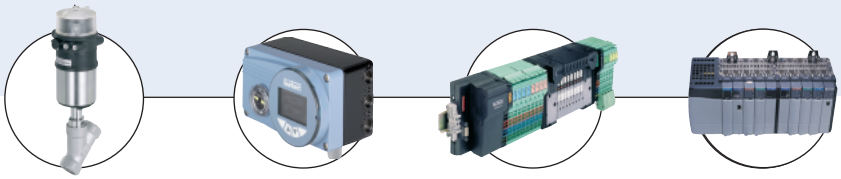
bürkert
FLUID CONTROL SYSTEMS

Positive displacement flow transmitter

- Flow rate, 2 totalized volumes shown on display
- Automatic calibration: TEACH-IN
- Simulation: all output signals provided without the need for real flow

Type 8075 can be combined with...



Type 2100 (8692)
Control valve with TopControl

Type 8792
Continuous SideControl

Type 8644-P AirLINE
Valve island with electronic I/O

PLC

This positive displacement flow transmitter with display is designed for use in slightly viscous fluid like glue, honey or oil and specially to switch a valve and to establish a monitoring system or an On/Off control loop.

The transmitter is made of a compact fitting (S070) and an electronic module (SE35) quickly and easily connected together by a Quarter-Turn.

General data	
Compatibility	With fittings S070 (see corresp. data sheet)
Materials	
Housing, cover, lid, nut	PC
Front panel foil / Screws	Polyester / Stainless steel
Cable glands	PA
Materials wetted parts	
Fitting	Aluminium, stainless steel (316F/1.4401)
Rotor	PPS, Aluminium, stainless steel (316F/1.4401)
Shaft / Seal	Stainless steel / FKM (EPDM or PTFE on request)
Display	15 x 60 mm, 8-digit LCD, alphanumeric, 15 segments, 9 mm high
Electrical connections	Cable glands M20 x 1.5
Voltage supply cable	max. 50 m, shielded, 1.5 mm² max. cross-section

Complete device data (fitting + electronic module)	
Pipe diameter	DN 15 to DN 100
Measuring range	2 to 1200 l/min (0.26 to 320 gpm) for viscosity > 5 mPa.s 3 to 616 l/min (0.78 to 320 gpm) for viscosity < 5 mPa.s
Medium temperature	
Aluminium body	0 up to 80°C *(32 to 176°F)*
Stainless steel body	0 up to 100°C *(32 to 212°F)*
Fluid pressure max.	
DN15	55 bar *(798 PSI)* (threaded process connection)
DN25	55 bar *(798 PSI)* (or flanges rules where fitted)
DN40, DN50 / DN80 / DN100	18 bar *(261 PSI)* / 12 bar *(174 PSI)* / 10 bar *(145 PSI)*
Viscosity	1000 cps max. (higher on request)
Accuracy	≤ ± 0.5% of Reading
Programming mode	Threshold, window or hysteresis
Repeatability	≤ 0.03% of Reading

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Electrical data	
Power supply	115/230 V AC 50/60 Hz (see technical specifications 115/230 VAC)
Current consumption with sensor (without consumption of pulse output)	≤ 20 mA
Output	
Signal current	4-20 mA (2-wire) max. loop impedance : 800 Ω
Pulse	Polarized, potential free, 5...30 V DC; 100 mA, protected, line drop at 100 mA: 1.5 VDC

Technical specifications 115/230 VAC	
Voltage supply available inside the device	27 V DC regulated - max. current: 125 mA integrated protection: fuse 125 mA temporised power: 3 VA

Environment	
Ambient temperature	0 up to + 60°C *(32 to 140°F)* (operating and storage)
Relative humidity	≤ 80%, without condensation

Standards, directives and approvals	
Protection class	IP65 with cable or screws plug mounted and tightened
Standard and directives CE	
EMC	EN 61000-6-3, EN 61000-6-2
Pressure	Complying with article 3 of §3 from 97/23/CE directive.* (without CE mark)
Security	EN 61010-1
Vibration	EN 60068-2-6
Shock	EN 60068-2-27

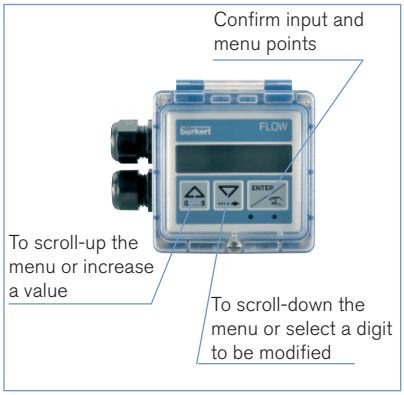
* For the 97/23/CE pressure directive, the device can only be used under following conditions (depend on max. pressure, pipe diameter and fluid).

Type of fluid	Conditions
Fluid group 1, §1.3.a	Forbidden
Fluid group 2, §1.3.a	DN ≤ 32, or DN > 32 and PN*DN ≤ 1000
Fluid group 1, §1.3.b	PN*DN ≤ 2000
Fluid group 2, §1.3.b	DN ≤ 200

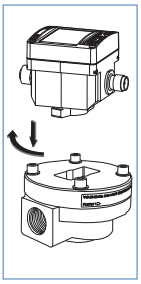
Operation and display

The device can be calibrated by means of the K-factor or via the Teach-In function. User adjustments such as measuring range, engineering units, pulse output and filter are carried out on site.
The operation is specified according to two or three levels depending on the transmitter version:

	Indication in operating mode / display	Parameter definition	Test
Flow transmitter	- flow - output current - main totalizer - daily totalizer with reset function	- language - engineering units - K-factor / Teach-In function - measuring range 4-20 mA - pulse output - filter - reset main totalizer	- alteration of basic adjustment (offset, span) - frequency test of sensor - flow simulation (dry-run test operation)



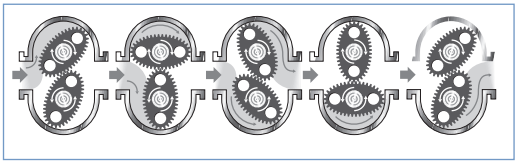
Design and principle of operation



The 8075 flow transmitter is built up with an SE35 electronic module associated to a fitting S070 with integrated measurement oval rotor. The connection is made by means of a Quarter-Turn. The output signals are provided via two cable glands.

If liquid flows through the pipe the rotor turns. This rotation produces a measuring signal in the transducer. The frequency is proportional to the flow of the fluid.

A conversion coefficient (K factor, available in the instruction manual of the fitting), specific to each pipe (size and material) enables the conversion of this frequency into a flow rate.



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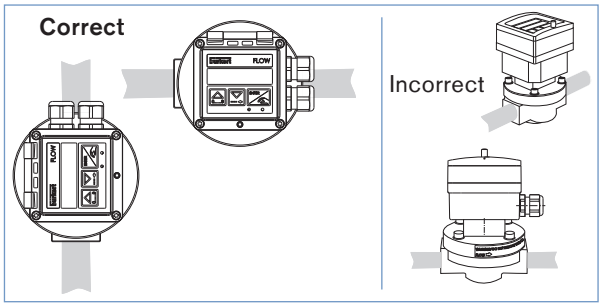
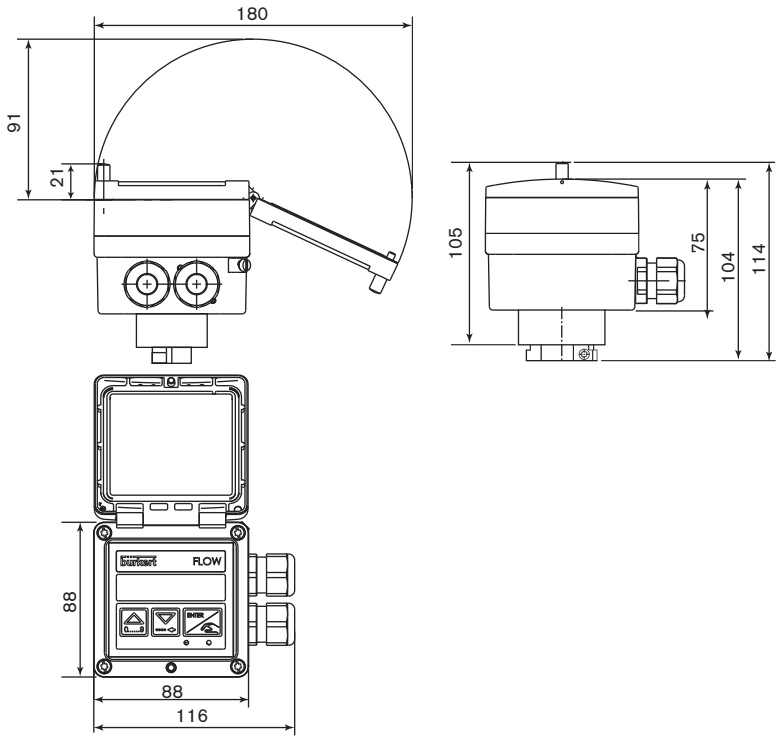
Installation

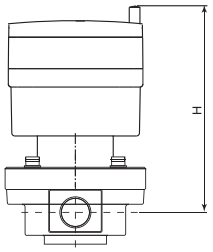
The fitting can handle particle sizes up to 250 µm. To prevent damage from dirt or foreign matter, we strongly recommend the installation of a 250 µm strainer as close as possible to the inlet side of the meter.
The pipe must be filled with liquid and free from air bubbles. Avoid air purge of the system.
Ensure the fitting is installed according to opposite drawing. Flow direction is marked by an arrow on the body.



Dimensions [mm]

Electronics SE35





DN	H
15	140
25	155
40	172
50	190
80	230
100	231

DN15 DN25 DN40 DN50 DN80
Threaded connection
DN25 DN40 DN50 DN80 DN100
Flanged connection

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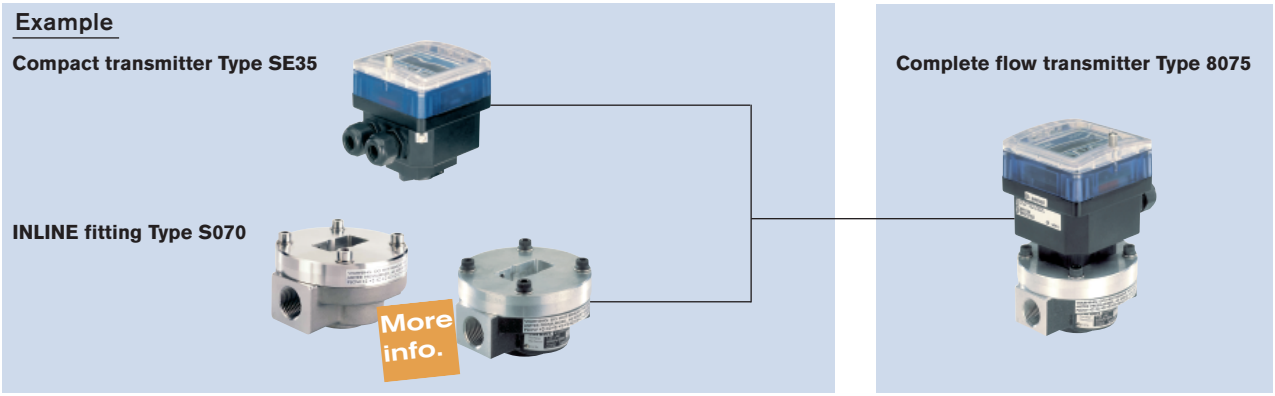
Ordering information for compact transmitter Type 8075

A complete flow transmitter Type 8075 consists of a compact flow transmitter Type SE35 and a Bürkert INLINE fitting Type S070

The following information is necessary for the selection of a complete device:
- **Item no.** of the desired compact flow transmitter **Type SE35** (see Ordering chart, below)
- **Item no.** of the selected INLINE fitting **Type S070** (see separate data sheet)

You have to order two components.

When you click on the orange box "More info." below, you will come to our website for the resp. product where you can download the data sheet.



Ordering chart for transmitter Type SE35

Specifications	Voltage supply	Output	Sensor version	Electrical connection	Item no.
Standard output signal transmitter, 2 totalizers	115 - 230 V AC	4-20 mA (2 wires)+ pulse	Hall	2 cable glands	423 922

Ordering chart - accessories for transmitter Type 8075 (has to be ordered separately)

Specifications	Item no.
Set with 2 cable glands M20 x 1.5 + 2 neoprene flat seals for cable gland or plug + 2 screw-plugs M20 x 1.5 + 2 multiway seals 2 x 6 mm	449 755
Set with 2 reductions M20 x 1.5 /NPT1/2" + 2 neoprene flat seals for cable gland or plug + 2 screw-plugs M20 x 1.5	551 782
Set with 1 stopper for unused cable gland M20 x 1.5 +1 multiway seal 2 x 6 mm for cable gland + 1 black EPDM gasket for the sensor + 1 mounting instruction sheet	551 775

To find your nearest Bürkert facility, click on the orange box → **www.burkert.com**

In case of special application conditions, please consult for advice.
Subject to alteration.
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1002/0_EU-en_00895132

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