

Overview

- Flow and temperature measurement in a single sensor
- Binary or analog output signal
- Compact and robust
- Available with IO-Link interface


Technical data
Performance characteristics

Measuring range, flow	10 ... 400 cm/s
Measuring range, temperature	-25 ... 150 °C
Max. measuring error	± 2 % FS , flow measurement ± 8 cm/s , flow measurement ± 1 °C , temperature measurement
Response time, T90	< 5 s
Down time at temperature step	< 10 s

Process conditions

Process pressure	-1 ... 100 bar
Process temperature	-25 ... 125 °C , flow measurement -25 ... 150 °C , temperature measurement

Process connection

Mounting position	Any, top, bottom, side
Connection variants	Refer to section "Dimensional drawings"
Wetted parts material	AISI 316L (1.4404)
Surface roughness wetted parts	Ra ≤ 0.8 µm

Ambient conditions

Shock (EN 60068-2-27)	30 g / 11 ms, 6 impulses per axis and direction
Vibration (sinusoidal) (EN 60068-2-6)	5 g (10 ... 2000 Hz)
Degree of protection (EN 60529)	IP 67 IP 68 , 30 min. @ 1 mH2O IP 69K , with appropriate cable
Humidity	≤ 100 % RH , condensing
Operating temperature range	-25 ... 80 °C
Storage temperature range	-25 ... 80 °C

Output signal

Current output	4 ... 20 mA
Voltage output	0 ... 10 V
Output type	Digital (push-pull) NPN PNP
Switching logic	Active high Active low Normally closed (NC) Normally open (NO)
Voltage drop	< 2 V, switching output
Current rating	100 mA , max.
Residual current	< 250 µA
Short circuit protection	Yes
Interface	IO-Link 1.1

Housing

Overall size	Refer to section "Dimensional drawings"
Style	Compact transmitter
Material	Stainless steel

Electrical connection

Connector	M12-A, 4-pin
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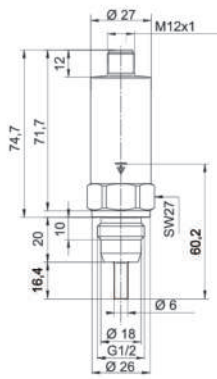
Power supply

Reverse polarity protection	Yes
Power-up time	10 s , max.
Voltage supply range	12 ... 32 V DC , with 2 x 4 ... 20 mA 18 ... 30 V DC , with IO-Link

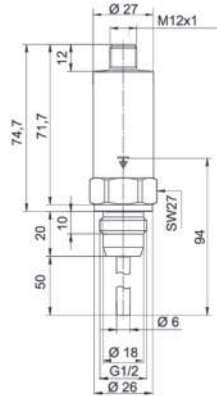
Compliance and approvals

EAC (Eurasian Conformity)	EAC (TR CU 020/2011)
EMC	2014/30/EU
RoHS	2011/65/EU

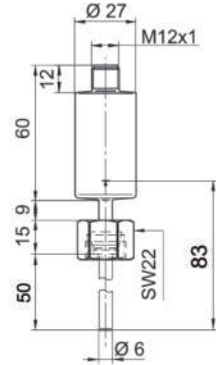
Dimensional drawings



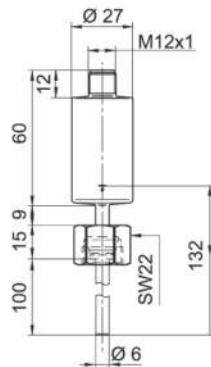
G08-G081
G 1/2 A ISO 228-1 with cone
Sensor length 16.4 mm (BCID: G08)



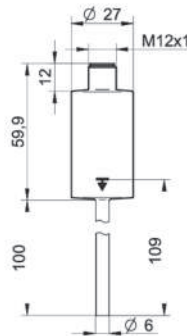
G08-G085
G 1/2 A ISO 228-1 with cone
Sensor length 50 mm (BCID: G08)



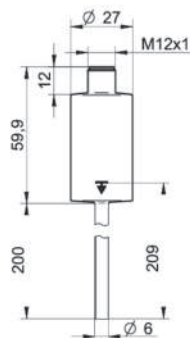
T44-T445
Sealing cone M18x1.5
Sensor length 50 mm (BCID: T44)



T44-T447
Sealing cone M18x1.5
Sensor length 100 mm (BCID: T44)



T52-T527
Compression fitting Ø 6
Sensor length 100 mm (BCID: T52)



T52-T528
Compression fitting Ø 6
Sensor length 200 mm (BCID: T52)

PF20S

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Electrical connection

Process connection

Output signal	Equivalent circuit	Electrical connection	Function	Pin assignment
Multi-parameter output 4 ... 20 mA, 3-wire (flow) 4 ... 20 mA, 3-wire (temperature)			+Vs Iout (flow) Iout (temperature) GND (0 V) Frame ground	1 2 4 3 Plug thread
Programmable output Factory setting with IO-Link IO-Link 4 ... 20 mA, 3-wire			+Vs SW1 (IO-Link) Iout GND (0 V) Frame ground	1 4 2 3 Plug thread
Programmable output Configuration programmable by customer IO-Link 0 ... 10 V (3-wire)			+Vs SW1 (IO-Link) Uout GND (0 V) Frame ground	1 4 2 3 Plug thread
Programmable output Configuration programmable by customer IO-Link PNP			+Vs SW1 (IO-Link) SW2 GND (0 V) Frame ground	1 4 2 3 Plug thread
Programmable output Configuration programmable by customer IO-Link NPN			+Vs SW1 (IO-Link) SW2 GND (0 V) Frame ground	1 4 2 3 Plug thread
Programmable output Configuration programmable by customer IO-Link Digital (push-pull)			+Vs SW1 (IO-Link) SW2 GND (0 V) Frame ground	1 4 2 3 Plug thread

Ordering information

Ordering key - Configuration possibilities see website

Product	PF20S - 1 1 . 010 . #### . 2 # . # . 0 00 0 . #
Version	PF20S
Standard	1
Housing	
Stainless steel, AISI 316L (1.4404)	1
Electrical connection	
M12-A, 4-pin, stainless steel	010
Process connection	
Sealing cone M18x1.5 (T44), Sensor length: 50 mm	T445
Sealing cone M18x1.5 (T44), Sensor length: 100 mm	T447

PF20S

PF20S-11.010.####.2#.#.0000.0

Ordering key - Configuration possibilities see website

	PF20S	-	1	1	.	010	.	####	.	2	#	.	#	.	0	00	0	.	#	
Compression fitting Ø 6 (T52), Sensor length: 100 mm								T527												
Compression fitting Ø 6 (T52), Sensor length: 200 mm								T528												
G 1/2 A ISO 228-1 with cone (G08), Sensor length: 16.4 mm								G081												
G 1/2 A ISO 228-1 with cone (G08), Sensor length: 50 mm								G085												
Wetted parts material																				
AISI 316L (1.4404)										2										
Seal																				
None																				0
FKM (Viton®)																				3
Output signal																				
Multi-parameter output, 2 x 4 - 20 mA (3-wire)																				0
Programmable output, IO-Link																				1
Explosion protection																				
Without																				0
Industrial approvals																				
Standard																				00
Special approvals																				
Standard																				0
Configuration																				
Factory settings																				0
Customer-specific																				1