

## Positive displacement flowmeter



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

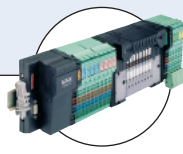
Type 8075T can be combined with...



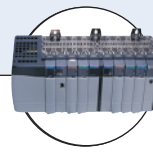
**Type 2100 (8692)**  
Control valve with  
TopControl



**Type 8792**  
Continuous  
SideControl



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



**PLC**

This positive displacement flowmeter 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 flowmeter is made of a compact sensor fitting (S070) and an electronic module (SE35) quickly and easily connected together by a Quarter-Turn.

General data	
<b>Compatibility</b>	With sensor fittings S070 (see corresponding data sheet)
<b>Materials</b>	PC Polyester / Stainless steel PA
Housing, cover, lid, nut	
Front panel foil / Screws	
Cable glands	
Wetted parts materials	
Sensor fitting	Aluminium, stainless steel (316F/1.4401)
Rotor	PPS, Aluminium, stainless steel (316F/1.4401)
Shaft / Seal	Stainless steel / FKM or FEP/PTFE
<b>Display</b>	15x60 mm, 8-digit LCD, alphanumeric, 15 segments, 9 mm high
<b>Electrical connections</b>	Cable glands M20x1.5
<b>Voltage supply cable</b>	max. 50 m, shielded, 1.5 mm <sup>2</sup> max. cross-section

Complete device data (sensor fitting + electronic module)	
<b>Pipe diameter</b>	DN15 to DN100
<b>Measuring range</b>	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
<b>Medium temperature</b>	Aluminium body: 0 to 80°C (32°F to 176°F) Stainless steel body: 0 to 100°C (32°F to 212°F)
<b>Medium pressure max.</b>	DN15: 55 bar (798 PSI) (threaded process connection) DN25: 55 bar (798 PSI) <sup>1)</sup> DN40, DN50 / DN80 / DN100: 18 bar (261 PSI) / 12 bar (174 PSI) / 10 bar (145 PSI)
<b>Viscosity</b>	1 Pa.s max. (higher on request)
<b>Accuracy</b>	± 0.5% of Reading
<b>Programming mode</b>	Threshold, window or hysteresis
<b>Repeatability</b>	≤ 0.03% of Reading

<sup>1)</sup> or in accordance to the value of the used flanges

Phase out

# 8075 Transmitter INLINE

bürkert

Electrical data	
<b>Operating voltage</b>	115/230 V AC 50/60 Hz (see technical specifications 115/230 V AC)
<b>Current consumption</b> with sensor (without consumption of pulse output)	≤ 25 mA
<b>Output</b>	
Signal current	4... 20 mA (2-wire) max. loop impedance : 800 Ω
Pulse	Polarized, potential free, 5... 36 V DC; 100 mA, protected, line drop at 100 mA: 2.5 V DC
Technical specifications 115/230 V AC	
<b>Voltage supply available</b> inside the device	27 V DC regulated - max. current: 125 mA integrated protection: fuse 125 mA temporised power: 3 VA
Environment	
<b>Height above the sea</b>	max. 2000 m
<b>Ambient temperature</b>	0 to + 60°C (32°F to 140°F) (operating and storage)
<b>Relative humidity</b>	≤ 80%, without condensation
Standards, directives and approvals	
<b>Protection class</b>	IP65 with cable or screws plug mounted and tightened
<b>Standard and directives</b> <b>CE</b>	
EMC	EN 61000-6-3, EN 61000-6-2
Pressure (Sensor fitting S070, DN15 to DN100, in aluminium or stainless steel)	Complying with article 3 of chap. 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 (dependent on max. pressure, pipe diameter and fluid).

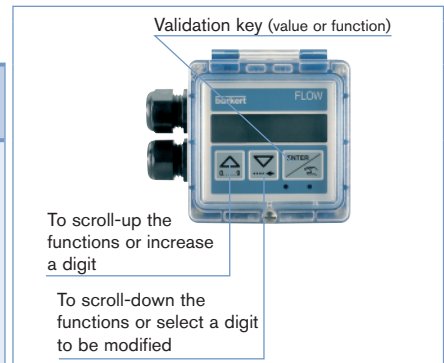
Type of fluid	Conditions
Fluid group 1, §1.3.a	Forbidden
Fluid group 2, §1.3.a	DN ≤ 32, or DN > 32 and PN*DN ≤ 1000
Fluid group 1, §1.3.b	PN*DN ≤ 2000
Fluid group 2, §1.3.b	DN ≤ 200

## Operation and display

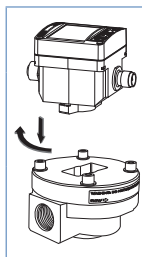
The device can be calibrated by means of the K-factor, or via the Teach-In function. User adjustments such as measuring range, engineering units, pulse output and filter are carried out on site.

The operation is specified according to three levels:

Indication in operating mode/display	Parameter definition	Test
<ul style="list-style-type: none"> <li>- flow rate</li> <li>- output current</li> <li>- main totalizer</li> <li>- daily totalizer with reset function</li> </ul>	<ul style="list-style-type: none"> <li>- language</li> <li>- engineering units</li> <li>- K-factor / Teach-In function</li> <li>- measuring range 4... 20 mA</li> <li>- pulse output</li> <li>- filter</li> <li>- reset main totalizer</li> </ul>	<ul style="list-style-type: none"> <li>- alteration of basic adjustment (offset, span)</li> <li>- frequency test of sensor</li> <li>- flow simulation</li> </ul>



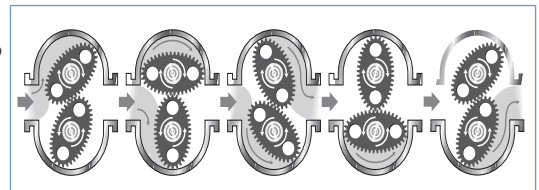
## Design and principle of operation



The 8075 flowmeter is built up with an SE35 electronic module associated to a sensor 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.

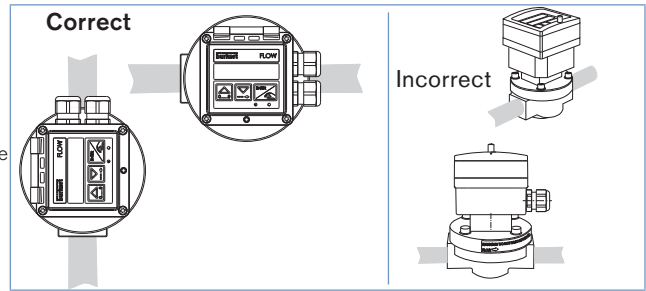
A conversion coefficient (K factor, available in the instruction manual of the sensor fitting S070), specific to each pipe (size and material) enables the conversion of this frequency into a flow rate.



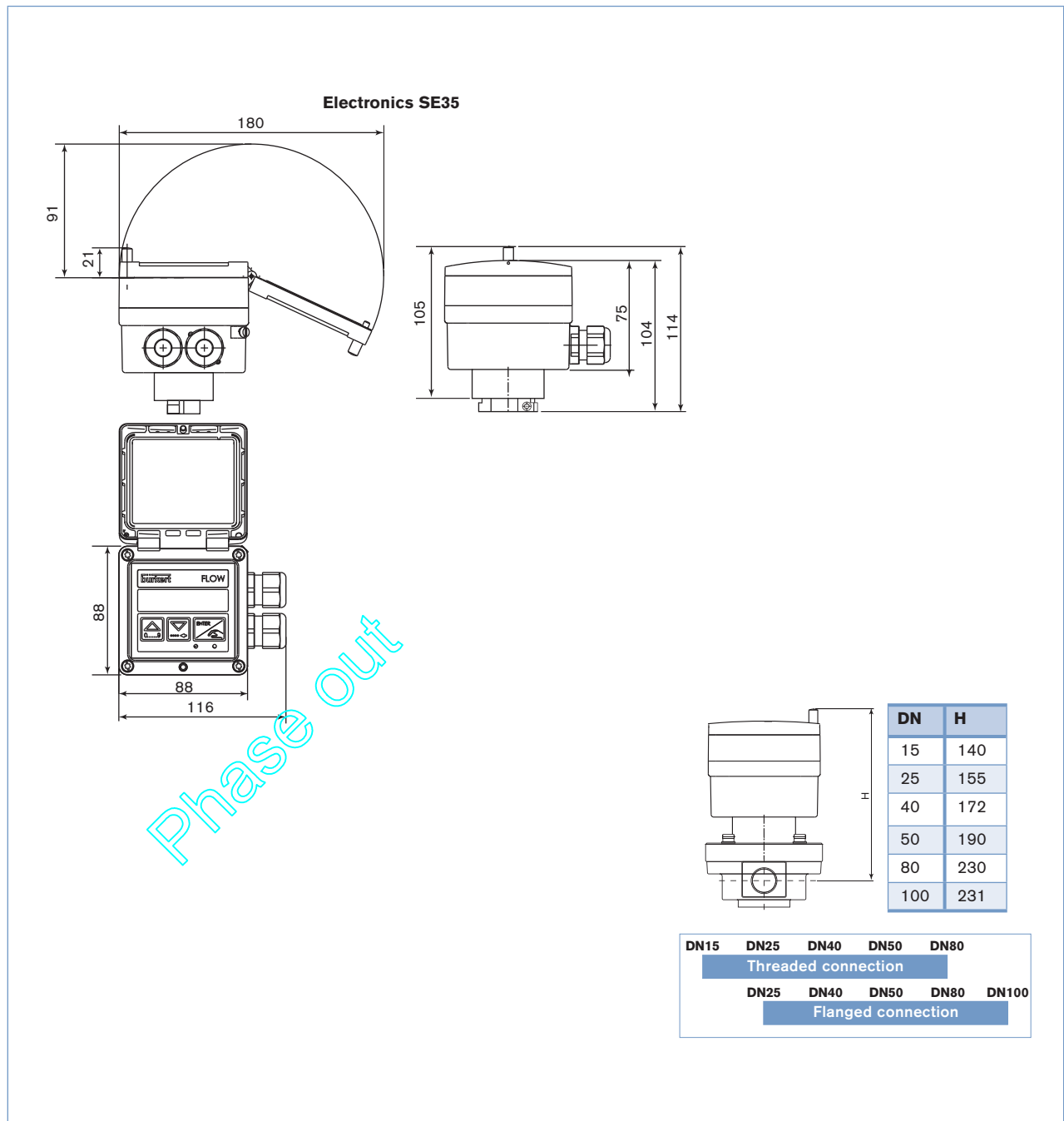
**Installation**

The sensor fitting can be installed in any orientation as long as **the rotor shafts are always in a horizontal plane** (see figures to the right) and **the flow of the fluid is in the direction of the arrow marked on the body**.

The pipe must be filled with liquid and free from air bubbles. Avoid air purge of the system which would cause damages and 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.



**Dimensions [mm]**



**Ordering information for compact flowmeter Type 8075**

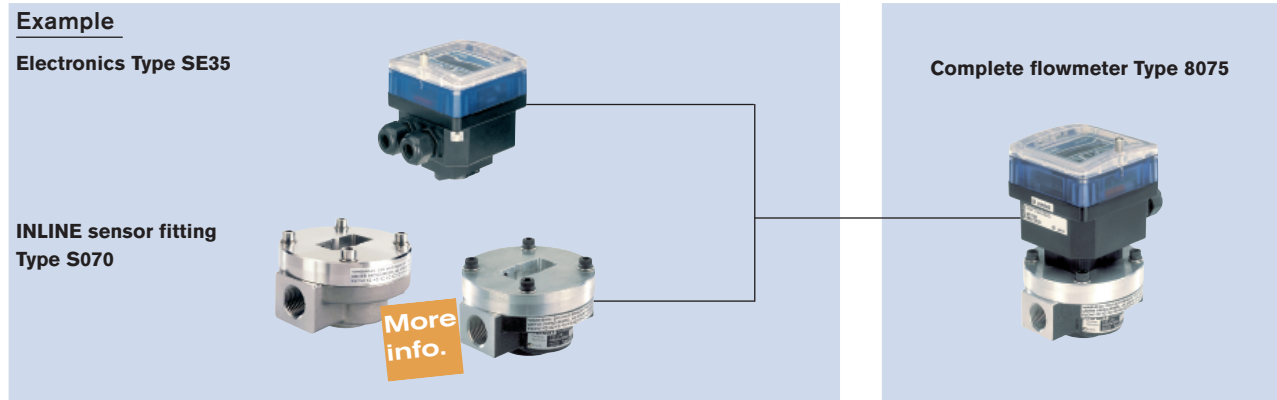
A flowmeter Type 8075 consists of an electronics Type SE35 and a Bürkert INLINE sensor fitting Type S070

The following information is necessary for the selection of a complete device:

- **Item no.** of the desired electronics **Type SE35** (see Ordering chart, below)
- **Item no.** of the selected INLINE sensor fitting **Type S070** (see separate data sheet- has to be ordered separately)

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 electronics Type SE35**

Specifications	Operating voltage	Output	Sensor version	Electrical connection	Item no.
Standard output signal flowmeter, 2 totalizers	115/230 V AC	4... 20 mA (2-wire)+ pulse	Hall	2 cable glands	423 922

**Ordering chart - accessories for flowmeter 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 seal for the sensor + 1 mounting instruction sheet	551 775

To find your nearest Bürkert office, click on the orange box →

[www.burkert.com](http://www.burkert.com)

In case of special application conditions, please consult for advice.

Subject to alteration.  
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