The cartridge starts in cold position by default, saving energy consumption related to plumbing products in the household.



HOUSEHOLD ENERGY CONSUMPTION RELATED TO CARTRIDGES IN %







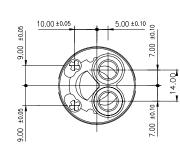


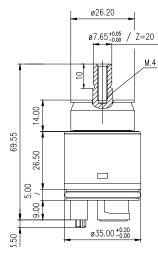


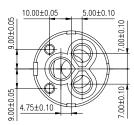


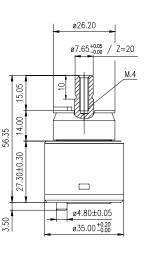


### DIMENSIONS









### **RECOMMENDED APPLICATIONS**



**DECORATIVE WASHBASINS** Specially designed for decorative faucets.

### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Rotation angle	180°	180°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	40-45 bar	40-45 bar
Life cycle - EN 200 ASME 118.12.1 M	200,000 cycles 500,000 cycles	200,000 cycles 500,000 cycles
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Turn left-right	0.22-0.24 Nm	0.22-0.24 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	9.9 l/min	8.6 l/min
at 1 bar	13.7 l/min	11.9 l/min
at 3 bar	23.1 l/min	20.1 l/min
at 5 bar	29.5 l/min	25.8 l/min

### REVOLVING GI-35







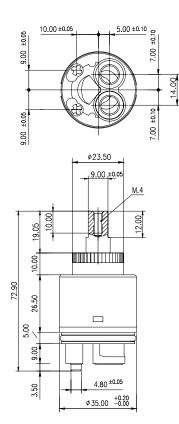


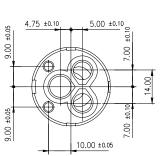
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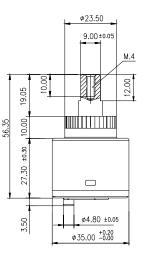




### DIMENSIONS







### DESCRIPTION

35 mm revolving cartridges with a turning lever in order to mix water and provide better control of the flow rate.

### **ADVANTAGES**

BRASS OR PLASTIC SHAFT

Cartridge available with plastic or metal shaft, depending on the application.



### CERTIFICATIONS



### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Rotation angle	180°	180°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	45-50 bar	45-50 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Turn left-right	0.22-0.24 Nm	0.25-0.55 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	9.9 l/min	8.6 l/min
at 1 bar	13.7 l/min	11.9 l/min
at 3 bar	23.1 l/min	20.1 l/min
at 5 bar	29.5 l/min	25.8 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.



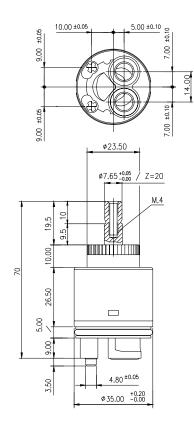


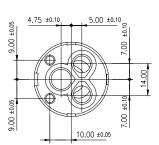


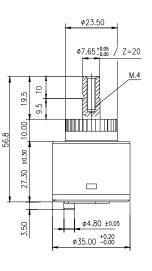




### DIMENSIONS







### DESCRIPTION

35 mm revolving cartridges with a turning lever in order to mix water and provide better control of the flow rate.

### **ADVANTAGES**

#### BRASS OR PLASTIC SHAFT

Cartridge available with plastic or metal shaft, depending on the application.



### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Rotation angle	180°	180°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	45-50 bar	45-50 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Turn left-right	0.22-0.24 Nm	0.25-0.55 Nm

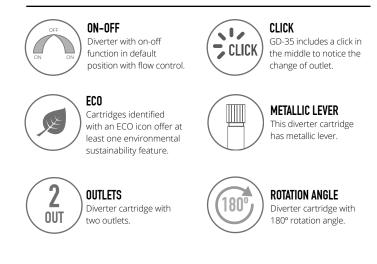
Flow rate (free flow)	C/D	S/D
at 0.5 bar	9.9 l/min	8.6 l/min
at 1 bar	13.7 l/min	11.9 l/min
at 3 bar	23.1 l/min	20.1 l/min
at 5 bar	29.5 l/min	25.8 l/min

### DIVERTER GD-35

### DESCRIPTION

The GD35 diverter from Sedal is a high end 35mm valve that provides smooth operation along with a defined feeling of safety and precision thanks to the metallic lever and a high precision ceramic set. The operation torque has been improved while keeping a small footprint. Works perfectly paired with our TM001 Thermostatic cartridge for showers.

### FEATURES



### ADVANTAGES

- SURPASSES CONVENTIONAL DURABILITY STANDARDS
   Extended life time thanks to a high grade ceramic set made in our Technical Ceramics facilities. The metal lever improves the user perception of quality and precision in a small cartridge.
- ROBUST DESIGN

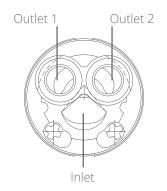
GD-35 has a robust design, withstanding higher levels of burst pressure.

### • HIGHER FLOW RATE

The GD35 has a high flow rate @3 bar, allowing to build body showers with 2 outlets providing a positive user experience while assuring an ecologic water consumption.

### DIVERTER FUNCTIONALITY

This cartridge fits specially good in bath showers because allows to have two different outlets while keeping slim designs. Mixed water entersinlet 3 and exits either outlet 1 or 2.







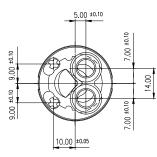


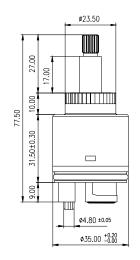


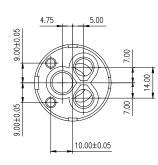


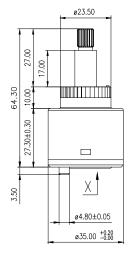


### DIMENSIONS









### **RECOMMENDED APPLICATIONS**



### SHOWERS DIVERTERS

Specially designed for showers with diverters.

### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	7-8Nm	7-8Nm
Rotation angle	180°	180°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	25-30 bar	25-30 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Turn left-right	0.50-0.40 Nm	0.50-0.40 Nm

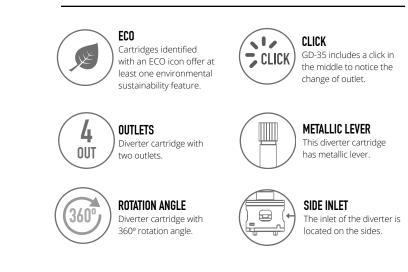
Flow rate (free flow)	C/D	S/D
at 0.5 bar	3.9 l/min	3.9 l/min
at 1 bar	5.6 l/min	5.6 l/min
at 3 bar	9.6 l/min	9.6 l/min
at 5 bar	12.4 l/min	12.4 l/min

### DIVERTER GD-35 4

### DESCRIPTION

The GD35 S/D 4 diverter from Sedal is a high end 35mm valvewith four outlets that provides smooth operation along with a defined feeling of safety and precision thanks to the metallic lever and a high precision ceramic set. The operation torque has been improved while keeping a small footprint. Works perfectly paired with our TM001 Thermostatic cartridge for showers.

### FEATURES



### ADVANTAGES

 SURPASSES CONVENTIONAL DURABILITY STANDARDS Extended life time thanks to a high grade ceramic set made in our Technical Ceramics facilities. The metal lever improves the user perception of quality and precision in a small cartridge.

### • ROBUST DESIGN

GD-35 has a robust design, withstanding higher levels of burst pressure.

### • HIGHER FLOW RATE

The GD35 has a high flow rate @3 bar, allowing to build body showers with 2 outlets providing a positive user experience while assuring an ecologic water consumption.

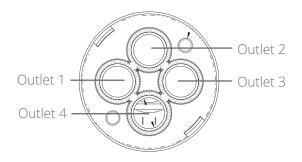
### 3 DIFFERENT SHAFTS LENGHT AVAILABLE

The GD35 is available with three different shaft lenghts to fullfill any manufacturer requirements.

Total Height (mm)	
52.2 mm	
64.8 mm	
80.5 mm	

### • DIVERTER FUNCTIONALITY

This cartridge fits specially good in bath showers because allows to have four different outlets. Mixed water enters inlet on the side and exits either outlet 1, 2, 3 or 4.

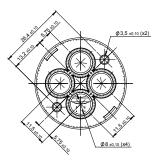


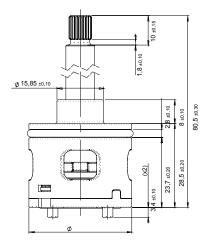






### DIMENSIONS





### **RECOMMENDED APPLICATIONS**



**SHOWERS DIVERTERS** Specially designed for

showers with diverters.

General	S/D
Nut torque pitch M1.5	10-12 Nm
Rotation angle	360°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>35 bar
Life cycle - EN 817	30,000 cycles
NF077	30,000 cycles
Max. hot water*	90 °C

Operation Torque	S/D
Turn left-right	0.15-0.40 Nm
OUTLET SELECTOR	0.10-0.20 Nm
(Torque increment)	0.10-0.20 Mm

Flow rate (free flow)	S/D
at 0.5 bar	10.2 l/min
at 1 bar	15.5 l/min
at 3 bar	26.5 l/min
at 5 bar	34 l/min



### DESCRIPTION

Joystick cartridges have a similar functionality as standard cartridges, although the special design of their levers allows smooth 360° movements.

Very popular in some countries, Joystick cartridges provide a natural movement especially with vertical levers.

The JY35 from Sedal is a very robust Joystick cartridge specially developed for faucets or cascade tap designs.

### FEATURES



JOYSTICK Joystick cartridge with smooth 360° movement.



**METALLIC LEVER** This joystick cartridge has metallic lever

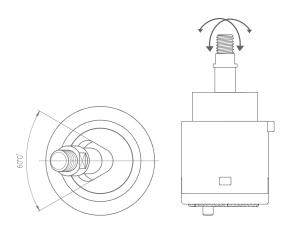
### **ADVANTAGES**

• SMOOTH FEELING

35mm joystick has a very smooth operational feeling that gives comfort to the user.

### • NEW CERAMICS DISC GEOMETRY

JY-35 has a new ceramics disc geometry that allows its smooth 360° movement.



#### • ROBUST DESIGN

35mm joystick has a robust design, withstanding higher levels of burst pressure.

• HIGHER FLOW RATE

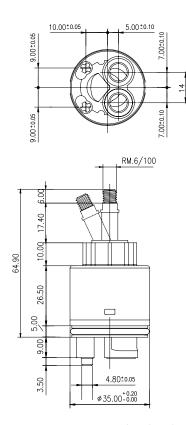
JY-35 has higher flow rates than previous versions.

### JY-35 C/D REF. 08JY35L001



DOWNLOAD DATA SHEET

### DIMENSIONS



### RECOMMENDED APPLICATIONS



WASHBASINS Specially designed for washbasins.

### CERTIFICATIONS



General	S/D
Nut torque pitch M1.5	10-12 Nm
Opening angle	25°C
Rotation angle	90°
Working pressure (recommended)	1 - 5 bar
Burst pressure	30-35 bar
Life cycle - EN 817	70,000 cycles
Max. hot water*	90 °C

Operation Torque	S/D
Turn left-right	0.25-0.33 Nm

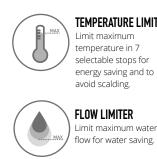
Flow rate (free flow)	S/D
at 0.5 bar	10.4 l/min
at 1 bar	14.3 l/min
at 3 bar	24.6 l/min
at 5 bar	31.8 l/min

### **UPPER SEALING** G - 35

### DESCRIPTION

Upper sealed cartridges allow the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side. Some of these cartridges also provide extra productivity thanks to their design.

### **FEATURES**



TEMPERATURE LIMITER Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

### **ADVANTAGES**

 ALLOWS DIFFERENT FAUCET CONFIGURATIONS Allows the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side.



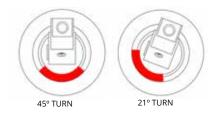
### COMPATIBILITY

Lower sealing compatible with standard 35mm available.

### UPPER SEALING WITH LIMITERS AVAILABLE

### **TEMPERATURE LIMITER FUNCTION (TR)**

G-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



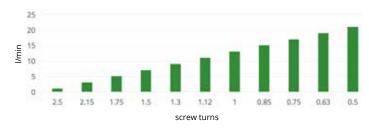
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, saving up to 22% of daily water consumption.



### G-35 C/D

REF. 08RG35L4602 (TRN)





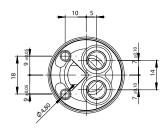
**OTHER VERSIONS** 

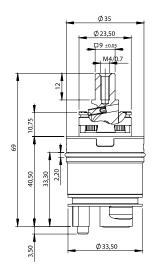
C/D

Without limiters

REF. 08G35L0001

### DIMENSIONS





### **RECOMMENDED APPLICATIONS** WASHBASINS Specially designed for washbasins. **BATH-SHOWERS** Specially designed for bath showers. KITCHENS Suitable for use in kitchens.

### CERTIFICATIONS



General	C/D
Nut torque pitch M1.5	10-12Nm
Opening angle	23°
Rotation angle	96°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>50 bar
Life cycle - EN 817	70,000 cycles
Sensitivity (r=45mm)	>10° angle
Fidelity	<5° C
Max. hot water*	90 °C

Operation Torque	C/D
Open-close	0.20-0.40 Nm

Flow rate (free flow)	C/D
at 0.5 bar	9.2 l/min
at 1 bar	13 l/min
at 3 bar	22.5 l/min
at 5 bar	29 l/min

### UPPER SEALING G-35 DUE

### DESCRIPTION

Upper sealed cartridges allow the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side. Some of these cartridges also provide extra productivity thanks to their design.

### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.



**FLOW LIMITER** Limit maximum water flow for water saving.

### **TEMPERATURE LIMITER**

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.

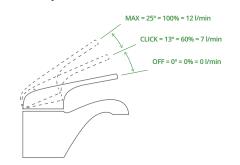
### ADVANTAGES

ADDITIONAL FEATURES

G-35 Due has the same advantages than G-35, but with due technology as an additional feature.

### • DUE TECHNOLOGY

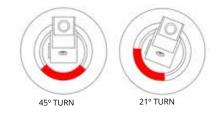
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



• UPPER SEALING WITH LIMITERS

### **TEMPERATURE LIMITER FUNCTION (TR)**

G-35 Due cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.

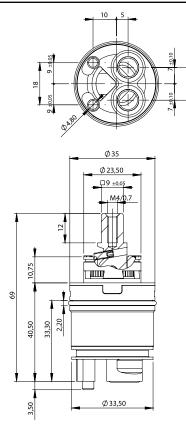


### **G-35 C/D** DUE REF. 08G35L0002 (TRN)





### DIMENSIONS



# RECOMMENDED APPLICATIONSWASHBASINSSpecially designed for<br/>washbasins.BATH-SHOWERSSpecially designed for<br/>bath showers.



**KITCHENS** Suitable for use in kitchens.

### CERTIFICATIONS



General	C/D
Nut torque pitch M1.5	10-12Nm
Opening angle	23°
Rotation angle	96°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>50 bar
Life cycle - EN 817	70,000 cycles
Sensitivity (r=45mm)	>10° angle
Fidelity	<5° C
Max. hot water*	90 °C
	·

Operation Torque	C/D
Open-close	0.20-0.40 Nm

Flow rate (free flow)	C/D
at 0.5 bar	9.2 l/min
at 1 bar	13 l/min
at 3 bar	22.5 l/min
at 5 bar	29 l/min

### UPPER SEALING G-35 COLD

### DESCRIPTION

Uppersealed cartridges allow the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side. Some of these cartridges also provide extra productivity thanks to their design.

### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



COLD

Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

### **ADVANTAGES**

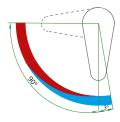
### ADDITIONAL FEATURES

G-35 Cold has the same advantages than G-35, but with cold technology as an additional feature.

### • COLD TECHNOLOGY

The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products. Sedal has developed a new version of standard upper sealing cartidges of 35mm with cold start opening, which flows cold water when the lever is centered.

This energy saving feature will help the user to have a better control of energy consumption.



HOUSEHOLD ENERGY CONSUMPTION RELATED TO CARTRIDGES IN %

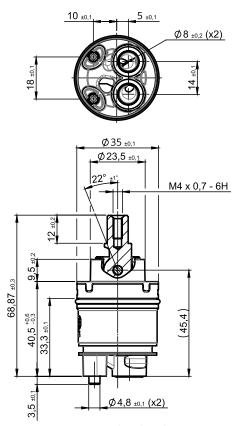


### **G-35 C/D** *COLD* REF. 08G35L1501





### DIMENSIONS



### RECOMMENDED APPLICATIONS



### WASHBASINS Specially designed for washbasins.



washbasins.

Suitable for use in

kitchens.

### CERTIFICATIONS



### **TECHNICAL SPECIFICATIONS**

General	C/D
Nut torque pitch M1.5	10-12Nm
Opening angle	22°
Rotation angle	93°
Working pressure (recommended)	1 - 5 bar
Burst pressure	>35 bar
Life cycle - EN 817	70,000 cycles
Sensitivity (r=45mm)	>10° angle
Fidelity	<5° C
Max. hot water*	90 °C

Operation Torque	C/D
Open-close	0.20-0.40 Nm

Flow rate (free flow)	C/D
at 0.5 bar	6 l/min
at 1 bar	8.8 l/min
at 3 bar	15.3 l/min
at 5 bar	19.4 l/min

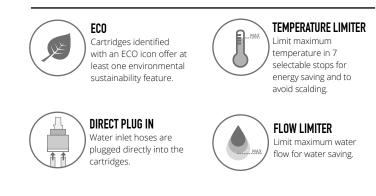
\* Find machinig requirements on pages 116-119.

### DIRECT PLUG-IN CC-35

### DESCRIPTION

Upper sealed cartridges allow the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side. Some of these cartridges also provide extra productivity thanks to their design.

### FEATURES



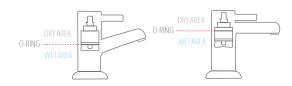
### ADVANTAGES

DIRECT PLUG-IN

Hoses are threaded directly into the cartridge with direct inlet connections

### MODERN FAUCET DESIGNS

This kind of cartridge allows modern faucet design options thanks to its multiple configurations.



### COST SAVINGS

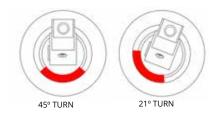
Direct plug-in allows lighter faucet body and consequently the manufacturer has process and brass savings.

- Brass saving up to 8%
- Process saving up to 15%

• VERSIONS WITH LIMITERS

### TEMPERATURE LIMITER FUNCTION (TR)

CC-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



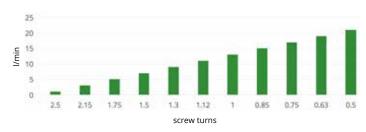
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.



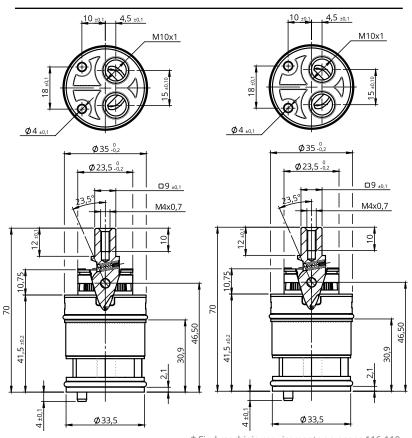
### CC-35





OTHER VERSIONS	STANDARD	BASIC
Temperature limiter (TR)	REF. 08CC35L0001	REF. 08CC35L0002
Temperature & flow limiter (TRN)	REF.08CC35L4501	REF.08CC35L4502

### DIMENSIONS



#### \* Find machinig requirements on pages 116-119.

### RECOMMENDED APPLICATIONS



### WASHBASINS Specially designed for washbasins.



### KITCHENS

Suitable for use in kitchens.

### CERTIFICATIONS



\*CC-35 BASIC is ACS certified only

### **TECHNICAL SPECIFICATIONS**

General	CC-35
Nut torque pitch M1.5	10-12Nm
Opening angle	23.5°
Rotation angle	96°
Working pressure	1 - 5 bar
(recommended)	
Burst pressure	>50 bar
Life cycle - EN 817	70,000 cycles
Sensitivity	11.5° angle
Fidelity	<5º C
Max. hot water*	90 °C

Operation Torque	CC-35
Open-close	0.30-0.50 Nm

Flow rate (free flow)	CC-35	
at 0.5 bar	9.2 l/min	
at 1 bar	12.9 l/min	
at 3 bar	22.4 l/min	
at 5 bar	29.1 l/min	

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

### DIRECT PLUG-IN CC-35 DUE

### DESCRIPTION

Upper sealed cartridges allow the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side. Some of these cartridges also provide extra productivity thanks to their design.

### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50%

DUE

Water flow

water saving.



#### **TEMPERATURE LIMITER**

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.







#### DIRECT PLUG IN

Water inlet hoses are plugged directly into the cartridges.

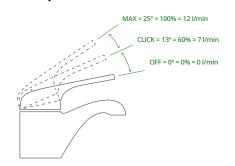
### ADVANTAGES

ADDITIONAL FEATURES

CC-35 due has the same advantages than CC-35, but with due technology as an additional feature.

### DUE TECHNOLOGY

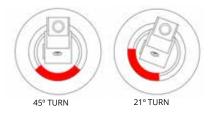
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



### VERSIONS WITH LIMITERS

TEMPERATURE LIMITER FUNCTION (TR)

CC-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



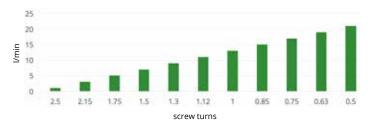
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.



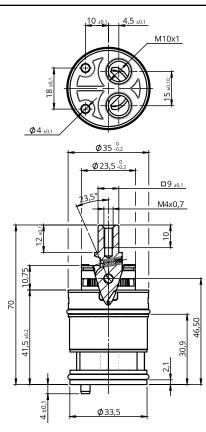
### ad



Temperature limiter (TR)

BASIC REF. 08CC35L5701

### DIMENSIONS



### RECOMMENDED APPLICATIONS



### WASHBASINS Specially designed for washbasins.



**KITCHENS** Suitable for use in kitchens.

### CERTIFICATIONS



General	CC-35 DUE TRN BASIC
Nut torque pitch M1.5	10-12Nm
Opening angle	23.5°
Rotation angle	96°
Working pressure	1 - 5 bar
(recommended)	
Burst pressure	>50 bar
Life cycle - EN 817	70,000 cycles
Sensitivity	11.5° angle
Fidelity	<5° C
Max. hot water*	90 °C

Operation Torque	CC-35 DUE TRN BASIC
Open-close	0.30-0.50 Nm

Flow rate (free flow)	CC-35 DUE TRN BASIC
at 0.5 bar	9.2 l/min
at 1 bar	12.9 l/min
at 3 bar	22.4 l/min
at 5 bar	29.1 l/min

### **COMPACT** EX-35 TOP

### DESCRIPTION

Compact 35 mm cartridge allows the manufacturer for short faucets.

### FEATURES



**TEMPERATURE LIMITER** Limit maximum

temperature in 7 selectable stops for energy saving and to avoid scalding.



#### **FLOW LIMITER**

Limit maximum water flow for water saving.

### **ADVANTAGES**

 MINIMALISM WITH HIGH PERFORMANCE Compact cartridges allow the manufacturer to create minimalistic faucets without giving up the high-performance features of the cartridges.

### • ECO FEATURES

35 mm compact cartridges are available with a due option, a feature that provides up to 50% water saving thanks to a mid-way stop at 60% of the lever stroke.

35mm cartridge is also available with temperature and flow limiters.

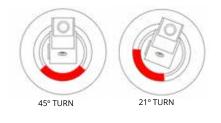
### ENHANCED PERFORMANCE

EX-35 Plus cartridge is a completely new design with enhanced performance, meeting the highest technical requirements.

• VERSIONS WITH LIMITERS

### TEMPERATURE LIMITER FUNCTION (TR)

EX-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



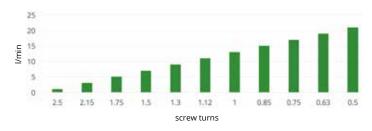
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.





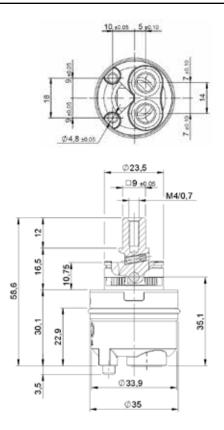




### **OTHER VERSIONS**

- Temperature limiter (TRN) 35,4mm Ø TR 35,4mm Ø TRN
- REF. 08EX35L4505 REF. 08EX35L0502 REF. 08EX35L4504

### DIMENSIONS





### CERTIFICATIONS



General	EX-35 TR TOP	
Nut torque pitch M1.5	10-12Nm	
Opening angle	23°	
Rotation angle	93°	
Working pressure	1 - 5 bar	
(recommended)		
Burst pressure	>50 bar	
Life cycle - EN 817 NF077 U3	175,000 cycles	
2 x ASME 112.18.1 M	1,000,000 cycles	
Sensitivity (r=45mm)	>12°	
Fidelity	<5 °C	
Constant 63°C & 50°C	<4°C-6°C	
(6 l/m & 3 l/m)	<4 <sup>-</sup> L-۵-۲	
Max. hot water*	90 °C	

Operation Torque	EX-35 TR TOP
Open-close	0.15-0.30 Nm
Turn left-right	0.15-0.30 Nm
Noise level	EX-35 TR TOP
Noise level Noise level	EX-35 TR TOP <20 dB(A)

Flow rate (free flow)	EX-35 TR TOP
at 3 bar	26 l/min

### **COMPACT** EX-35 TOP DUE

### DESCRIPTION

Compact 35 mm cartridge allows the manufacturer for short faucets.

### FEATURES



DUE Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving. TEMPERATURE LIMITER Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



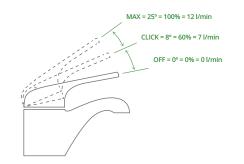
### **ADVANTAGES**

ADDITIONAL FEATURES

EX-35 Plus due has the same advantages than EX-35 Plus, but with due technology as an additional feature.

### • DUE TECHNOLOGY

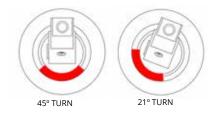
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



### • VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

EX-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



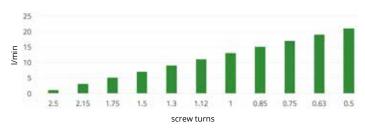
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.



### **EX–35** *TOP DUE TR* REF. 08EX35L3503



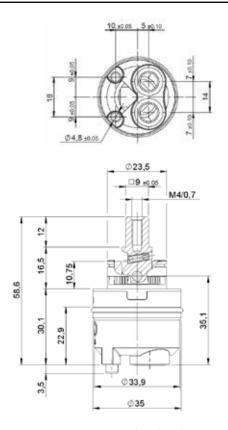
DOWNLOAD DATA SHEET

### **OTHER VERSIONS**

35,4mm Ø DUE TR

REF. 08EX35L3501

### DIMENSIONS





### CERTIFICATIONS



General	EX-35 TR TOP	
Nut torque pitch M1.5	10-12Nm	
Opening angle	23°	
Rotation angle	100°	
Working pressure	1 - 5 bar	
(recommended)		
Burst pressure	>50 bar	
Life cycle - EN 817 NF077 U3	175,000 cycles	
2 x ASME 112.18.1 M	1,000,000 cycles	
Sensitivity (r=45mm)	>12°	
Fidelity	<5 °C	
Constant 63°C & 50°C	<4°C-6°C	
(6 l/m & 3 l/m)		
Max. hot water*	90 °C	
	•	

Operation Torque	EX-35 TR TOP
Open-close	0.15-0.30 Nm
Turn left-right	0.15-0.30 Nm
Noise level	EX-35 TR TOP
Noise level	EX-35 TR TOP <20 dB(A)

Flow rate (free flow)	EX-35 TR TOP
at 3 bar	26 l/min

# COMPACT **EX-35 TOP COLD**

#### DESCRIPTION

Compact 35 mm cartridge allows the manufacturer for short faucets.

#### FEATURES



Energy saving feature thanks to the internal design of the cartridge. flowing cold water when the lever is centered.

**TEMPERATURE LIMITER** MAX Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



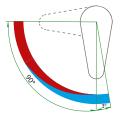
#### **ADVANTAGES**

ADDITIONAL FEATURES

EX-35 Plus cold has the same advantages than EX-35 Plus, but with cold technology as an additional feature.

#### COLD TECHNOLOGY

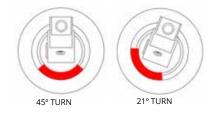
The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products.



#### VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

EX-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



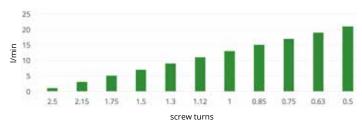
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, saving up to 22% of daily water consumption.





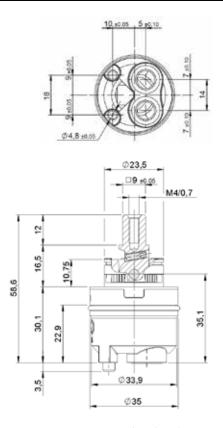


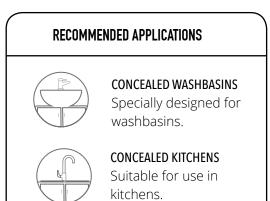
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#### **OTHER VERSIONS**

Temperature limiter (TRN) 35,4mm Ø TR 35,4mm Ø TRN REF. 08EX35L4003 REF. 08EX35L2501 REF. 08EX35L4002

#### DIMENSIONS





#### CERTIFICATIONS



General	EX-35 TR TOP	
Nut torque pitch M1.5	10-12Nm	
Opening angle	23°	
Rotation angle	93°	
Working pressure	1 - 5 bar	
(recommended)		
Burst pressure	>50 bar	
Life cycle - EN 817 NF077 U3	175,000 cycles	
2 x ASME 112.18.1 M	1,000,000 cycles	
Sensitivity (r=45mm)	>12°	
Fidelity	<5 °C	
Constant 63°C & 50°C	<4°C-6°C	
(6 l/m & 3 l/m)	<4 <sup>-</sup> C-0 <sup>-</sup> C	
Max. hot water*	90 °C	
Operation Torque	EX-35 TR TOP	
Open-close	0.15-0.30 Nm	
Turn left-right	0.15-0.30 Nm	
Noise level	EX-35 TR TOP	
Noise level	<20 dB(A)	
Flow rate (free flow)	EX-35 TR TOP	

Flow rate (free flow)	EX-35 TR TOP
at 3 bar	26 l/min

# **COMPACT** EX-35 TOP COLD DUE

#### DESCRIPTION

Compact 35 mm cartridge allows the manufacturer for short faucets.

#### FEATURES



**DUE** Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.



Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.



#### **TEMPERATURE LIMITER**

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



#### FLOW LIMITER

Limit maximum water flow for water saving.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

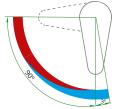
#### ADVANTAGES

#### ADDITIONAL FEATURES

EX-35 Plus cold due has the same advantages than EX-35 Plus, but with due and cold technologies as an additional features.

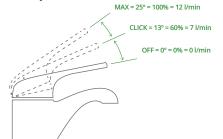
#### • COLD TECHNOLOGY

The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products.



#### • DUE TECHNOLOGY

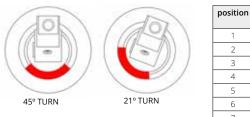
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



#### • VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

EX-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



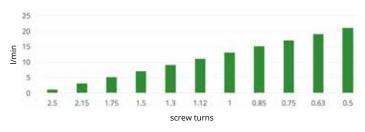
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.







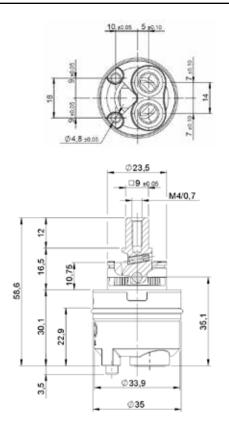
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#### **OTHER VERSIONS**

35,4mm Ø COLD DUE TR

REF. 08EX35L5002

#### DIMENSIONS



# RECOMMENDED APPLICATIONS CONCEALED WASHBASINS Specially designed for<br/>washbasins. CONCEALED KITCHENS Suitable for use in<br/>kitchens.

#### CERTIFICATIONS



General	EX-35 TR TOP	
Nut torque pitch M1.5	10-12Nm	
Opening angle	23°	
Rotation angle	93°	
Working pressure	1 - 5 bar	
(recommended)		
Burst pressure	>50 bar	
Life cycle - EN 817 NF077 U3	175,000 cycles	
2 x ASME 112.18.1 M	1,000,000 cycles	
Sensitivity (r=45mm)	>12°	
Fidelity	<5 °C	
Constant 63°C & 50°C	<4°C-6°C	
(6 l/m & 3 l/m)	~4 C-0 C	
Max. hot water*	90 °C	
Operation Torque	EX-35 TR TOP	
Open-close	0.15-0.30 Nm	
Turn left-right	0.15-0.30 Nm	
Noise level	EX-35 TR TOP	
Noise level	<20 dB(A)	

Flow rate (free flow)	EX-35 TR TOP
at 3 bar	26 l/min

## COMPACT EX-35

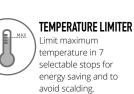
#### DESCRIPTION

Compact 35 mm cartridge allows the manufacturer for short faucets.

#### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.





**FLOW LIMITER** Limit maximum water flow for water saving.

#### **ADVANTAGES**

MINIMALISM WITH HIGH PERFORMANCE

Compact cartridges allow the manufacturer to create minimalistic faucets without giving up the high-performance features of the cartridges.

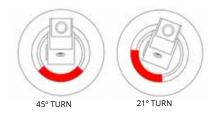
#### • ECO FEATURES

35 mm and 40mm compact cartridges are available with a due option, a feature that provides up to 50% water saving thanks to a mid-way stop at 60% of the lever stroke. 35mm cartridge is also available with temperature and flow limiters.

#### VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

EX-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



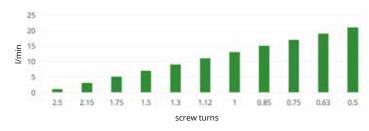
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, saving up to 22% of daily water consumption.





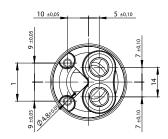


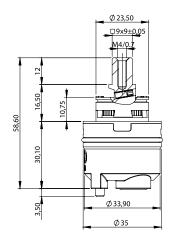
#### **OTHER VERSIONS**

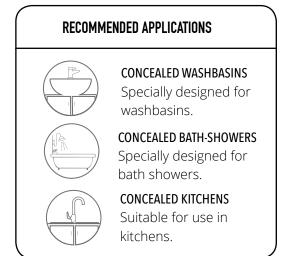
Without limiters

REF. 08EX35S1001

#### DIMENSIONS







#### CERTIFICATIONS



General	EX-35 TRN
Nut torque pitch M1.5	10-12Nm
Opening angle	24°
Rotation angle	96°
Working pressure	1 - 5 bar
(recommended)	
Burst pressure	56 bar
Life cycle - EN 817	70,000 cycles
Sensitivity	10°-12° angle
Fidelity	3 °C
Max. hot water*	90 °C

Operation Torque	EX-35 TRN
Open-close	0.20-0.30 Nm

Flow rate (free flow)	EX-35 TRN
at 0.5 bar	8.5 l/min
at 1 bar	12 l/min
at 3 bar	20.8 l/min
at 5 bar	26.8 l/min

# **COMPACT** EX-35 DUE

#### DESCRIPTION

Compact 35 mm cartridge allows the manufacturer for short faucets.

#### FEATURES



DUE Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.



**TEMPERATURE LIMITER** Limit maximum temperature in 7

selectable stops for energy saving and to avoid scalding.



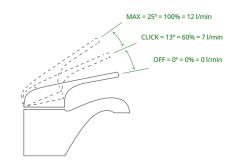
#### **ADVANTAGES**

ADDITIONAL FEATURES

EX-35 due has the same advantages than EX-35, but with due technology as an additional feature.

#### • DUE TECHNOLOGY

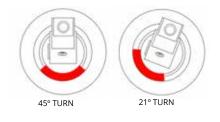
Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



#### • VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

EX-35 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



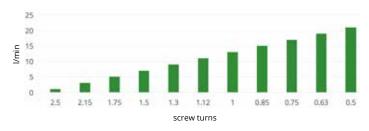
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.

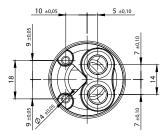


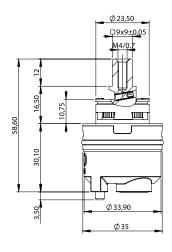






#### DIMENSIONS







#### CERTIFICATIONS



General	EX-35 TRN
Nut torque pitch M1.5	10-12Nm
Opening angle	24°
Rotation angle	96°
Working pressure	1 - 5 bar
(recommended)	
Burst pressure	56 bar
Life cycle - EN 817	70,000 cycles
Sensitivity	10°-12° angle
Fidelity	3 °C
Max. hot water*	90 °C

Operation Torque	EX-35 TRN			
Open-close	0.20-0.30 Nm			
Saving device (DUE)	0.60-0.90 Nm			

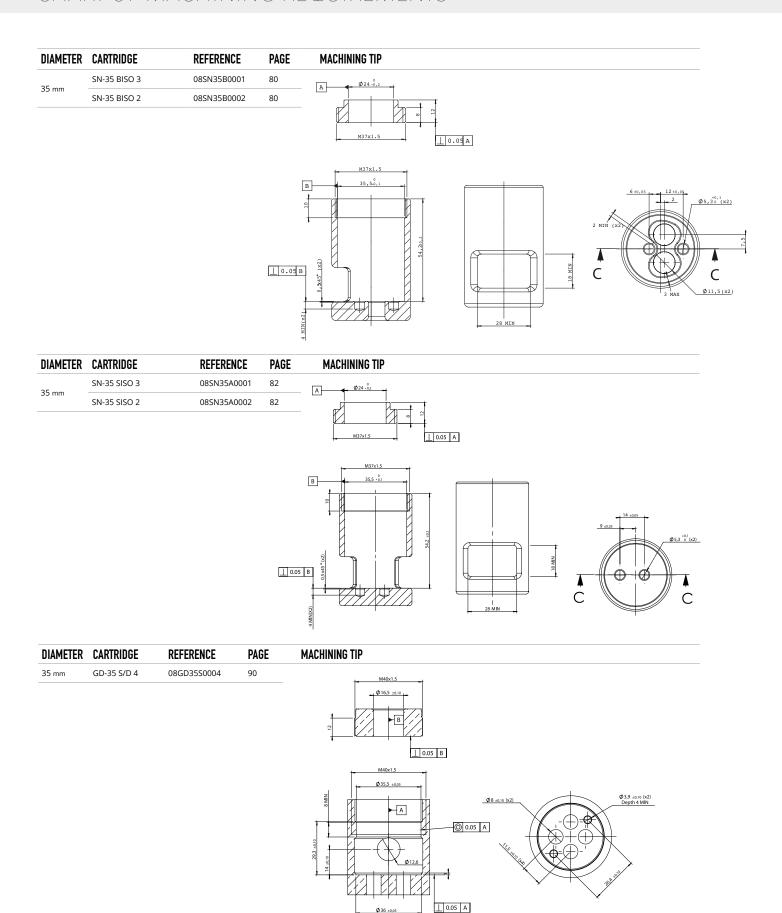
Flow rate (free flow)	EX-35 TRN
at 0.5 bar	8.5 l/min
at 1 bar	12 l/min
at 3 bar	20.8 l/min
at 5 bar	26.8 l/min

# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS

DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP
	EN-35 C/D TOP	08EN35L0023	40	
	EN-35 C/D TOP DUE	08EN35L3504	42	$2x \varphi_{5,005}^{+0,10}$ / $2x \max_{2} \varphi_{8}$
	EN-35 C/D TOP COLD	08EN35L2502	44	
	EN-35 C/D TOP COLD DUE	08EN35L5002	46	
	SN-35 C/D ENDURA	08SN35L0013	48	
	SN-35 C/D ENDURA DUE	08SN35L3001	50	
	SN-35 C/D ENDURA COLD	08SN35L1502	52	2x 10 ±0.10 2x 5 ±0.10
	SN-35 C/D ENDURA COLD DUE	08SN35L0004	54	
	EN-35 C/D ENDURA	08EN35L0004	56	t <del>■</del> A
	EN-35 C/D ENDURA DUE	08EN35L3001	58	\$24-0.20
	EN-35 C/D ENDURA COLD	08EN35L1503	60	
	EN-35 S/D ENDURA COLD MIRROR	08EN35L1505	62	
	EN-35 C/D ENDURA COLD DUE	08EN35L0005	64	10.05 A min. Ø35.5
35 mm	EN-35 C/D ENDURA COLD MIRROR DUE	08EN35L2002	66	—————————— <del>——</del> ————————————————————————
	EN-35 C/D	08EN35L0003	68	B min. Ø35.5
	EN-35 C/D DUE	08E35LAZ30	69	
	SN-35 C/D	08SN35LGO00	70	
	TRN-35 C/D	08RN35LVE00	71	
	EN-35 C/D BG BASIC	08EN35L0011	72	6 xeu 5 2 4 0.05
	SN-35 C/D ECOFLOW	08SN35L0008	74	
	SN-35 C/D TERMACLICK	08SN35L2003	76	
	SN-35 C/D TERMACLICK MIRROR	08SN35L2004	78	
	GI-35 C/D	08GI35LBE64	84	0.55456
	GI-35 C/D L9	08GI35LBE09	86	
	GI-35 C/D Z20	08GI35LBE01	87	
	GD-35 C/D	08GD35LBE00	88	
	JY-35 C/D	08JY35L001	92	

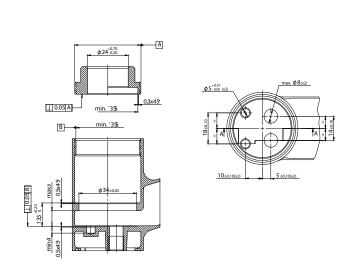
IAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP					
	EN-35 S/D TOP	08EN35S0023	40						
	EN-35 S/D TOP DUE	08EN35S3504	42	+0.10 4,75 ±0.10					
	EN-35 S/D TOP COLD	08EN35S4003	44	$\frac{2x  \phi_{5}^{\pm 0,10}}{2x  \phi_{5}^{\pm 0,05}} \xrightarrow{4,75 \pm 0,10} 2x  \text{max. } \phi_{8}$					
	EN-35 S/D TOP COLD DUE	08EN35S5002	46						
	SN-35 S/D ENDURA	08SN35S0013	48						
	SN-35 S/D ENDURA DUE	08SN35S3001	50						
	SN-35 S/D ENDURA COLD	08SN35S1502	52	max. Ø9 2x 10 ±0.10 2x 5 ±0.10					
	SN-35 S/D ENDURA COLD DUE	08SN35S0004	54						
	EN-35 S/D ENDURA	08EN35S0004	56						
	EN-35 S/D ENDURA DUE	08EN35S3001	58	↓ 0.70					
	EN-35 S/D ENDURA COLD	08EN35S1503	60						
	EN-35 S/D ENDURA COLD MIRROR	08EN35S1505	62						
	EN-35 S/D ENDURA COLD DUE	08EN35S0005	64						
	EN-35 S/D ENDURA COLD MIRROR DUE	08EN35S2002	66						
	EN-35 S/D	08EN35S0003	68	B min. Ø35.5					
	EN-35 S/D DUE	08E35FAZ31	69						
	SN-35 S/D	08SN35FGO00	70						
	TRN-35 S/D	08RN35FVE00	71	500					
	EN-35 S/D BG BASIC	08EN35S0011	72						
	SN-35 S/D ECOFLOW	08SN35S0009	74						
	SN-35 S/D TERMACLICK	08SN35S2003	76	min. 4					
	SN-35 S/D TERMACLICK MIRROR	08SN35S2004	78						
	GI-35 S/D	08GI35FBE64	84						
	GI-35 S/D L9	08GI35FBE09	86						
	GI-35 S/D Z20	08GI35FBE01	87						
	GD-35 S/D	08GD35FBE00	88						

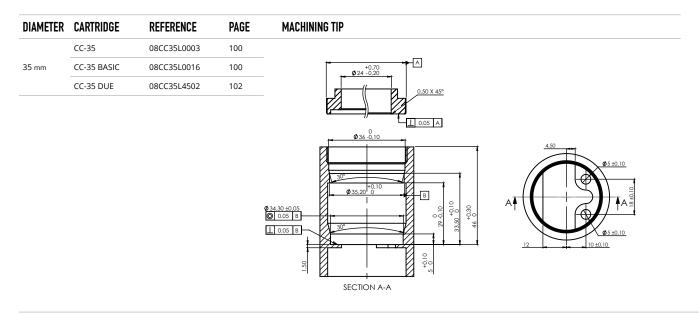
# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS



Ø36 ±0.0

DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP
	G-35 C/D	08RG35L4602	94	
35 mm	G-35 C/D DUE	08G35L0002	96	
	G-35 C/D COLD	08G35L1501	98	





DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP
	EX-35 TOP	08EX35L0504	104	
	EX-35 TOP DUE	08EX35L3503	106	024 *2
25	EX-35 TOP COLD	08EX35L2502	108	
35 mm	EX-35 TOP COLD DUE	08EX35L5003	110	
	EX-35 TRN	08EX35S0001	112	1 0.05 A 0.5 × 45"
	EX-35 TRN DUE	08EX35S3501	114	
				90 035.4 state 0 0 0 0 0 0 0 0 0 0 0 0 0

SECCIÓN A-A

# **40MM CARTRIDGES** FOR SINGLE LEVER FAUCETS

C HP

## INDEX · 40MM CARTRIDGES

Th	<b>IED</b>	RA	TEMP. LIMITER	FLOW LIMITER		CODE	PG
	THEDRA	$\checkmark$	$\checkmark$	CD SD	08SN40L0001 08SN40S0001	122	
z	N S	DUE	$\checkmark$	-	CD SD	08SN40L3001 08SN40S3001	124
S		COLD	$\checkmark$	$\checkmark$	CD SD	08SN40L1501 08SN40S1501	126
		COLD DUE	$\checkmark$	$\checkmark$	CD SD	08SN40L5501 08SN40S5501	128

			temp. Limiter	FLOW LIMITER		CODE	PG
		EN-40	-	-	CD SD	08EN40LAZ00 08EN40FAZ00	130
		E-40 DUE	-	-	SD	08E40FAZ30	131
N	-	E-40 C1	-	-	CD SD	08EN40L1002 08EN40S1002	132
E & EN		E-40 C2	-	-	CD SD	08EN40L3005 08EN40S3005	133
		EN-40 COLD DUE	-	-	CD SD	08EC40L3003 08EC40S3003	134
		EN-40 COLD MIRROR DUE	-	-	CD SD	08EC40L2001 08EC40S2001	136
SN		SN-40	-	-	CD SD	08SN40LAZ00 08SN40SAZ00	138
TRN		TRN-40	$\checkmark$	$\checkmark$	CD SD	08RN40LVE00 08RN40FVE00	139

BASIC	TEMP. LIMITER	FLOW LIMITER		CODE	PG
BG BASIC	-	-	CD SD	08DN40LBG01 08DN40FBG01	140
ECOFLOW	TEMP. LIMITER	FLOW LIMITER		CODE	PG
5 SN-40	-	_	CD SD	08SN40L0003 08SN40S0004	142
)					

FL	<u>.</u> 0W		TEMP. LIMITER	FLOW LIMITER		CODE	PG
MM	L	GC-40	$\checkmark$	$\checkmark$	CD SD	08GC40L0001 08GC40S0001	144
40MM	-	GC-40 DUE	$\checkmark$	-	CD SD	ON DEMAND ON DEMAND	146
45MM	-1));	GC-45	-	-	SD	08GC45FBE00	148

S	PECI	ALS	TEMP. LIMITER	FLOW LIMITER		CODE	PG
9		GI-40 L10 TR	$\checkmark$	-	CD SD	08GI40LBE64 08GI40FBE64	150
REVOLVING		GI-40 Z20	-	-	CD SD	08GI40LBE00 08GI40FBE00	152
RE		GI-40 L10	-	-	CD SD	08GI40LBE10 08GI40FBE10	153
DIVERTER		GD-40	-	-	SD	08GD40S0001	154
JOYSTICK	6	јү-40	-	-	CD SD	08JY40LBE00 08JY40FBE00	156
PB		PB-40	V	V	CD	08PB40L0001	158

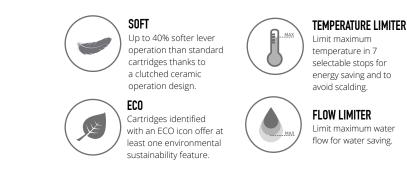
			TEMP.	FLOW			
<b>S</b> E	-ALI	NG	LIMITER	LIMITER		CODE	PG
SEAL.	4	G-40	$\checkmark$	$\checkmark$	CD	08G40LBE00	160
UPPER SEAL.		G-40 DUE	$\checkmark$	$\checkmark$	CD	08G40LBE30	160
COMPACT	4	EX-40	$\checkmark$	$\checkmark$	CD	08EX40S0001	162
		EX-40 DUE	$\checkmark$	$\checkmark$	CD	08EX40S3001	162

# SN-40 THEDRA

#### DESCRIPTION

40mm cartridge with a unique clean and smart design that confers an undeniable ability to withstand the most extreme working conditions and requests: compression, torque, handle load, burst and x2 life cycles, granting smooth but firm user operation thanks to Glide Feel Technology. It also includes TR and TRN versions.

#### FEATURES



#### **ADVANTAGES**

• SN TECHNOLOGY

Ceramics discs do not move in close position providing a unique smoothness of operation and higher durability (up to 20% longer life).

#### CHALLENGE, TECHNOLOGY

Careful design, ceramic expertise, several smart technologies, high performance materials and extraordinarily precise components are used to build the new THEDRA cartridges.

• GREAT RANGE. GREATER POSSIBILITIES

THEDRA valve range provides more than 20 different combinations for the manufacturers to develop their products.

#### • OUT OF SOLID ROCK

THEDRA is designed according to the roughest manufacturer's technical requests.

• ENJOY THE SILENCE

THEDRA is NF Class I compliant, featuring Sedal's Noise Cancelling Technology.

#### DOUBLE LIFE-CYCLE

The new THEDRA cartridge has 2 times ASME life cycles thanks to SedalOX<sup>™</sup> 96.

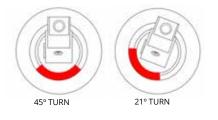
#### • UNEQUAL DESIGN, UNEQUAL RESULTS

THEDRA was granted with reddot award in 2016.

#### • VERSIONS WITH LIMITERS

#### TEMPERATURE LIMITER FUNCTION (TR)

Thedra cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



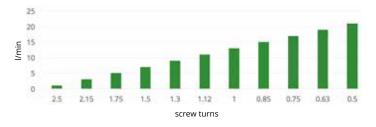
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.





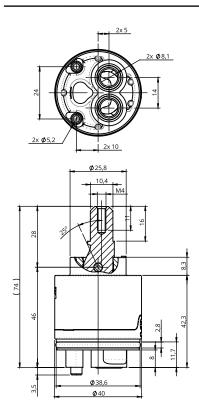
SN-40 S/D THEDRA REF. 08SN40S0001

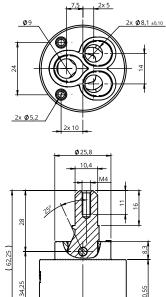


DOWNLOAD Data sheet

OTHER VERSIONS	CD	SD
Temperature limiter (TR)	REF.08SN40L0501	REF. 08SN40S0501
Temperature & flow limiter (TRN)	REF.08SN40L4501	REF. 08SN40S4501

#### DIMENSIONS





**Ø**40

30,55



#### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>10-12 mm	>10-12 mm
Fidelity	<3°	<3°
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Noise level	C/D	S/D
Noise level	<20 dB	<20 dB

Flow rate (free flow)	C/D	S/D
at 0.2 bar	8.3 l/min	7.6 l/min
at 1 bar	18.3 l/min	16.6 l/min
at 3 bar	31.5 l/min	28.6 l/min
at 5 bar	40.1 l/min	37 l/min

# SN-40 THEDRA

#### DESCRIPTION

40mm cartridge with a unique clean and smart design that confers an undeniable ability to withstand the most extreme working conditions and requests: compression, torque, handle load, burst and x2 life cycles, granting smooth but firm user operation thanks to Glide Feel Technology. It includes DUE technology for water saving and TR version.

#### FEATURES



**SOFT** Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

optimization thanks to

a mid-way stop at 60%

of the lever stroke that



#### TEMPERATURE LIMITER

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



#### FLOW LIMITER

Limit maximum water flow for water saving.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

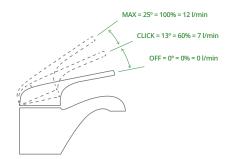
#### ADVANTAGES

#### ADDITIONAL FEATURES

SN-40 Thedra Due has the same advantages than SN-40 Thedra, but with due technology as an additional feature.

#### • DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows **saving up to 54% of daily water consumption**.



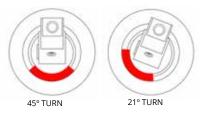
#### VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

DUE

Water flow

Thedra cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



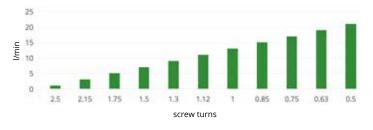
position	15° I/min	65° I/min	℃ 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.





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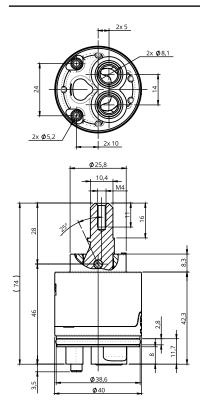


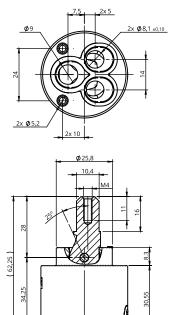


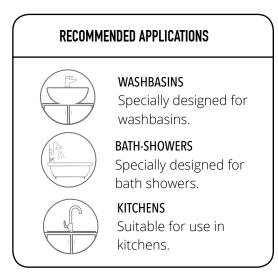
DOWNLOAD DATA SHEET

OTHER VERSIONS	CD	SD
Temperature limiter (TR)	REF.08SN40L3501	REF. 08SN40S3501
Temperature & flow limiter (TRN)	on demand	on demand

#### DIMENSIONS







#### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>10-12 mm	>10-12 mm
Fidelity	<3°	<3°
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Noise level	C/D	S/D
Noise level	<20 dB	<20 dB

Flow rate (free flow)	C/D	S/D
at 0.2 bar	8.3 l/min	7.6 l/min
at 1 bar	18.3 l/min	16.6 l/min
at 3 bar	31.5 l/min	28.6 l/min
at 5 bar	40.1 l/min	37 l/min

# SN-40 THEDRA

#### DESCRIPTION

40mm cartridge with a unique clean and smart design that confers an undeniable ability to withstand the most extreme working conditions and requests: compression, torque, handle load, burst and x2 life cycles, granting smooth but firm user operation thanks to Glide Feel Technology. This cartridge opens in cold position and has TR and TRN versions available.

#### FEATURES



**SOFT** Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

COLD Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.



#### TEMPERATURE LIMITER

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



#### FLOW LIMITER

Limit maximum water flow for water saving.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

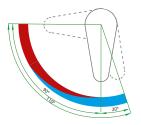
#### **ADVANTAGES**

#### ADDITIONAL FEATURES

SN-40 Thedra Cold has the same advantages than SN-40 Thedra, but with cold technology as an additional feature.

#### • COLD TECHNOLOGY

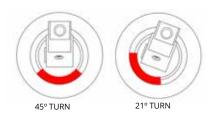
The lever is in cold position by default, **saving up to 10% from the household energy consumption** related to plumbing products.



#### • VERSIONS WITH LIMITERS

TEMPERATURE LIMITER FUNCTION (TR)

Thedra cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



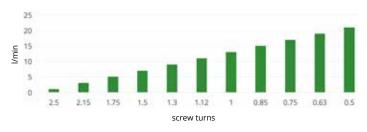
position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.







DOWNLOAD DATA SHEET

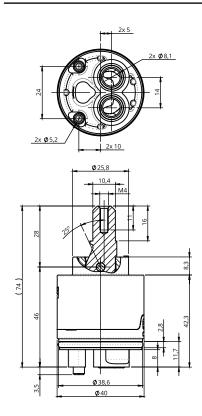


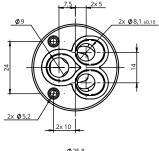


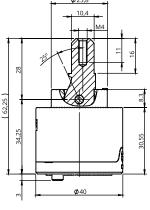
DOWNLOAD Data Sheet

OTHER VERSIONS	CD	SD
Temperature limiter (TR)	REF.08SN40L2501	REF.08SN40S2501
Temperature & flow limiter (TRN)	REF. 08SN40L4001	REF.08SN40S4001

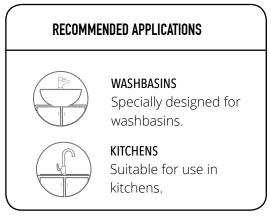
#### DIMENSIONS







#### \* Find machinig requirements on pages 164-167.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110°	110°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>10-12 mm	>10-12 mm
Fidelity	<3°	<3°
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Noise level	C/D	S/D
Noise level	<20 dB	<20 dB

Flow rate (free flow)	C/D	S/D
at 0.2 bar	4.4 l/min	4 l/min
at 1 bar	8.1 l/min	7.5 l/min
at 3 bar	14.2 l/min	13.3 l/min
at 5 bar	16.5 l/min	15.4 l/min

FLOW RATE FIGURES AT COLD POSITION

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

# SN-40 THEDRA **COLD DUE**

#### DESCRIPTION

40mm cartridge with a unique clean and smart design that confers an undeniable ability to withstand the most extreme working conditions and requests: compression, torque, handle load, burst and x2 life cycles, granting smooth but firm user operation thanks to Glide Feel Technology. It also includes SN system, which provides the cartridge with a unique smoothness of operation, TRN technology for temperature and flow control and DUE for water saving. This cartridge opens in cold position.

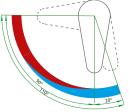
#### **ADVANTAGES**

#### ADDITIONAL FEATURES

SN-40 Thedra C3 has the same advantages than SN-40 Thedra, but with cold and due technologies as additional features.

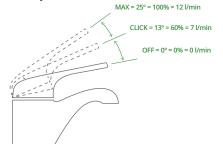
#### COLD TECHNOLOGY

The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products.



#### DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows saving up to 54% of daily water consumption.



#### FEATURES



Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

#### COLD

Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

### DUF

Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.



#### FLOW LIMITER

Limit maximum water flow for water saving.

#### TEMPERATURE LIMITER



Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



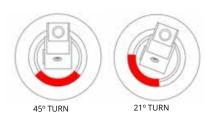


Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### VERSIONS WITH LIMITERS

#### **TEMPERATURE LIMITER FUNCTION (TR)**

Thedra cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, saving up to 22% of daily water consumption.











**OTHER VERSIONS** 

Temperature limiter (TR) Temperature & flow limiter (TRN)



DOWNLOAD DATA SHEET

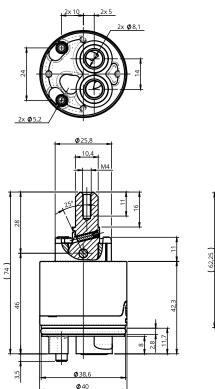
CD

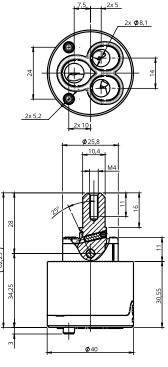
REF 08SN40L5001

REF.08SN40L5501

REF.08SN40S5001 REF.08SN40S5501

#### DIMENSIONS





# RECOMMENDED APPLICATIONS WASHBASINS Specially designed for washbasins. KITCHENS Suitable for use in kitchens.

#### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110°	110°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>10-12 mm	>10-12 mm
Fidelity	<3°	<3°
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Noise level	C/D	S/D
Noise level	<20 dB	<20 dB

Flow rate (free flow)	C/D	S/D
at 0.3 bar	4.4 l/min	4 l/min
at 1 bar	8.1 l/min	7.5 l/min
at 3 bar	14.2 l/min	13.3 l/min
at 4 bar	16.5 l/min	15.4 l/min

# STANDARD CARTRIDGES

EN-40 C/D REF.08EN40LAZ00

#### EN-40 S/D REF.08EN40FAZ00

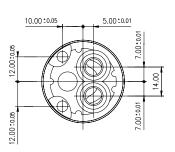


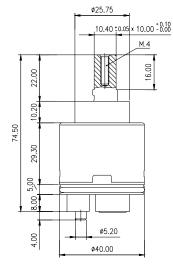


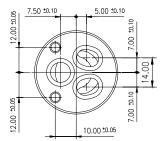


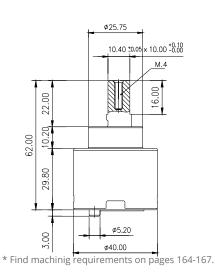
DOWNLOAD DATA SHEET

#### DIMENSIONS







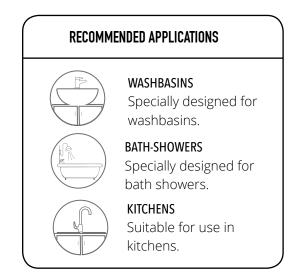


### DESCRIPTION

Standard 40 mm cartridge.cartridge.

#### ADVANTAGES

Classic standard cartridge of Sedal.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	55-65 bar	55-65 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
Sensitivity	15-17 mm	16-17 mm
Constant 63 ℃ & 50 ℃	0.5 - 1.7 °C	0.8 - 1.7 °C
(6 l/min - 3 l/min)		
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm
Flow rate (free flow)	C/D	s/D

Flow rate (free flow)	C/D	S/D
at 0.5 bar	10.6 l/min	10.4 l/min
at 1 bar	15 l/min	14.7 l/min
at 3 bar	26 l/min	25.5 l/min
at 5 bar	33.4 l/min	32.7 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

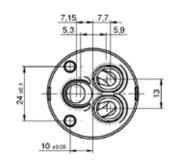
stroke.

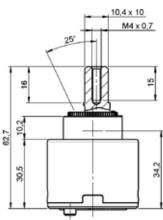






#### DIMENSIONS





#### DESCRIPTION

Standard 40mm cartridge with DUE technology.

#### FEATURES



#### **ADVANTAGES**

The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products.



#### CERTIFICATIONS



General	S/D
Nut torque pitch M1.5	10-12Nm
Opening angle	25°
Rotation angle	100°
Working pressure (recommended)	1 - 5 bar
Burst pressure	≥55 bar
Life cycle - EN 817	175,000 cycles
ASME 112.18.1 M	500,000 cycles
Sensitivity	-
Max. hot water*	90 °C

Operation Torque	S/D
Open-close	0.20 - 0.50 Nm
Turn left-right	0.20 - 0.50 Nm

at 3 bar 21.3	l/min



E-40 C/D C1 NF E-40 S/D C1 NF

REF.08EN40L1002

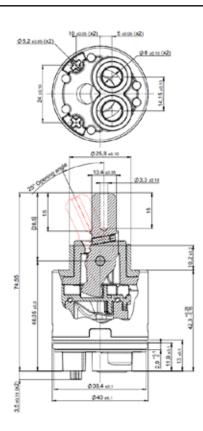


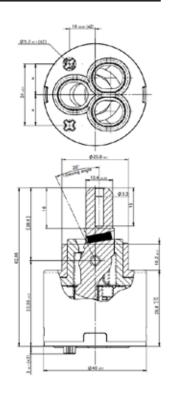


REF. 08EN40S1002



#### DIMENSIONS





#### DESCRIPTION

Standard 40mm cartridge

#### ADVANTAGES

NF C1 (ECAU) requirements met.



#### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110°	110°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	> 50 bar	> 0 bar
Water hammer test	ECAU NF 077	ECAU NF 077
Life cycle - NF-077(U3)	175,000 cycles	175,000 cycles
Sensitivity (r=54mm)	>12mm	>12mm
Max. hot water*	60 - 65 °C	60 - 65 °C

Operation Torque	C/D	S/D
Open-close	0.40-0.50 Nm	0.40-0.50 Nm
Turn left-right	0.40-0.50 Nm	0.40-0.50 Nm
Flow rate (free flow)	C/D	S/D

Flow rate (free flow)	C/D	S/D
at 3 bar	27,5 l/min	25.3 l/min



REF.08EN40L3005





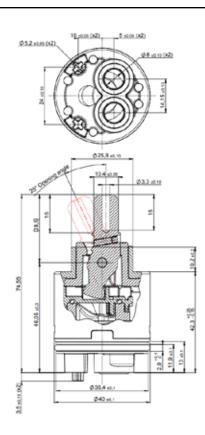


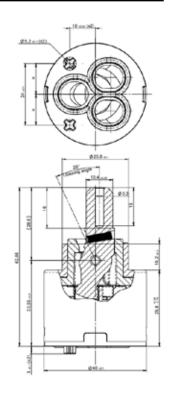
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DATA SHEET

REF. 08EN40S3005

#### DIMENSIONS





#### DESCRIPTION

Standard cartridge with water saving (DVE) technology.

#### FEATURES



DUE Water flow optimization thanks to a mid-way stop at 60% of the lever stroke.

#### **ADVANTAGES**

NF C2 (ECAU) Requeriments are met



#### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	110°	110°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	> 50 bar	> 0 bar
Water hammer test	ECAU NF 077	ECAU NF 077
Life cycle - NF-077(U3)	175,000 cycles	175,000 cycles
Sensitivity (r=54mm)	>12mm	>12mm
Max. hot water*	60 - 65 °C	60 - 65 °C
<b>Operation Torque</b>	C/D	S/D
Open-close	0.40-0.50 Nm	0.40-0.50 Nm
Turn left-right	0.40-0.50 Nm	0.40-0.50 Nm
Flow rate (free flow)	C/D	S/D

Flow rate (free flow)	C/D	S/D
at 3 bar	27,5 l/min	25.3 l/min

# **STANDARD** EN-40 COLD DUE

#### DESCRIPTION

Standard 40mm cartridge meeting NF C3 (ECAU) Requeriments

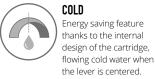
#### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



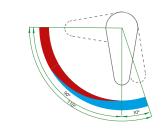
DUE Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.



#### ADVANTAGES

• COLD TECHNOLOGY

The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products.

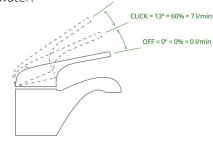


HOUSEHOLD ENERGY CONSUMPTION RELATED TO CARTRIDGES IN %

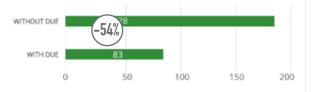


• DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows saving water.



DAILY AVERAGE WATER CONSUMPTION PER PERSON -FAUCETS & SHOWERS - IN LITERS







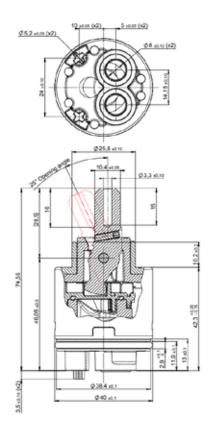


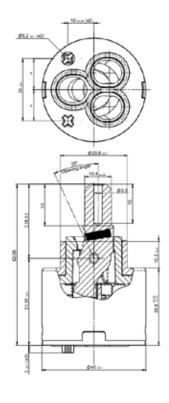


EN-40 S/D



#### DIMENSIONS







#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>30 bar	>30 bar
Life cycle NF-077 (U3)	175,000 cycles	175,000 cycles
Sensitivity (r=45 mm)	>10 mm	>10 mm
Fidelity	<5°	<5°
Max. hot water*	60-65 °C	60-65 °C

Operation Torque	C/D	S/D
Open-close	0.40-0.50 Nm	0.40-0.50 Nm
Turn left-right	0.40-0.50 Nm	0.40-0.50 Nm

Flow rate (free flow)	C/D	S/D
at 0,5 bar	4,7 l/min	4,3 l/min
at 1 bar	6,6 l/min	6,3 l/min
at 3 bar	11,8 l/min	11,4 l/min
at 5 bar	15 l/min	14,7 l/min

FLOW FIGURES AT COLD POSITION

# **STANDARD** EN-40 COLD MIRROR DUE

#### DESCRIPTION

Standard 40mm cartridge with C3 technology and mirror base to make it easier to fit in Kitchens, avoiding the handle touching the wall.

#### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### COLD

Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

#### **DUE** Water

Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.

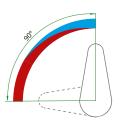
#### MIRROR

Movement from right to left o obtain hot water.

#### **ADVANTAGES**

• COLD TECHNOLOGY

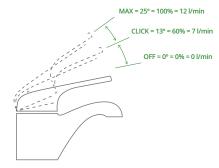
The lever is in cold position by default, saving up to 10% from the household energy consumption related to plumbing products.



 SPECIALLY DESIGNED FOR KITCHEN APPLICATIONS Mirror version has been specifically designed for kitchen applications, avoiding the inconvenience of the handle touching the wall.

#### DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows saving water.









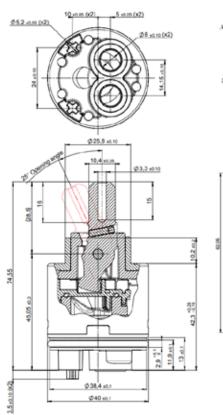


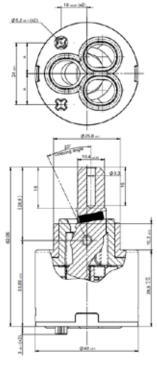
#### EN-40 S/D EC-40 COLD MIRROR DUE REF. 08EC4052001

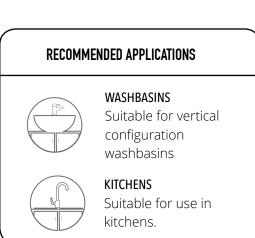


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#### DIMENSIONS







#### CERTIFICATIONS



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	110°	110°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	>12° angle	>12° angle
Fidelity	<2°C	<3°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.50 Nm	0.20-0.50 Nm
Turn left-right	0.20-0.50 Nm	0.20-0.50 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	8.4 l/min	7.6 l/min
at 1 bar	12 l/min	11 l/min
at 3 bar	20.8 l/min	20 l/min
at 5 bar	27 l/min	26.2 l/min

# **STANDARD CARTRIDGES**

**SN-40 C/D** REF.08SN40LAZ00







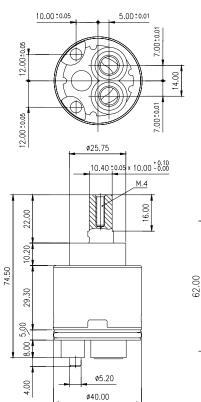
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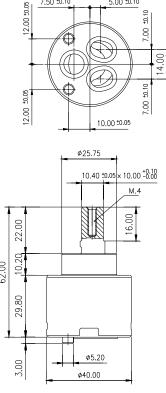
DATA SHEET

7.50 ±0.10

5.00 ±0.10

DIMENSIONS





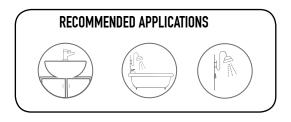
\* Find machinig requirements on pages 164-167.

#### DESCRIPTION

40 mm cartridge.

#### **ADVANTAGES**

The classic standard cartridge with SN technology. Ceramics discs do not move in close position providing a unique smoothness of operation and higher durability (up to 20% longer life).



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	CD	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	72 bar	68-77 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
Sensitivity	10°-12° angle	13°-15° angle
Fidelity	-	4.5 ℃
Max. hot water	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	11 l/min	11.1 l/min
at 1 bar	15.4 l/min	15.5 l/min
at 3 bar	26.4 l/min	26.8 l/min
at 5 bar	34.3 l/min	34.2 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.











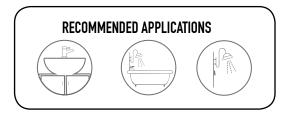


#### DESCRIPTION

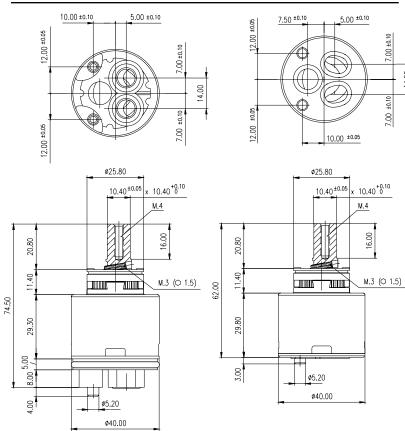
40 mm cartridge.

#### **ADVANTAGES**

Sedal standard cartridge includes flow and temperature limiters to save water and energy, offering an environmental sustainability feature.



#### DIMENSIONS



#### CERTIFICATIONS

7.00 ±0.10

7.00 ±0.10

14.00



General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	60-72 bar	55-65 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
Sensitivity	8°-10° angle	9.6° -9.7° angle
Fidelity	3℃	-
Max. hot water	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.35-0.40 Nm	0.35-0.40 Nm
Turn left-right	0.35-0.40 Nm	0.35-0.40 Nm

Flow rate (free flow)	CD	SD
at 0.5 bar	10.4 l/min	10.2 l/min
at 1 bar	14.5 l/min	14.5 l/min
at 3 bar	25.4 l/min	25 l/min
at 5 bar	32.8 l/min	32.2 l/min

# BASIC CARTRIDGES

#### DESCRIPTION

40mm basic cartridge with ACS certification and available with and without distributor. This Sedal valve is specially designed for washbasins, bath-showers and kitchen faucets.

#### **ADVANTAGES**

Entry-level product with Sedal high-reliability.





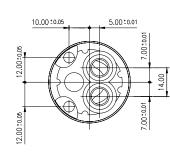


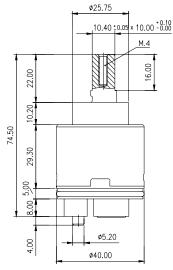


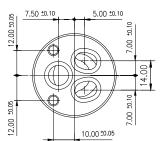


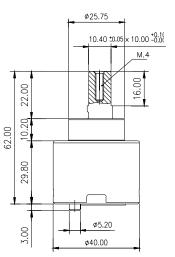
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#### DIMENSIONS









\* Find machinig requirements on pages 164-167.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	90°	90°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	35 bar	35 bar
Life cycle - EN 817 ASME 118.12.1 M	70,000 cycles 500,000 cycles	70,000 cycles 500,000 cycles
Sensitivity	15º-17º angle	16º-17º angle
Constant 63 °C & 50 °C (6 l/min - 3 l/min)	<0.5°C - <1.7°C	<0.8°C - <1.7°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.35-0.40 Nm	0.35-0.40 Nm
Turn left-right	0.35-0.40 Nm	0.35-0.40 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	10.6 l/min	10.4 l/min
at 1 bar	15 l/min	14.7 l/min
at 3 bar	26 l/min	25.5 l/min
at 5 bar	33.4 l/min	32.7 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

# SN-40 cartridges

#### DESCRIPTION

Ecoflow cartridges have been designed for applications where a low flow is required to fulfill the latest standards and market trends. The low flow that a manufacturer would normally reach with the use of restrictors, can reached by using the Ecoflow cartridge with an aireator, suppressing the negative effects of the current solutions. The Ecoflow 40 is specifically designed to deliver 7.7 liters @3 bar without using restrictors. It also includes a clutch for a perfect operational feel and a high maximum torque resistance to withstand harsh environments.

#### FEATURES



This cartridge is optimized according to WaterSense and Water Label requirements.



SOFT

Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.



**RESTRICTOR** The cartridge includes itself a restrictor that reduces the flow rate to

save water.

#### ADVANTAGES

SN TECHNOLOGY

Ceramics discs do not move in close position providing a unique smoothness of operation and higher durability (up to 20% longer life)

#### IMPROVED FLOW-RATE VS HANDLE STROKE

Existing solutions offer a very limited opening stroke to regulate the flow. With ECOFLOW, the entire stroke is available.

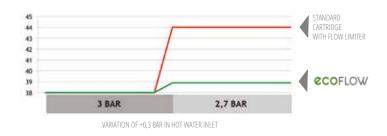




ECOFLOW CARTRIDGE MAX. FLOW: 6/L MIN WITH ECOFLOW

#### REDUCES TEMPERATURE FLUCTUATION

When using a flow limiter in the spout combined with standard cartridges, the user can experience strong changes in water temperature. The new ECOFLOW Tech valves provide an excellent temperature stability in front of pressure variations in cold and hot water supply lines at low flow rates.



THE USAGE OF A RESTRICTOR IS OPTIONAL

The flow rate reduction is carried out at the right place. With ECOFLOW the usage of a limiter or restrictor is optional.

SN-40 C/D ECOFLOW REF.085N40L0003



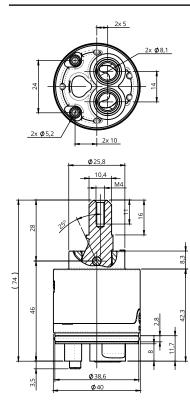


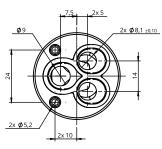


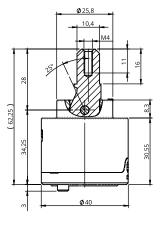


DOWNLOAD DATA SHEET

#### DIMENSIONS









#### CERTIFICATIONS



\* Optimised for WaterSense and WaterLabel

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>70-80 bar	>60-70 bar
Life cycle - EN 817 ASME 112.18.1 M	70,000 cycles 500,000 cycles	70,000 cycles 500,000 cycles
Sensitivity	>11-13 mm	>11-13 mm
Fidelity	<3°	<3°
Constant 63 ℃ & 50 ℃ (6 l/min - 3 l/min)	<4°C - <6°C	<4°C - <6°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Flow rate (free flow)	C/D	S/D
at 0.1 bar	1.5 l/min	1.5 l/min
at 1 bar	4.5 l/min	4.5 l/min
at 3 bar	7.7 l/min	7.7 l/min
at 5 bar	9.6 l/min	9.6 l/min

# HIGH FLOW GC-40 THEDRA

#### DESCRIPTION

40mm high flow cartridge with a unique clean and smart design that confers an undeniable ability to withstand the most extreme working conditions and requests: compression, torque, handle load, burst and x2 life cycles, granting smooth but firm user operation thanks to Glide Feel Technology.

#### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



SUFI Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.



#### TEMPERATURE LIMITER

Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



#### FLOW LIMITER Limit maximum water flow for water saving.

#### **ADVANTAGES**

• SN TECHNOLOGY

Ceramics discs do not move in close position providing a unique smoothness of operation and higher durability (up to 20% longer life).

#### CHALLENGE, TECHNOLOGY

Careful design, ceramic expertise, several smart technologies, high performance materials and extraordinarily precise components are used to build the new THEDRA cartridges.

• GREAT RANGE. GREATER POSSIBILITIES

THEDRA valve range provides more than 20 different combinations for the manufacturers to develop their products.

• OUT OF SOLID ROCK

THEDRA is designed according to the roughest manufacturer's technical requests.

• ENJOY THE SILENCE

THEDRA is NF Class I compliant, featuring Sedal's Noise Cancelling Technology.

DOUBLE LIFE-CYCLE

The new THEDRA cartridge has 2 times ASME life cycles thanks to SedalOX<sup>™</sup> 96.

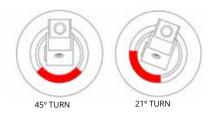
#### • UNEQUAL DESIGN, UNEQUAL RESULTS

THEDRA was granted with reddot award in 2016.

#### • VERSIONS WITH LIMITERS

#### TEMPERATURE LIMITER FUNCTION (TR)

GC-40 Thedra cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.





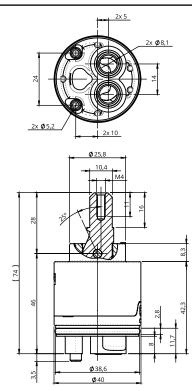
**GC-40 S/D** *THEDRA* REF. 08GC4050001

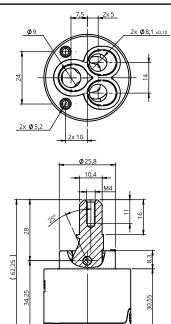


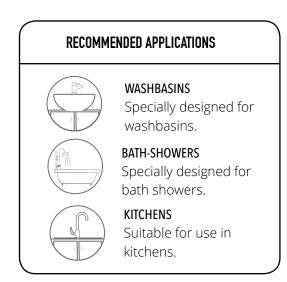
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OTHER VERSIONS	CD	SD
Temperature limiter (TR)	REF.08GC40L0501	REF.08GC40S0501
Temperature & flow limiter (TRN)	REF.08GC40L4501	REF. 08GC40S4501

#### DIMENSIONS







#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>50 bar	>50 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	10-13° angle	10-13° angle
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Flow rate (free flow)	C/D	S/D
at 0.2 bar	8.9 l/min	8.1 l/min
at 1 bar	20 l/min	17.4 l/min
at 3 bar	34.4 l/min	30.4 l/min
at 5 bar	42.8 l/min	39.2 l/min

# **HIGH FLOW** GC-40 THEDRA DUE

#### DESCRIPTION

40mm cartridge with a unique clean and smart design that confers an undeniable ability to withstand the most extreme working conditions and requests: compression, torque, handle load, burst and x2 life cycles, granting smooth but firm user operation thanks to Glide Feel Technology. It includes DUE technology for water saving and TR version.

#### **ADVANTAGES**

ADDITIONAL FEATURES

GC-40 Thedra Due has the same advantages than GC-40 Thedra, but with due technology as an additional feature.

#### FEATURES



Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

Up to 40% softer lever

cartridges thanks to a clutched ceramic operation design.

operation than standard

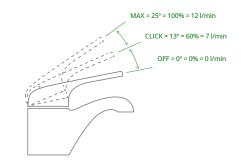


DUE

Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.



Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows saving up to 54% of daily water consumption.



**GC-40 C/D** THEDRA DUE REF. on demand



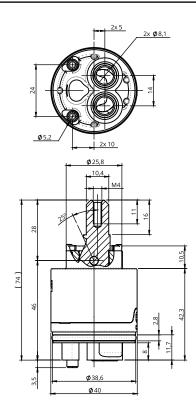


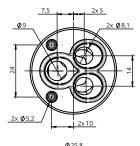


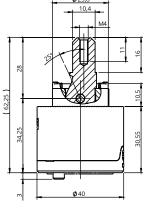


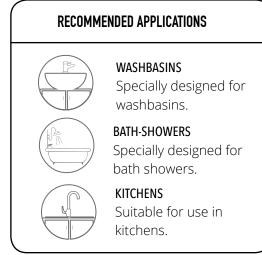
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#### DIMENSIONS









#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	60-70 bar	60-70 bar
Life cycle - EN 817 NF U3	175,000 cycles	175,000 cycles
x2 ASME	1,000,000 cycles	1,000,000 cycles
x2 GB18145	140,000 cycles	140,000 cycles
Sensitivity	10-13° angle	10-13° angle
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.20-0.40 Nm	0.20-0.40 Nm
Turn left-right	0.20-0.40 Nm	0.20-0.40 Nm

Flow rate (free flow)	C/D	S/D
at 0.2 bar	8.9 l/min	8.1 l/min
at 1 bar	20 l/min	17.4 l/min
at 3 bar	34.4 l/min	30.4 l/min
at 5 bar	42.8 l/min	39.2 l/min

## HIGH FLOW GC-45

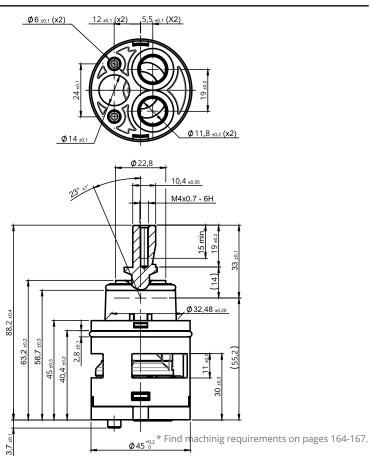
## GC-45 S/D

REF. 08GC45FBE00





#### DIMENSIONS



#### DESCRIPTION

45mm high flow cartridge.

SOFT

#### FEATURES



Up to 40% softer lever operation than standard cartridges thanks to a clutched ceramic operation design.

#### ADVANTAGES

#### MAXIMUM FLOW RATE

This cartridges ensure maximum flow rate even at low pressure applications.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	S/D
Nut torque pitch M1.5	10-12Nm
Opening angle	23°
Rotation angle	100°
Working pressure	1 - 5 bar
(recommended)	
Burst pressure	>35 bar
Life cycle - EN 817	70,000 cycles
x2 ASME 112.18.1 M	500,000 cycles
Max. hot water*	90 °C

Operation Torque	S/D
Open-close	0.25-0.35 Nm
Turn left-right	0.40-0.50 Nm

Flow rate (free flow)	S/D
at 0.5 bar	18 l/min
at 1 bar	24.8 l/min
at 3 bar	43.2 l/min
at 5 bar	55.3 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

# REVOLVING **GI-40**

#### DESCRIPTION

Revolving cartridges include a turning lever in order to mix water and provide better control of the flow rate.

#### FEATURES



REVOLVING This cartridge has a

Cartridges identified

sustainability feature.

with an ECO icon offer at least one environmental

ECO



METALLIC LEVER This revolving cartridge has metallic lever

**TEMPERATURE LIMITER** Limit maximum

temperature in 7 selectable stops for energy saving and to avoid scalding.



Energy saving feature thanks to the internal design of the cartridge, flowing cold water when the lever is centered.

#### **ADVANTAGES**

• 180° ROTATION ANGLE

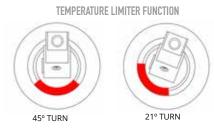
40mm revolving cartridge has a rotation angle of 180° from cold to hot.

EASY REVOLVING MOVEMENT

Smooth revolving movement for a comfort operation to the user.

#### TR TECHNOLOGY

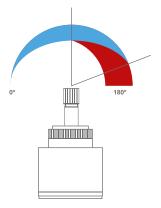
The TR technology allows energy saving thanks to temperature limiters. It also enables an anti-scalding safety feature. This function allows limiting maximum temperature in 7 selectable stops.



position	15° I/min	65° I/min	°C 3bar
1	16	4	26°
2	12,5	7,5	35°
3	9	11	43°
4	5	15	50°
5	2	18	56°
6	1	19	61°
7	0	20	65°

#### COLD TECHNOLOGY

The cartridge starts in cold position by default, saving energy consumption related to plumbing products in the household.



HOUSEHOLD ENERGY CONSUMPTION RELATED TO CARTRIDGES IN %











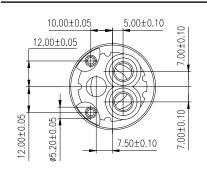
GI-40 S/D

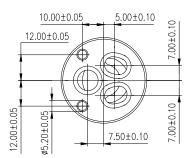
110 TR

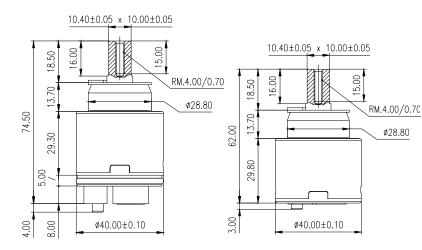
REF. 08GI40FBE64



#### DIMENSIONS











**DECORATIVE WASHBASINS** Specially designed for decorative faucets.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

C/D	S/D
10-12Nm	10-12Nm
180°	180°
1 - 5 bar	1 - 5 bar
40-45 bar	40-45 bar
200,000 cycles	200,000 cycles
500,000 cycles	500,000 cycles
90 °C	90 °C
	10-12Nm 180° 1 - 5 bar 40-45 bar 200,000 cycles 500,000 cycles

Operation Torque	C/D	S/D
Turn left-right	0.20-0.22 Nm	0.20-0.22 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	9.4 l/min	9.5 l/min
at 1 bar	13.2 l/min	13.2 l/min
at 3 bar	23 l/min	22.8 l/min
at 5 bar	29.4 l/min	29.4 l/min

\* Find machinig requirements on pages 164-167.

## REVOLVING GI-40









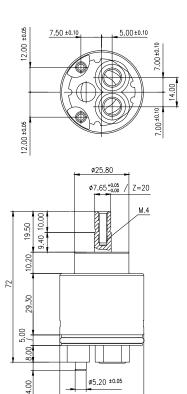
GI-40 S/D

720

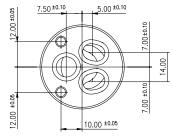
REF. 08GI40FBE00

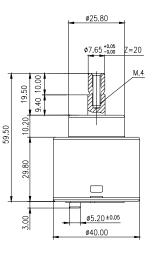


#### DIMENSIONS



ø40.00





#### DESCRIPTION

40 mm revolving cartridges with a turning lever in order to mix water and provide better control of the flow rate.

#### **ADVANTAGES**

BRASS OR PLASTIC SHAFT

Cartridge available with plastic or metal shaft, depending on the application.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Rotation angle	180°	180°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	45-50 bar	45-50 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Turn left-right	0.20-0.22 Nm	0.20-0.22 Nm
Flow rate (free flow)	C/D	S/D
at 0.5 bar	9.4 l/min	9.5 l/min
at 1 bar	13.2 l/min	13.2 l/min
at 3 bar	23 l/min	22.8 l/min
at 5 bar	29.4 l/min	29.4 l/min





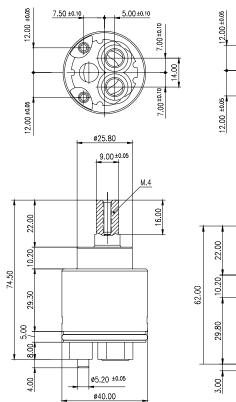


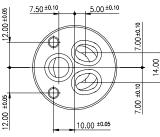




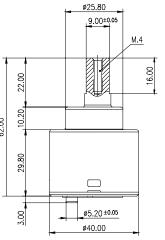


#### DIMENSIONS





5.00 ±0.10



\* Find machinig requirements on pages 166-169.

#### DESCRIPTION

40 mm revolving cartridges with a turning lever in order to mix water and provide better control of the flow rate.

#### **ADVANTAGES**

#### BRASS OR PLASTIC SHAFT

Cartridge available with plastic or metal shaft, depending on the application.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12Nm	10-12Nm
Rotation angle	180°	180°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	45-50 bar	45-50 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
x2 ASME 112.18.1 M	500,000 cycles	500,000 cycles
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	S/D
Turn left-right	0.20-0.22 Nm	0.20-0.22 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	9.4 l/min	9.5 l/min
at 1 bar	13.2 l/min	13.2 l/min
at 3 bar	23 l/min	22.8 l/min
at 5 bar	29.4 l/min	29.4 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

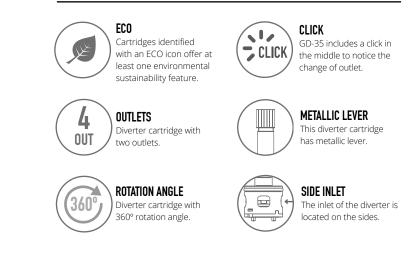
## DIVERTER GD-40 4

#### DESCRIPTION

The GD40 S/D 4 diverter from Sedal is a high end 35mm valvewith four outlets that provides smooth operation along with a defined feeling of safety and precision thanks to the metallic lever and a high precision ceramic set.

The operation torque has been improved while keeping a small footprint. Works perfectly paired with our TM001 Thermostatic cartridge for showers.

#### FEATURES



#### **ADVANTAGES**

SURPASSES CONVENTIONAL DURABILITY STANDARDS
 Extended life time thanks to a high grade ceramic set made in our Technical Ceramics facilities. The metal lever improves the user perception of quality and precision in a small cartridge.

#### ROBUST DESIGN

GD-40 has a robust design, withstanding higher levels of burst pressure.

#### • HIGHER FLOW RATE

The GD40 has a high flow rate @3 bar, allowing to build body showers with 2 outlets providing a positive user experience while assuring an ecologic water consumption.

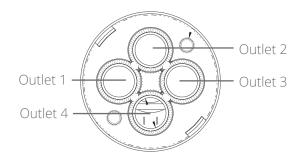
#### • 3 DIFFERENT SHAFTS LENGHT AVAILABLE

The GD40 is available with three different shaft lenghts to fullfill any manufacturer requirements.

Total Height (mm)	
53.8 mm	
66.3 mm	
82 mm	

#### DIVERTER FUNCTIONALITY

This cartridge fits specially good in bath showers because allows to have four different outlets. Mixed water enters inlet on the side and exits either outlet 1, 2, 3 or 4.



**40MM CARTRIDGES** 

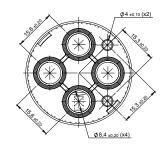
## GD-40 S/D 4

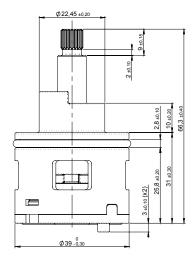
REF. 08GD40S0001





#### DIMENSIONS





#### \* Find machinig requirements on pages 164-167.

#### **RECOMMENDED APPLICATIONS**



## SHOWERS DIVERTERS Specially designed for

showers with diverters.

#### **TECHNICAL SPECIFICATIONS**

General	S/D
Nut torque pitch M1.5	10-12 Nm
Rotation angle	>360°
Working pressure	1 - 5 bar
(recommended)	
Burst pressure	>35 bar
Life cycle - EN 817	30,000 cycles
NF077	30,000 cycles
Max. hot water*	90 °C
	•

Operation Torque	S/D
Turn left-right	0.15-0.45 Nm
OUTLET SELECTOR (Torque	0.10-0.20 Nm
increment)	0.10-0.20 NIII

Flow rate (free flow)	S/D
at 0.5 bar	7.9 l/min
at 1 bar	16 l/min
at 3 bar	27.6 l/min
at 5 bar	35.3 l/min

# JOYSTICK JY-40

#### DESCRIPTION

Joystick cartridges have a similar functionality as standard cartridges, although the special design of their levers allows smooth 360° movements.

Very popular in some countries, Joystick cartridges provide a natural movement especially with vertical levers.

The JY40 from Sedal is a very robust Joystick cartridge specially developed for faucets or cascade tap designs.

#### FEATURES



JOYSTICK Joystick cartridge with smooth 360° movement. **METALLIC LEVER** This joystick cartridge has metallic lever

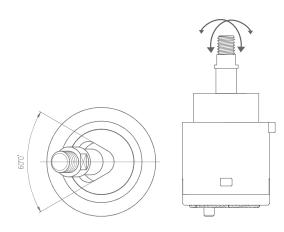
#### **ADVANTAGES**

• SMOOTH FEELING

40mm joystick has a very smooth operational feeling that gives comfort to the user.

#### • NEW CERAMICS DISC GEOMETRY

JY-40 has a new ceramics disc geometry that allows its smooth 360° movement.



#### ROBUST DESIGN

40mm joystick has a robust design, withstanding higher levels of burst pressure.

HIGHER FLOW RATE

JY-40 has higher flow rates than previous versions.







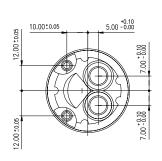


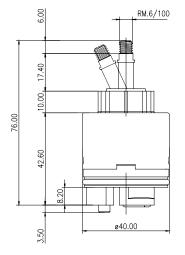
JY-40 S/D

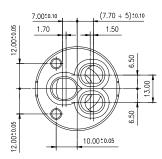
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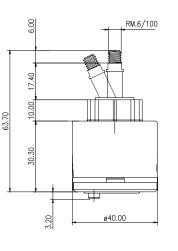
DOWNLOAD DATA SHEET

#### DIMENSIONS









#### RECOMMENDED APPLICATIONS



WASHBASINS Specially designed for washbasins.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	C/D	S/D
Nut torque pitch M1.5	10-12 Nm	10-12 Nm
Opening angle	25°C	25°C
Rotation angle	90°	90°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	30-35 bar	30-35 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
ASME 112.18.1 M	70,000 cycles	70,000 cycles
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	S/D
Open-close	0.32-0.38 Nm	0.32-0.38 Nm
Turn left-right	0.35-0.42 Nm	0.35-0.42 Nm

Flow rate (free flow)	C/D	S/D
at 0.5 bar	10.3 l/min	10 l/min
at 1 bar	14.5 l/min	13.7 l/min
at 3 bar	24.9 l/min	23.6 l/min
at 5 bar	31.8 l/min	30.5 l/min

# PRESSURE BALANCE PB-40

#### DESCRIPTION

Pressure balance cartridges include a special mechanical device that detects pressure variations in water inlets, ensuring temperature stability. Particularly suited for applications in which water pressure is unstable.

#### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

TEMPERATURE LIMITER Limit maximum temperature in 7 selectable stops for energy saving and to avoid scalding.



FLOW LIMITER Limit maximum water flow for water saving.



AVOIDS PRESSURE VARIATIONS

Pressure balance cartridges have a special base with a cylinder and a piston that moves according to pressure variations to keep the water temperature stable and avoid the annoying changes of temperature when showering.





Balanced pressure When the water pressure is stable, the piston inside the cilinder is located in the middle of the cartridge

Hot water pressure When the hot water enters the cartridge with more pressure than the cold, the piston moves to the right to close the inlet of hot water until it equals to the pressure of cold water.

Cold water pressure When the cold water enters the cartridge with more pressure than the hot, the piston moves to the left to close the inlet

of cold water until

it equals to the

pressure of hot

water.

#### SECURITY

TRN version has a safety anti-scalding feature.

#### • COMPATIBILITY

PBs are compatible with standard and upper sealing versions.

#### • VERSIONS WITH LIMITERS

TEMPERATURE LIMITER FUNCTION (TR)

PB-40 cartridge has an optional ring called TR that allows limiting maximum temperature in 7 selectable stops, enabling an anti-scalding safety feature.



	position	15° I/min	65° I/min	
/	1	16	4	Γ
	2	12,5	7,5	Γ
/	3	9	11	
	4	5	15	Γ
	5	2	18	
	6	1	19	
	7	0	20	

°C 3bar 26° 35° 43° 50°

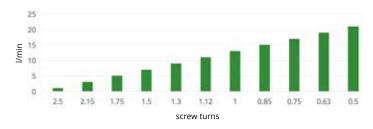
61°

#### **TEMPERATURE & FLOW LIMITER FUNCTION (TRN)**

TRN technology, in addition to limit temperature, allows water saving at the same time thanks to a flow limiter.



The flow can be limited thanks to the screw located in the cartridge lever. By turning the screw, the flow obtained will be reduced, **saving up to 22% of daily water consumption**.



## PB-40 C/D



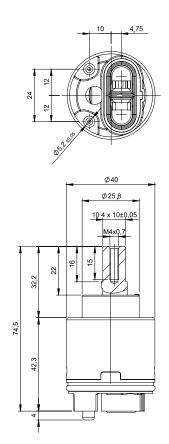
#### **OTHER VERSIONS**

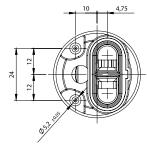
Temperature & flow limiter (TRN)

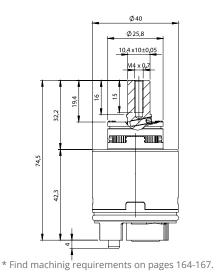
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REF.08PB40L4602

#### DIMENSIONS







 RECOMMENDED APPLICATIONS

 WASHBASINS
 Specially designed for washbasins.

 BATH-SHOWERS
 Specially designed for bath showers.

 KITCHENS
 Suitable for use in kitchens.

#### CERTIFICATIONS



\* Except PB-40 C/D (without TRN)

#### **TECHNICAL SPECIFICATIONS**

General	C/D	C/D TRN
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	23.5°
Rotation angle	100°	100°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>35 bar	>35 bar
Life cycle - EN 817 NF U3	70,000 cycles	70,000 cycles
Sensitivity (r=45mm)	>12° angle	>12° angle
Fidelity	<5°C	<5°C
Max. hot water*	90 °C	90 °C

<b>Operation Torque</b>	C/D	C/D TRN
Open-close	0.35-0.45 Nm	0.35-0.45 Nm
Flow rate (free flow)	C/D	C/D TRN
at 0.5 bar	6.5 l/min	6.5 l/min
at 1 bar	9.1 l/min	9.1 l/min
at 3 bar	15.8 l/min	15.8 l/min
at 5 bar	20.3 l/min	20.3 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

# UPPER SEALING G-40

#### DESCRIPTION

Upper sealed cartridges allow the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side. Some of these cartridges also provide extra productivity thanks to their design.

#### FEATURES



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

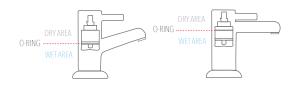


DUE

Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.

#### **ADVANTAGES**

 ALLOWS DIFFERENT FAUCET CONFIGURATIONS Allows the manufacturer to work with different faucet configurations, including those in which the spout is located on the upper side.

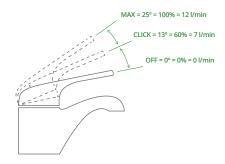


#### • COMPATIBILITY

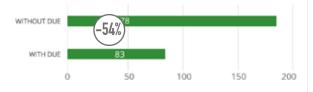
Lower sealing compatible with standard 40mm available.

#### DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows saving water.



DAILY AVERAGE WATER CONSUMPTION PER PERSON ·FAUCETS & SHOWERS · IN LITERS



## G-40 C/D

#### REF. 08G40LBE00



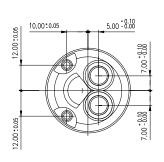


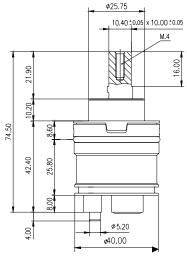


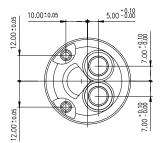


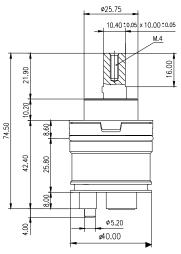
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#### DIMENSIONS









\* Find machinig requirements on pages 164-167.



#### CERTIFICATIONS

I



#### **TECHNICAL SPECIFICATIONS**

General	C/D	C/D DUE
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	25°	25°
Rotation angle	100°	100°
Working pressure	1 - 5 bar	1 - 5 bar
(recommended)		
Burst pressure	>25 bar	>25 bar
Life cycle - EN 817	70,000 cycles	70,000 cycles
ASME 112.18.1 M	500,000 cycles	500,000 cycles
Sensitivity (r=45mm)	9° angle	9° angle
Max. hot water*	90 °C	90 °C

Operation Torque	C/D	C/D DUE
Open-close	0.30-0.40 Nm	0.30-0.40 Nm
Turn left-right	0.35-0.45 Nm	0.35-0.45 Nm

Flow rate (free flow)	C/D	C/D DUE
at 0.5 bar	10.8 l/min	10.8 l/min
at 1 bar	15.1 l/min	15.1 l/min
at 3 bar	25.9 l/min	25.9 l/min
at 5 bar	33.5 l/min	33.5 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

## COMPACT EX-40

#### DESCRIPTION

Compact 40 mm cartridge allows the manufacturer for short faucets.

#### FEATURES



Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

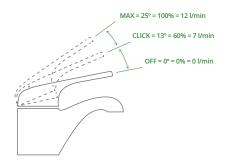
**DUE** Water flow optimization thanks to a mid-way stop at 60% of the lever stroke that provides up to 50% water saving.

#### **ADVANTAGES**

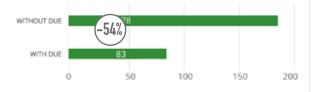
 MINIMALISM WITH HIGH PERFORMANCE Compact cartridges allow the manufacturer to create minimalistic faucets without giving up the high-performance features of the cartridges

#### • DUE TECHNOLOGY

Easier control of water flow thanks to Due technology, which presents a slight resistance to indicate that the fitting is using approximately a 50% of its flow. This feature allows saving water.



DAILY AVERAGE WATER CONSUMPTION PER PERSON -FAUCETS & SHOWERS - IN LITERS



EX-40

#### REF. 08EX40S0001



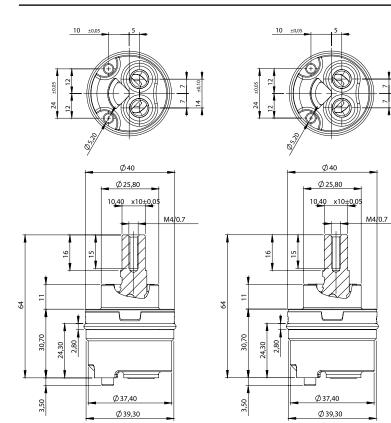


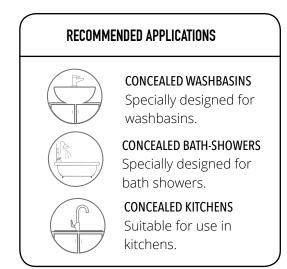




DOWNLOAD DATA SHEET

#### DIMENSIONS





#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

EX-40	EX-40 DUE
10-12Nm	10-12Nm
24°	24°
90°	90°
1 - 5 bar	1 - 5 bar
>50 bar	>50 bar
70,000 cycles	70,000 cycles
14-16° angle	14-16° angle
90 °C	90 °C
	10-12Nm 24° 90° 1 - 5 bar >50 bar 70,000 cycles 14-16° angle

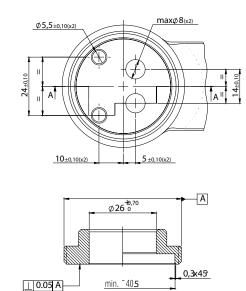
Operation Torque	EX-40	EX-40 DUE
Open-close	0.28-0.32 Nm	0.28-0.32 Nm
Turn left-right	0.13-0.25 Nm	0.13-0.25 Nm
Saving device (DUE)	-	0.60-0.90 Nm

Flow rate (free flow)	EX-40	EX-40 DUE
at 0.5 bar	10.7 l/min	10.7 l/min
at 1 bar	15.1 l/min	15.1 l/min
at 3 bar	26 l/min	26 l/min
at 5 bar	33.6 l/min	33.6 l/min

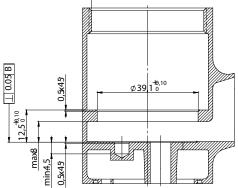
# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS

MACHINING TIP

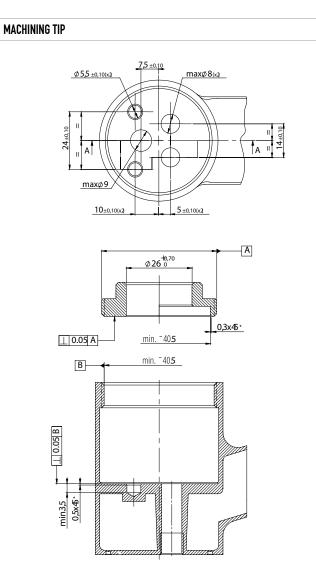
DIAMETER	CARTRIDGE	REFERENCE	PAGE
	SN-40 C/D THEDRA	08SN40L0001	122
	SN-40 C/D THEDRA DUE	08SN40L3001	124
	SN-40 C/D THEDRA COLD	08SN40L1501	126
	SN-40 C/D THEDRA COLD DUE	08SN40L5501	128
	EN-40 C/D	08EN40LAZ00	130
	E-40 C/D C1	08EN40L1002	132
	E-40 C/D C2	08EN40L3005	133
	EN-40 C/D COLD DUE	08EC40L3003	134
	EN-40 C/D COLD MIRROR DUE	08EC40L2001	136
40	SN-40 C/D	08SN40LAZ00	138
40 mm	TRN-40 C/D	08RN40LVE00	139
	DN-40 C/D BG BASIC	08DN40LBG01	140
	SN-40 C/D ECOFLOW	08SN40L0003	142
	GC-40 C/D THEDRA	08GC40L0001	144
	GC-40 C/D THEDRA DUE	ON DEMAND	146
	GI-40 C/D L10 TR	08GI40LBE64	150
	GI-40 C/D Z20	08GI40LBE00	152
	GI-40 C/D L10	08GI40LBE10	153
	JY-40 C/D	08JY40LBE00	156
	PB-40 C/D	08PB40L0001	158



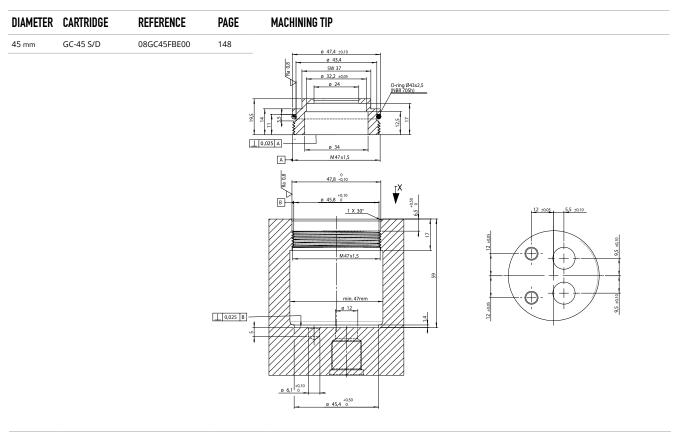




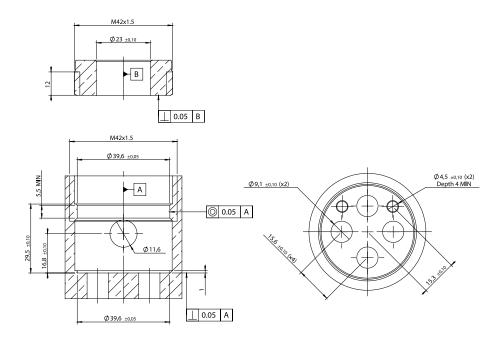
DIAMETER	CARTRIDGE	REFERENCE	PAGE
	SN-40 S/D THEDRA	08SN40S0001	122
	SN-40 S/D THEDRA DUE	08SN40S3001	124
	SN-40 S/D THEDRA COLD	08SN40S1501	126
	SN-40 S/D THEDRA COLD DUE	08SN40S5501	128
	EN-40 S/D	08EN40FAZ00	130
	E-40 S/D DUE	08E40FAZ30	131
	E-40 C/D C1	08EN40S1002	132
	E-40 C/D C2	08EN40S3005	133
	EN-40 S/D COLD DUE	08EC40S3003	134
10	EN-40 S/D MIRROR DUE	08EC40S2001	136
40 mm	SN-40 S/D	08SN40SAZ00	138
	TRN-40 S/D	08RN40FVE00	139
	DN-40 S/D BG BASIC	08DN40FBG01	140
	SN-40 S/D ECOFLOW	08SN40S0004	142
	GC-40 S/D THEDRA	08GC40S0001	144
	GC-40 S/D THEDRA DUE	ON DEMAND	146
	GI-40 S/D L10 TR	08GI40FBE64	150
	GI-40 S/D Z20	08GI40FBE00	152
	GI-40 S/D L10	08GI40FBE10	153
	JY-40 S/D	08JY40FBE00	156

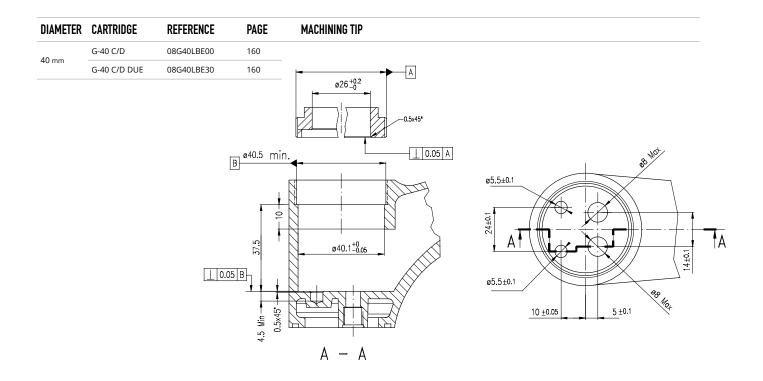


# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS

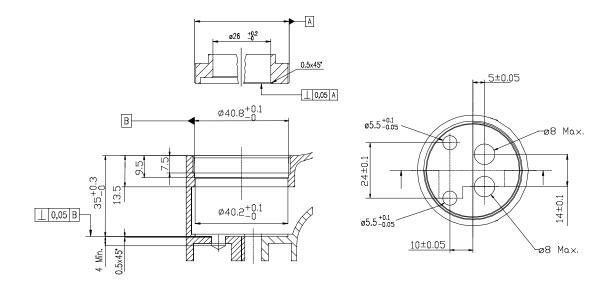


DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP
40 mm	GD-40 S/D 4	08GD40S0001	154	





DIAMETER	CARTRIDGE	REFERENCE	PAGE
40 mm	EX-40	08EX40S0001	162
40 mm	EX-40 DUE	08EX40S3001	162



# THERMOSTATIC CARTRIDGES

SEDAL'S thermostatic cartridges provide fast response, high reliability and anti-scalding safety features thanks to the combination of materials, design and high quality sensors.



DETAILS*	TM001 STD	TM001 HP	TM001 C	TM001 BASIC	TM006	TM006 CLICK	TM006 BASIC
Flow rate * (Free flow) at 3 bar	23 l/min	23 l/min	26 l/min.	22 l/min	21 l/min	21 l/min	20 l/min
Flow rate * (RhC) at 3bar	20,5 l/min	20,5 l/min	21 l/min	20 l/min	-	-	-
Flow rate * (RhA) at 3bar	13,5 l/min	13,5 l/min	13,5 l/min	13,5 l/min	13 l/min	13 l/min	12,5 l/min
Burst pressure	25 bar.	35 bar.	35 bar.	25 bar.	35 bar.	35 bar.	25 bar.
Durability	100.000 cycles	100.000 cycles	100.000 cycles	50.000 cycles	100.000 cycles	100.000 cycles	50.000 cycles
STANDARD**	TM001 STD	TM001 HP	ТМ001 С	TM001 BASIC	TM006	TM006 CLICK	TM006 BASIC
EN-1111	•	•	•	•	•	•	•
ASSE 1016	-	•	•	-	•	•	
GB QB/T2806	•	•	•	-	•	•	•
SANITARY CERTIFICATION**	TM001 STD	TM001 HP	ТМ001 С	TM001 BASIC	TM006	TM006 CLICK	TM006 BASIC
ACS	•	•	•	•	•	•	•
WRAS	•	•	•	-	•	•	-
KTW (4MS)	•	•	•	-	•	•	-
NSF	•	•	•	-	•	•	-

\* Tested at Sedal's lab with Sedal's standard faucet
\*\* Different references. The compliance of standards does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

# THERMOSTATIC TM001

#### DESCRIPTION

Standard thermostatic cartridges complying with EN-1111 specifications for shower and bath appliances.

With a life cycle of 50,000 cycles, it suits all the design and quality requirements of the market, providing high reliability and high response, with specific anti-scalding safety measures.

#### FEATURES



THERMOSTATIC Thermostatic functions allow water delivery at the desired temperature.

LEAD FREE

Suitable for low-lead applications.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### **ADVANTAGES**

#### TEMPERATURE CONTROL

TM001 is a thermostatic regulation system that allows the user to set and easily adjust the desired temperature of the shower, while ensuring the steadiest mixed outlet water temperature. This control of the outlet temperature also allows an anty-scalding safety feature for the maximum comfort to the user.

#### • ANTI-SCALDING FEATURE

This thermostatic cartridge allows an antiscalding safety feature for the maximum comfort to the user. In case of cold water supply failure, the valve automatically shutdowns the waterflow.

#### BURST PRESSURE

Withstands a burst pressure up to 25bar.

#### HIGH STABILITY MATERIALS

High stability thermoplastic materials help reducing limescale.

#### LEAD FREE

Lead free and chloramine resistant options.

#### DIFFERENT CERTIFIED VERSIONS

We have adapted our TM001 materials to create new versions according to 4MS, NSF, ACS, WRAS or KTW regulation in acceptance of metallic materials used for products in contact with drinking water, using authorised materials.

DOUBLE LIFE CYCLE

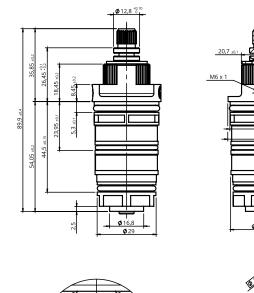
TM001 has 2x EN-1111 cycles, allowing the cartridge and the system to have a longer life.

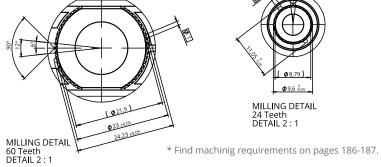
## TM001 REF.07TM00100 (STD)

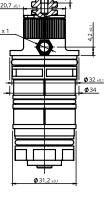


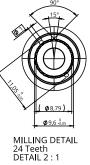


#### DIMENSIONS









#### **RECOMMENDED APPLICATIONS**



#### **BATH-SHOWERS**

Specially designed for bath showers.

#### **CERTIFICATIONS**\*



#### **TECHNICAL SPECIFICATIONS**

General	TM001 / TM001 4MS
Standards *	EN-1111
Stanuarus "	GB QB/T2806
Burst pressure	>25 bar
2x Life cycle - EN-1111	100,000 cycles
Max. hot water	90°C
Noise level	18.8 - 21.1 dB
Operation torque	TM001 / TM001 4MS

Operation torque	TM001 / TM001 4MS
Turn left-right	0.10 - 0.35 Nm
Sensitivity (36-40°C) (handle 20mm)	14 mm
Cold water supply failure test	Perfect cutting

Flow rate (free flow)	TM001 / TM001 4MS
at 0.1 bar	6 l/min
at 0.5 bar	10 l/min
at 3 bar	23 l/min
at 5 bar	29 l/min

\* Different references. The compliance of standards does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

# THERMOSTATIC TM001 HP

#### DESCRIPTION

Thermostatic cartridge specially designed for burst pressure withstand minimum 35 bar. This cartridge is EN-1111 standard compliant.

#### FEATURES



**THERMOSTATIC** Thermostatic functions allow water delivery at the desired temperature.

**LEAD FREE** Suitable for low-lead applications.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.



#### TEMPERATURE CONTROL

TM001 HP is a thermostatic regulation system that allows the user to set and easily adjust the desired temperature of the shower, while ensuring the steadiest mixed outlet water temperature. This control of the outlet temperature also allows an antyscalding safety feature for the maximum comfort to the user.

#### ANTI-SCALDING FEATURE

This thermostatic cartridge allows an antiscalding safety feature for the maximum comfort to the user. In case of cold water supply failure, the valve automatically shutdowns the waterflow.

#### BURST PRESSURE

Withstands a burst pressure up to 35bar.

#### HIGH STABILITY MATERIALS

High stability thermoplastic materials help reducing limescale.

#### LEAD FREE

Lead free and chloramine resistant options.

#### DIFFERENT CERTIFIED VERSIONS

We have adapted our TM001 materials to create new versions according to 4MS, NSF, ACS, WRAS or KTW regulation in acceptance of metallic materials used for products in contact with drinking water, using authorised materials.

#### • HIGH PRESSURE VERSIONS

We have created an special TM001 cartridge for highpressure applications.

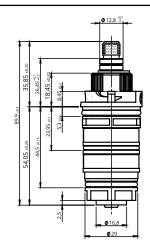
#### • DOUBLE LIFE CYCLE

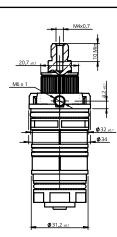
TM001 HP has 2x EN-1111 cycles, allowing the cartridge and the system to have a longer life.

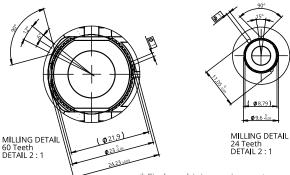
## TM001 HP REF.07TM0102 (STD)



#### DIMENSIONS







#### **RECOMMENDED APPLICATIONS**



#### BATH-SHOWERS

Specially designed for bath showers.

#### **CERTIFICATIONS**\*



#### **TECHNICAL SPECIFICATIONS**

General	TM001 HP/ NSF/ 4MS
	EN-1111
Standards*	ASSE#1016
	GB QB/T2806
Burst pressure	>35 bar
2x Life cycle - EN-1111	100,000 cycles
ASSE#1016	100,000 cycles
Max. hot water	90°C
Noise level	18.8 - 21.1 dB
	· · · · · · · · · · · · · · · · · · ·

Operation torque	TM001 HP/ NSF/ 4MS
Turn left-right	0.10 - 0.35 Nm
Sensitivity (36-40°C) (handle 20mm)	14 mm
Cold water supply failure test	Perfect cutting

Flow rate (free flow)	TM001 HP / NSF/ 4MS
at 0.1 bar	6 l/min
at 0.5 bar	10 l/min
at 3 bar	23 l/min
at 5 bar	29 l/min

\* Different references. The compliance of standards does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

# THERMOSTATIC TM001 LP

#### DESCRIPTION

Thermostatic cartridges specially designed for 0,2 to 1 bar low pressure applications. This cartridge is complying with EN-1111 and with a life cycle of 50,000 cycles.

#### FEATURES



THERMOSTATIC Thermostatic functions allow water delivery at the desired temperature.

**LEAD FREE** Suitable for low-lead applications.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### **ADVANTAGES**

#### TEMPERATURE CONTROL

TM001 LP is a thermostatic regulation system that allows the user to set and easily adjust the desired temperature of the shower, while ensuring the steadiest mixed outlet water temperature. This control of the outlet temperature also allows an antyscalding safety feature for the maximum comfort to the user.

#### • ANTI-SCALDING FEATURE

This thermostatic cartridge allows an antiscalding safety feature for the maximum comfort to the user. In case of cold water supply failure, the valve automatically shutdowns the waterflow.

#### BURST PRESSURE

Withstands a burst pressure up to 25bar.

#### HIGH STABILITY MATERIALS

High stability thermoplastic materials help reducing limescale.

#### LEAD FREE

Lead free and chloramine resistant options.

#### DIFFERENT CERTIFIED VERSIONS

We have adapted our TM001 LP materials to create new versions according to 4MS, NSF, ACS, WRAS or KTW regulation in acceptance of metallic materials used for products in contact with drinking water, using authorised materials.

• LOW PRESSURE VERSIONS

We have created an special TM001 LP cartridge for lowpressure applications.

#### DOUBLE LIFE CYCLE

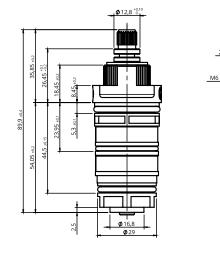
TM001 LP has 2x EN-1287 cycles, allowing the cartridge and the system to have a longer life.

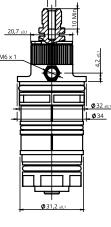
## TM001 LP REF.07TM0131

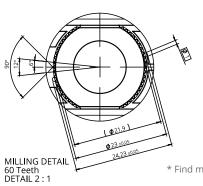




#### DIMENSIONS







MILLING DETAIL 24 Teeth DETAIL 2 : 1

#### **RECOMMENDED APPLICATIONS**



### BATH-SHOWERS

Specially designed for bath showers.

#### **CERTIFICATIONS\***



#### **TECHNICAL SPECIFICATIONS**

General	TM001 / TM001 4MS
Standards *	EN-1287
Burst pressure	>25 bar/min
Life cycle - EN-1287	50,000 cycles
Max. hot water	90°C
Noise level	18.8 - 21.1 dB
Operation torque	TM001 / TM001 4MS
Turn left-right	Max. 0.35 Nm
Sensitivity (36-40°C) (handle 20mm)	20 mm
Cold water supply failure test	Perfect cutting
Flow rate (free flow)	TM001 / TM001 4MS
	4614 3

Flow rate (free flow)	TM001 / TM001 4MS
at 0.6 bar	16 l/min
at 3 bar	34 l/min

\* Different references. The compliance of standards does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

\* Find machinig requirements on pages 186-187.

# THERMOSTATIC TM001 BASIC

#### DESCRIPTION

Basic thermostatic cartridge, combining entrylevel product with high-reliability.

#### FEATURES



**THERMOSTATIC** Thermostatic functions allow water delivery at the desired temperature.

**LEAD FREE** Suitable for low-lead applications.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### **ADVANTAGES**

TEMPERATURE CONTROL

TM001 BASIC is a thermostatic regulation system that allows the user to set and easily adjust the desired temperature of the shower, while ensuring the steadiest mixed outlet water temperature. This control of the outlet temperature also allows an antyscalding safety feature for the maximum comfort to the user.

#### • ANTI-SCALDING FEATURE

This thermostatic cartridge allows an antiscalding safety feature for the maximum comfort to the user. In case of cold water supply failure, the valve automatically shutdowns the waterflow.

- BURST PRESSURE
   Withstands a burst pressure up to 25bar.
- HIGH STABILITY MATERIALS
   High stability thermoplastic materials help reducing limescale.
- LEAD FREE

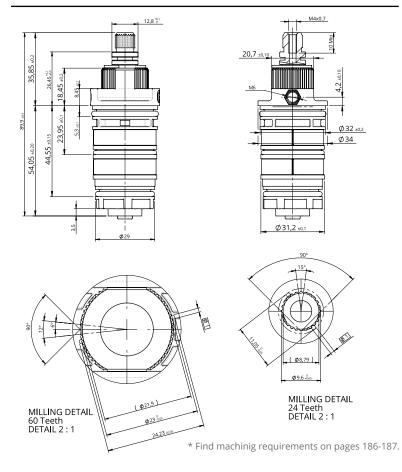
Lead free and chloramine resistant options.







#### DIMENSIONS



#### **RECOMMENDED APPLICATIONS**



#### BATH-SHOWERS

Specially designed for bath showers.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	TM001 BASIC
Standards*	EN-1111
	GB QB/T2806
Burst pressure	>25 bar
Life cycle - EN-1111	50,000 cycles
Max. hot water	90°C
Noise level	18.8 - 21.1 dB
Operation torque	TM001 BASIC
Operation torque Turn left-right	TM001 BASIC 0.10 - 0.35 Nm
Turn left-right	0.10 - 0.35 Nm
Turn left-right Sensitivity (36-40°C) (handle 20mm)	0.10 - 0.35 Nm 14 mm
Turn left-right Sensitivity (36-40°C) (handle 20mm)	0.10 - 0.35 Nm 14 mm
Turn left-right Sensitivity (36-40°C) (handle 20mm) Cold water supply failure test	0.10 - 0.35 Nm 14 mm Perfect cutting

at 3 bar	22 l/min
at 5 bar	29 l/min
* Different references. The compliance of standards does not only depend on the thermostatic cartridge	

does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

# THERMOSTATIC TM001 C

#### DESCRIPTION

Its reduced length makes it perfect to fit wallmounted installations, without giving up any of the standard high- performance features and certifications.

#### FEATURES



THERMOSTATIC Thermostatic functions allow water delivery at the desired temperature.

LEAD FREE Suitable for low-lead applications.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### **ADVANTAGES**

#### TEMPERATURE CONTROL

TM001 C is a thermostatic regulation system that allows the user to set and easily adjust the desired temperature of the shower, while ensuring the steadiest mixed outlet water temperature. This control of the outlet temperature also allows an anty-scalding safety feature for the maximum comfort to the user.

#### ANTI-SCALDING FEATURE

This thermostatic cartridge allows an antiscalding safety feature for the maximum comfort to the user. In case of cold water supply failure, the valve automatically shutdowns the waterflow.

#### BURST PRESSURE

Withstands a burst pressure up to 35bar.

#### • HIGH STABILITY MATERIALS

High stability thermoplastic materials help reducing limescale.

#### • LEAD FREE

Lead free and chloramine resistant options.

#### DIFFERENT CERTIFIED VERSIONS

We have adapted our TM001 materials to create new versions according to 4MS, NSF, ACS, WRAS or KTW regulation in acceptance of metallic materials used for products in contact with drinking water, using authorised materials.

#### CONCEALED VERSION

TM001 C reduced lenght makes it easier to fit in concealed applications and the manufacturer has wider design options.

#### DOUBLE LIFE CYCLE

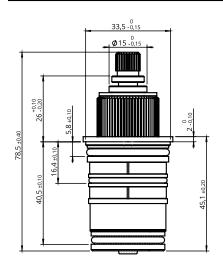
TM001 C has 2x EN-1111 cycles, allowing the cartridge and the system to have a longer life.

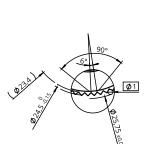
## **TM001 C** REF.07TM0112 (STD)



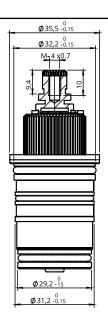


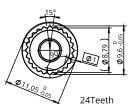
#### DIMENSIONS





60Teeth





\* Find machinig requirements on pages 186-187.

#### **RECOMMENDED APPLICATIONS**



#### BATH-SHOWERS

Specially designed for bath showers.

#### CERTIFICATIONS\*



#### **TECHNICAL SPECIFICATIONS**

General	TM001 C
	EN-1111
Standards*	ASSE#1016
	GB QB/T2806
Burst pressure	>35 bar
2x Life cycle - EN-1111	100,000 cycles
ASSE#1016	100,000 cycles
Max. hot water	90°C

Operation torque	ТМ001 С
Turn left-right	0.30 - 0.50 Nm
Sensitivity (36-40°C) (handle 20mm)	15 mm
Cold water supply failure test	Perfect cutting

Flow rate (free flow)	TM001 C
at 0.1 bar	4.5 l/min
at 0.5 bar	10 l/min
at 3 bar	26 l/min
at 5 bar	33 l/min

\* Different references. The compliance of standards does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

## THERMOSTATIC TM006

#### DESCRIPTION

Standard thermostatic cartridges with smaller diameter for compact shower bodies, complying with EN-1111 specifications. With a life cycle of 50,000 cycles, it suits all the design and quality requirements of the market, providing high reliability and high response, with specific anti-scalding safety measures.

#### FEATURES





Suitable for low-lead

LEAD FREE

applications.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### **ADVANTAGES**

TEMPERATURE CONTROL

TM006 is a thermostatic regulation system that allows the user to set and easily adjust the desired temperature of the shower, while ensuring the steadiest mixed outlet water temperature.

#### ANTI-SCALDING FEATURE

This thermostatic cartridge allows an antiscalding safety feature for the maximum comfort to the user. In case of cold water supply failure, the valve automatically shutdowns the waterflow.

#### BURST PRESSURE

Withstands a burst pressure up to 35bar.

#### • HIGH STABILITY MATERIALS

High stability thermoplastic materials help reducing limescale.

#### • LEAD FREE

Lead free and chloramine resistant options.

#### SLIM VERSION

TM006 reduced diameter makes it easier to fit in slim applications and the manufacturer has wider design options.

#### DIFFERENT CERTIFIED VERSIONS

We have adapted our TM006 materials to create new versions according to 4MS, NSF, ACS, WRAS or KTW regulation in acceptance of metallic materials used for products in contact with drinking water, using authorised materials.

#### DOUBLE LIFE CYCLE

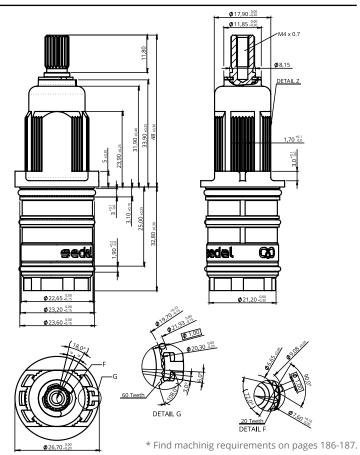
TM006 has 2x EN-1111 cycles, allowing the cartridge and the system to have a longer life.

#### **TM006** REF.07TM0101 (STD)



DOWNLOAD DATA SHEET

#### DIMENSIONS



#### **RECOMMENDED APPLICATIONS**



#### BATH-SHOWERS

Specially designed for bath showers.

#### **CERTIFICATIONS**\*



#### **TECHNICAL SPECIFICATIONS**

General	TM006/ NSF/ 4MS
	EN-1111
Standards*	ASSE#1016
	GB QB/T2806
Burst pressure	>35 bar
2x Life cycle - EN-1111	100,000 cycles
ASSE#1016	100,000 cycles
Max. hot water	90°C
Noise level	17.8 - 21.1 dB

Operation torque	TM006/ NSF/ 4MS
Turn left-right	0.03 - 0.18 Nm
Sensitivity (36-40°C) (handle 20mm)	27-31 mm
Cold water supply failure test	Perfect cutting

Flow rate (free flow)	TM006 / TM001 4MS
at 0.1 bar	3 l/min
at 0.5 bar	7.8 l/min
at 3 bar	21 l/min
at 5 bar	26.4 l/min

\* Different references. The compliance of standards does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

## THERMOSTATIC **TM006 K**

#### DESCRIPTION

Thermostatic cartridge with an axial click system, which allows high precision movement of the handle. This cartridge has been designed according to EN-1111 and NF-1111 standards.

#### FEATURES





LEAD FREE Suitable for low-lead applications.

Thermostatic functions allow water delivery at the desired temperature.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### **ADVANTAGES**

TEMPERATURE CONTROL

TM006 K is a thermostatic regulation system that allows the user to set and easily adjust the desired temperature of the shower, while ensuring the steadiest mixed outlet water temperature. This control of the outlet temperature also allows an anty-scalding safety feature for the maximum comfort to the user.

#### ANTI-SCALDING FEATURE

This thermostatic cartridge allows an antiscalding safety feature for the maximum comfort to the user. In case of cold water supply failure, the valve automatically shutdowns the waterflow.

#### BURST PRESSURE

Withstands a burst pressure up to 35bar.

#### HIGH STABILITY MATERIALS

High stability thermoplastic materials help reducing limescale.

#### LEAD FREE

Lead free and chloramine resistant options.

#### DIFFERENT CERTIFIED VERSIONS

We have adapted our TM006 materials to create new versions according to 4MS, NSF, ACS, WRAS or KTW regulation in acceptance of metallic materials used for products in contact with drinking water, using authorised materials.

SLIM VERSION

TM006 K reduced diameter makes it easier to fit in slim applications and the manufacturer has wider design options.

CLICK VERSION

The TM006 K includes a click on the lever that indicates to the user the change of the set temperature.

DOUBLE LIFE CYCLE

TM006 K has 2x EN-111 cycles, allowing the cartridge and the system to have a longer life.

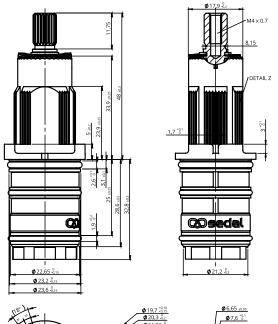
## TM006 K

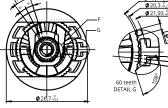
REF.07TM0608 (STD)





#### DIMENSIONS







#### **RECOMMENDED APPLICATIONS**



#### BATH-SHOWERS

Specially designed for bath showers.

#### **CERTIFICATIONS**\*



#### **TECHNICAL SPECIFICATIONS**

General	ТМ006 К
	EN-1111
Standards*	ASSE#1016
	GB QB/T2806
Burst pressure	>35 bar
2x Life cycle - EN-1111	100,000 cycles
ASSE#1016	100,000 cycles
Max. hot water	90°C
Noise level	17.8 - 21.1 dB
	·

Operation torque	ТМ006 К
Turn left-right	0.03 - 0.18 Nm
Sensitivity (36-40°C) (handle 20mm)	27-31 mm
Cold water supply failure test	Perfect cutting

Flow rate (free flow)	ТМ006 К
at 0.1 bar	3 l/min
at 0.5 bar	7.8 l/min
at 3 bar	21 l/min
at 5 bar	26.4 l/min

\* Different references. The compliance of standards does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

## THERMOSTATIC TM006 BASIC

#### DESCRIPTION

Smaller basic thermostatic cartridge, combining entry-level product with high-reliability.

#### FEATURES

THERMOSTATIC Thermostatic functions allow water delivery at the desired temperature.

**LEAD FREE** Suitable for low-lead applications.



ECO Cartridges identified with an ECO icon offer at least one environmental sustainability feature.

#### ADVANTAGES

#### • TEMPERATURE CONTROL

TM006 BASIC is a thermostatic regulation system that allows the user to set and easily adjust the desired temperature of the shower, while ensuring the steadiest mixed outlet water temperature. This control of the outlet temperature also allows an antyscalding safety feature for the maximum comfort to the user.

#### ANTI-SCALDING FEATURE

This thermostatic cartridge allows an antiscalding safety feature for the maximum comfort to the user. In case of cold water supply failure, the valve automatically shutdowns the waterflow.

#### BURST PRESSURE

Withstands a burst pressure up to 25bar.

#### • HIGH STABILITY MATERIALS

High stability thermoplastic materials help reducing limescale.

#### • LEAD FREE

Lead free and chloramine resistant options.

#### • SLIM VERSION

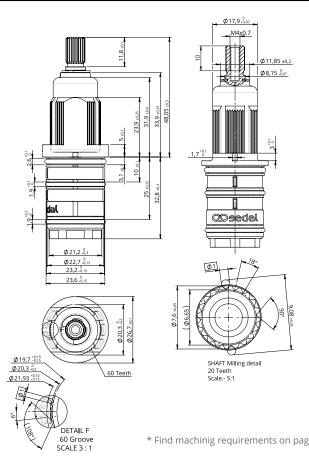
TM006 BASIC reduced diameter makes it easier to fit in slim applications and the manufacturer has wider design options.







#### DIMENSIONS



#### **RECOMMENDED APPLICATIONS**



#### **BATH-SHOWERS** Specially designed for bath showers.

#### **CERTIFICATIONS**\*

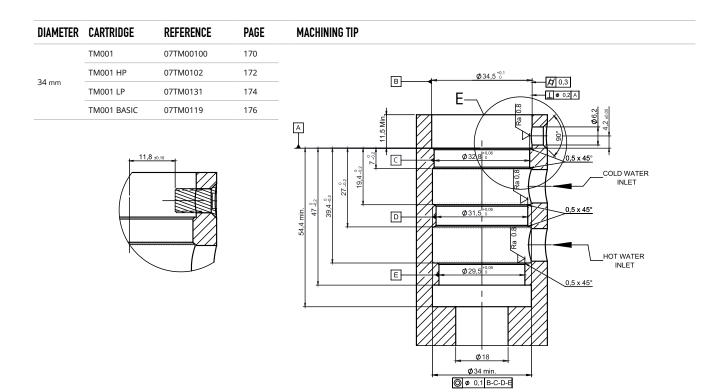


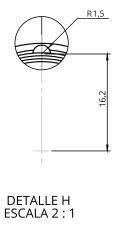
#### **TECHNICAL SPECIFICATIONS**

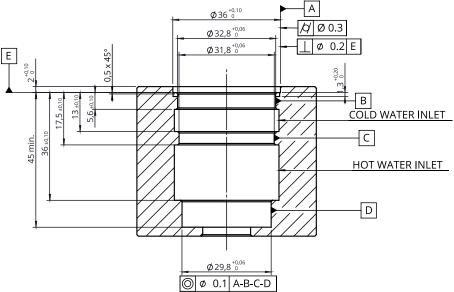
General	TM006/ NSF/ 4MS		
Standards*	EN-1111		
Stanuarus"	GB QB/T2806		
Burst pressure	>25 bar		
Life cycle - EN-1111	50,000 cycles		
Max. hot water	90°C		
Noise level	17.8 - 21.1 dB		
Operation torque	TM006/ NSF/ 4MS		
Turn left-right	0.03 - 0.18 Nm		
Sensitivity (36-40°C) (handle 20mm)	18-21 mm		
Cold water supply failure test	Perfect cutting		
Flow rate (free flow)	TM006 / TM001 4MS		
at 0.1 bar	3 l/min		
at 0.5 bar	7 l/min		
at 3 bar	20 l/min		
at 5 bar	26.4 l/min		

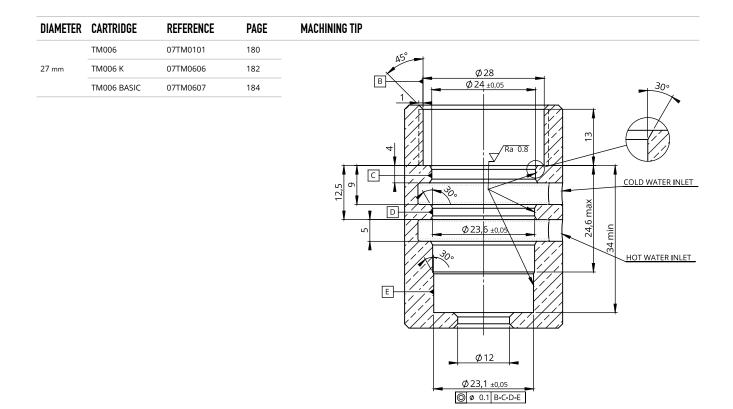
\* Different references. The compliance of standards does not only depend on the thermostatic cartridge but also on the construction of the faucet body and other elements.

## **MACHINING REQUIREMENTS** *CHART OF MACHINING REQUIREMENTS*











# CERAMIC HEADWORKS

Complete range of ceramic headworks with plastic, brass or inox bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow. Plastic versions are suitable for low-lead applications.

## BRASS HEADWORKS

## 19MC 90°

#### DESCRIPTION

Complete range of ceramic headworks with brass bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

#### ADVANTAGES

- LONG LIFE YCLE
   1.000.000 ASME cycles life test.
- COMPLETE RANGE
   Complete range of ceramic and conventional headworks.

#### BODY MATERIALS

High-resistant thermoplastics, brass and stainless steel bodies available.

#### • VERSIONS

Right and left to close versions and different rotation angles (90° and 180°)

#### FEATURES



**ROTATION ANGLE** Headwork with 90° rotation angle.

#### • DIFFERENT LENGTH SHAFTS

Sedal offers a wide range of length shafts that the client can customize depending on its needs. It is also possible to design other shaft geometries.

#### OEM CUSTOMIZATION

Sedal offers to the manufacturer the possibility of designing and producing OEM headworks that meet their specific requirements and needs.

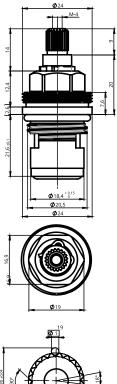
## 19MC 90°

#### REF.19MC01 (right·blue) REF.19MC04 (left·red)





#### DIMENSIONS





REF.19MC09L19



#### **RECOMMENDED APPLICATIONS**

#### WASHBASINS

Specially designed for washbasins.

#### **BATH-SHOWERS**



Specially designed for bath showers.

KITCHENS Suitable for use in kitchens.

#### CERTIFICATIONS



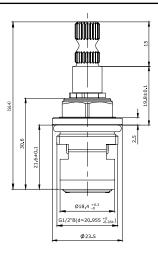
#### **TECHNICAL SPECIFICATIONS**

General	19MC 90°	19MC 90° 2S
Installation torque (recommended)	10-12 Nm	10-12 Nm
Rotation angle	90°	90°
Working pressure (recommended)	1-5 bar	1-5 bar
Pressure resistance - ASME A 112	35 bar	35 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 200 ASME A112	200,000 cycles 500,000 cycles	200,000 cycles 500,000 cycles
Max. hot water	90°C	90°C

<b>Operation Torque</b>	19MC 90°	19MC 90° 2S
Turn left-right	0.100-0.200 Nm	0.100-0.200 Nm

Flow rate (free flow)	19MC 90°	19MC 90° 2S
at 0.1 bar	3.8 l/min	3.8 l/min
at 1 bar	13.5 l/min	13.5 l/min
at 3 bar	23.9 l/min	23.9 l/min
at 5 bar	30.8 l/min	30.8 l/min

Milling detail Z=20 teeth





DETAIL OF MILLED 20 TEETH E 5:1

## BRASS **HEADWORKS**

19MC 90° REF.19MC090L20 REF.19MC090R29

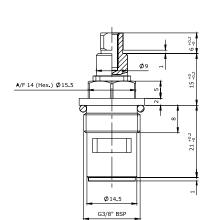


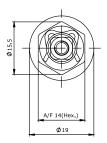


REF.19MC090R64

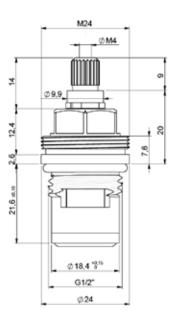


#### DIMENSIONS





Closing direction 019



#### DESCRIPTION

Complete range of ceramic headworks with brass bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

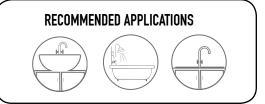
#### FEATURES



**ROTATION ANGLE** Headwork with 90° rotation angle.

#### ADVANTAGES

Sedal offers a wide range of length shafts that the client can customize depending on ots needs. It is also possible to design other shaft geometries.



#### CERTIFICATIONS

at 5 bar



#### **TECHNICAL SPECIFICATIONS**

General	19MC 90° SQ	19MC 90° 3/4
Installation torque (recommended)	10-12 Nm	10-12 Nm
Rotation angle	90°	90°
Working pressure (recommended)	1-5 bar	1-5 bar
Pressure resistance - EN 200	25 bar	25 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
Max. hot water	90°C	90°C
<b>Operation Torque</b>	19MC 90° SQ	19MC 90° 3/4
Turn left-right	0.100-0.200 Nm	0.100-0.200 Nm

Flow rate (free flow)	19MC 90° SQ	19MC 90° 3/4
at 0.1 bar	2.7 l/min	4.4 l/min
at 1 bar	10.9 l/min	14.5 l/min
at 3 bar	18.5 l/min	25.9 l/min

\* Find machinig requirements on page 201. Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet

25 l/min

**19MC 90°** *C* REF.19MC090L21

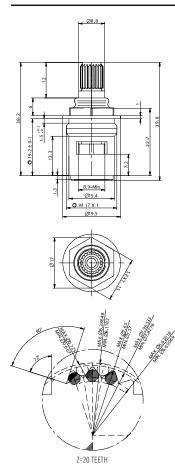
### **19MC 90°** WH

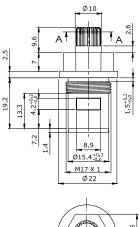
REF.19MC090R30

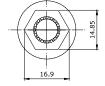


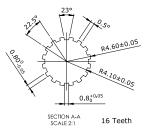


#### DIMENSIONS









#### DESCRIPTION

Complete range of ceramic headworks with brass bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

#### FEATURES



ROTATION ANGLE Headwork with 90° rotation angle.

#### ADVANTAGES

Sedal offers a wide range of length shafts that the client can customize depending on ots needs. It is also possible to design other shaft geometries.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	19MC 90° C	19MC 90° WH
Installation torque (recommended)	10-12 Nm	10-12 Nm
Rotation angle	90°	90°
Working pressure (recommended)	1-5 bar	1-5 bar
Pressure resistance - EN 200	25 bar	25 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
Max. hot water	90°C	90°C

<b>Operation Torque</b>	19MC 90° C	19MC 90° WH
Turn left-right	0.100-0.200 Nm	0.100-0.200 Nm

Flow rate (free flow)	19MC 90° C	19MC 90° WH
at 0.1 bar	3 l/min	3 l/min
at 1 bar	11.8 l/min	11.8 l/min
at 3 bar	21.7 l/min	21.7 l/min
at 5 bar	28.1 l/min	28.1 l/min

## BRASS HEADWORKS

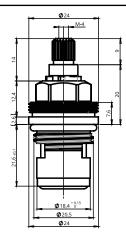
## 19MC 180°

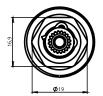
REF. 19MC03 (Right-Blue) REF. 19MC05 (Left-Red)

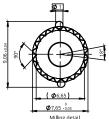




#### DIMENSIONS







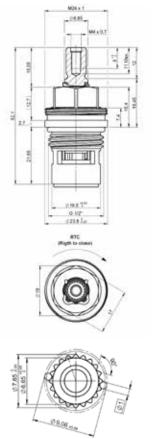
194

## 19MC 2 180°

REF. 19MC018R08







DETAIL 20 TEETH SCALE 4 : 1

#### DESCRIPTION

Complete range of ceramic headworks with brass bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

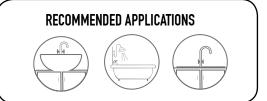
#### FEATURES



**ROTATION ANGLE** Headwork with 180° rotation angle.

#### ADVANTAGES

Sedal offers a wide range of length shafts that the client can customize depending on ots needs. It is also possible to design other shaft geometries.



#### CERTIFICATIONS



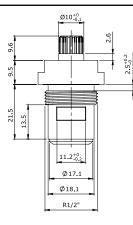
#### **TECHNICAL SPECIFICATIONS**

General	19MC 180°	19MC 2 180°
Installation torque (recommended)	10-12 Nm	10-12 Nm
Rotation angle	180°	180°
Working pressure (recommended)	1-5 bar	1-5 bar
Pressure resistance - ASME A 112	35 bar	35 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
ASME A112	500,000 cycles	500,000 cycles
Max. hot water	90°C	90°C
<b>Operation Torque</b>	19MC 180°	19MC 2 180°
Turn left-right	0.100-0.200 Nm	0.100-0.200 Nm
Flow rate (free flow)	19MC 180°	19MC 2 180°
at 0.1 bar	3.8 l/min	5.8 l/min
at 1 bar	13.5 l/min	13.6 l/min
at 3 bar	23.9 l/min	24.0 l/min
at 5 bar	30.8 l/min	-

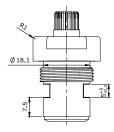




#### DIMENSIONS







#### DESCRIPTION

Complete range of ceramic headworks with chromed brass bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

#### FEATURES



ROTATION ANGLE Headwork with 90° rotation angle.

#### **ADVANTAGES**

Sedal offers a wide range of length shafts that the client can customize depending on ots needs. It is also possible to design other shaft geometries.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	19MC 90° FH
Installation torque	10-12 Nm
(recommended)	10-12 1111
Rotation angle	90°
Working pressure	1-5 bar
(recommended)	1-5 081
Pressure resistance -	25 bar
ASME A 112	25 041
Burst pressure	-
Life cycle - EN 200	200,000 cycles
ASME A112	200,000 Cycles
Max. hot water	90°C
Operation Torque	19MC 90° FH
Turn left-right	0.100-0.200 Nm
Flow rate (free flow)	19MC 90° FH
at 0.1 bar	3.8 l/min
at 1 bar	13.5 l/min
at 3 bar	23.9 l/min
at 5 bar	30.8 l/min

## **BRASS** CONVENTIONAL HEADWORKS

#### DESCRIPTION

Complete range of conventional headworks with brass bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

#### ADVANTAGES

Sedal offers a wide range of length shafts that the client can customize depending on ots needs. It is also possible to design other shaft geometries.

#### FEATURES



CONVENTIONAL HEADWORK Headwork with conventional movement

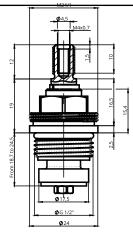
## **19MN**

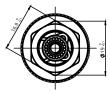
REF. 19MN01

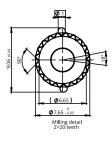


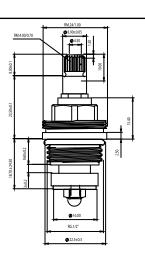


#### DIMENSIONS





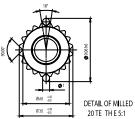


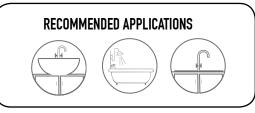


**19MN** 

LS REF. 19MN015







#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	19MN	19MN LS
Installation torque (recommended)	10-12 Nm	10-12 Nm
Working pressure (recommended)	1-5 bar	1-5 bar
Pressure resistance - EN 200	25 bar	25 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 200	200,000 cycles	200,000 cycles
Max. hot water	90°C	90°C

<b>Operation Torque</b>	19MN	19MN LS
Turn left-right	0.100-0.200 Nm	0.100-0.200 Nm

Flow rate (free flow)	19MN	19MN LS
at 0.1 bar	4.5 l/min	4.5 l/min
at 1 bar	16.3 l/min	16.3 l/min
at 3 bar	29 l/min	29 l/min
at 5 bar	35.5 l/min	35.5 l/min

RECOMME	NDED APPLIC	ATIONS
NH I		

## STAINLESS STEEL HEADWORKS

## 19MC 90°

#### DESCRIPTION

Complete range of ceramic headworks with stainles steel bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

#### **ADVANTAGES**

- LONG LIFE YCLE
   500.000 ASME cycles life test.
- COMPLETE RANGE
   Complete range of ceramic and conventional headworks.

#### BODY MATERIALS

High-resistant thermoplastics, brass and stainless steel bodies available.

#### • VERSIONS

Right and left to close versions and different rotation angles (90° and 180°)

#### FEATURES



**ROTATION ANGLE** Headwork with 90° rotation angle.

#### DIFFERENT LENGTH SHAFTS

Sedal offers a wide range of length shafts that the client can customize depending on its needs. It is also possible to design other shaft geometries.

#### OEM CUSTOMIZATION

Sedal offers to the manufacturer the possibility of designing and producing OEM headworks that meet their specific requirements and needs.



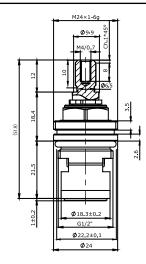




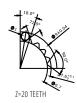


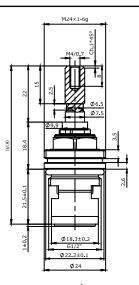


#### DIMENSIONS

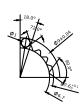












#### **TECHNICAL SPECIFICATIONS**

General	19MC 90° IX	19MC 90° IX LS
Installation torque (recommended)	10-12 Nm	10-12 Nm
Rotation angle	90°	90°
Working pressure (recommended)	1-5 bar	1-5 bar
Pressure resistance - ASME A 112	35 bar	35 bar
Burst pressure	>50 bar	>50 bar
Life cycle - EN 200 ASME A112	200,000 cycles 500,000 cycles	200,000 cycles 500,000 cycles
Max. hot water	90°C	90°C

<b>Operation Torque</b>	19MC 90° IX	19MC 90° IX LS
Turn left-right	0.100-0.200 Nm	0.100-0.200 Nm

Flow rate (free flow)	19MC 90° IX	19MC 90° IX LS
at 0.1 bar	3.8 l/min	3.8 l/min
at 1 bar	13.5 l/min	13.5 l/min
at 3 bar	23.9 l/min	23.9 l/min
at 5 bar	30.8 l/min	30.8 l/min

## PLASTIC HEADWORKS

## 19MCP 90°

#### DESCRIPTION

Complete range of ceramic headworks with plastic bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

#### FEATURES



LEAD FREE Suitable for low-lead



**ROTATION ANGLE** Headwork with 90° rotation angle.

#### **ADVANTAGES**

- LONG LIFE YCLE
   1.000.000 ASME cycles life test.
- COMPLETE RANGE

Complete range of ceramic and conventional headworks.

BODY MATERIALS

High-resistant thermoplastics, brass and stainless steel bodies available.

#### • LEAD FREE

Chloramine resistant lead free brass body and stem options. Plastic versions are suitable for low-lead applications.

#### VERSIONS

Right and left to close versions and different rotation angles (90° and 180°)

#### • DIFFERENT LENGTH SHAFTS & GEOMETRIES

Sedal offers a wide range of length shafts that the client can customize depending on its needs. It is also possible to design other shaft geometries.

#### OEM CUSTOMIZATION

Sedal offers to the manufacturer the possibility of designing and producing OEM headworks that meet their specific requirements and needs.

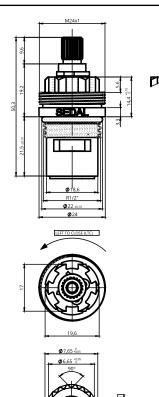
## 19MCP 90°

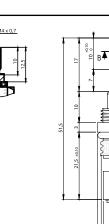
REF.19MCP90R01 (right·blue) REF.19MCP90L01 (left·red)





#### DIMENSIONS



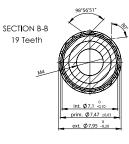


Ø18,4 RG 1/2" x 14 - B Ø22,

19MCP 90°

REF.19MCP90R18 (right·blue)

REF.19MCP90L13 (left·red)



#### **RECOMMENDED APPLICATIONS**



### washbasins.

WASHBASINS

**BATH-SHOWERS** Specially designed for bath showers.

Specially designed for

### KITCHENS



Suitable for use in

#### CERTIFICATIONS



\* Ready for KTW

#### **TECHNICAL SPECIFICATIONS**

General	19MCP 90°	19MCP 90° LS	
Installation torque (recommended)	8-10 Nm	8-10 Nm	
Rotation angle	90°	90°	
Working pressure (recommended)	1-5 bar	1-5 bar	
Pressure resistance - ASME A 112	35 bar	35 bar	
Life cycle - EN 200 ASME A112	200,000 cycles 500,000 cycles	200,000 cycles 500,000 cycles	
Max. hot water	90°C	90°C	

<b>Operation Torque</b>	19MCP 90°	19MCP 90° LS
Turn left-right	0.100-0.200 Nm	0.100-0.200 Nm

Flow rate (free flow)	19MCP 90°	19MCP 90° LS	
at 0.1 bar	3.6 l/min	3.6 l/min	
at 1 bar	12.7 l/min	12.7 l/min	
at 3 bar	22.4 l/min	22.4 l/min	
at 5 bar	29.1 l/min	29.1 l/min	

## PLASTIC HEADWORKS

## 19MCP 180°

REF.19MCP18R01 (right·blue) REF.19MCP18L01 (left·red)



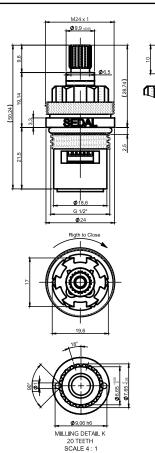
REF.19MCP18R09 (right·blue) REF.19MCP18L04 (left·red)

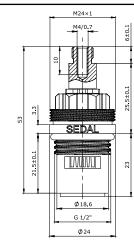


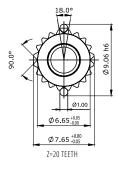




#### DIMENSIONS







#### DESCRIPTION

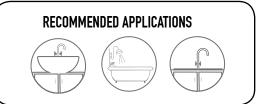
Complete range of ceramic headworks with plastic bodies suitable for all applications in which high performance valves are required, withstanding great mechanical requirements and providing the same water flow.

#### FEATURES



#### ADVANTAGES

Sedal offers a wide range of length shafts that the client can customize depending on ots needs. It is also possible to design other shaft geometries.



#### CERTIFICATIONS



**TECHNICAL SPECIFICATIONS** 

General	19MCP 180°	19MCP 180° LS	
Installation torque (recommended)	8-10 Nm	8-10 Nm	
Rotation angle	180°	180°	
Working pressure (recommended)	1-5 bar	1-5 bar	
Pressure resistance - ASME A 112	35 bar	35 bar	
Life cycle - EN 200	200,000 cycles	200,000 cycles	
ASME A112	500,000 cycles	500,000 cycles	
Max. hot water	90°C	90°C	

<b>Operation Torque</b>	19MCP 180°	19MCP 180° LS
Turn left-right	0.100-0.200 Nm	0.100-0.200 Nm

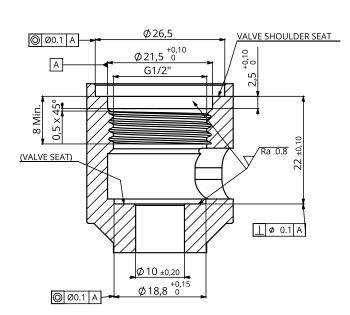
Flow rate (free flow)	19MCP 180°	19MCP 180° LS	
at 0.1 bar	3.8 l/min	3.8 l/min	
at 1 bar	13.4 l/min	13.4 l/min	
at 3 bar	23.3 l/min	23.3 l/min	
at 5 bar	30.2 l/min	30.2 l/min	

## **MACHINING REQUIREMENTS** *CHART OF MACHINING REQUIREMENTS*

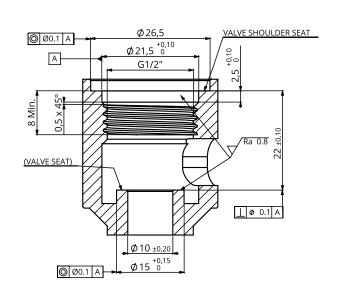
PRODUCT	REFERENCE	PAGE
19MCP 90°	19MCP90R01 (Right-Blue) 19MCP90L01 (Left-Red)	200
19MCP 90° LS	19MCP90R18 (Right-Blue) 19MCP90L13 (Left-Red)	200
19MCP 180°	19MCP18R01 (Right-Blue) 19MCP18L01 (Left-Red)	202
19MCP 180º LS	19MCP18R09 (Right-Blue) 19MCP18L04 (Left-Red)	202
19MC 90°	19MC01 (Right-Blue) 19MC04 (Left-Red)	190
19MC 90º 2S	19MC090L19	190
9MC 90° SQ	19MC090L20 19MC090R29	192
9MC 90° 3/4	19MC090R64	192
9MC 90° C	19MC090L21	193
9MC 90° WH	19MC090R30	193
9MC 180°	19MC03 (Right-Blue) 19MC05 (Left-Red)	194
19MC 2 180°	19MC018R08	194
9MC 90º IX	19MC090R33	199
9MC 90° IX LS	19MC090R34	199
9MC 90° FH	19MC090R32	195

#### MACHINING TIP

MACHINING TIP



PRODUCT	REFERENCE	PAGE
19MN	19MN01	197
19MN LS	19MN015	197





## SHOWER DIVERTERS

Diverters with automatic return specially designed for bath showers because allows to have two different outlets while keeping slim designs.

## SHOWER DIVERTERS

## COMPACK

#### REF.09CKR00





#### DIMENSIONS









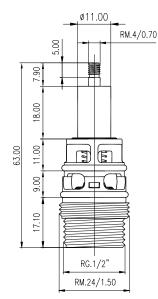
#### DESCRIPTION

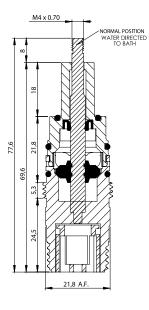
These diverters with automatic return fit specially good in bath showers because allows to have two different outlets while keeping slim designs. Mixed water entersinlet 3 and exits either outlet 1 or 2.

#### FEATURES



# RECOMMENDED APPLICATIONS SHOWERS DIVERTERS Specially designed for showers with diverters.





#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	Compack	Compack +R	
Operative	Manual and	Manual and	
Operative	automatic	automatic	
Forque 5-8 Nm 5-8 Nm		5-8 Nm	
Pressure resistance	max. 12 bar	max. 12 bar	
Working pressure	12 bar	12 bar	
Max. temperature 90 °C 90 °C		90 °C	
Endurance test	>30,000 cycles	>30,000 cycles	

SEDAL REF.09SGCR01





#### DIMENSIONS

USA REF.09TUCR00





#### DESCRIPTION

These diverters with automatic return fit specially good in bath showers because allows to have two different outlets while keeping slim designs. Mixed water entersinlet 3 and exits either outlet 1 or 2.

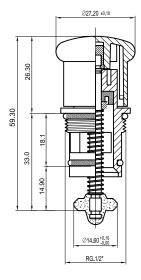
#### FEATURES

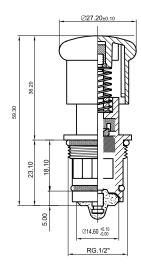


#### **RECOMMENDED APPLICATIONS**



**SHOWERS DIVERTERS** Specially designed for showers with diverters.

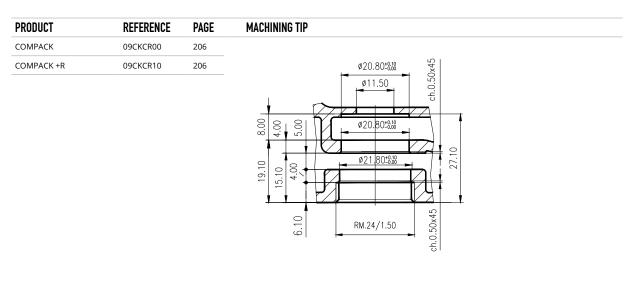




#### **TECHNICAL SPECIFICATIONS**

General	Sedal	USA
Operative	Manual and	Manual and
	automatic	automatic
Torque	5-8 Nm	5-8 Nm
Pressure resistance	max. 12 bar	max. 12 bar
Working pressure	Working pressure 12 bar 12 bar	
Max. temperature	90 °C	90 °C
Endurance test	>30,000 cycles	>30,000 cycles

## **MACHINING REQUIREMENTS** *CHART OF MACHINING REQUIREMENTS*



PRODUCT	REFERENCE	PAGE	MACHINING TIP
SEDAL	09SGCR01	207	
			max 25 00 min.13:00 RG.1/2' 00:00 00

PRODUCT	REFERENCE	PAGE	MACHINING TIP
USA	09TUCR00	207	
			83
			⊘24.20 <sup>+0.10</sup>
			<u>→ ⊘21.40 ±0.05</u>
			024.20 ±0.10 021.40 ±0.05 RG.1/2"

Ø16.50



# **SELF-CLOSING** VALVES

Self-closing valves are automatic shut-off valves for public venues ensuring water saving.

## SELF-CLOSING **VALVES**



#### **TECHNICAL SPECIFICATIONS**

General	URINAL	BASIN
Max. working pressure	6 bar	6 bar
Burst pressure	>25 bar	>25 bar
Lyfe cycle EN-816	210.000	210.000
Flow rate at 3 bar		
Free flow (DN13 hose)	17 l/min	17 l/min
C-Restrictor (DN13 hose)	14.5 l/min	14.5 l/min
Actuation time	7 ± 3 s	15 ± 5 s

\* Find machinig requirements on page 212.

Î ÷

Ø25.8

M28/1,5

Ø31,8±0

M28

ШŅ

Ø23,7 ±0,2

M26/1,5 6g

Ø31,8 ±0.

M26

Π

11 6 <sup>+0,35</sup>

#### **SHOWER** REF. 19MTS0C05

#### **ADJUSTABLE** REF. 19MTA0C05







DOWNLOAD Data sheet

**OTHER VERSIONS** SHOWER M26

### REF.19MTS0C06

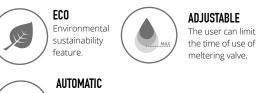
REF. 19MTA0C06

**ADJUSTABLE** 

#### DESCRIPTION

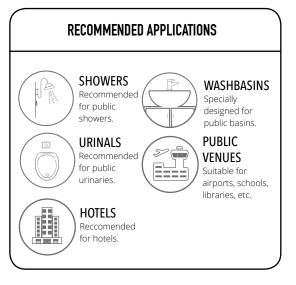
Metering valves are automatic shut-off valves for public venues ensuring water saving. All metering valves are available in M26 and M28.

#### FEATURES



SHUT-OFF Shuts off a limited period of time.

automatically after

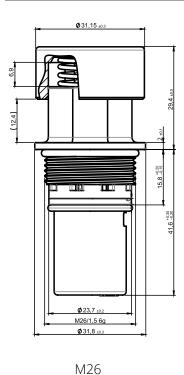


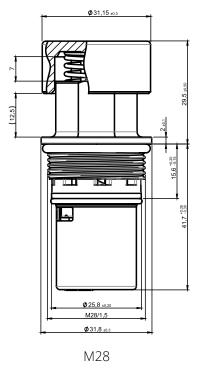
#### **TECHNICAL SPECIFICATIONS**

General	SHOWER	ADJUSTABLE
Max. working pressure	6 bar	6 bar
Burst pressure	>25 bar	>25 bar
Lyfe cycle EN-816	210.000	210.000
Flow rate at 3 bar		
Free flow (DN13 hose)	17 l/min	17 l/min
C-Restrictor (DN13 hose)	14.5 l/min	14.5 l/min
Actuation time	30 <u>+5</u> s	15 ± 5 s

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition.

#### DIMENSIONS

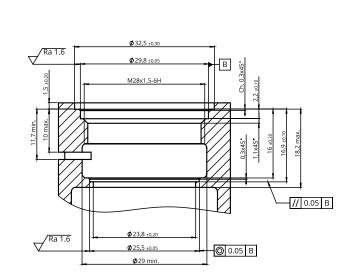




## **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS

MACHINING TIP

PRODUCT	REFERENCE	PAGE
URINAL	19MTU0C05	212
BASIN	19MTB0C05 (cold) 19MTB0H05 (hot)	212
SHOWER	19MTS0C05	213
ADJUSTABLE	19MTA0C05	213



PRODUCT	REFERENCE	PAGE	MACHINING TIP
URINAL	19MTU0C06	212	
BASIN	19MTB0C06 (cold) 19MTB0H06 (hot)	212	
SHOWER	19MTS0C06	213	
ADJUSTABLE	19MTA0C06	213	
			2 -0,5 - 17 -0,1 8

#### 214



# FLEXIBLE HOSES

SEDAL's flexible hoses are manufactured according to the most demanding safety standards. 100% tested, flexible hoses are available in different combinations of materials and sizes.



**FLEXIBLE HOSES** 

## **FLEXIBLE** HOSES







#### DESCRIPTION

Flexible hoses for Flexible hoses for sanitary installations: taps, wash-basins, bidets, water heaters, water vessels, water storage tanks, solar water heaters and air conditioning.

Available as standard and under customer design and requirements of materials, length and fitting configuration.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	Flexible hoses for taps	Standard flexible hoses DN8
End fittings	Brass	Brass CW617N
Nuts	3/8" - 1/2"	3/8" - 1/2"
Nozzle	M-8/100 - M-10/100 18mm, 35mm, 50mm	-
Sleeve	Stainless steel	Stainless steel AISI 304
Hose	E.P.D.M. sanitary hose or PEX	E.P.D.M. sanitary hose or PEX
Mesh	Mesh in stainless steel AISI 304 wire	Mesh in stainless steel AISI 304 wire
Ø Internal diameter	6mm - 8mm	8mm
Ø External diameter	10mm -12mm	12mm
Max. temperature	90°C	90°C
Drinking H <sub>2</sub> O	Yes	Yes
Burst pressure	100 kg/cm <sup>2</sup>	100 kg/cm <sup>2</sup>
Work pressure	25 kg/cm <sup>2</sup>	25 kg/cm <sup>2</sup>
Curvature radius	35mm - 40mm	40mm
Nominal flow	20 l/min -25 l/min	25 l/min

218 Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet





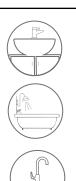




#### DESCRIPTION

Flexible hoses for Flexible hoses for sanitary installations: taps, wash-basins, bidets, water heaters, water vessels, water storage tanks, solar water heaters and air conditioning.

Available as standard and under customer design and requirements of materials, length and fitting configuration.



#### WASHBASINS

**RECOMMENDED APPLICATIONS** 

Specially designed for washbasins.

#### BATH-SHOWERS

Specially designed for bath showers.

#### KITCHENS

Suitable for use in kitchens.

#### **TECHNICAL SPECIFICATIONS**

General	Standard flexible hoses DN13	Standard flexible hoses DN19 & DN25
End fittings	Brass	Brass
Nuts	1/2" - 3/4"	3/4" - 1"
Sleeve	Stainless steel	Stainless steel
Hose	E.P.D.M. sanitary hose	E.P.D.M. sanitary hose
Mesh	Mesh in stainless steel AISI 304 wire	Mesh in stainless steel AISI 304 wire
Ø Internal diameter	13mm	19mm - 25mm
Ø External diameter	19mm	27mm - 33mm
Max. temperature	90°C	90°C
Drinking H <sub>2</sub> O	Yes	Yes
Burst pressure	90 kg/cm <sup>2</sup>	-
Work pressure	15 kg/cm <sup>2</sup>	10 kg/cm <sup>2</sup>
Curvature radius	50mm	70mm - 100mm
Nominal flow	70 l/min	120 l/min - 200 l/min

**FLEXIBLE HOSES** 

### **FLEXIBLE** HOSES









#### DESCRIPTION

Flexible hoses for Flexible hoses for sanitary installations: taps, wash-basins, bidets, water heaters, water vessels, water storage tanks, solar water heaters and air conditioning.

Available as standard and under customer design and requirements of materials, length and fitting configuration.



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	Flexible hoses with bicone DN8	Flexible hoses with elbow			
End fittings	Brass	Brass			
Elbow	-	Brass			
Bicone	Ø 10 Ø 12 Ø 14	-			
Sleeve	Stainless steel	Stainless steel			
Hose	E.P.D.M. sanitary hose	E.P.D.M. sanitary hose			
Mesh	Mesh in stainless steel AISI 304 wire	Mesh in stainless steel AISI 304 wire			
Nuts	3/8" - 1/2"	3/8" - 1/2"	1/2" - 3/4"	3/4″	1″
Ø Internal diameter	8mm	8mm	13mm	19mm	25mm
Ø External diameter	12mm	12mm	19mm	27mm	33mm
Max. temperature	90°C	90°C	90°C	90°C	90°C
Drinking H <sub>2</sub> O	Yes - No	Yes	Yes	Yes	Yes
Burst pressure	100 kg/cm <sup>2</sup>	100 kg/cm <sup>2</sup>	80 kg/cm <sup>2</sup>	60 kg/cm <sup>2</sup>	35 kg/cm <sup>2</sup>
Work pressure	25 kg/cm <sup>2</sup>	25 kg/cm <sup>2</sup>	20 kg/cm <sup>2</sup>	15 kg/cm <sup>2</sup>	15 kg/cm <sup>2</sup>
Curvature radius	40mm	40mm	45mm	40mm	40mm
Nominal flow	25 l/min	25 l/min	65 l/min	120 l/min	200 l/min

Only applies to officially listed products.

220 Tested at Sedal's lab with Sedal's standard faucet



# ELECTRONICS RANGE

SEDAL'S electronic devices provide fast response, high reliability and anti-scalding safety features thanks to the combination of materials, design and high quality sensors.



# SUMMUM

SMART THERMOSTATIC SHOWER SYSTEMS

5U

in the

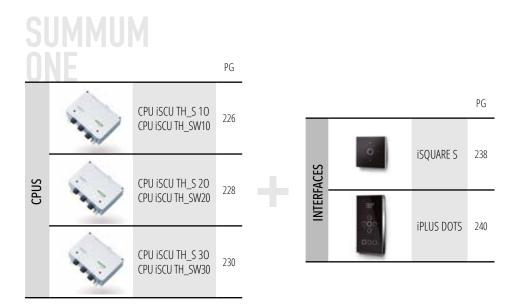
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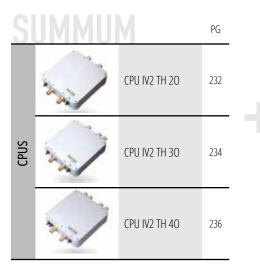
#### SUMMUM · SMART THERMOSTATIC SHOWER SYSTEMS

Summum is an smart system consisting on a CPU electronic thersmostatic mixer with one outlet and a touchpad to control it. It has no cartridges or small electric motors, increasing the product features and enabling a longer product life.

SEDAL system is able to operate in different conditions, even with differential pressures, avoiding the need of stabilizers.

Summum offers the maximum precision in the reading and control of consumption parameters and the absence of friction ensures great durability in daily use.





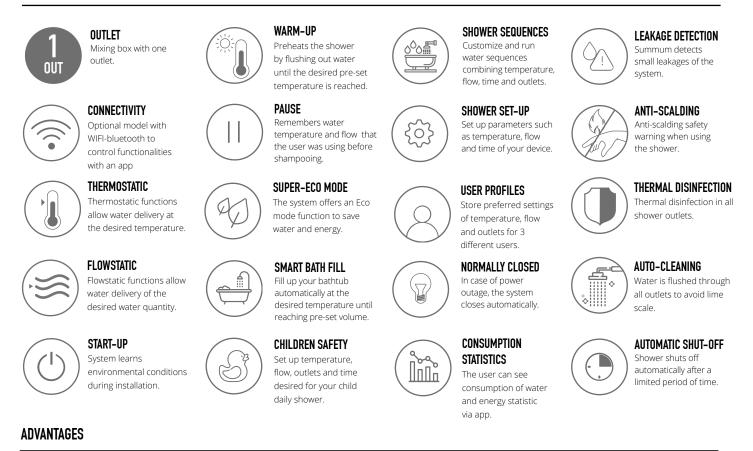


## **CPU ISCU TH S 1 OUTLET** THERMOSTATIC MIXER FOR SHOWERS

#### DESCRIPTION

Summum One is an smart system for showers consisting on a CPU electronic thersmostatic mixer with one outlet and a touchpad to control it. CPU ISCU TH S is the thermostatic box with 1 outlet that controls the system.

#### **FEATURES & FUNCTIONS**



#### APP SPECIAL FUNCTIONS ACTIVATION

The app allows set and run the functionalities of the system.

CLOUD SERVICE

The system monitor, evaluates and reports components and system conditions in a cloud platform to allow predictive diagnosis: Leverage the extracted data from your connected devices to detect and diagnose problems before they occur, helping minimize variability and rework. Cloud for OEM and cloud for final user.

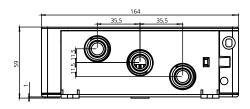
- OEM CUSTOMIZATION
  - Pre-defined settings available under customer requirements
  - Tailor made APP layout according to OEM specifications.
- INTELLIGENT MIXING VALVES

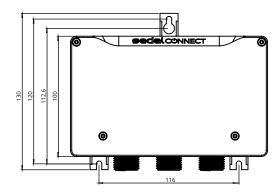
Innovative thermostatic mixing technology, completely electronic. It includes electro valves and various high-precision sensors.

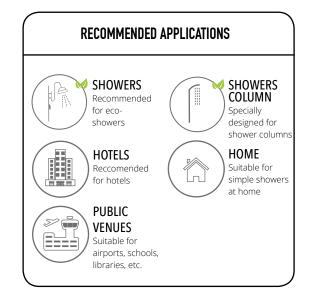
DETECTS SYSTEM & INSTALLATION WARNINGS

Summum One provides error detection and maintenance alarms, which remain stored in memory for report generation.









#### CERTIFICATIONS



\* Ready for KTW, UL and NSF.

#### **TECHNICAL SPECIFICATIONS**

General	
Technology	Patented
Maximum load	<15W / Stand by <1W *1
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP53
	1/2" & 3/8" M-GAS, John
Hydraulic connections	Guest
Weight	0.4 Kg
Temperature	
Recommended Input hot	Min. 48°C - Max.65°C
water range	WIII. 48°C - Wax.65°C
Recommended Input cold	Min.5°C - Max.28°C
water range	Min.5°C - Max.28°C
Mixed maximum	44°C *2
Mixed minimum	Full cold
Pressure	
Maximum dynamic	6 bar
Minimum dynamic	1 bar
Recommended dynamic	3 bar
Maximum differential supply	4.5 bar
(Durability) Burst	>35 bar
Flow rate (3 bar free flow wit	th diverter DN13)
Cold/Hotwator	Min 21/min May 121/min

Cold/ Hot waterMin. 2 l/min - Max. 13 l/minMix flow rateMin. 2 l/min - Max. 24 l/min

\*1 without deviator (NC solenoid)

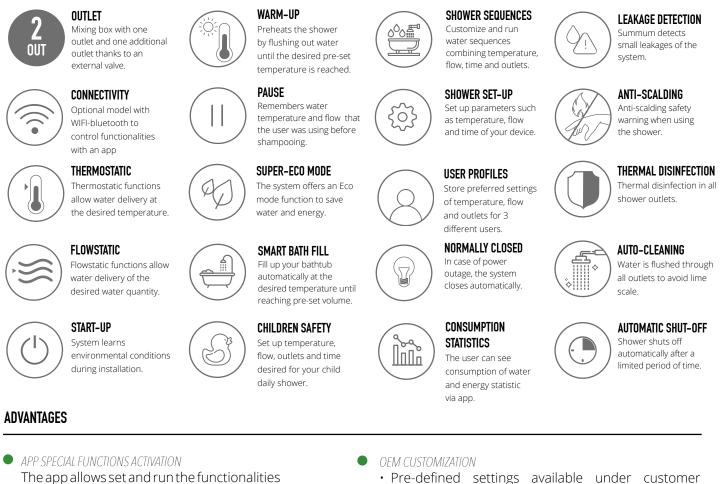
\*2 up to full hot temperature on OEM demand

## **CPU ISCU TH S 2 OUTLETS** THERMOSTATIC MIXER FOR SHOWERS

#### DESCRIPTION

Summum One is an smart system for showers consisting on a CPU electronic thersmostatic mixer with one outlet and a touchpad to control it. CPU ISCU TH S 2O is the thermostatic box with 2 outlets that controls the system.

#### **FEATURES & FUNCTIONS**



• CLOUD SERVICE

of the system.

The system monitor, evaluates and reports components and system conditions in a cloud platform to allow predictive diagnosis: Leverage the extracted data from your connected devices to detect and diagnose problems before they occur, helping minimize variability and rework. Cloud for OEM and cloud for final user.

- Pre-defined settings available under customer requirements
- Tailor made APP layout according to OEM specifications.
- INTELLIGENT MIXING VALVES

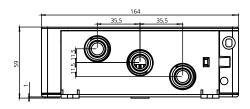
Innovative thermostatic mixing technology, completely electronic. It includes electro valves and various high-precision sensors.

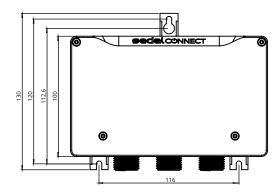
DETECTS SYSTEM & INSTALLATION WARNINGS

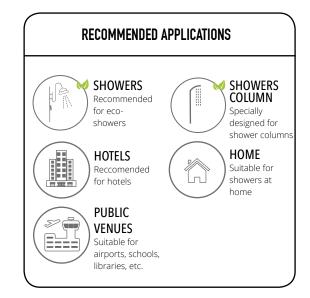
Summum One provides error detection and maintenance alarms, which remain stored in memory for report generation.

228









#### CERTIFICATIONS



\* Ready for KTW, UL and NSF.

#### **TECHNICAL SPECIFICATIONS**

General		
Technology	Patented	
Maximum load	<15W / Stand by <1W *1	
Rated impulse Voltage	12 V DC	
Ingress Protection Rating	IP53	
Hydraulic connections	1/2" & 3/8" M-GAS, John Guest	
Weight	0.4 Kg	
	,	
Temperature		
Recommended Input hot water range	Min. 48°C - Max.65°C	
Recommended Input cold water range	Min.5°C - Max.28°C	
Mixed maximum	44°C *2	
Mixed minimum	Full cold	
Pressure		
Maximum dynamic	6 bar	
Minimum dynamic	1 bar	
Recommended dynamic	3 bar	
Maximum differential supply	4.5 bar	
(Durability) Burst	>35 bar	
Flow rate (3 bar free flow wit	h diverter DN13)	
Cold/ Hot water	Min. 2 l/min - Max. 13 l/min	

Mix flow rate

\*1 without deviator (NC solenoid)

\*2 up to full hot temperature on OEM demand

Min. 2 l/min - Max. 22 l/min

## **CPU ISCU TH S 3 OUTLETS** THERMOSTATIC MIXER FOR SHOWERS

#### DESCRIPTION

Summum One is an smart system for showers consisting on a CPU electronic thersmostatic mixer with one outlet and a touchpad to control it. CPU ISCU TH S 30 is the thermostatic box with 3 outlets that controls the system.

#### **FEATURES & FUNCTIONS**



- The app allows set and run the functionalities of the system.
- CLOUD SERVICE

The system monitor, evaluates and reports components and system conditions in a cloud platform to allow predictive diagnosis: Leverage the extracted data from your connected devices to detect and diagnose problems before they occur, helping minimize variability and rework. Cloud for OEM and cloud for final user.

INTELLIGENT MIXING VALVES

requirements

specifications.

Innovative thermostatic mixing technology, completely electronic. It includes electro valves and various highprecision sensors.

to

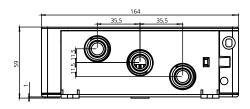
OEM

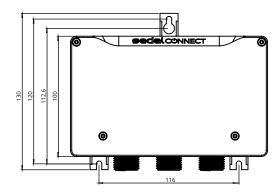
Tailor made APP layout according

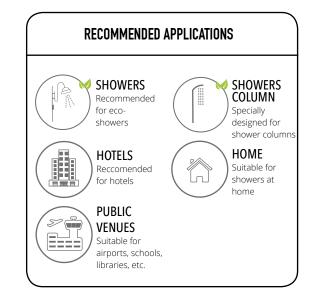
DETECTS SYSTEM & INSTALLATION WARNINGS

Summum One provides error detection and maintenance alarms, which remain stored in memory for report generation.









#### CERTIFICATIONS



\* Ready for KTW, UL and NSF.

#### **TECHNICAL SPECIFICATIONS**

General	
Technology	Patented
Maximum load	<15W / Stand by <1W *1
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP53
Hydraulic connections	1/2" & 3/8" M-GAS, John
	Guest
Weight	0.4 Kg
Temperature	
Recommended Input hot	Min 4000 Mar 6500
water range	Min. 48°C - Max.65°C
Recommended Input cold	
water range	Min.5°C - Max.28°C
Mixed maximum	44°C *2
Mixed minimum	Full cold
Pressure	
Maximum dynamic	6 bar
Minimum dynamic	1 bar
Recommended dynamic	3 bar
Maximum differential supply	4.5 bar
(Durability) Burst	>35 bar
Flow rate (3 bar free flow wit	th diverter DN13)
Cold/Hotwator	Min 21/min May 121/min

 Cold/ Hot water
 Min. 2 l/min - Max. 13 l/min

 Mix flow rate
 Min. 2 l/min - Max. 22 l/min

\*1 without deviator (NC solenoid)

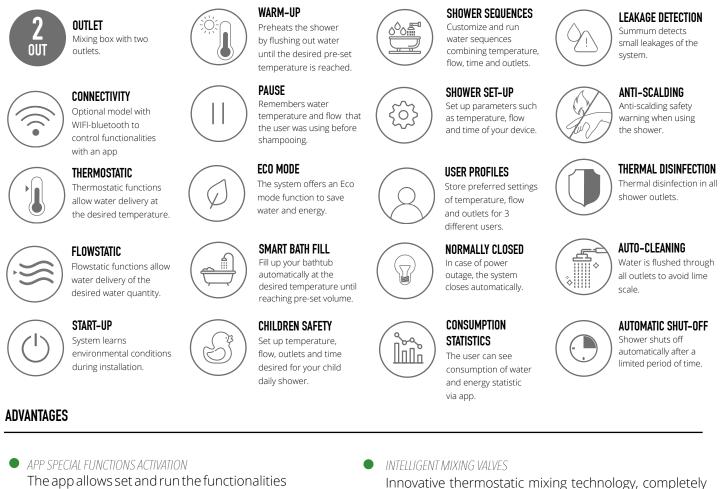
\*2 up to full hot temperature on OEM demand

## **CPU IV2 2 OUTLETS** THERMOSTATIC MIXER FOR SHOWERS

#### DESCRIPTION

Summum is an smart system for showers consisting on a CPU electronic thersmostatic mixer with one outlet and a touchpad to control it. CPU IV2 TH 2O is the thermostatic box with 2 outlets that controls the system.

#### **FEATURES & FUNCTIONS**



electronic. It includes electro valves and various high-

It incorporates an intelligent auto-callibration mode

that corrects and stabilises both flow rate and

temperature in response to unexpected changes in

Summum One provides error detection and

maintenance alarms, which remain stored in memory

precision sensors.

PRESSURE BALANCING BEHAVIOUR

water supply pressure.

for report generation.

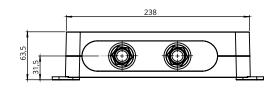
DETECTS SYSTEM & INSTALLATION WARNINGS

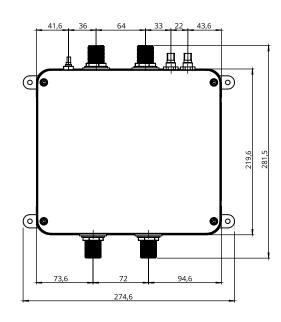
- The app allows set and run the functionalities of the system.
- CLOUD SERVICE

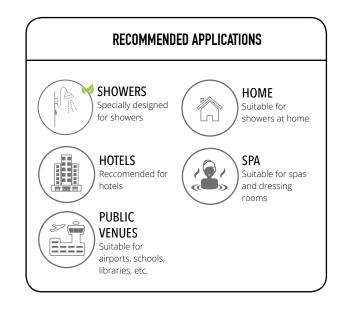
The system monitor, evaluates and reports components and system conditions in a cloud platform to allow predictive diagnosis: Leverage the extracted data from your connected devices to detect and diagnose problems before they occur, helping minimize variability and rework

- OEM CUSTOMIZATION
  - Pre-defined settings available under customer requirements
  - Tailor made APP layout according to OEM specifications.









#### CERTIFICATIONS



\* Ready for KTW, NSF and UL.

#### **TECHNICAL SPECIFICATIONS**

General	
Technology	Patented
Maximum load	<36W / Stand by <1W
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP54
Hydraulic connections	1/2" M-GAS
Weight	1.5-2 Kg

Temperature	
Recommended input hot water	Min.48°C - Max.65°C
range	
Recommended input cold water	Min.5°C - Max.28°C
range	
Mixed maximum	44°C *1
Mixed minimum	Full cold

Pressure	
Maximum dynamic	6 bar
Minimum dynamic	1.5 bar
Recommended dynamic	3 bar
Maximum differential supply	4.5 bar
(Durability) Burst	>35 bar
(Durability) Leakage	>20 bar

Flow rate (3 bar free flow)		
Cold/ Hot water	Min. 6 l/min - Max. 16.2 l/min	
Maximum differential supply	Min. 6 l/min - Max. 22.1 l/min	

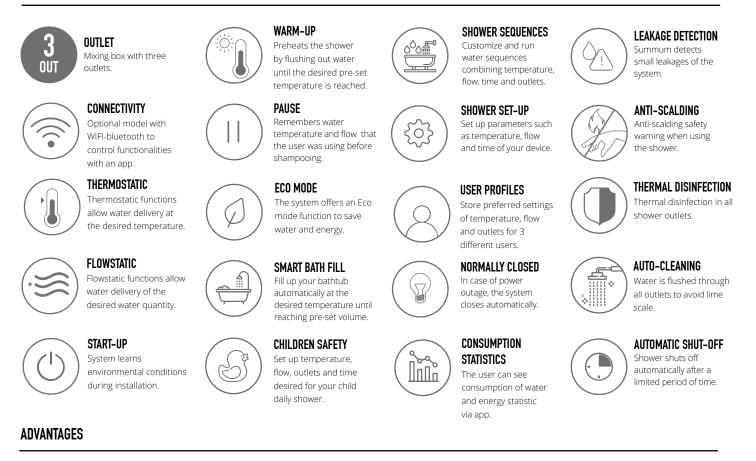
\*1 up to full hot temperature on OEM demand

## **CPU IV2 3 OUTLETS** THERMOSTATIC MIXER FOR SHOWERS

#### DESCRIPTION

Summum is an smart system for showers consisting on a CPU electronic thersmostatic mixer with one outlet and a touchpad to control it. CPU IV2 TH 3O is the thermostatic box with 3 outlets that controls the system.

#### **FEATURES & FUNCTIONS**



- APP SPECIAL FUNCTIONS ACTIVATION The app allows set and run the functionalities of the system.
- CLOUD SERVICE

The system monitor, evaluates and reports components and system conditions in a cloud platform to allow predictive diagnosis: Leverage the extracted data from your connected devices to detect and diagnose problems before they occur, helping minimize variability and rework

- OEM CUSTOMIZATION
  - Pre-defined settings available under customer requirements
  - Tailor made APP layout according to OEM specifications.

INTELLIGENT MIXING VALVES

Innovative thermostatic mixing technology, completely electronic. It includes electro valves and various high-precision sensors.

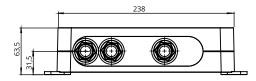
PRESSURE BALANCING BEHAVIOUR

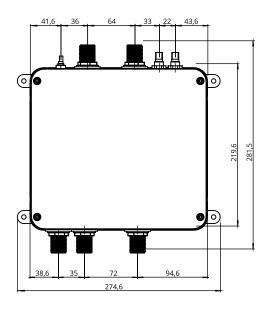
It incorporates an intelligent auto-callibration mode that corrects and stabilises both flow rate and temperature in response to unexpected changes in water supply pressure.

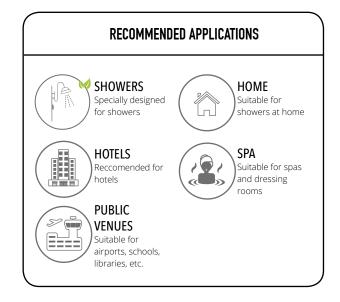
DETECTS SYSTEM & INSTALLATION WARNINGS

Summum One provides error detection and maintenance alarms, which remain stored in memory for report generation.









#### CERTIFICATIONS



 $^{\star}$  Ready for KTW, NSF and UL.

#### **TECHNICAL SPECIFICATIONS**

General	
Technology	Patented
Maximum load	<36W / Stand by <1W
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP54
Hydraulic connections	1/2" M-GAS
Weight	1.5-2 Kg

Temperature	
Recommended input hot water range	Min.48°C - Max.65°C
Recommended input cold water	Min.5°C - Max.28°C
range	
Mixed maximum	44°C *1
Mixed minimum	Full cold

Pressure	
Maximum dynamic	6 bar
Minimum dynamic	1.5 bar
Recommended dynamic	3 bar
Maximum differential supply	4.5 bar
(Durability) Burst	>35 bar
(Durability) Leakage	>20 bar
Flow rate (3 bar free flow)	
Cold/ Hot water	Min. 6 l/min - Max. 16.2 l/min
Maximum differential supply	Min. 6 l/min - Max. 22.1 l/min

\*1 up to full hot temperature on OEM demand

## **CPU IV2 4 OUTLETS** THERMOSTATIC MIXER FOR SHOWERS

#### DESCRIPTION

Summum is an smart system for showers consisting on a CPU electronic thersmostatic mixer with one outlet and a touchpad to control it. CPU IV2 TH 4O is the thermostatic box with 4 outlets that controls the system.

#### **FEATURES & FUNCTIONS**



Innovative thermostatic mixing technology, completely

electronic. It includes electro valves and various high-

It incorporates an intelligent auto-callibration mode

that corrects and stabilises both flow rate and

temperature in response to unexpected changes in

maintenance alarms, which remain stored in memory

and

Summum One provides error detection

precision sensors.

PRESSURE BALANCING BEHAVIOUR

water supply pressure.

for report generation.

DETECTS SYSTEM & INSTALLATION WARNINGS

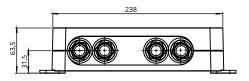
- APP SPECIAL FUNCTIONS ACTIVATION The app allows set and run the functionalities of the system.
- CLOUD SERVICE

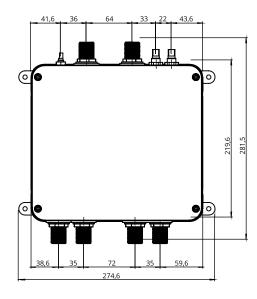
The system monitor, evaluates and reports components and system conditions in a cloud platform to allow predictive diagnosis: Leverage the extracted data from your connected devices to detect and diagnose problems before they occur, helping minimize variability and rework

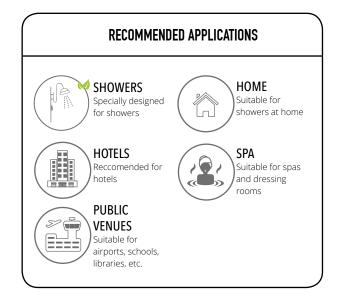
#### OEM CUSTOMIZATION

- Pre-defined settings available under customer requirements
- Tailor made APP layout according to OEM specifications.









#### CERTIFICATIONS



\* Ready for KTW, NSF and UL.

#### **TECHNICAL SPECIFICATIONS**

Геchnology	Patented
Maximum load	<36W / Stand by <1W
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP54
Hydraulic connections	1/2" M-GAS
Weight	1.5-2 Kg
Temperature	
Temperature Recommended input hot water range	Min.48°C - Max.65°C
Recommended input hot water	Min.48°C - Max.65°C Min.5°C - Max.28°C
Recommended input hot water range Recommended input cold water	

Pressure	
Maximum dynamic	6 bar
Minimum dynamic	1.5 bar
Recommended dynamic	3 bar
Maximum differential supply	4.5 bar
(Durability) Burst	>35 bar
(Durability) Leakage	>20 bar
Flow rate (3 bar free flow)	
Cold/ Hot water	Min. 6 l/min - Max. 16.2 l/min
Maximum differential supply	Min. 6 l/min - Max. 22.1 l/min
*1 up to full hot temperature on (	OEM demand

1 up to full hot temperature on OEM demand

## **ISQUARE S INTERFACE FOR SHOWERS**

#### DESCRIPTION

iSquare is a minimalist touchpad with water temperature and flow rate control thanks to simple or continued touches.





#### **FEATURES & FUNCTIONS**



START-UP System learns environmental conditions during installation.



The user can control the

The user can control the

water temperature.



Remembers water temperature and flow that the user was using before.



#### THERMAL DISINFECTION

Flowstatic functions allow water delivery of the desired water quantity.





TEMPERATURE

CONTROL



MEMORY SETTING Special lighting when setting the memory.

#### **ADVANTAGES**

WATERPROOF TOUCH TECHNOLOGIES

Sedal Connect works with different touch technologies depending on technical requirements and functionalities of each project. All our touchpads have an efficient protection against water.

The manufacturer can select one touchpad and combine with its preferred thermostatic mixer.

#### DESIGN AND ADAPTABILITY

- Functional configurations
- · Different technological options and variety of materials (polycarbonate, glass, aluminium, etc.)

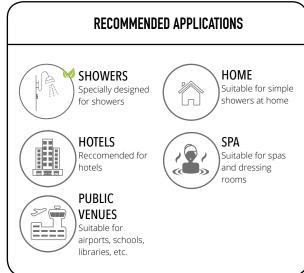
- RELIABLE AND PRECISE
  - Suppression of interferences
  - Precise and intuitive touch commutation

CUSTOMIZABLE PANELS

Customizable panels to reach customer needs according requirements.

- ROBUSTAND DURABLE
  - Resistance in harsh environments
  - Water-resistance devices
  - Usage-protected graphs





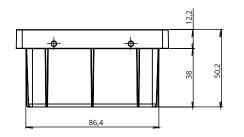
#### CERTIFICATIONS

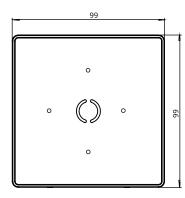


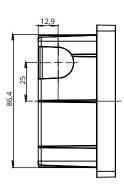
\* Ready for UL.

#### DIMENSIONS

DOWNLOAD DATA SHEET







#### **TECHNICAL SPECIFICATIONS**

Control	
Temperature	
Flow rate	
Functions	

Warm-up	
Start-up program	
Thermal disinfection	

## **IPLUS DOTS INTERFACE FOR SHOWERS**

#### DESCRIPTION

Rectangular touchpad with antiscratch and water-proof surface. It includes a complete interface with water and temperature control along with multiple outlet selection.

#### **FEATURES & FUNCTIONS**

OUTLET

installed



TEMPERATURE CONTROL

Touchpad can change

between 3 outlets when

The user can control the water temperature.

water flow.



FLOW CONTROL The user can control the

#### using before. WARM-UP Preheats the shower by flushing out water until the desired pre-set

PAUSE

Remembers water

that the user was

temperature and flow

START-UP System learns environmental conditions during installation.

temperature is reached.



• 38

 $\odot$ 

**USER PROFILES** Store preferred settings of temperature, flow and outlets for 3 different users.



MEMORY SETTING Special lighting when setting the memory.

## WARNING

Anti-scalding safety warning when using the shower.



ALARMS iPlus touchpad displays warnings and alarms.



#### THERMAL DISINFECTION Thermal disinfection

in all shower outlets.

#### AUTO-CLEANING

Water is flushed through all outlets to avoid lime scale.

#### **ADVANTAGES**

WATERPROOF TOUCH TECHNOLOGIES

Sedal Connect works with different touch technologies depending on technical requirements and functionalities of each project. All our touchpads have an efficient protection against water.

The manufacturer can select one touchpad and combine with its preferred thermostatic mixer.

#### DESIGN AND ADAPTABILITY

- Functional configurations
- · Different technological options and variety of materials (polycarbonate, glass, aluminium, etc.)

- RELIABLE AND PRECISE
  - Suppression of interferences
  - Precise and intuitive touch commutation

#### CUSTOMIZABLE PANELS

Customizable panels to reach customer needs according requirements.

#### ROBUSTAND DURABLE

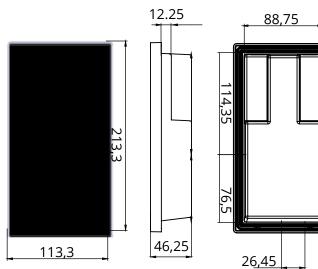
- Resistance in harsh environments
- Water-resistance devices
- Usage-protected graphs



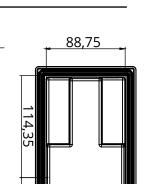
DOWNLOAD Data sheet

Polycarbonate colors Trim finishes

#### DIMENSIONS









#### CERTIFICATIONS



\* Ready for UL.

#### **TECHNICAL SPECIFICATIONS**

Control
Temperature
Flow rate
1 to 3 outlets
User memory (initial user + 3 users)

Functions
Pause
Touchpad blocking function
Reset
Warm-up
Start-up program

Maintenance programs
Cleaning of impurities
Cleaning against legionella
Maintenance alarms and error diagnosis
Cold and hot water leakage
Cold and hot water failure

Cold water temperature high	
Temperature malfunction	
Communication error	

Insufficient hot water temperature

DIGITAD DIGITAL FAUCET SYSTEMS

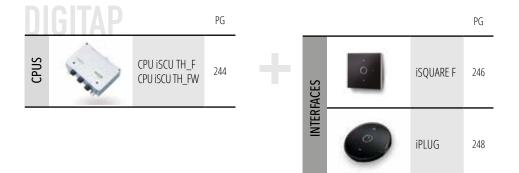
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#### DIGITAP · DIGITAL FAUCET SYSTEMS

DIGITAP consists of a iSCU\_TH\_F valve combined with one of our touchpads: iSQUARE, PLUG or iHANDLE. These systems are specially designed to make it easier for the manufacturer to adopt new technologies into its products.

Digitap has no mechanical parts, small electric motors or other similar pieces that need to be recalibrated or replaced, lengthening the product life.

Digitap range includes wall-mounted and counter-top touchpads, retrofit interfaces and customized solutions to fulfill manufacturers requirements.



## **CPU ISCU TH F** THERMOSTATIC MIXER FOR FAUCETS

#### DESCRIPTION

Digitap is an smart system for faucets consisting on a CPU electronic thersmostatic mixer with one outlet and a touchpad to control it. CPU ISCU TH F is the thermostatic box that controls the system.

#### **FEATURES & FUNCTIONS**



#### AUVANIAGES

- APP SPECIAL FUNCTIONS ACTIVATION The app allows set and run the functionalities of the system.
- CLOUD SERVICE

The system monitor, evaluates and reports components and system conditions in a cloud platform to allow predictive diagnosis: Leverage the extracted data from your connected devices to detect and diagnose problems before they occur, helping minimize variability and rework

- OEM CUSTOMIZATION
  - Pre-defined settings available under customer requirements
  - Tailor made APP layout according to OEM specifications.

#### • INTELLIGENT MIXING VALVES

Innovative thermostatic mixing technology, completely electronic. It includes electro valves and various high-precision sensors.

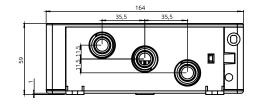
PRESSURE BALANCING BEHAVIOUR

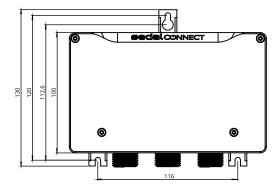
It incorporates an intelligent auto-callibration mode that corrects and stabilises both flow rate and temperature in response to unexpected changes in water supply pressure.

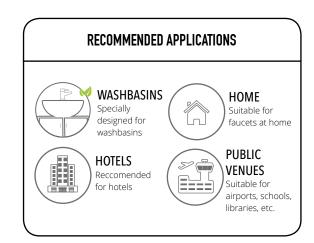
DETECTS SYSTEM & INSTALLATION WARNINGS

Digitap provides error detection and maintenance alarms, which remain stored in memory for report generation.









#### CERTIFICATIONS



\* Ready for KTW, UL. and NSF.

#### **TECHNICAL SPECIFICATIONS**

General	
Technology	Patented
Maximum load	<15W / Stand by <1W
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP53
Hydraulic connections	1/2" & 3/8" M-GAS, John Guest
Weight	0.4 Kg
Temperature	
Recommended input hot water range	Min. 48°C - Max.65°C
Recommended input cold water range	Min.5°C - Max.28°C
Mixed maximum	44°C *1
Mixed minimum	Full cold
	•
Pressure	
Maximum dynamic	6 bar
Minimum dynamic	1 bar
Recommended dynamic	3 bar
Maximum differential supply	4.5 bar
(Durability) Burst	>35 bar
(Durability) Leakage	>20 bar

Flow rate (3 bar free flow)	
Cold/ Hot water	Min. 2 l/min - Max. 12 l/min
Mix flow rate	Min. 2 l/min - Max. 22 l/min

\*1 Up to 80°C less than 20 min.

## **ISQUARE INTERFACE FOR FAUCETS**

#### DESCRIPTION

Digitap iSquare is a minimalist touchpad with water temperature and flow rate control thanks to simple or continued touches.

#### **FEATURES & FUNCTIONS**



TEMPERATURE CONTROL The user can control the water temperature.



System learns environmental conditions during installation.

SMART AUTO **DISPENSING FUNCTION** Automatic water fill of a glass.



MEMORY SETTING

Special lighting when setting the memory.



#### FLOW CONTROL The user can control the water flow.





Mixed water memory at high flow and low flow with a button.



#### THERMAL DISINFECTION

Flowstatic functions allow water delivery of the desired water quantity.

#### **ADVANTAGES**

WATERPROOF TOUCH TECHNOLOGIES

Sedal Connect works with different touch technologies depending on technical requirements and functionalities of each project. All our touchpads have an efficient protection against water.

The manufacturer can select one interface and customize some of their features.

#### DESIGN AND ADAPTABILITY

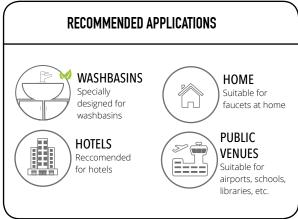
- Functional configurations
- · Different technological options and variety of materials (polycarbonate, glass, aluminium, etc.)

- RELIABLE AND PRECISE
  - Suppression of interferences
  - Precise and intuitive touch commutation
- CUSTOMIZABLE PANELS

Customizable panels to reach customer needs according requirements.

- ROBUSTAND DURABLE
  - Resistance in harsh environments
  - Water-resistance devices
  - Usage-protected graphs





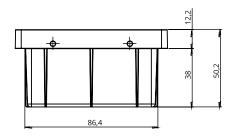
#### CERTIFICATIONS

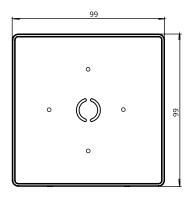


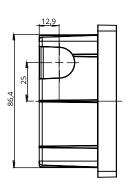
\* Ready for UL.

#### DIMENSIONS

DOWNLOAD DATA SHEET







#### **TECHNICAL SPECIFICATIONS**

Control	
Temperature	
Flow rate	
Functions	
Pause	
Start-up program	
Thermal disinfection	

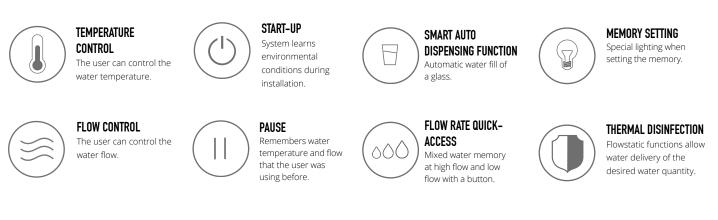
Smart glass fill Flow rate quick access

## DIGITAP INTERFACE

#### DESCRIPTION

Digitap iPlug is a minimalist interface with water temperature and flow rate control thanks to simple or continued touches.

#### **FEATURES & FUNCTIONS**



#### **ADVANTAGES**

WATERPROOF TOUCH TECHNOLOGIES

Sedal Connect works with different touch technologies depending on technical requirements and functionalities of each project. All our touchpads have an efficient protection against water.

The manufacturer can select one interface and customize some of their features.

#### • DESIGN AND ADAPTABILITY

- Functional configurations
- Different technological options and variety of materials (polycarbonate, glass, aluminium, etc.)

#### • RELIABLE AND PRECISE

- Suppression of interferences
- Precise and intuitive commutation
- CUSTOMIZABLE PANELS

Customizable panels to reach customer needs according requirements.

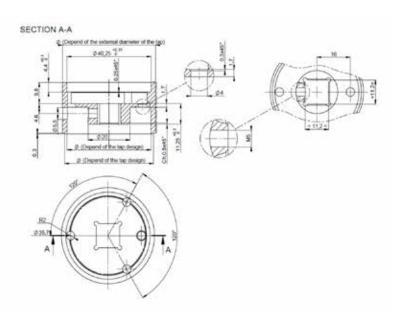
- ROBUST AND DURABLE
  - Resistance in harsh environments
  - Water-resistance devices
  - Usage-protected graphs



**RECOMMENDED APPLICATIONS** WASHBASINS HOME 7/ Suitable for designed for faucets at home PUBLIC 5 S 5 VENUES Reccomended Suitable for airports, schools, libraries, etc.

\* Ready for UL.

#### DIMENSIONS



#### **TECHNICAL SPECIFICATIONS**

Control	
Temperature	
Flow rate	
Functions	
Pause	

Start-up program	
Thermal disinfection	
Smart glass fill	
Flow rate quick access	

## **HYDRON** *ELECTRONIC COMMERCIAL WATER SYSTEMS*

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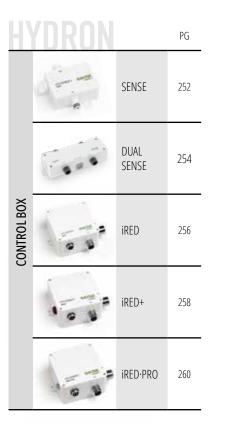
#### HYDRON · ELECTRONIC COMMERCIAL WATER SYSTEMS

Hydron is a ange of electronic systems including infrared and capacitive technology for commercial and hospitality applications.

Touchless operation with infrared sensors or activate a touch sensitive faucet with a slight touch of an arm help reduce germs and bacteria contamination.

Built-in filters to avoid impurities that could affect water flow and performance. Valves are protected by an IP65 casing to resist thorough facility cleaning.

Hydron electronic systems have been designed to work in harsh environments. Packed into a rugged case, our valves and sensors have a service life of over 500.000 cycles.



			PG
INFRARED SENSORS		S1	262
	N	52	262
		53	262
		S4	262
		S5	262
		S6	262
		57	262
		58	262
	4	59	262

## HYDRON SENSE

#### DESCRIPTION

Electronic system for faucets including sensor technology.

#### FEATURES



**ECO MODE** The system saves water thanks to its automatic shut-off.

**CAPACITIVE** A simple touch anywhere on the body faucet activates the flow

of water.



**AUTOMATIC SHUT-OFF** Faucet shuts off automatically after a limited period of time.

### ADVANTAGES

• SIMPLE TOUCH

A simple touch anywhere on the body faucet activates the flow of water, allowing the user to have higher freedom of movements.

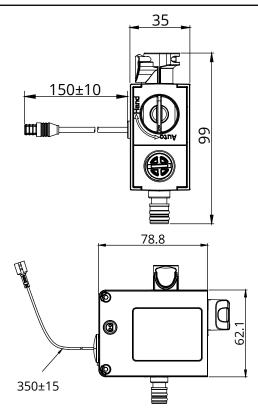
 SELF-ADJUSTING
 Self-adjusting to its installation environment. EASY MAINTENANCE

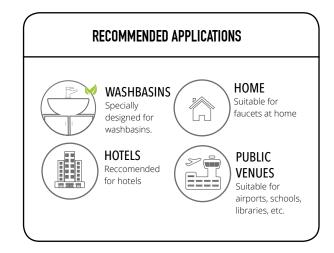
Built-in filter to avoid impurities which could affect the proper water flow.



DOWNLOAD DATA SHEET

#### DIMENSIONS





#### CERTIFICATIONS



\* Ready for NSF

General			
Voltage supply	DC 6V		
Working pressure	1 -7 bar		
Pressure resistance closed (1 min.)	35 bar		
Life test	500,000 cycle		
Max. hot water	55°C		
Flow rate (RhA)	8 l/min		
Sensor activation time	<1 s		
Protection against intrusion (control box)	IP 65		
Power consumption (stand by)	<0.5 mW		
Power consumption (flushing)	<3W		
Water saving function	Auto off adjustable (factory setting 1 min)		
Thread	Quick fitting		
Battery type (not included)	4 X AA 1.5V		

## HYDRON DUAL SENSE

#### DESCRIPTION

Electronic system for kitchen faucets including sensor technology. The faucet will open and close with a simple touch and the user will be able to set desired temperature and flow thanks to the handle.

#### FEATURES



**ECO MODE** The system saves water thanks to its automatic shut-off.

**CAPACITIVE** A simple touch anywhere on the body faucet activates the flow

of water.



**AUTOMATIC SHUT-OFF** Faucet shuts off automatically after a limited period of time.

#### **ADVANTAGES**



#### TOUCH EXPERIENCE

With a simple touch on the spout or the body you will open and close the faucet and dispense water. Single lever equipped with a second sensor which ensures mechanical cartridge priority.

#### COMBINATION OF TECHNOLOGIES

Digital technology combined with a mechanical cartridge to allow push and pull movements. In addition, like SENSE model, it adapts itself to the installation environment and has two built-in filters.

#### • EASY TO USE

New features without any learning curve.

#### MANUAL OPENING BUTTON

In case of electric power supply failure, the user can open manually the faucet by pushing the button on the box.

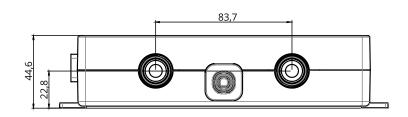
#### EMERGENCY SHUT-OFF

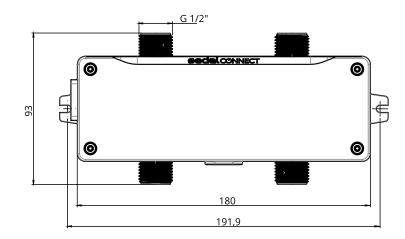
In case of electric power supply failure the device will auto shut-off all valves.

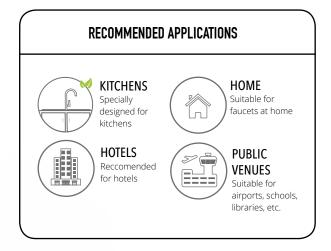




#### DIMENSIONS







#### CERTIFICATIONS



 $^{\star}$  Ready for KTW, NSF and WRAS

General			
Voltage supply	DC 6V		
Working pressure	1 -7 bar		
Pressure resistance closed (1 min.)	35 bar		
Life test	500,000 cycle		
Max. hot water	55°C		
Flow rate (RhA)	12 l/min		
Sensor activation time	<1 s		
Power consumption (stand by)	<0.5 mW		
Power consumption (flushing)	<10W		
Water on in a fire sting	Auto off adjustable		
Water saving function	(factory setting 30 sec.)		
Thread	Quick fitting		
Battery type (not included)	4 X AA 1.5V		

## **HYDRON IRED**

#### DESCRIPTION

Electronic system for faucets including sensor technology.

#### FEATURES



ECO MODE The system saves water thanks to its automatic shut-off.



**AUTOMATIC SHUT-OFF** Faucet shuts off automatically after a limited period of time.

#### **ADVANTAGES**

WATER SAVING

Infra-red sensor activation with automatic shut-off time which can be customized.

CLEAN&HYGIENIC

Faucet activation is done by entering the hand into the sensor zone.

RELIABILITY

Hydron electronic systems have been designed to work in harsh environments. Packed into a rugged case, our valves and sensors have a service life of over 500.000 cycles.

EASY MAINTENANCE

Built-in filter to avoid impurities which could affect the proper water flow.

#### VERSIONS

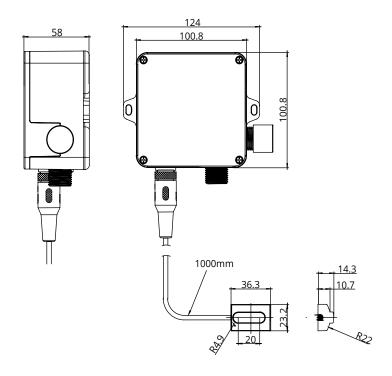
All models are available with battery and/ or power supply.

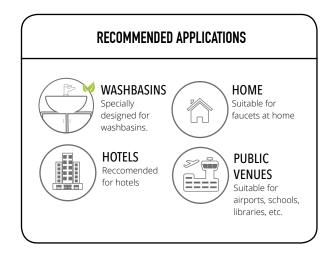
### HYDRON *iRED* REF. 27ES000001 (DC) REF. 27ES000002 (AC) REF. 27ES000003 (AC+DC)



DOWNLOAD DATA SHEET

#### DIMENSIONS





#### CERTIFICATIONS



 $^{\star}$  Ready for KTW and NSF

General			
Voltage supply	DC-6V and/or AC: 230V		
	(50Hz) / 110-120 (60Hz)		
Working pressure	1-7 bar		
Pressure resistance closed (1 min.)	35		
Life test	500,000 cycles		
Max. hot water	75°C		
Flow rate (RhA)	10.8 l/min		
Sensor activation time	<1s		
Protection against intrusion (control	IP 65		
box)			
Protection against intrusion (sensor)	IP 67		
Sensor detection distance	<35 cm		
Power consumption (stand by)	AC <4W		
	DC <0.2mW		
Power consumption (flushing)	AC <5W		
	DC <3W		
Water saving function	Auto off adjustable up to		
	1 min.		
Thread	G1/2-14		
Battery type (not included)	4xAA 1.5V		
Sensor detection angle	15º (conical)		

# HYDRON IRED +

#### DESCRIPTION

Electronic system for faucets including sensor technology.

#### FEATURES





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**AUTOMATIC SHUT-OFF** Faucet shuts off

automatically after a limited period of time.

#### SELF-ADJUSTING

Self-adjusting feature to set the distance between the infra-red sensor and the user.

#### **ADVANTAGES**

• WATER SAVING

Infra-red sensor activation with automatic shut-off time which can be customized.

• CLEAN&HYGIENIC

Faucet activation is done by entering the hand into the sensor zone.

#### • RELIABILITY

Hydron electronic systems have been designed to work in harsh environments. Packed into a rugged case, our valves and sensors have a service life of over 500.000 cycles.

- EASY MAINTENANCE
   Built-in filter to avoid impurities which could affect the proper water flow.
- VERSIONS All models are available with battery and/ or power supply.

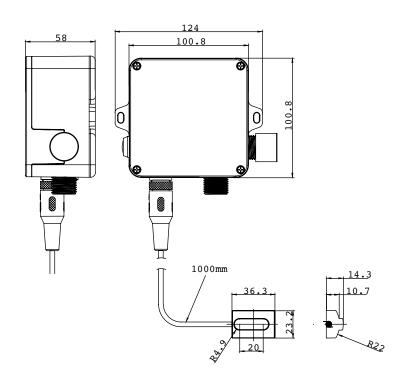
#### • SELF-ADJUSTING

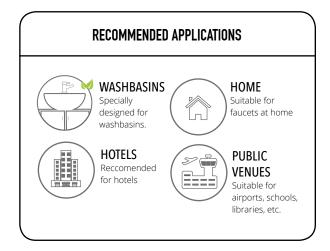
HYDRON i RED+ system also includes self-adjusting feature to set the distance between the infra-red sensor and the user.





#### DIMENSIONS





#### CERTIFICATIONS



\* Ready for KTW and NSF

General			
Voltage supply	DC-6V and/or AC: 230V (50Hz) / 110-120 (60Hz)		
Working pressure	1-7 bar		
Pressure resistance closed (1 min.)	35		
Life test	500,000 cycles		
Max. hot water	75℃		
Flow rate (RhA)	10.8 l/min		
Sensor activation time	<1s		
Protection against intrusion (control box)	IP 65		
Protection against intrusion (sensor)	IP 67		
Sensor detection distance	Adjustable <35 cm		
Power consumption (stand by)	AC <4W DC <0.2mW		
Power consumption (flushing)	AC <5W DC <3W		
Water saving function	Auto off adjustable up to 1 min.		
Thread	G1/2-14		
Battery type (not included)	4xAA 1.5V		
Sensor detection angle	15º (conical)		

### **HYDRON IRED** · **PRO**

#### DESCRIPTION

Electronic system for faucets including sensor technology.

#### FEATURES



System activates thanks to an infra-red sensor.



\$0

**AUTOMATIC SHUT-OFF** Faucet shuts off

automatically after a limited period of time.

#### AUTO-CLEANING

System activates every 72h to avoid water contamination

#### ADVANTAGES

WATER SAVING

Infra-red sensor activation with automatic shut-off time which can be customized.

CLEAN&HYGIENIC

Faucet activation is done by entering the hand into the sensor zone.

#### RELIABILITY

Hydron electronic systems have been designed to work in harsh environments. Packed into a rugged case, our valves and sensors have a service life of over 500.000 cycles.

VERSIONS

All models are available with battery and/ or power supply

#### EASY MAINTENANCE

Built-in filter to avoid impurities which could affect the proper water flow.

#### AUTO-CLEANING SYSTEM

HYDRON i·RED·PRO has an auto-cleaning system that activates every 72h to avoid water contamination.

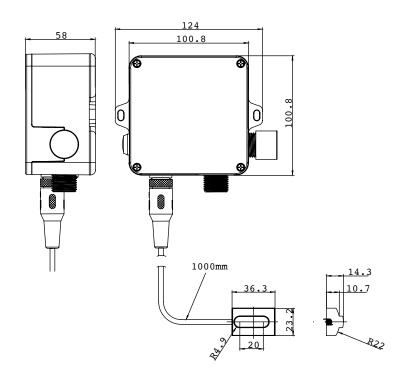
#### ON-OFF BUTTON

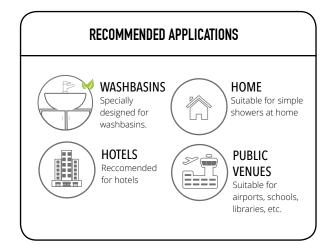
It also icludes a switth-off button to make maintenance works easier.

HYDRON *iRED·PRO* REF. 27ES000023 (DC) REF. 27ES000024 (AC) REF. 27ES000025 (AC+DC)



#### DIMENSIONS





#### CERTIFICATIONS



 $^{\star}$  Ready for KTW and NSF

General			
Voltage supply	DC-6V and/or AC: 230V		
	(50Hz) / 110-120 (60Hz)		
Working pressure	1-7 bar		
Pressure resistance closed (1 min.)	35		
Life test	500,000 cycles		
Max. hot water	75°C		
Flow rate (RhA)	10.8 l/min		
Sensor activation time	<1s		
Protection against intrusion (control	IP 65		
box)			
Protection against intrusion (sensor)	IP 67		
Sensor detection distance	Adjustable <35 cm		
	AC <4W		
Power consumption (stand by)	DC <0.2mW		
Dower consumption (fluching)	AC <5W		
Power consumption (flushing)	DC <3W		
Water coving function	Auto off adjustable up to		
Water saving function	1 min.		
Thread	G1/2-14		
Battery type (not included)	4xAA 1.5V		
Sensor detection angle	15º (conical)		
Switch off function	Waterproof button		
Colf closning function	Time adjustable		
Self cleaning function	(factory setting as 72h)		

# HYDRON INFRARED SENSORS



**HYDRON** SENSORS for iRED

### Wide range

Hydron iRED systems have different options of sensors depending on the detection range, size and position needed, all of them with less than 1 second detection time.

On demand Other shapes, sizes and cable lengths available.

MODEL	DETECTION RANGE WINDO	WINDOW SIZE		PAIRS WITH		
		VVIINDOVV SIZE	iRED	iRED+	iRED ·PRO	
S1	14-48 cm	2.98 x 0.98 cm		OEM		
S2	12-38 cm	2.98 x 0.98 cm		OEM		
S3	2-37 cm	Ø 1.94 cm	OEM	OEM	OEM	
S4	10-35 cm	2.98 x 0.98 cm	OEM	$\checkmark$	OEM	
S5	12-47 cm	2.18 x 0.98 cm	OEM	OEM	OEM	
S6	12-60 cm	2.18 x 0.98 cm	OEM	OEM	OEM	
S7	12-52 cm	Ø 2.56 cm	OEM	OEM	OEM	
S8	10-40 cm	Ø 2.26 cm	OEM	OEM	OEM	
S9	5-40 cm	3.7 x 0.74 cm	OEM	OEM	OEM	





S1 REF.27EI000013 Infrared sensor for straight body faucet.





S2 REF.27EI000014 Infrared sensor for curved body faucet.





S3 REF.27El000015 Infrared sensor for wide base faucets.





S4 REF.27EI000016 Infrared sensor for spout faucets, located before the outlet.







S5 REF.27EI000017 Infrared sensor for spout faucets, located after the outlet.







S6 REF.27EI000018 Infrared sensor for square spout faucets, located after the outlet.





**S9** REF.27EI000021 Squared Infrared sensor to be placed on the outlet in the spout of a squared faucet.





 $$8\ \mbox{REF.27E1000020}$$  Semi-circular Infrared sensor to be placed on the outlet in the spout of the faucet.





faucet.

S7 REF.27EI000019

Round Infrared sensor to be placed

on the outlet in the spout of the

#### HEADQUARTERS

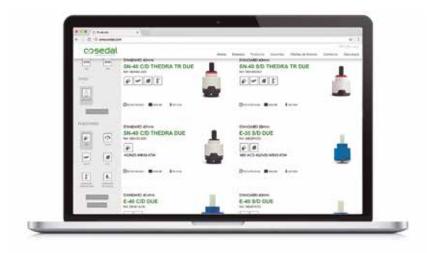
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# www.sedal.com

Get access to the complete and latest product technical data by downloading from our Webpage the Product Technical Data Sheets.

The values that appear in the catalogue have been tested in our laboratory using master faucets. The values may change depending on conditions of installation. Sedal reserves the right to change the catalogue without notice.



#### HEADQUARTERS Sedal, S.L.

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