

Insertion Flow Transmitter for continuous measurement

8026

For use with fitting DN15-400, PN10

- Up and download of the data through removable display
- Preferably, for pipe diameter greater than DN65 mm

Please see fitting S020



The insertion style flow meter provides a 4-20 mA output directly proportional to flow. A range of fittings from weld-o-lets to saddles makes these ELEMENT style transmitters perfect for neutral, solid free liquids. A backlit removable display with joystick programming makes commissioning a breeze.

Technical Data

General data

Compatibility Any pipe from DN15 to 400, which is mounted with Bürkert INSERTION fitting (see separate datasheet S020).

Materials See the following materials below

Housing	Stainless steel 1.4404, PPS
Cover	PC
Gaskets	EPDM
Screws	Stainless steel
Fixed connector mounting plate	Stainless steel 1.4404 (316L)
Fixed connector	Nickel-plated brass
Display	PC
Navigation key	PBT
Nut	PC
Wetted part materials	
Sensor finger	PVDF
Gasket	FKM (Standard)
Axis and bearings	Ceramic (Al2O3)
Paddle-wheel	PVDF

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 transmitter	1 x 5-pin M12 male and 1 x 5-pin M12 female fixed connectors

Connection cable Shielded cable

Complete device data (Pipe + transmitter)

Pipe diameter DN15 to 400

Measuring range 0.3 up to 10 m/s

Medium temperature

with fitting in

PVC / PP	0 °C to 50 °C (32 to 122 °F) / 0 °C to 80 °C (32 to 176°F)
PVDF, brass or stainless steel	-15 °C to 100 °C (5 to 212 °F)

Medium pressure max. PN10 (145 PSI) - see pressure / temperature chart

Viscosity / Particles rate 300 cSt max. / 1% max.

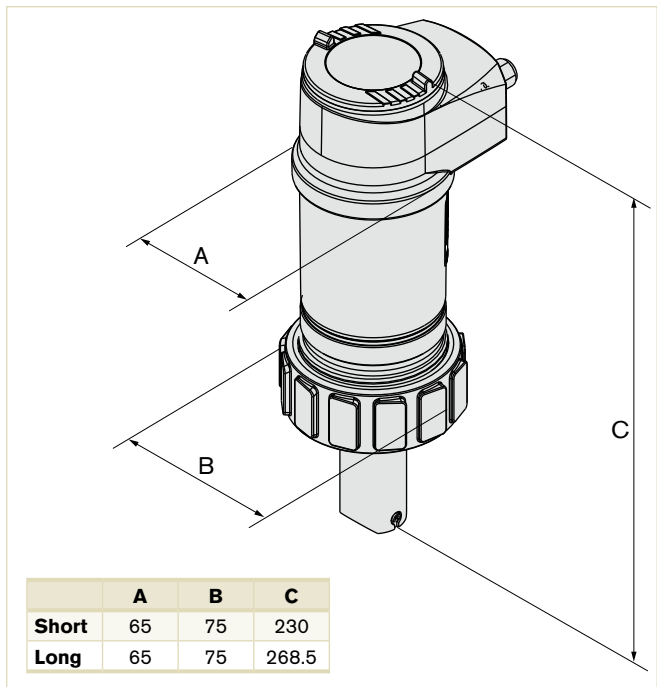
Measurement error

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 Reading¹⁾

Envelope Dimensions [mm] (see datasheet for details)



Options

- PVC, PVDF and PP, St.st. and brass fitting
- Various sealing materials
- Individual calibration certificate
- Pre-wired connection ports, M12 plug and cable

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)

Power supply

2 or 3 outputs transmitter 14-36 V DC, filtered and regulated

Electrical data

4 outputs transmitter (3-wire) 12-36 V DC, filtered and regulated

Characteristics of the power source (not provided) of UL recognized devices

Limited power source (according to § 9.3 of the UL61010-1 standard) or Class 2 type power source (according to the 1310/1585 and 60950-1 standards)

Current consumption with sensor

2 or 3 outputs transmitter (2-wire) ≤ 1 A (with transistors load)
 ≤ 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

max. 40 W

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, 0.5 A max. per transistor if the 2 transistor outputs are wired
 NPN-output: 1 - 36 V DC
 PNP-output: Power supply

Current
 4-20 mA programmable as sourcing or sinking (in the same mode as transistor),

1 Current output (Transmitter 2-wire) max. loop impedance: 1100 W at 36 V DC ; 610 W at 24 V DC; 180 W at 14 V DC

2 Current outputs (Transmitter 3-wire) max. loop impedance: 1100 W at 36 V DC; 610 W at 24 V DC; 100 W at 12 V DC

4...20 mA measurement error $\pm 1\%$

Environment

Ambient temperature -10 °C to +60 °C (operating and storage)

Relative humidity $\leq 85\%$, without condensation

Standards, directives and approvals

Protection class IP65, IP67, NEMA250 4X 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

Approvals

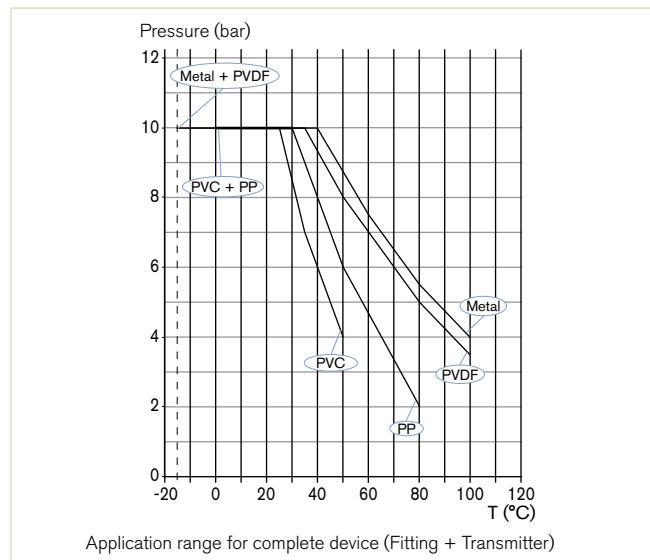
UL-Recognized for US and Canada 

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* 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	DN ≤ 25 DN > 25 and PN*DN ≤ 2000
Fluid group 2, §1.3.a	DN ≤ 400

Pressure / temperature chart



Ordering Chart

Output	Electrical connection	Item no.	
		Short	Long
with display			
1 x transistor NPN + 1 x 4 - 20 mA (2-wire)	5-pin M12 male	561 860	561 870
2 x transistor NPN / PNP + 1 x 4 -20 mA (2-wire)	5-pin M12 male	561 861	561 871
2 x transistor NPN / PNP + 2 x 4 - 20 mA (3-wire)	5-pin M12 male and 5-pin M12 female	561 862	561 872
without display			
1 x transistor NPN + 1 x 4 -20 mA (2-wire)	5-pin M12 male	560 860	560 870
2 x transistor NPN / PNP + 1 x 4 - 20 mA (2-wire)	5-pin M12 male	560 861	560 871
2 x transistor NPN / PNP + 2 x 4 - 20 mA (3-wire)	5-pin M12 male and 5-pin M12 female	560 862	560 872

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Accessories

Description	Item No
Removable display/programmer module (with instruction sheet)	559 168
Electrical connector, 5-pin M12 male, plug only	560 946
Electrical connector, 5-pin M12 male, 2 m pre-wired	559 177
Electrical connector, 5-pin M12 female, plug only	917 116
Electrical connector, 5-pin M12 female, 2 m pre-wired	438 680

Note: Type 8026, a complete flow transmitter with integrated paddle, consists of Type 8026 which is a compact ELEMENT Flow Transmitter, a removable display/programming module and Type S020, an INSERTION fitting (the latter must be ordered separately)

Insider Tip!

Did you know...? The Bürkert Type 330 is more than just a solenoid valve: it's many in one. Featuring a body made of plastic, brass, aluminium or stainless steel and with various ports and sealants, it adapts to perfectly fit every requirement. Which means its unique and versatile valve technology is suitable for use in nearly all industries. Full encapsulation, the IP65 rating and an explosion-proof enclosure make the 330 fit for rough environments and critical media. Its long service life ensures it won't be a thing of the past tomorrow. So spread the word!

We make ideas flow.

