

In-Line Flow Transmitter for continuous measurement

SE36

For use with fitting S030, DN15-50 mm

- Up and download of the data through removable display
- Automatic calibration: TEACH-IN
- All output signals without presence of flow

Please see fitting S030

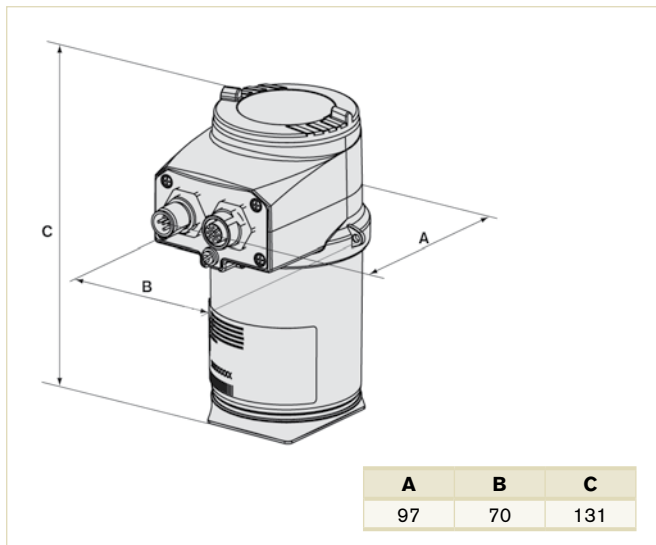


Unique bayonet style flow meter constructed from an SE36 sensor and any of the S030 fittings. This two-wire 4-20 mA INLINE flow meter is manufactured to provide true, reliable flow for neutral, solid free liquids. A backlit removable display allows the system to be flexible and adds more value.

Technical Data

General data	
Compatibility	Any pipe from DN06 to 65 which are fitted out with Bürkert INLINE Fitting S030 (see corresponding data sheet)
Materials	See exploded view, on next page
Housing cover	Stainless steel 1.4561, PPS
Gaskets	PC
Screws	EPDM
Fixed connector mounting plate	Stainless steel
Fixed connector	Stainless steel 1.4404 (316L)
Display	Brass nickel plated
Navigation key	PC
Quarter-Turn system	PBT
Display (accessories)	Grey dot matrix 128 x 64 with backlighting
Electrical connections	
2 or 3 outputs transmitter	1 x 5-pin M12 male fixed connector,
4 outputs transmitters	1 x 5-pin M12 male and 1 x 5-pin M12 female fixed connectors
Connection cable	Shielded cable
Environment	
Ambient temperature	-10 up to +60°C (operating and storage)
Relative humidity	≤ 85%, without condensation
Complete device data (Pipe + transmitter)	
Pipe diameter	DN06 to 65
Measuring range	0.3 up to 10 m/s
Medium temperature with fitting in	
PVC	0 up to 50°C
PP	0 up to 80°C
PVDF, brass or stainless steel	-15 up to 100°C
Medium pressure max.	PN10 (145 PSI) (with plastic fitting) - PN16 (232 PSI) (with metal fitting) - (PN40 on request, see S030 datasheet) - see pressure/temperature chart
Viscosity / Particles rate	300 cSt max. / 1% max.
Measurement error	
Teach-In	±1% of Reading (at Teach-In flow rate value) ¹⁾
Standard K-factor	±2.5% of Reading ¹⁾
Linearity	±0.5% of F.S.* ¹⁾
Repeatability	±0.4% of Reading ¹⁾

Envelope Dimensions [mm] (see datasheet for details)




Options

- High flow rate (8026) to DN350 mm
- Hygienic clamp and weld end connections
- ANSI/DIN flange connection
- Various sealing materials
- Individual calibration certificate

¹⁾ Under reference conditions i.e. measuring fluid=water, ambient and water temperature=20°C (68°F), applying the minimum inlet and outlet pipe straights, matched inside pipe dimensions.

* F.S.=Full scale (10 m/s)

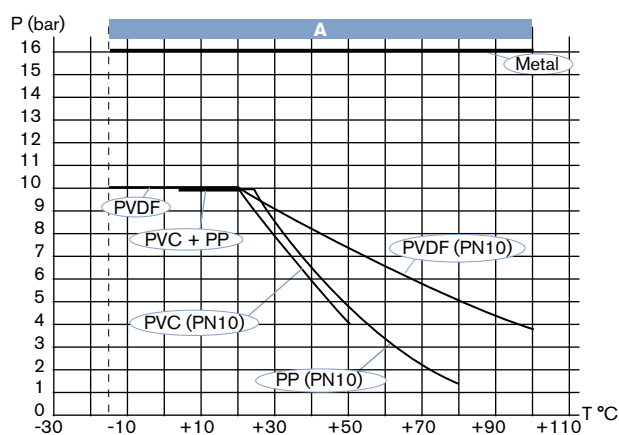
Technical Data (continued)

Electrical data	
Power supply	
2 or 3 outputs transmitter (2-wire)	14-36 V DC, filtered and regulated
4 outputs transmitter (3-wire)	12-36 V DC, filtered and regulated
Characteristics of the power source (not provided) of UL recognized devices	
Current consumption with sensor	≤ 1 A (with transistors load)
2 or 3 outputs transmitter (2-wire)	≤ 25 mA (at 14 V DC without transistors load, with current loop)
4 outputs transmitter (3-wire)	≤ 5 mA (at 12 V DC without transistors load, without current loop)
Power consumption	40 W max.
Reversed polarity of DC	Protected
Voltage peak	Protected
Short circuit	Protected for transistor outputs
Output	
Transistor	
1 Transistor output (Transmitter 2-wire)	NPN, open collector, 1 - 36 V DC, max. 700 mA
2 Transistor outputs (Transmitter 2 or 3-wire)	Configurable as sourcing or sinking (respectively both as PNP or NPN), open collector, max. 700 mA, 500 mA max. per transistor if the 2 transistor outputs are wired NPN-output: 1 - 36 V DC PNP-output: Power supply
Current	
1 Current output (Transmitter 2-wire)	4-20 mA programmable as sourcing or sinking (in transistor mode), max. loop impedance: 1100 Ω at 36 V DC ; 610 Ω at 24 V DC; 180 Ω at 14 V DC
2 Current outputs (Transmitter 3-wire)	max. loop impedance: 1100 Ω at 36 V DC; 610 Ω at 24 V DC; 100 Ω at 12 V DC
4 to 20 mA measurement error	± 1%
Standards, directives and approvals	
Protection class	IP65, IP67, NEMA 4X and NEMA 6P with M12 cable plug mounted and tightened and cover fully screwed down
Standard and directives 	
EMC	EN 61000-6-2 (2005), EN 61000-6-3 (2001)
Pressure	Complying with article 3 of §3 from 97/23/CE. directive*
Vibration / Shock	EN 60068-2-6 / 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).

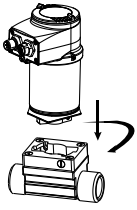
Type of fluid	Conditions
Fluid group 1, §1.3.a	DN ≤ 25 only
Fluid group 2, §1.3.a	DN ≤ 32 DN > 32 and PN*DN ≤ 1000
Fluid group 1, §1.3.a	PN*DN ≤ 2000
Fluid group 2, §1.3.a	DN ≤ 200

Pressure / Temperature Chart

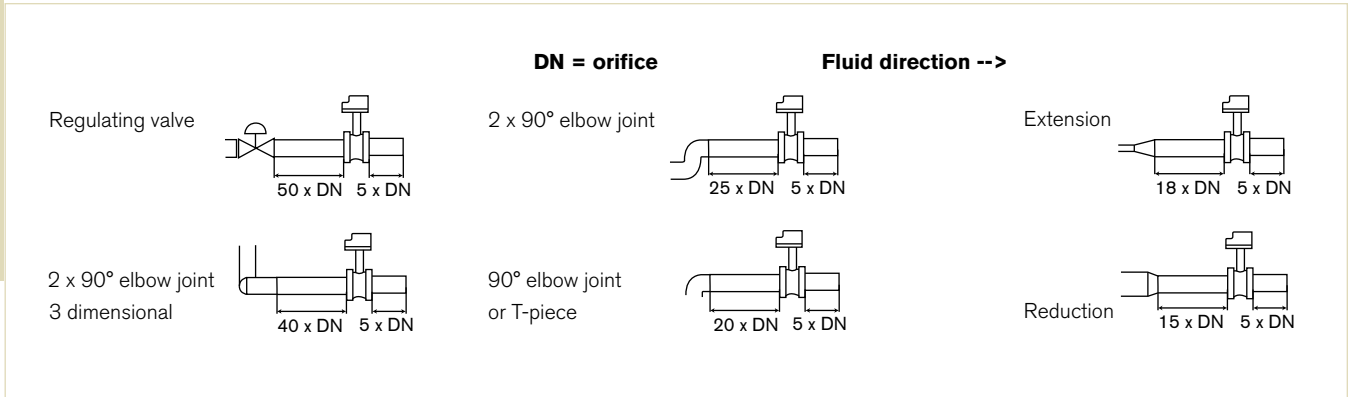


A : application range for complete device
(Fitting + transmitter)

Installation



EN ISO 5167-1 prescribes the straight inlet and outlet distances that must be complied with when installing fittings in pipe lines in order to achieve calm flow conditions. The most important layouts that could lead to turbulence in the flow are shown below, together with the associated prescribed minimum inlet and outlet distances. These ensure calm, problem-free measurement conditions at the measurement point.



Dimensions [mm]

DN	H with S030 Fitting
06	160
08	160
15	165
20	163
25	163
32	166
40	170
50	177
65	177

Ordering Chart

Specifications	Output	Electrical connection	Item no.	
			without display	with display
2 outputs	1 x transistor + 1 x 4 - 20 mA (2 wire)	5-pin M12 male fixed connector	560 880	561 880
3 outputs	2 x transistor + 1 x 4 - 20 mA (2 wire)	5-pin M12 male fixed connector	560 881	561 881
4 outputs	2 x transistor + 2 x 4 -20 mA (3 wire)	5-pin M12 male and 5-pin M12 female	560 882	561 882

Note:

The following items must be ordered separately

- The SE36 electronic module and the S030 fitting
- M12 cable plugs (only female for single 4-20 mA, 1 male + 1 female for dual 4-20 mA transmitter)

Accessories

Description	Item No
Display/programming module	559 168
Electrical connector, 5-pin M12 male, plug only	560 946
Electrical connector, 5-pin M12 male, 2 m prewired	559 177
Electrical connector, 5-pin M12 female, plug only	917 116
Electrical connector, 5-pin M12 female, 2 m prewired	438 680