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Edition 2021-03



# 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





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34&27<sub>MM</sub>





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## FAUCET SYSTEMS



# 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 GROUP COMPANIES



Sedal



# 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

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

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## 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 36-39.



#### 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	70,000 cycles	70,000 cycles
ASME 112.18.1 M	500,000 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
<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 (basin)	S/D (basin)
at 0.2 bar	5 l/min	4.8 l/min
at 1 bar	10.5 l/min	10 l/min
at 3 bar	17.2 l/min	16.9 l/min
at 5 bar	23.5 l/min	21 l/min
Flow rate (free flow)	C/D (bath)	S/D (bath)
at 0.2 bar	5.6 l/min	3.2 l/min
at 1 bar	12.1 l/min	11.1 l/min
at 3 bar	20.8l/min	19.1 l/min
at 5 bar	26.5 l/min	24.2 l/min

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

# 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 36-39.



#### 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

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

## **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



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.



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

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

## 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





#### \* Find machinig requirements on pages 36-39.

#### 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

## 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 E have	2.01/

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







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. 08JY25S0002



DOWNLOAD DATA SHEET

#### DIMENSIONS







#### **RECOMMENDED APPLICATIONS**



WASHBASINS Specially designed for washbasins.

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

S/D
7-8 Nm
25°C
80°
1 - 5 bar
>35 bar
70,000 cycles
90 °C

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

Flow rate (free flow)	S/D
at 0.5 bar	6.0 l/min
at 1 bar	8.5 l/min
at 3 bar	14.4 l/min
at 5 bar	18.5 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.08GC25S0011

REF.08GC25S0013

#### DIMENSIONS









\* Find machinig requirements on pages 36-39.



#### 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





#### -

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

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

#### **RECOMMENDED APPLICATIONS**

SOFT

design.



#### CERTIFICATIONS

DESCRIPTION

FEATURES

**ADVANTAGES** 

The SN28 cartridge provides a slim

design capability but not as thin as 25mm 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.



#### **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

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

\* Find machinig requirements on pages 36-39.

## COMPACT EX-28 TOP STANDARD C1 | DUE C2 | COLD Ch3 | COLD DUE C3





#### **OTHER VERSIONS**

TOP C1 TOP DUE C2 TOP COLD Ch3 TOP COLD DUE C3

REF. 08EX28L0501 REF.08EX28L3501 REF.08EX28L2501 REF.08EX28L5001

#### DIMENSIONS





COLD OPEN



STANDARD OPEN



Find machinig requirements on pages 36-39.

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

#### DESCRIPTION

The EX-28 cartridge provides a slim design capability resulting in an interesting intermediate way in between 35mm and 25mm taps. It features soft operational movement thanks to a high grade ceramics.

This cartridge has been specially design to achieve norm NF-007.

#### FEATURES



**SOFT** Up to 40% softer lever operation than standard cartridges.

#### **ADVANTAGES**

The manufacturer can keep a slim design but can obtain a higher flow rate. Upper sealed cartridges allow the manufacturer to work with different faucet configurations.

#### **RECOMMENDED APPLICATIONS**



#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	EX-28 TOP	EX-28 TOP COLD
Nut torque pitch M1.5	7-8Nm	7-8Nm
Opening angle	22°	22°
Rotation angle	90°	93°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>35 bar	>35 bar
Life cycle- x2 ASME	1,000,000 cycles	1,000,000 cyc.
x2 EN 817	140,000 cycles	240,000 cycles
NF-077 U3	175,000 cycles	175,000 cycles
x2 GB-18145	140,000 cycles	140,000 cycles
Sensitivity	>12° angle	>12° angle
Fidelity	<5° C	<5° C
Constant 63 °C & 50 °C	<4°C - <6°C	<4°C - <6°C
(6 l/min - 3 l/min)		
Max. hot water*	90 °C	90 °C
Operation Torque	EX-28 TOP	EX-28 TOP COLD
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

Flow rate (free flow DN8)	EX-28 TOP	EX-28 TOP COLD
at 3 bar	13.9 l/min	13.9 l/min

### COMPACT EX-28

## EX-28

REF. 08EX28L0002





#### DIMENSIONS



Compact 28 mm cartridge specially designed for short faucets.

#### ADVANTAGES

#### MINIMALISM WITH HIGH PERFORMANCE

Compact cartridges allow the manufacturer 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

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

\* Find machinig requirements on pages 36-39
# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS







# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS





7 ±0,10

4 ±0,10

0,05

<u>0,5 x 45°</u>

min. Ø32

À



# **35MM CARTRIDGES** FOR SINGLE LEVER FAUCETS

Π	P		TEMP. LIMITER	FLOW LIMITER		CODE	PG
	115	TOP C1	$\checkmark$	-	CD SD	08EN35L0023 08EN35S0023	44
		DUE C2	$\checkmark$	-	CD SD	08EN35L3504 08EN35S3504	44
7		COLD CH3	$\checkmark$	$\checkmark$	CD SD	08EN35L4003 08EN35S4003	46
EN	1	COLD DUE C 3	$\checkmark$	-	CD SD	08EN35L5002 08EN35S5002	46
		MIRROR	$\checkmark$	-	CD SD	08EN35L2503 08EN35S2503	46
	X	MIRROR DUE	$\checkmark$	-	CD SD	08EN35L5003 08EN35S5003	46

S	<b>FAND</b>	ARD	TEMP. LIMITER	FLOW LIMITER		CODE	PG
EN	1	EN-35	-	-	CD SD	08EN35L0003 08EN35S0003	68
		EN-35 DUE	-	-	CD SD	08E35LAZ31 08E35FAZ31	69
SN		SN-35	-	-	CD SD	08SN35LGO00 08SN35FGO00	70
TRN		TRN-35	V	$\checkmark$	CD SD	08RN35LVE00 08RN35FVE00	71

EN	<b>IDU</b>	RA	TEMP. LIMITER	FLOW LIMITER		CODE	PG
		ENDURA	$\checkmark$	$\checkmark$	CD SD	08SN35L0013 08SN35S0013	48
SN	-	DUE	$\checkmark$	-	CD SD	08SN35L3001 08SN35S3001	50
SI		COLD	$\checkmark$	$\checkmark$	CD SD	08SN35L1502 08SN35S1502	52
		COLD DUE	$\checkmark$	$\checkmark$	CD SD	08SN35L0004 08SN35S0004	54
		ENDURA	$\checkmark$	$\checkmark$	CD SD	08EN35L0004 08EN35S0004	56
		DUE	$\checkmark$	-	CD SD	08EN35L3001 08EN35S3001	58
EN	-	COLD	$\checkmark$	$\checkmark$	CD SD	08EN35L1503 08EN35S1503	60
ш		COLD MIRROR	-	-	CD SD	08EN35L1505 08EN35S1505	62
		COLD DUE	$\checkmark$	$\checkmark$	CD SD	08EN35L0005 08EN35S0005	64
		COLD MIRROR DUE	-	-	CD SD	08EN35L2002 08EN35S2002	66

BASIC		temp. Limiter	FLOW LIMITER		CODE	PG
BASIC	BG BASIC	-	-	CD SD	08EN35L0011 08EN35S0011	72

ECOFL	.OW	temp. Limiter	FLOW LIMITER		CODE	PG
N	SN-35	-	-	CD SD	08SN35L0008 08SN35S0009	74

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

S	EALI	NG	TEMP. LIMITER	FLOW LIMITER		CODE	PG
-ING		G-35	$\checkmark$	$\checkmark$	CD	08RG35L4602	96
UPPER SEALING		G-35 DUE	$\checkmark$	$\checkmark$	CD	08G35L0002	96
UPPE		G-35 COLD	$\checkmark$	$\checkmark$	CD	08G35L1501	98
G-IN	4	CC-35	$\checkmark$	$\checkmark$	CD	08CC35L0003	102
DIRECT PLUG-IN		CC-35 BASIC	$\checkmark$	$\checkmark$	CD	08CC35L0016	102
DIRE		CC-35 BASIC DUE	$\checkmark$	$\checkmark$	CD	08CC35L4502	104
PACT		EX-35	$\checkmark$	$\checkmark$	CD	08EX35S0001	110
COMPACT		EX-35 DUE	$\checkmark$	$\checkmark$	CD	08EX35S3501	112

F	ÜCE	T	temp. Limiter	FLOW LIMITER		CODE	PG
SN	4	BISO	-	-	2 3	085N35B0008 085N35B0007	80
S	1e1	SISO	-	-	2 3	085N35A0008 085N35A0007	82

S	PECI	ALS	TEMP. LIMITER	FLOW LIMITER		CODE	PG
9		GI-35	$\checkmark$	-	CD SD	08GI35LBE64 08GI35FBE64	84
REVOLVING	1	GI-35 L9	-	-	CD SD	08GI35LBE09 08GI35FBE09	86
RE	Ų	GI-35 Z20	-	-	CD SD	08GI35LBE01 08GI35FBE01	87
DIVERTERS		GD-35	-	-	CD SD	08GD35LBE00 08GD35FBE00	88
DIVE	10	GD-35 4	-	-	SD	08GD35S0001	90
JOYSTICK	0	JY-35	-	-	CD	08JY35L001	92

Š	ALI	<b>NG TOF</b>	TEMP. LIMITER	FLOW LIMITER		CODE	PG
ING	-	G-35 TOP	$\checkmark$	-	CD	08G35L0502	94
U. SEA		G-35 TOP COLD	$\checkmark$	-	CD	08G35L2501	94
D. PLUG-IN	2	CC-35 TOP	$\checkmark$	-	CD	08CC35L0501	100
D. PLL		CC-35 TOP COLD	$\checkmark$	-	CD	08CC35L2501	100
		EX-35 TOP	$\checkmark$	$\checkmark$	CD	08EX35L0504	106
ACT		EX-35 TOP DUE	$\checkmark$	$\checkmark$	CD	08EX35L3502	106
COMPACT		EX-35 TOP COLD	$\checkmark$	$\checkmark$	CD	08EX35L2502	108
		EX-35 TOP COLD DUE	$\checkmark$	$\checkmark$	CD	08EX35L5002	108

### EN-35 TOP STANDARD – C1 | DUE – C2

### 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: 3x 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.



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

### **ADVANTAGES**

HIGHER FLOWRATE<sup>(1)</sup>

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.

### IOWER NOISE LEVEL

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

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.

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.

- MECHANICAI 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 limiting maximum allows 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.



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.

### NIEDERDRUCK

Niederdruck is а popular system in Germany that uses a small heater below the sink requiring a single cold water inlet and using the cartridge in a different configuration than usual.















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C/D	S/D
REF.08EN35L0023	REF. 08EN35S0023
REF.08EN35L4505	REF. 08EN35S4505
REF.08EN35L3504	REF.08EN35S3504
REF. 08EN35L0507	REF. 08EN35S0507
-	REF. 08EN35S0506
	REF.08EN35L0023 REF.08EN35L4505 REF.08EN35L3504

### DIMENSIONS











# RECOMMENDED APPLICATIONS





WASHBASINS

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 (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle- x3 ASME	1,500,000 cycles	1,500,000 cycles
x3 EN 817	210,000 cycles	210,000 cycles
NF-077 U3	175,000 cycles	175,000 cycles
x3 GB-18145	210,000 cycles	210,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<5°	<5°
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	0.2-0.4 Nm	0.2-0.4 Nm
Turn left-right	0.2-0.4 Nm	0.2-0.4 Nm

Noise level	C/D	S/D
Noise level (A2-NF077)	<20 dB (A)	<20 dB (A)

Flow rate (free flow)	C/D	S/D
at 3 bar	28 l/min	27.4 l/min
at 3 bar (high flow) <sup>(1)</sup>	30 l/min	29.7 l/min
at 3 bar (niederdruck) <sup>(2)</sup>	-	13.3 l/min

-Hammer test NF-077.

-High temp. pressure test AS-NZS

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition. (1) High Flow version; <sup>(2)</sup> Niederdruck

# EN-35 TOP COLD Ch3| COLD DUE C3 | COLD MIRROR

### 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: 3x 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.



COLD

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

### DUE



### **ADVANTAGES**

### ADDITIONAL FEATURES

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

### • COLD & MIRROR 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)**

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.



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**.







### EN-35 S/D TOP



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9 ±0,05

[⊒

27,30

OTHER VERSIONS	C/D	S/D	_
TOP COLD TR Ch3	08EN35L2502	08EN35S2502	
TOP COLD TRN Ch3	08EN35L4003	08EN35S4003	
TOP COLD DUE C3	08EN35L5002	08EN35S5002	
TOP COLD MIRROR TR	08EN35L2503	08EN35S2503	
TOP COLD MIRROR TRN	08EN35L4506	08EN35S4506	
TOP COLD MIRROR TR DUE	08EN35L5003	08EN35S5003	

### DIMENSIONS







### 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	>50 bar	>50 bar
Life cycle- x3 ASME	1,500,000 cycles	1,500,000 cycles
x3 EN 817	210,000 cycles	210,000 cycles
NF-077 U3	175,000 cycles	175,000 cycles
x3 GB-18145	210,000 cycles	210,000 cycles
Sensitivity	>12 mm	>12 mm
Fidelity	<5°	<5°
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	0.2 -0.4 Nm	0.2 -0.4 Nm
Turn left-right	0.2 -0.4 Nm	0.2 -0.4 Nm

Noise level	C/D	S/D
Noise level (A2-NF077)	<20 dB (A)	<20 dB (A)

Flow rate (free flow)	C/D	S/D
at 3 bar	28 l/min	27.4 l/min
-Hammer test <b>NF-077</b> . -High temp. pressure test <b>AS-NZS</b>		

# 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.



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



\* Find machinig requirements on pages 114-117.



### 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.



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.



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-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 114-117.



### 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	0.20-0.40 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.



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	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 114-117.



### 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.



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-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





\* Find machinig requirements on pages 114-117.

### **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.



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	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 114-117.



### 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	0.20-0.35 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
( I I I I I I I I I I I I I I I I I I I	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	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 °C & 50 °C	<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 COLD

### 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** 



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



COLD

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.

### 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.



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.







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





# 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° ± 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	12°-14° 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

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### DIMENSIONS









\* Find machinig requirements on pages 114-117.

### **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 **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 TRN technology for temperature and flow control and DUE for water saving. This cartridge opens in cold position.

### FEATURES



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.



**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 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.



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.







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





### **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° ± 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



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### DIMENSIONS









\* Find machinig requirements on pages 114-117.

### **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







### \* Find machinig requirements on pages 114-117.

### 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











DENESS DOWNLOAD DATA SHEET

### DIMENSIONS



4







\* Find machinig requirements on pages 114-117.

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	10°-11°	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







### 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













5.00

4.75 ±0.10

### DIMENSIONS





ø4.80±0,05

¢35.00 +0.20

### DESCRIPTION

35 mm cartridge.

### ADVANTAGES

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



### 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	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

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.











DOWNLOAD DATA SHEET

### DIMENSIONS











### CERTIFICATIONS



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 ASME 118.12.1 M GB18145	70,000 cycles 500,000 cycles 70,000 cycles	70,000 cycles 500,000 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

## 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



### **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

Operation Torque	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

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.

#### TERMACLICK Mid-way click a temperature a

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

#### ECO Carti with least sust



### 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

S/D

\_\_\_\_\_

C/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



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

the lever is centered.



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.









**OTHER VERSIONS** 

Rotation angle at 93°

SN-35 S/D TERMACLICK MIRROR REF.08SN35S2004



DOWNLOAD Data sheet

S/D

REF.08SN35L2006 REF.08SN35S2006

C/D

### DIMENSIONS







\* Find machinig requirements on pages 114-117.



### 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 114-117.







### 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 114-117. \_\_\_\_\_









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.

#### COLD



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







## GI-35 S/D

REF. 08GI35FBE09





### 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.









GI-35 S/D



### 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	1 - 5 bar	1 - 5 bar
(recommended)		
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

Operation Torque	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 MIII

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 TOP** STANDARD C1 | DUE C2 | COLD Ch3 | COLD DUE C3

### 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. G-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.

### **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 less than 20dB, 20% less noise than the average in its market segment and also than its closest competitor.

### DUF 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



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



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



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.



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**

TOP TR C1 TOP TR DUE C2 TOP COLD TR Ch3 TOP COLD DUE TR C3

REF. 08G35L0502
REF. 08G35L3501
REF. 08G35L2501
REF. 08G35L5002

### DIMENSIONS





STANDARD OPEN



### CERTIFICATIONS



**RECOMMENDED APPLICATIONS** 

WASHBASINS

washbasins.

**BATH-SHOWERS** 

bath showers.

KITCHENS

kitchens.

Specially designed for

Specially designed for

Suitable for use in

### **TECHNICAL SPECIFICATIONS**

General	G-35 TOP	G-35 TOP COLD
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	100°	93°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle-x3 ASME	1,500,000 cycles	1,500,000 cyc.
x3 EN 817	210,000 cycles	210,000 cycles
NF-077 U3	175,000 cycles	175,000 cycles
x3 GB-18145	210,000 cycles	210,000 cycles
Sensitivity	>12° angle	>12° angle
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>	
Open-close	0.20÷0.40 Nm
Left-Right	0.20÷0.40 Nm

Flow rate (free flow)	G-35 TOP	G-35 TOP COLD
Free flow	27.7 l/min	27.7 l/min
A-Restrictor - Shower	12.7 l/min	12.7 l/min

\* Find machinig requirements on pages 114-117.

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

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



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.

### • 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 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





### **OTHER VERSIONS**

Without limiters TRN DUE TRN REF. 08G35L0001 REF. 08RG35L4602 REF. 08G35L0002

C/D

### DIMENSIONS







### CERTIFICATIONS



### **TECHNICAL SPECIFICATIONS**

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

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

## 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.

### kitchens.

Suitable for use in

### 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 114-117.

## DIRECT PLUG-IN - CC-35 TOP Standard C1 | DUE C2 | Cold Ch3 | Cold DUE C3

### 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. CC-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.

### ADVANTAGES

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

### 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.

• 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.



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**.

• 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.

### ENHANCED PERFORMANCE

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

### 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**.









### **OTHER VERSIONS**

TOP TR C1	REF. 08CC35L0501
TOP TR DUE C2	REF. 08CC35L3502
TOP COLD TR Ch3	REF. 08CC35L2501
TOP COLD DUE TR C3	REF. 08CC35L5002

### DIMENSIONS



COLD OPEN



STANDARD OPEN



### **RECOMMENDED APPLICATIONS**



### WASHBASINS

Specially designed for washbasins.



### KITCHENS

Suitable for use in kitchens.

### CERTIFICATIONS



General	СС-35 ТОР	CC-35 TOP COLD
Nut torque pitch M1.5	10-12Nm	10-12Nm
Opening angle	23°	23°
Rotation angle	100°	93°
Working pressure (recommended)	1 - 5 bar	1 - 5 bar
Burst pressure	>50 bar	>50 bar
Life cycle- x3 ASME x3 EN 817	1,500,000 cycles 210,000 cycles	1,500,000 cyc. 210,000 cycles
NF-077 U3 x3 GB-18145	175,000 cycles 210,000 cycles	175,000 cycles 210,000 cycles
Sensitivity	>12° angle	>12° angle
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

Operation Torque	
Open-close	0.20÷0.40 Nm
Left-Right	0.20÷0.40 Nm

Flow rate (free flow)	СС-35 ТОР	CC-35 TOP COLD
Free flow	26 l/min	26 l/min
A-Restrictor - Shower	12.7 l/min	12.7 l/min

## 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





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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 114-117.

## **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**.





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 Standard C1 | DUE C2

### DESCRIPTION

Compact 35mm cartridge allows the manufacturer for short faucets.

### 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

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



### **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.

### • ENHANCED PERFORMANCE

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

### 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.



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	35 MM	35,4 MM
TOP C1	REF. 08EX35L0004	REF. 08EX35L0003
TOP TR C1	REF. 08EX35L0504	REF. 08EX35L0502
TOP TRN C1	REF. 08EX35L4505	REF. 08EX35L4504
TOP DUE TR C2	REF. 08EX35L3502	REF. 08EX35L3501

### DIMENSIONS



\* Find machinig requirements on pages 114-117.



### CERTIFICATIONS



### **TECHNICAL SPECIFICATIONS**

General	EX-35 TR TOP	
Nut torque pitch M1.5	10-12Nm	
Opening angle	23°	
Rotation angle	100°	
Working pressure (recommended)	1 - 5 bar	
Burst pressure	>50 bar	
Life cycle-x3 ASME	1,500,000 cycles	
x3 EN 817	210,000 cycles	
NF-077 U3	175,000 cycles	
x3 GB-18145	210,000 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	0.2-0.4 Nm
Turn left-right	0.2-0.4 Nm
Noise level	EX-35 TR TOP
Noise level	<20 dB(A)
Flow rate (free flow)	EX-35 TR TOP
at 3 bar	27,3 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-35 TOP** COLD Ch3| COLD DUE C3

#### DESCRIPTION

Compact 35 mm cartridge allows the manufacturer for short faucets.

#### FEATURES



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

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. FLOW LIMITER Limit maximum water flow for water saving.

#### **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.



#### 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

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.



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.

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

DUF

TOP cartridge has an optional ring called TR that allows



**OTHER VERSIONS** 

TOP COLD TR Ch3

TOP COLD TRN Ch3

TOP COLD DUE TR C3

đ

Ø4,8±0,05 (x2)

(56,9

3, 50,10 (x2)

33,40,30 24,40,20

10±0,05

TOP COLD Ch3

DIMENSIONS

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

#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

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- x3 ASME	1,500,000 cycles
x3 EN 817	210,000 cycles
NF-077 U3	175,000 cycles
x3 GB-18145	210,000 cycles
Sensitivity (r=45mm)	>12°
Fidelity	<5 °C
Constant 63°C & 50°C	<4°C-6°C
(6 l/m & 3 l/m)	<4-0-0-0
Max. hot water*	90 °C
Operation Torque	EX-35 TR TOP
Open-close	0.2-0.4 Nm
Turn left-right	0.2-0.4 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	27,3 l/min

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

<u>_</u> 3°,		9 ±0,05
23		M4 x 0.7-
		s
a <b>,</b>		11 mi
11, 50,		

28,30,2

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35 MM

REF. 08EX35L1503

REF. 08EX35L2503

REF. 08EX35L4003

REF. 08EX35L5003

7±0,10 14±0,2

(Ø8)

5±0,1

Ø35,4<sup>+0,05</sup>(Ø35,0,15)

Ø23,5±0,20

ר/

Ø35,4<sup>+</sup>0,10(Ø35-<sup>0</sup>0,15)

<u>Fr</u>-+

DOWNLOAD Data sheet

35,4 MM

REF. 08EX35L1502

REF. 08EX35L2502

REF. 08EX35L4002

REF. 08EX35L5002

## 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

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

#### ADVANTAGES

ADDITIONAL FEATURES

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

#### • DUF 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	MACHIN	ING TIP	ING TIP	ING TIP	ING TIP	ING TIP	ING TIP	ING TIP	ING TIP
	EN-35 C/D TOP	08EN35L0023	44									
	EN-35 C/D TOP DUE	08EN35L3504	44				+0,10	. +0,10	<u>2x max</u>	. +0,102x max.∅8	2x max. <b>Ø</b> 8	+0,102x max. <b>Ø</b> 8
	EN-35 C/D TOP COLD	08EN35L2502	46			<u>2x Ø5</u>	<u>2x Ø5-0,05</u>	<u>2x Ø5-0,05</u>	<u>2x Ø5-0,05</u>	<u>2x Ø5-0,05</u>	<u>2x Ø5-0,05</u>	2x Ø5-0.05
	EN-35 C/D TOP COLD DUE	08EN35L5002	46			<b>i i</b>						
	EN-35 C/D TOP COLD MIRROR	08EN35L2503	46			= = =						
	EN-35 C/D TOP COLD MIRROR DUE	08EN35L5003	46			` <u>↓</u> "↓						
	SN-35 C/D ENDURA	08SN35L0013	48									
	SN-35 C/D ENDURA DUE	08SN35L3001	50			-	2x 10 ±0,10	2x 10 ±0,10 2	2x 10 ±0,10 2x 5 ±0,10	2x 10 ±0,10 2x 5 ±0,10	2x 10 ±0,10 2x 5 ±0,10	2x 10 ±0,10 2x 5 ±0,10
	SN-35 C/D ENDURA COLD	08SN35L1502	52									
	SN-35 C/D ENDURA COLD DUE	08SN35L0004	54					¢24-0,20	Ø24 <sup>+0,70</sup>	¢24-0,20	¢24-0,20	¢24-0,20
	EN-35 C/D ENDURA	08EN35L0004	56									
	EN-35 C/D ENDURA DUE	08EN35L3001	58									
	EN-35 C/D ENDURA COLD	08EN35L1503	60							0,3×4	0,3×45°	0,3x45°
	EN-35 S/D ENDURA COLD MIRROR	08EN35L1505	62			<u> </u> 0.05 A	<u> </u>	<u> </u>	<u> </u>	<u>1</u> 0.05 A min. Ø35.5	<u>1</u> 0.05 A min. Ø35.5	<u>1</u> 0.05 A min. Ø35.5
5 mm	EN-35 C/D ENDURA COLD DUE	08EN35L0005	64			В	B 🗧 r	B min. Ø35.5	B min. Ø35.5	B min. Ø35.5	B min. Ø35.5	B min. Ø35.5
	EN-35 C/D ENDURA COLD MIRROR DUE	08EN35L2002	66									
	EN-35 C/D	08EN35L0003	68									
	EN-35 C/D DUE	08E35LAZ30	69			•						
	SN-35 C/D	08SN35LGO00	70	8		<u>max. 9</u> 0,5x45°	0,5×45	6 .xec	6 52 42 ± 0.05	6 5 2 2 3 4 0.05	6. <u>spx5</u> <u>Ø34 ±0.05</u>	6 5 5 5 6 0 34 ±0,05
	TRN-35 C/D	08RN35LVE00	71	10.05 10.20								
	EN-35 C/D BG BASIC	08EN35L0011	72		0,0,0							
	SN-35 C/D ECOFLOW	08SN35L0008	74		,	4						
	SN-35 C/D TERMACLICK	08SN35L2003	76			<u>min.4</u> 0,5x45°						
	SN-35 C/D TERMACLICK MIRROR	08SN35L2004	78			9	9	9		9	9	9
	GI-35 C/D	08GI35LBE64	84									
	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									

DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP
	EN-35 S/D TOP	08EN35S0023	44	
	EN-35 S/D TOP DUE	08EN35S3504	44	$2x \phi 5^{+0.10}$ $4,75 \pm 0.10$ $2x max. \phi 8$
	EN-35 S/D TOP COLD	08EN35S4003	46	<u>2x Ø5 -005</u> 2x max. Ø8
	EN-35 S/D TOP COLD DUE	08EN35S5002	46	
	EN-35 S/D TOP COLD MIRROR	08EN35S2503	46	
	EN-35 S/D TOP COLD MIRROR DUE	08EN35S5003	46	
	SN-35 S/D ENDURA	08SN35S0013	48	max Ø9
	SN-35 S/D ENDURA DUE	08SN35S3001	50	2x 10 ±0,10 2x 5 ±0,10
	SN-35 S/D ENDURA COLD	08SN35S1502	52	
	SN-35 S/D ENDURA COLD DUE	08SN35S0004	54	
	EN-35 S/D ENDURA	08EN35S0004	56	
	EN-35 S/D ENDURA DUE	08EN35S3001	58	
	EN-35 S/D ENDURA COLD	08EN35S1503	60	
35 mm	EN-35 S/D ENDURA COLD MIRROR	08EN35S1505	62	
55 11111	EN-35 S/D ENDURA COLD DUE	08EN35S0005	64	B min. Ø35.5
	EN-35 S/D ENDURA COLD MIRROR DUE	08EN35S2002	66	
	EN-35 S/D	08EN35S0003	68	
	EN-35 S/D DUE	08E35FAZ31	69	
	SN-35 S/D	08SN35FGO00	70	
	TRN-35 S/D	08RN35FVE00	71	
	EN-35 S/D BG BASIC	08EN35S0011	72	<u>- 0.5 x45 · 0</u>
	SN-35 S/D ECOFLOW	08SN35S0009	74	
	SN-35 S/D TERMACLICK	08SN35S2003	76	
	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	

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# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS



Ø36 ±0.0

DIAMETER	CARTRIDGE	REFERENCE	PAGE	М
	G-35 C/D TOP	08G35L0502	94	
	G-35 C/D TOP COLD	08G35L2501	94	
35 mm	G-35 C/D	08RG35L4602	96	
	G-35 C/D DUE	08G35L0002	96	
	G-35 C/D COLD	08G35L1501	98	







DIAMETER	CARTRIDGE	REFERENCE	PAGE
	CC-35 C/D TOP	08CC35L0501	100
	CC-35 C/D TOP COLD	08CC35L2501	100
35 mm	CC-35	08CC35L0003	102
	CC-35 BASIC	08CC35L0016	102
	CC-35 DUE	08CC35L4502	104







DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP
	EX-35 TOP	08EX35L0504	106	
	EX-35 TOP DUE	08EX35L3502	106	
35 mm	EX-35 TOP COLD	08EX35L2502	108	
55 mm	EX-35 TOP COLD DUE	08EX35L5003	108	
	EX-35 TRN	08EX35S0001	110	1 0.05
	EX-35 TRN DUE	08EX35S3501	112	[7] 0.05



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

C HP

## INDEX · 40MM CARTRIDGES

			TEMP. LIMITER	FLOW LIMITER		CODE	PG
		THEDRA	$\checkmark$	<i>√</i>	CD SD	08SN40L0001 08SN40S0001	120
7	1	DUE	$\checkmark$	-	CD SD	08SN40L3001 08SN40S3001	122
SN	-	COLD	$\checkmark$	$\checkmark$	CD SD	08SN40L1501 08SN40S1501	124
		COLD DUE	$\checkmark$	1	CD SD	08SN40L5501 08SN40S5501	126
ST	AND	ARD	temp. Limiter	FLOW LIMITER		CODE	PG
		EN-40	-	-	CD SD	08EN40LAZ00 08EN40FAZ00	128
		E-40 DUE	-	-	SD	08E40FAZ30	129
EN		E-40 C1	-	-	CD SD	08EN40L1002 08EN40S1002	130
E&		E-40 C2		-	CD SD	08EN40L3005 08EN40S3005	131
		EN-40 COLD DUE		-	CD SD	08EC40L3003 08EC40S3003	132
		EN-40 COLD MIRROR DUE	-	-	CD SD	08EC40L2001 08EC40S2001	134
SN		SN-40	-	-	CD SD	08SN40LAZ00 08SN40SAZ00	136
TRN		TRN-40	V	$\checkmark$	CD SD	08RN40LVE00 08RN40FVE00	137
B			TEMP. LIMITER	FLOW LIMITER		CODE	PG
BASIC	0	BG BASIC	-	-	CD SD	08DN40LBG01 08DN40FBG01	138
E	COFL	.OW	TEMP. LIMITER	FLOW LIMITER		CODE	PG
SN		SN-40		-	CD SD	085N40L0003 085N4050004	140
н	ICH						
FI	<u>OW</u>		temp. Limiter	FLOW LIMITER		CODE	PG
W	L	GC-40	$\checkmark$	$\checkmark$	CD SD	08GC40L0001 08GC40S0001	142
40MM	3	GC-40 DUE	$\checkmark$	-	CD SD	ON DEMAND ON DEMAND	144
45MM		GC-45	-	-	SD	08GC45FBE00	146

S	PECI	ALS	TEMP. LIMITER	FLOW LIMITER		CODE	PG
DI	8	GI-40 L10 TR	$\checkmark$	-	CD SD	08GI40LBE64 08GI40FBE64	149
REVOLVING		GI-40 Z20	-	-	CD SD	08GI40LBE00 08GI40FBE00	150
RE	2	GI-40 L10	-	-	CD SD	08GI40LBE10 08GI40FBE10	151
DIVERTER		GD-40	-	-	SD	08GD40S0001	152
JOYSTICK	6	јү-40	-	-	CD SD	08JY40LBE00 08JY40FBE00	154
РВ		PB-40	V	$\checkmark$	CD	08PB40L0001	156

	<b>PEF</b>		TEMP. LIMITER	FLOW LIMITER		CODE	PG
SEAL.	d	G-40	V	V	CD	08G40LBE00	158
UPPER SEAL.		G-40 DUE	V	$\checkmark$	CD	08G40LBE30	158
COMPACT	2	EX-40	$\checkmark$	$\checkmark$	CD	08EX40S0001	160
COM		EX-40 DUE	$\checkmark$	$\checkmark$	CD	08EX40S3001	160

### TRIDUON THERMO®

<u>I</u>	IEKN		CODE	PG
⊎	Thermo 38°C	08TH40L0001	166	
	Thermo 41°C	08TH40L0002	166	
	ž.	Thermo 45°C	08TH40L0003	166
		Thermo 48°C	08TH40L0004	166
		Thermo 38°C	08TH40L0005	167
10	<b>A</b> .	Thermo 41°C	08TH40L0006	167
SU	7	Thermo 45°C	08TH40L0007	167
		Thermo 48°C	08TH40L0008	167

# 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**.

#### • NIEDERDRUCK

Niederdruck is a popular system in Germany that uses a small heater below the sink requiring a single cold water inlet and using the cartridge in a different configuration than usual.



SN-40 C/D THEDRA REF. 08SN40L0001



DOWNLOAD DATA SHEET		DOWNLOAD Data sheet
OTHER VERSIONS	CD	SD
Temperature limiter (TR)	REF.08SN40L0501	REF. 08SN40S0501
Temperature & flow limiter (TRN)	REF.08SN40L4501	REF. 08SN40S4501
Thedra Niederdruck <sup>(1)</sup>		REF. 08SN40S0007

#### DIMENSIONS





SN-40 S/D

THEDRA

REF. 08SN40S0001





#### 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	>10-12 mm	>10-12 mm
Fidelity	<3°	<3°
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
5		1
Noise level	C/D	S/D
Noise level	<20 dB	<20 dB
	a (a	

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
at 3 bar (Niederdruck <sup>1</sup> )	-	14.8 l/min

Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet \*Peak or limited time condition. <sup>(1)</sup>Niederdruck flow rate

# 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	°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**.









DOV Dat/

	CD		SD	
NNLOAD A sheet			DOWNLOAD Data sheet	
		-		

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

REF.08SN40L3501 REF. 08SN40S3501 on demand

on demand

#### DIMENSIONS

**OTHER VERSIONS** 







#### 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 °C & 50 °C (6 l/min - 3 l/min)	<4ºC - <6ºC	<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 SN-40 S/D THEDRA COLD REF. 085N4051501



DOWNLOAD Data Sheet

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

#### 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°	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.



#### ECO Cartridges identified

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

°C

3bar

26°

35°

43°

50° 56°

61°

65°

#### 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.



1	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.



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 N

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
	6/D	C/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

<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
	6/D	C/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
Flauring to (free flauri)	C/D	C/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













#### 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 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.



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





# RECOMMENDED APPLICATIONS WASHBASINS Suitable for vertical configuration washbasins Image: Colspan="2">Image: Colspan="2" Image: Colspa

#### 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





SN-40 S/D



DOWNLOAD DATA SHEET

#### DIMENSIONS





\* Find machinig requirements on pages 168-171.

#### 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	13º-15º 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

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.











DOWNLOAD DATA SHEET

#### DIMENSIONS









\* Find machinig requirements on pages 168-171



#### 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 ℃ & 50 ℃ (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



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





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





#### 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

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 0.1 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.

Up to 40% softer lever

cartridges thanks to

a clutched ceramic operation design.

operation than standard



#### 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)

SOFT

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



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

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-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.

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.



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









DOWNLOAD DATA SHEET

#### 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	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



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

Cartridges identified

REVOLVING This cartridge has a turning lever from 0° to 180°.

ECO

METALLIC LEVER This revolving cartridge

has metallic lever

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







**RECOMMENDED APPLICATIONS 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 168-171

ø28.80

### 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



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













7.50 ±0.10

#### DIMENSIONS





5.00 ±0.10



\* Find machinig requirements on pages 168-171.

#### 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





#### **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	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

REF. 08JY40FBE00

DOWNLOAD DATA SHEET

#### DIMENSIONS









#### RECOMMENDED APPLICATIONS



WASHBASINS Specially designed for washbasins.

#### CERTIFICATIONS



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.

#### ADVANTAGES

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)

CD

REF.08PB40L4602

#### DIMENSIONS









#### 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 168-171



#### CERTIFICATIONS

I



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

### 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









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#### DIMENSIONS





#### CERTIFICATIONS



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

### 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



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

# TRIDUON® THERMO CARTRIDGE



#### DESCRIPTION

The TRIDUON<sup>®</sup> thermo is a single lever thermostatic faucet/shower mixer cartridge that blends hot water with cold water to ensure a constant, safe outlet temperature that maximises comfort levels and prevents scalding during periods of dramatic input temperature or pressure variation.

#### FEATURES



**THERMOSTATIC** Thermostatic functions allow water delivery at the desired temperature.



#### Carti With

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.

#### **ADVANTAGES**

• ANTISCALDING

Has integrated hot water shutoff capability when there is a cold-water supply failure.

#### PREVENT HOT WATER WASTE

Reduces hot water consumption by preventing waste of excessively hot water at the faucet and/or mixer.

COMPLET RANGE

Customers may define a maximum factory pre-set temperature in the range of 38°C, 41°, 45° and 48°C. Once the factory pre-set temperature has been specified and set the mixer/faucet user cannot exceed the specified maximum temperature.

#### TEMPERATUR CONTROL

Ensures water is delivered to a shower and/or faucet at the required temperature at or below a factory pre-set maximum, irrespective of input water temperature increases above 65°.

#### • CONTROL WATER UTILISATION

Can be controlled to conserve water utilisation and lower flow rates to meet regulatory or user defined levels.

#### DURABILITY IMPROVED

The design of the TRIDUON<sup>®</sup> thermo ensures that when the ceramic discs are closed there is no mains supply pressure on the thermostatic element. This improves durability and reduces the likelihood of leakage over time or under high pressure.

- THE THERMOSTATIC CARTRIDGE FOR SMALL FITTINGS
- EXCELLENT COMFORT ZONE
- HIGH SENSITIVITY
- EUROPEAN QUALITY MADE IN SPAIN
- GLOBALLY CERTIFIED MATERIALS
- PROVEN SERVICE LIFE

	<b>[</b> ]
HIGH-GRADE CERAMIC DISCS	
CONTROLLED GAP	- And the second
HIGH-STRENGTH MATERIAL	
THERMAL CONTROL ELEMENT	

#### WATER FLOW SYSTEM



ANTISCALDING FUNCTION



Thermostatically tempered water passing from the thermostatic element chamber is always at the factory pre-set maximum temperature. As the single lever handle is turned toward the cold, more cold water is introduced from the by-pass. On full cold all the output water flows from the by-pass and water to the thermostatic element is closed off. This cartridge design has the in-built advantage of a thermostatic element that will shut down the hot water supply if the cold-water supply fails.

# **TRIDUON® THERMO** CARTRIDGE

### **TRIDUON® THERMO**





#### VERSIONS

Thermo 38°C (EU) Thermo 41°C (EU) Thermo 45°C (EU) Thermo 48°C (EU)

REF.08TH40L0001 REF.08TH40L0002 REF.08TH40L0003 REF.08TH40L0004

#### DIMENSIONS





#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	
Nut torque pitch M1.5	10-12Nm
Opening angle	25°
Rotation angle	95°
Burst pressure	>25 bar
Life cycle - EN 817	70,000 cycles
Sensitivity NF 077	12° (min. faucet handle length 55mm)
Max. hot water*	90 °C
Required minimum Hot water temperature to pass temperature stability and cold water failure test	65°

\*Not measurable for thermo 38°C EU \*\* Peak or limited time condition

Flow rate (free flow at 3bar)						
Thermo 38°C	Thermo 41°C	Thermo 45°C	Thermo 48°C			
21,1 l/min	22,4 l/min	18,3 l/min*	19,1 l/min*			

\* With cold water reducer

\* Find machinig requirements on pages 172.

### **TRIDUON® THERMO**





#### VERSIONS

Thermo 100,4 °F (US) Thermo 105,8 °F (US) Thermo 113,0 °F (US) Thermo 118,4 °F (US) REF.08TH40L0005 REF.08TH40L0006 REF.08TH40L0007 REF.08TH40L0008

#### DIMENSIONS





#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	
Nut torque pitch M1.5	10-12Nm
Opening angle	25°
Rotation angle	95°
Burst pressure	>35 bar
Life cycle - EN 817	500,000 cycles
Max. hot water*	90 °C*

\* Peak or limited time condition

Flow rate (free flow at 3bar)					
Thermo 38°C	Thermo 41°C	Thermo 45°C	Thermo 48°C		
21,8 l/min	22,6 l/min	24,6 l/min	18,5 l/min*		

\* With cold water reducer

\* Find machinig requirements on pages 172.

# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS

DIAMETER	CARTRIDGE	REFERENCE	PAGE
	SN-40 C/D THEDRA	08SN40L0001	120
	SN-40 C/D THEDRA DUE	08SN40L3001	122
	SN-40 C/D THEDRA COLD	08SN40L1501	124
	SN-40 C/D THEDRA COLD DUE	08SN40L5501	126
	EN-40 C/D	08EN40LAZ00	128
	E-40 C/D C1	08EN40L1002	130
	E-40 C/D C2	08EN40L3005	131
	EN-40 C/D COLD DUE	08EC40L3003	132
	EN-40 C/D COLD MIRROR DUE	08EC40L2001	134
	SN-40 C/D	08SN40LAZ00	136
40 mm	TRN-40 C/D	08RN40LVE00	137
	DN-40 C/D BG BASIC	08DN40LBG01	138
	SN-40 C/D ECOFLOW	08SN40L0003	140
	GC-40 C/D THEDRA	08GC40L0001	142
	GC-40 C/D THEDRA DUE	ON DEMAND	144
	GI-40 C/D L10 TR	08GI40LBE64	148
	GI-40 C/D Z20	08GI40LBE00	150
	GI-40 C/D L10	08GI40LBE10	151
	JY-40 C/D	08JY40LBE00	154
	PB-40 C/D	08PB40L0001	156



DIAMETER	CARTRIDGE	REFERENCE	PAGE
	SN-40 S/D THEDRA	08SN40S0001	120
	SN-40 S/D THEDRA DUE	08SN40S3001	122
	SN-40 S/D THEDRA COLD	08SN40S1501	124
	SN-40 S/D THEDRA COLD DUE	08SN40S5501	126
	EN-40 S/D	08EN40FAZ00	128
	E-40 S/D DUE	08E40FAZ30	129
	E-40 C/D C1	08EN40S1002	130
	E-40 C/D C2	08EN40S3005	131
	EN-40 S/D COLD DUE	08EC40S3003	132
10	EN-40 S/D MIRROR DUE	08EC40S2001	134
40 mm	SN-40 S/D	08SN40SAZ00	136
	TRN-40 S/D	08RN40FVE00	137
	DN-40 S/D BG BASIC	08DN40FBG01	138
	SN-40 S/D ECOFLOW	08SN40S0004	140
	GC-40 S/D THEDRA	08GC40S0001	142
	GC-40 S/D THEDRA DUE	ON DEMAND	144
	GI-40 S/D L10 TR	08GI40FBE64	148
	GI-40 S/D Z20	08GI40FBE00	150
	GI-40 S/D L10	08GI40FBE10	151
	JY-40 S/D	08JY40FBE00	154



# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS



DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP
40 mm	GD-40 S/D 4	08GD40S0001	152	





DIAMETER	CARTRIDGE	REFERENCE	PAGE
40	EX-40	08EX40S0001	160
40 mm -	EX-40 DUE	08EX40S3001	160



# **MACHINING REQUIREMENTS** CHART OF MACHINING REQUIREMENTS

DIAMETER	CARTRIDGE	REFERENCE	PAGE
40 mm	TRIDUON TH 38° (EU)	08EN40L0502	166
40 mm	TRIDUON TH 41° (EU)	08EN40L0503	166
40 mm	TRIDUON TH 45° (EU)	08EN40L0504	166
40 mm	TRIDUON TH 48° (EU)	08EN40L0505	166
40 mm	TRIDUON TH 100,4 °F (US)	08EN40L0506	167
40 mm	TRIDUON TH 105,8 °F (US)	08EN40L0507	167
40 mm	TRIDUON TH 113,0 °F (US)	08EN40L0508	167
40 mm	TRIDUON TH 118,4 °F (US)	08EN40L0509	167



**40MM CARTRIDGES** 

# 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.



## 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
	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









#### 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

TM001 / TM001 4MS
16 l/min
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.

# 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.



#### 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



other elements.

#### **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 complia does not only depend on the therr but also on the construction of the	nostatic cartridge

# 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 192-193.

#### **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



THERMOSTATIC Thermostatic functions allow water delivery at the desired temperature.

LEAD FREE

applications.

Suitable for low-lead



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.07TM0614 (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



THERMOSTATIC Thermostatic functions allow water delivery at

**LEAD FREE** Suitable for low-lead applications.

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
	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*



DIAMETER	CARTRIDGE	REFERENCE	PAGE	MACHINING TIP
34 mm	TM001 C	07TM0112	184	









# 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







#### RECOMMENDED APPLICATIONS

#### WASHBASINS



Specially designed for washbasins.

#### 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

\* Find machinig requirements on page 201. Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet

			<u>(mim)</u>	
(26.4)				
	30.6	21.6±0.1		2.5
			Ø18.4 *0.3 G1/2*B(d=20.955 *0.284) Ø23.5	
			. 18°	

0+8 01



DETAIL OF MILLED 20 TEETH E 5:1

# BRASS HEADWORKS

**19MC 90°** *SQ* REF.19MC090L20 REF.19MC090R29





REF.19MC090R64



#### 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



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° 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
· · · · · -		40140 000 074

Operation Torque	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
at 5 bar	25 l/min	-

**19MC 90°** *C* REF.19MC090L21

#### **19MC 90°** WH

REF.19MC090R30





#### DIMENSIONS







0.8<sup>+0.05</sup> SECTION A-A SCALE 2:1 16 Teeth

#### 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)





### 19MC 2 180°

REF. 19MC018R08





#### DIMENSIONS







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	9.9 l/min	13.6 l/min
at 3 bar	17.6 l/min	24.0 l/min
at 5 bar	22.6 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

# 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
		1

Operation Torque	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

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





x 0,7

19MCP 90°

REF.19MCP90R18 (right·blue)

REF.19MCP90L13 (left·red)



#### RECOMMENDED APPLICATIONS

WASHBASINS

washbasins.



#### **BATH-SHOWERS** Specially designed for

Specially designed for

Specially designed fo bath showers.

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

#### 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

\* Find machinig requirements on page 201. Only applies to officially listed products. Tested at Sedal's lab with Sedal's standard faucet

Milling detai z=20 teeth Scale - 5:1

# 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)	206
19MCP 90° LS	19MCP90R18 (Right-Blue) 19MCP90L13 (Left-Red)	206
19MCP 180°	19MCP18R01 (Right-Blue) 19MCP18L01 (Left-Red)	208
19MCP 180º LS	19MCP18R09 (Right-Blue) 19MCP18L04 (Left-Red)	208
19MC 90°	19MC01 (Right-Blue) 19MC04 (Left-Red)	196
19MC 90° 2S	19MC090L19	196
19MC 90° SQ	19MC090L20 19MC090R29	198
19MC 90° C	19MC090L21	199
19MC 90° WH	19MC090R30	199
19MC 180°	19MC03 (Right-Blue) 19MC05 (Left-Red)	200
19MC 2 180°	19MC018R08	200
19MC 90º IX	19MC090R33	205
19MC 90º IX LS	19MC090R34	205
19MC 90° FH	19MC090R32	201



PRODUCT	REFERENCE	PAGE
19MN	19MN01	203
19MN LS	19MN015	203



VRa 0.8

A 1.0 0 1



(VALVE SEAT)

C 4

B

214.417

2214

MACHINING TIP



# 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









#### CERTIFICATIONS



#### **TECHNICAL SPECIFICATIONS**

General	Compack	Compack +R	
Operative	Manual and	Manual and	
Operative	automatic	automatic	
Torque	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	
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	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	213	
			G <sup>O</sup> 24.20 <sup>+,∞</sup> <sup>O</sup>
			ax.22.00 in.19.00 max.15.00 min.14.00
			max.22.00 i.50

PRODUCT	REFERENCE	PAGE	MACHINING TIP
USA	09TUCR00	213	
			89 6
			Ø24.20 <sup>+0.10</sup> -0.00 ₽
			<u>∞21.40 ±0.05</u>
			©24.20 ±0.10 ©21.40 ±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 220.

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>



### **ADJUSTABLE** REF. 19MTA0C05







DOWNLOAD Data sheet

SHOWER

REF.19MTS0C06

DOWNLOAD Data sheet

**ADJUSTABLE** 

REF. 19MTA0C06

### 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

**RECOMMENDED APPLICATIONS** SHOWERS WASHBASINS Recommended Specially for public designed for showers. public basins. PUBLIC URINALS 5  $\odot$ Recommended VENUES for public Suitable for urinaries. airports, schools, libraries, etc. HOTELS Reccomended for hotels.

### **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

DIMENSIONS

M26

**OTHER VERSIONS** 



M26



\* Find machinig requirements on page 220.

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

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

MACHINING TIP

PRODUCT	REFERENCE	PAGE
URINAL	19MTU0C05	218
BASIN	19MTB0C05 (cold) 19MTB0H05 (hot)	218
SHOWER	19MTS0C05	219
ADJUSTABLE	19MTA0C05	219



PRODUCT	REFERENCE	PAGE	MACHINING TIP
URINAL	19MTU0C06	218	
BASIN	19MTB0C06 (cold) 19MTB0H06 (hot)	218	
SHOWER	19MTS0C06	219	Ø 26,6 -0,1
ADJUSTABLE	19MTA0C06	219	د د. M26x1.5
			F
			<b>9 10 +0</b> ,1
			ra l ra



## 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

224 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.



### RECOMMENDED APPLICATIONS

WASHBASINS 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

### FLEXIBLE Hoses with Bicone DN8







### 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 hose	es with elbow		
End fittings	Brass	Brass			
Elbow	-	Brass			
Bicone	Ø 10 Ø 12 Ø 14	-			
Sleeve	Stainless steel	Stainless stee	1		
Hose	E.P.D.M. sanitary hose	E.P.D.M. sanit	ary hose		
Mesh	Mesh in stainless steel AISI 304 wire	Mesh in stain	less steel AISI 30	4 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.

<sup>226</sup> 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

.

### SUMMUM · SMART THERMOSTATIC SHOWER SYSTEMS

Summum is a Smart showering system consisting on 3 main component families: Digital Mixers, User Interfaces and Connectivity with APP and Cloud structures.

Summum Digital Mixers are fully electronic valves with no mechanical parts, allowing a longer life span and smooth operation over the years. The system is capable of withstanding harder environmental conditions than mechanical showers (including strong pressure unbalance, temperature fluctuations and outlet different nominal flow rates) with a stunning precision and speed.











### **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**



### ADVANTAGES

### 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.



### DIMENSIONS







### CERTIFICATIONS



\* Ready for KTW, UL and NSF.

### **TECHNICAL SPECIFICATIONS**

6	
General	1
Technology	Patented
Maximum load	<15W*1 / Stand by <1W
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP53
Indraulic connections	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	Min. 48 C - Max.65 C
Recommended Input cold	Min.5°C - Max.28°C
water range	
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)

Flow rate (3 bar free flow with diverter DN13)	
Cold/ Hot water	Min. 4 l/min - Max. 13 l/min
Mix flow rate Min. 4 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

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.

- 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.



#### DIMENSIONS







### CERTIFICATIONS



\* Ready for KTW, UL and NSF.

### **TECHNICAL SPECIFICATIONS**

General	
Technology	Patented
Maximum load	<15W*1 / Stand by <1W
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP53
Hydraulic connections	1/2" & 3/8" M-GAS, John Guest
) A / - :	
Weight	0.4 Kg
<b>7</b>	
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	

Flow rate (3 bar free flow with diverter DN13)		
Cold/ Hot water	Min. 4 l/min - Max. 13 l/min	
Mix flow rate Min. 4 l/min - Max. 22 l/min		

\*1 without deviator (NC solenoid)

\*2 up to full hot temperature on OEM demand

### **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.



DIMENSIONS







### CERTIFICATIONS



\* Ready for KTW, UL and NSF.

### **TECHNICAL SPECIFICATIONS**

General	
Technology	Patented
Maximum load	<15W*1 / 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 *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 with diverter DN13)	
Cold/ Hot water	Min. 4 l/min - Max. 13 l/min
Mix flow rate	Min. 4 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**



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

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

- 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.



#### DIMENSIONS







### 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	Wiiii.48 C - Wax.05 C
Recommended input cold water	Min.5°C - Max.28°C
range	WIII.5 C - Wax.28 C
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 with diverter DN13)	
Cold/ Hot water 1 out	Min. 6 l/min - Max. 16.2 l/min
Mix water 1 out	Min. 6 l/min - Max. 22.1 l/min
Cold/Hot water 2 out	64 min - 16.5 l/min
Mix water 2 out	64 min - 29.5 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 30 is the thermostatic box with 3 outlets that controls the system.

### **FEATURES & FUNCTIONS**



### **ADVANTAGES**

- APP SPECIAL FUNCTIONS ACTIVATION The app allows set and run the functionalities 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

- 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 highprecision 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.





31.5



### CERTIFICATIONS



\* Ready for KTW, NSF and UL.

### **TECHNICAL SPECIFICATIONS**

Technology	Patented
Maximum load	<36W / Stand by <1W
Rated impulse Voltage	12 V DC
ngress Protection Rating	IP54
Hydraulic connections	1/2" M-GAS
Veight	1.5-2 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	1.5 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 with diverter DN13)	
Cold/ Hot water 1 out	Min. 6 l/min - Max. 16.2 l/min
Mix water 1out	Min. 6 l/min - Max. 22.1 l/min
Cold/hot water 2 out	64 min 16,54 min
Mix water 2 out	64 min - 29,54 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**



- 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



\* 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 range	Min.5°C - Max.28°C
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 with diverter DN13)	
Cold/ Hot water 1 out	Min. 6 l/min - Max. 16.2 l/min
Mitx water 1 out	Min. 6 l/min - Max. 22.1 l/min
Cold/ Hot 2 out	64 min - 16.5 l/min
Mix water 2 out	64.5 min - 29.5 l/min

\*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 using membrane technology.





### **FEATURES & FUNCTIONS**



OUTLET Touchpad prepared to work with one outlet.



TEMPERATURE CONTROL The user can control the water temperature.



PAUSE Remembers water temperature and flow that the user was using before.



#### 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 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





### DIMENSIONS









### CERTIFICATIONS



\* Ready for UL.

Temperature	
Flow rate	
Functions	
Pause	
Warm-up	
Start-up program	
Thermal disinfection	
Technology	

### **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 using capacitive technology.

### **FEATURES & FUNCTIONS**

OUTLET

installed

3 **NUT** 

TEMPERATURE CONTROL

Touchpad can change

between 3 outlets when



START-UP User can start start-up process.



 $\odot$ 

WARNING Anti-scalding safety warning when using the shower.

PAUSE

Remembers water

that the user was

using before.

WARM-UP

temperature and flow



Store preferred settings of temperature, flow and outlets for 3 different users.

**USER PROFILES** 

THERMAL DISINFECTION USer can start thermal desinfect process.



AUTO-CLEANING User can start cleaning process.

### ALARMS iPlus touchpad

displays warnings and alarms.



FLOW CONTROL The user can control the water flow.

#### **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



ΞŔ ٦t DOWNLOAD Data sheet

Polycarbonate colors Trim finishes



### DIMENSIONS







SHOWERS

HOTELS

Specially designed for showers

Reccomended for

**RECOMMENDED APPLICATIONS** 

7//

HOME

SPA

rooms

Suitable for

showers at home

Suitable for spas and dressing



\* Ready for UL.

### **TECHNICAL SPECIFICATIONS**

Tem	perature
Flow	v rate
1 to	3 outlets
Use	r memory (initial user + 3 users)
Fun	ctions
Pau	se
Tou	chpad blocking function
Rese	et
War	m-up
Star	t-up program
Mai	ntenance programs
Clea	ning of impurities
Clea	ning against legionella
Mai	ntenance alarms and error diagnosis
Cold	l and hot water leakage
Cold	l and hot water failure
Insu	fficient hot water temperature
Cold	l water temperature high
Tem	perature malfunction
Com	nmunication error

#### Technology

Capacitive

### **MODULAR TOUCHPAD** INTERFACE FOR SHOWERS



Digital Shower System Interface design program by Sedal that allows manufacturers to develop a UI in record time with little investment.

Combining pre-designed components in a free canvas, it is possible to virtually design any combination and have a customized interface for your new shower projects.







DIGITAL 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 or PLUG. 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**



#### ADVANTAGES

- 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 highprecision 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.



#### DIMENSIONS







#### 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 with diverter DN8)	
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.



START-UP System learns environmental conditions during installation.



MEMORY SETTING Special lighting when setting the memory.



**FLOW CONTROL** 

The user can control the water flow.



PAUSE Remembers water temperature and flow that the user was using before.



THERMAL DISINFECTION Flowstatic functions allow water delivery of the

#### **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.

#### ROBUST AND DURABLE

- Resistance in harsh environments
- Water-resistance devices
- Usage-protected graphs



#### DIMENSIONS







#### TECHNICAL SPECIFICATIONS

Control
Temperature
Flow rate
Functions
Pause
Start-up program
Thermal disinfection
Smart glass fill
Flow rate quick access

#### Technology

Membrane

# 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, polyester, 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







General	Full capacitive
Rated voltage	12 V DC
Ingress Protection Rating	IP65
Number of buttons	5
Connectors	1 x 4 way connector
Panel material	PMMA (Hard Coated)
Touch splashing protection	Yes
Technology	Capacitive
Sustained push contrtol	Yes
Temnperature color indicator	Yes

Functions	
Pause	
Start-up program	
Thermal disinfection	
Smart glass fill	
Flow rate quick access	

# **DIGITAP INTERFACE IKON**



#### **FEATURES & FUNCTIONS**



WIFI COMMUNICATION It activates when the system is correctly connected to WIFI.



The operation is being ecologic according to the quantity of water in use.



It activates when the system detects a problem.

### KITCHEN



CONTROL VIA APP The user can control the functions of the faucet via app.

#### BATHROOM

**GLASS FILL** A preset quantity of water to automatically fill a glass.





**GLASS FILL** A preset quantity of water to automatically fill a glass.



The faucet dispenses a preset quantity of water to automatically fill a pot.

#### **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.

- ROBUSTAND DURABLE
  - Resistance in harsh environments
  - Water-resistance devices
  - Usage-protected graphs

### **ITOP** DIGITAL CARTRIDGE



iTOP redefines the way a faucet is used and experienced. It is a fully digital cartridge that converts the movement of the lever into digital information to control our iSCU digital thermostatic mixer with incredibly smooth and precise motion.

This innovative cartridge offers extra features impossible to get with mechanical valves: X-Lever™ motion. It consists of 4 extra clicks with self-return in each direction of the lever movement that can be programmed for different actions.

iTOP cartridge can work either with a standard lever or with iHandle, our smart handle that provides information with the actions the iTOP cartridge is performing in real time. Sedal has initially defined 3 iHandle interfaces: kitchen, shower and basin.





iHandle is the new user interface designed, developed and manufactured by Sedal to work together with our new iTOP digital cartridge with X-Lever<sup>™</sup> technology. Based on the most accepted mechanical interface, we have evolved the classic lever into a system that provides key information and extra comfort to the user with dot matrix display and icons, as well as other lighting indicators that makes your faucets both beautiful and extremely functional.

iHandle works in combination with iTOP digital cartridge and iSCU digital thermostatic mixer by Sedal.

# DIGITAP INTERFACE







#### CERTIFICATIONS



 $^{\ast}$  Ready for CE & UL.

General	
Maximum load	<4 W / Stand by <0,1W
Rated impulse Voltage	12 V DC
Ingress Protection Rating	IP65
Panel Material	PMMA (Hard Coated)
Display	Dot Matrix
lcons	Color LED
Functions	
lcon functions	Warming signal, eco mode, wifi
	communication, glass fill, pot fill







#### DIMENSIONS





#### CERTIFICATIONS



\* Ready for CE & UL.

#### **TECHNICAL SPECIFICATIONS**

General	
Maximum load	
Rated voltage	12 V DC
Ingress Protection Rating	IP53
	· · ·
Functions	
Operation torque	0,15-0,30 Nm
Click operation torque	0,30-0,40 Nm
Available clicks direction	Up/Down/Left/Ritght*
Communication cable with handle	Yes
Life Cycle	EN-817 ASME A112.18.1

\*Available options under customer request.

# HYDROH ELECTRONIC COMMERCIAL WATER SYSTEMS

HYDRON

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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.









# HYDRON Ired

#### DESCRIPTION

On-off control for faucets featuring infrared detection technology with fixed distance arrangement. The standard detection distance can be factory adjusted to any OEM requirement.

#### FEATURES

5





**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.
- 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.

to an infra-red sensor.

• VERSIONS

All models are available with battery and/ or power supply.

#### **COMPATIBLE SENSORS**





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#### CERTIFICATIONS



#### DIMENSIONS



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 (Class A)	10.8 l/min
Sensor activation time	<1s
Protection against intrusion (control box)	IP 65
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

# **HYDRON IRED**+

#### DESCRIPTION

On-off control for faucets featuring infrared detection technology with integrated distance adjustment with a single push of a button.

#### FEATURES



EASY MAINTENANCE

VERSIONS

supply.

SELF-ADJUSTING

and the user.

proper water flow.

**AUTOMATIC SHUT-OFF** Faucet shuts off automatically after a

limited period of time.



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.
- 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.

**COMPATIBLE SENSORS KIT** 



S1 Infrared sensor for curved body faucet.



### S7 SENSOR KIT

Built-in filter to avoid impurities which could affect the

All models are available with battery and/ or power

HYDRON i-RED+ system also includes self-adjusting

feature to set the distance between the infra-red sensor

Round Infrared Sensor to be placed at the outlet of the spout including top performance areator.



#### SENSOR KIT S8

Semi-circular Infrared Sensor to be placed at the outlet of the spout.



### S9 SENSOR KIT

Squared Infrared sensor to be placed at the spout outlet of a squared faucet.





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#### CERTIFICATIONS



#### DIMENSIONS



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 (Class A)	10.8 l/min
Sensor activation time	<1s
Protection against intrusion (control	IP 65
box)	
Sensor detection distance (IRED <sup>+)</sup>	Adjustable (button)
Rower consumption (stand by)	AC <4W
Power consumption (stand by)	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

# HYDRON IRED LP

#### DESCRIPTION

Electronic system for faucets including sensor technology.

#### FEATURES



#### **ADVANTAGES**

- WATER SAVING Infra-red sensor activation with automatic shut-off time.
- 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

#### **COMPATIBLE SENSORS**

#### i·red LP compatible



S1 Infrared sensor for curved body faucet





T





S6 Infrared sensor for round spout, located after the outlet.

#### i·red+ LP compatible



S1 Infrared sensor for curved body faucet.



S7 SENSOR+ KIT Round Infrared sensor to be placed at the spout outlet.



S8 SENSOR+ KIT Semi-circular Infrared sensor to be placed at the spout outlet.



S9 SENSOR + KIT Rectangular Infrared sensor to be placed at the spout outlet.

### **HYDRON** *iRED LP / iRED*+*LP*





#### CERTIFICATIONS



#### DIMENSIONS



General	
Voltage supply	DC-6V and/or AC: 230V
	(50Hz) / 110-120 (60Hz)
Working pressure	0,2 - 7 bar
Pressure resistance closed (1 min.)	35
Life test	500,000 cycles
Max. hot water	75°C
Flow rate (Class A)	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
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)
Switch off function	Waterproof button
Solf cloaning function	Time adjustable
Self cleaning function	(factory setting as 72h)

## 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.



• 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.





#### CERTIFICATIONS



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 (Class A)	8 l/min
Sensor activation time	<1 s
Power consumption (stand by)	<0.5 mW
Power consumption (flushing)	<10W
Water saving function	Auto off adjustable
	(factory setting 30 min)
Thread	Quick fitting
Battery type (not included)	4 X AA 1.5V







## **HYDRON IRED CORE**

#### DESCRIPTION

i-RED CORE is a complete infrared system in a single body that combines a mixing valve, IR sensor, high grade solenoid on-off valve, battery pack (optional AC adaptor) and a plastic or brass body that acts as the main structural component.

The faucet is built around the body making the design extremely simple and easy to cast and machine.

Installation becomes more simple as there is no external valve box under the sink.



#### **ADVANTAGES & FEATURES**



**TOUCH FREE** No need to touch any handle nor button to activate.



No need of external mixing box.









HYGIENIC Ideal for high hygienic requirmenet enviroments

### INTEGRATED BODY



#### Internal timer to shut off flow after defined period of time.



EASY INSTALL No need of special tools to install.

#### **COMPATIBLE SENSORS**



S3 CORE Infrared sensor for cilindric body faucet with round window.



S13 CORE Infrared sensor for cilindric body faucet with round window fixed with metal bracket.



S14 CORE Infrared sensor for cilindric body faucet with long shape window.

#### CORE BR90 / BR80



CORE BR90 / BR80



# HYDRON IRED CORE

### **HYDRON**

IRED CORE BRASS 80°

REF. 27ES000073



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#### DIMENSIONS





#### **POWER SUPPLY**

Hybrid solution:

- Batteries
- AC wall mounted power supply

Company		
General		
	ON-OFF bistable latch	
Technology	valve and me	chanical
	temperature	selection
Angle of the faucet		
body with the	80°	
horizontal		
Hydraulic connections	M10	
Temperature	MINIMUM	MAXIMUM
Recommended input	5 °C	65°C
water range	50	05 C
Maximum inlet	75 °C	
temperature	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Minimum inlet	>5 °C	
temperature		
Dynamic pressure	MINIMUM	MAXIMUM
Limits of use	0,5 bar	10 bar
LIMITS OF USE	(0.05 MPa)	(1 MPa)
Recommended limits	1 bar	8 bar
of operation	(0.1 MPa)	(0,8 MPa)
Recommended	21	
pressure	3 bar (0,3 MP	'a)
Burst (closed valve)	>35 bar (3.5N	Лра)
FLOW RATE @ 3 bar	DN8, withou	t aerator
Mixed water	10,7 l/min	

### HYDRON IRED CORE BRASS 90° REF. 27ES000071



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#### DIMENSIONS





#### **POWER SUPPLY**

Hybrid solution:

• Batteries

Mixed water

• AC wall mounted power supply

#### **TECHNICAL SPECIFICATIONS**

General			
	ON-OFF bist	able latch	
Technology	valve and m	echanical	
	temperature	selection	
Angle of the faucet			
body with the	90°		
horizontal			
Hydraulic connections	M10		
Temperature	MINIMUM	MAXIMUM	
Recommended input	5 °C	65°C	
water range			
Maximum inlet	75 °C		
temperature			
Minimum inlet	>5 °C		
temperature			
Dynamic pressure	MINIMUM	MAXIMUM	
Limits of use	0,5 bar	10 bar	
	(0.05 MPa)	(1 MPa)	
Recommended limits	1 bar	8 bar	
of operation	0.1 MPa)	(0,8 MPa)	
Recommended	2 har (0.2 MI	2-2	
pressure	3 bar (0,3 MI	-d)	
Burst (closed valve)	>35 bar (3.5I	>35 bar (3.5Mpa)	
FLOW RATE @ 3 bar	DN8, withou	it aerator	

11,3 l/min

### HYDRON IRED CORE

### HYDRON IRED CORE PLASTIC 60° REF. 27ES000072



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#### DIMENSIONS





#### **POWER SUPPLY**

Hybrid solution:

- Batteries
- · AC wall mounted power supply

General			
Technology	valve with in sensor and n	ON-OFF bistable latch valve with infrared sensor and mechanical temperature selection	
Angle of the faucet body with the horizontal	60°		
Hydraulic connections	G1/2		
Temperature	MINIMUM	MAXIMUM	
Recommended input water range	5 °C	65°C	
Maximum inlet temperature	75 °C		
Minimum inlet temperature	>5 °C		
Dynamic pressure	MINIMUM	MAXIMUM	
Limits of use	0,5 bar (0.05 MPa)	10 bar (1 MPa)	
Recommended limits	1 bar	8 bar	
of operation	(0.1 MPa)	(0,8 MPa)	
Recommended pressure	3 bar (0,3 MF	Pa)	
Burst (closed valve)	>35 bar (3.5M	Ира)	
FLOW RATE @ 3 bar	DN8, withou	it aerator	
Mixed water	14,0 l/min		

### HYDRON IRED CORE BRASS 90° REF. 27ES000071



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#### DIMENSIONS







#### **POWER SUPPLY**

Hybrid solution:

- Batteries
- AC wall mounted power supply

General			
Technology	valve with in sensor and r	ON-OFF bistable latch valve with infrared sensor and mechanical temperature selection	
Angle of the faucet body with the horizontal	90°		
Hydraulic connections	G1/2		
Temperature	MINIMUM	MAXIMUM	
Recommended input water range	5 °C	65°C	
Maximum inlet temperature	75 °C		
Minimum inlet temperature	>5 °C		
Dynamic pressure	MINIMUM	MAXIMUM	
Limits of use	0,5 bar (0.05 MPa)	10 bar (1 MPa)	
Recommended limits	1 bar	8 bar	
of operation	0.1 MPa)	(0,8 MPa)	
Recommended pressure	3 bar (0,3 M	Pa)	
Burst (closed valve)	>35 bar (3.5	Mpa)	
FLOW RATE @ 3 bar	DN8, withou	ut aerator	
Mixed water	14,3 l/min		

## **HYDRON IRED FLUSH**

#### DESCRIPTION

Highly efficient and economic solution for urinals packed with advanced technologies to save water with minimal maintenance while using a very low amount of energy.



#### **FEATURES & FUNCTIONS**



WATER SAVING Intelligent flush system

times.

dries.



#### TOUCH FREE Hands free operation therefore limits the spread of germs and



TRAP SEAL PROTECTION If not used ,it will flush automatically every 24 hours to avoid the odor returning once the trap



bacteria.

In the event of power

failure, this product will automatically switch to battery power.



HYGIENIC The system automatically discharges every 24

hours as a bacteria

prevention system.



LOW POWER CONSUMPTION For Dc power,4AA alkaline batteries of 108000 cycles.



INTELLIGENT Self adjusting flush detection system as well as anti-light and antiultraviolet









#### **OTHER VERSIONS**

Brass valve AC+DC	REF. 27ES000031
Brass valve AC	REF. 27ES000030
Brass valve DC	REF. 27ES000029

#### DIMENSIONS



#### CERTIFICATIONS



AC: 220V-240V;50/60HZ
DC:4AA Alkaline battery
<0.3mW
75-80cm
0.5Bar-7Bar
1-45°C
G 1/2"
G 1/2"

### HYDRON INFRARED SENSORS



#### DESCRIPTION

Sedal has designed and developed a collection of off-the-shelf sensors covering most applications in the market, including main body and spout fitting, which are ready to take and integrate in touchless faucets. The Infrared Sensors by Sedal work perfectly synced with our Hydron on-off Valve Range with easy maintenance features.

OEM shapes and specifications can be developed on demand, as well as special functions such wireless connectivity or BMS capability.

#### ADVANTAGES



DIFFERENT SHAPES Alternative shapes for different faucet designs available.



ADJUSTABLE DISTANCE Sensor distance adjustable for different faucet types and applications.



life.

#### IP CONNECTOR IP65 connectors for reliable assembly and function during product

ANTI-VANDALIC In the event of power failure, this product will automatically switch to battery power.



EASY FITTING Assembly friendly sensors for easier manufacturing process.



SPOUT AND MAIN BODY INSTALL Variants for faucet spout and body location.



FALSE ACTIVATION FREE Smart function to recognise false



### **S1** *for iRED & iRED*+ REF. 27EI000013 (iRED) REF. 27EI000016 (iRED<sup>+</sup>)





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#### DIMENSIONS





General	
Voltage supply	DC 6V
Detection Distance	14-48 cm (Adjustable)
Water Saving Function	Auto closed after 30s (iRED <sup>+</sup> ) Auto closed after 60s (iRED)
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	15 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	LED blinks twice when < 3,9V



# HYDRON SENSORS FOR IRED









#### DIMENSIONS







General	
Voltage supply	DC 6V
Detection Distance	12-38 cm (Adjustable)
Water Saving Function	Auto closed after 60s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	15 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	LED blinks twice when < 3,9V



**S3** *for IRED* REF. 27EI000015





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#### DIMENSIONS



General	
Voltage supply	DC 6V
Detection Distance	2-37 cm (Adjustable)
Water Saving Function	Auto closed after 60s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	15 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	Indicator light when < 3,9V



# HYDRON SENSORS FOR IRED









#### DIMENSIONS





General	
Voltage supply	DC 6V
Detection Distance	12-47 cm (Adjustable)
Water Saving Function	Auto closed after 60s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	10 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	LED blinks twice when < 3,9V











#### DIMENSIONS



General	
Voltage supply	DC 6V
Detection Distance	12-60 cm (Adjustable)
Water Saving Function	Auto closed after 60s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	15 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	Indicator light when < 3,9V



## HYDRON SENSORS FOR IRED+

# S7 SENSOR KIT for IRED+ REF. 27E1000019



#### DIMENSIONS



#### **COMPONENTS -** REF. 27EI000012



General	
Voltage supply	DC 6V
Detection Distance	12-52 cm (Adjustable)
Water Saving Function	Auto closed after 60s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	10 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	LED blinks twice when < 3,9V



### **S8 SENSOR KIT**

for IRED+

REF. 27EI000020

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#### DIMENSIONS



#### **COMPONENTS -** REF. 27EI000013



General	
Voltage supply	DC 6V
Detection Distance	10-40 cm (Adjustable)
Water Saving Function	Auto closed after 30s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	15 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	LED blinks twice when < 3,9V





# S9 SENSOR KIT *for IRED*+ REF. 27EI000021



#### DIMENSIONS





#### **COMPONENTS –** REF. 27EI000014



#### **TECHNICAL SPECIFICATIONS**

General	
Voltage supply	DC 6V
Detection Distance	5-40 cm (Adjustable)
Water Saving Function	Auto closed after 30s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	15 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	Indicator light when < 3,9V



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## HYDRON SENSORS FOR IRED CORE







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#### DIMENSIONS



R27,5



General	
Voltage supply	DC 6V
Maximum power	≤4 W
Standby power	≤0,2 mW
Detection Distance	12-60 cm (Adjustable)
Pre-adjusted detection	32±2cm
distance	32±2011
Water Saving Function	Auto closed after 60s
Life test	500,000 cycle
Opening time	<1s
Closing time	< 1,5 s
Detection angle	15 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	LED blinks twice when
	< 3,9V

### HYDRON SENSORS FOR IRED CORE

### **S13 CORE** for IRED CORE REF. 27EI000047







#### DIMENSIONS





General	
Voltage supply	DC 6V
Maximum power	≤4 W
Standby power	≤0,2 mW
Detection Distance	12-47 cm (Adjustable)
Pre-adjusted detection	20 - 2
distance	28±2cm
Water Saving Function	Auto closed after 30s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	10 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	LED blinks twice when
	< 3,9V









#### DIMENSIONS



General	
Voltage supply	DC 6V
Maximum power	≤4 W
Standby power	≤0,2 mW
Detection Distance	12-60 cm (Adjustable)
Pre-adjusted detection distance (white card)	21±3cm
Water Saving Function	Auto closed after 60s
Life test	500,000 cycle
Opening time	< 1 s
Closing time	< 1,5 s
Detection angle	15 deg (conical)
Protection against intrusion	IP 67
Static power consumption	DC <0.5mW, AC <2W;
Under voltage protection	LED blinks twice when
	< 3,9V

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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.

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