

Overview

- Robust stainless housing for harsh environment conditions
- Accuracy of 0.5 %FS and a compensated temperature range from -10 ... 60 °C
- Meets EN 50155
- High EMC protection
- Maintenance-free



EN 50155

Technical data

Performance characteristics

Measuring range	0... 250 bar
Min. measuring span	2.5 bar
Max. measuring span	250 bar
Pressure type	Relative (gauged)
Standard error of measurement (BFSL)	± 0.3 % FSR Including non-linearity, hysteresis and non-repeatability according BFSL
Max. measuring error	± 0.5 % FSR Including zero-point and span error, non-linearity (by terminal base line), hysteresis and non-repeatability (EN 61298-2)
Temperature coefficient	≤ 0.08 % FSR/10 K , measuring span ≤ 0.08 % FSR/10 K , zero point
Compensated temperature range	-40 ... 85 °C
Long term stability	≤ 0.2 % FSR/a
Rise time (10 ... 90 %)	≤ 5 ms

Process conditions

Process pressure	Refer to section "Operating conditions"
Process temperature	-40 ... 100 °C , with EPDM gasket -40 ... 100 °C , with FVMQ gasket -30 ... 100 °C , with NBR gasket -20 ... 100 °C , with FKM (Viton®) gasket

Process connection

Connection variants	Refer to section "Dimensional drawings"
Wetted parts material, gasket	EPDM, optional FVMQ, optional NBR, optional FKM (Viton®), optional FKM (Viton®) gaskets require a minimum ambient temperature of -20 °C and a minimum medium temperature of -25 °C
Wetted parts material, membrane	Ceramic, 96% AL2O3

Process connection

Wetted parts material, process connection	AISI 316L (1.4404)
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Ambient conditions

Shock and vibration tests (EN 61373:1999, 2010)	Category 1, class B
Degree of protection (EN 60529)	IP 67 , with connector M12-A, 4-pin IP 65 , with connector DIN EN 175301-803 A (DIN 43650 A), 4-pin
Operating temperature range	-40 ... 85 °C
Storage temperature range	-40 ... 100 °C

Output signal

Current output	4 ... 20 mA , 2-wire
Voltage output	0... 10 V DC , 3-wire
Load resistance	> 5 kΩ , with voltage output
Insulation resistance	> 100 MΩ , 500 V DC
Short circuit protection	Yes
Shunt resistance	$R_s \leq (V_s - 8 \text{ V})/0.020 \text{ A}$

Housing

Overall size	Refer to section "Dimensional drawings"
Style	Compact transmitter
Material	AISI 304 (1.4301)

Electrical connection

Connector	M12-A, 4-pin DIN EN 175301-803 A (DIN 43650 A), 4-pin
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Power supply

Power input	3 mA for a supply voltage of 24 VDC
Voltage supply range	15 ... 30 V DC , with voltage output 8 ... 30 V DC , with current output

Technical data

Compliance and approvals

EMC EN 55011
EN 61000-6-4
EN 50121-3-2:2006, with power supply
unit acc. EN 61000-6-2:2005

Compliance and approvals

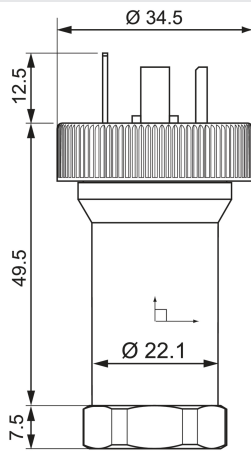
Railway applications EN 50155
EN 50155:2007, 5 electrical conditions,
12 tests

Operating conditions

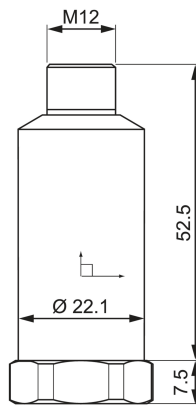
Measuring range (bar)	Proof pressure (bar)	Burst Pressure (bar)
0 ... 2,5	4	7
0 ... 4	8	12
0 ... 6	12	18
0 ... 10	20	30
0 ... 16	32	48
0 ... 25	50	75
0 ... 40	80	120
0 ... 60	120	180
0 ... 100	200	300
0 ... 160	320	480
0 ... 250	360	480

Dimensional drawings

Housing

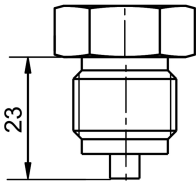


Housing with connector DIN EN 175301-803 A
(DIN 43650 A), 4-pin

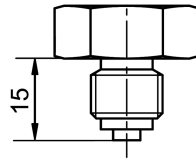


Housing with connector M12-A, 4-pin

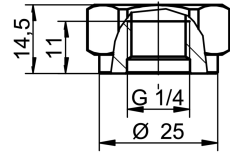
Process connection



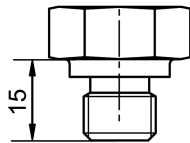
G 1/2 B EN 837-1 (BCID: G31)



G 1/4 B EN 837-1 (BCID: G30)



G 1/4 A ISO 228-1 female thread (BCID: G21)



G 1/4 A DIN 3852-E (BCID: G50)

Electrical connection

Output signal	Equivalent circuit	Electrical connection	Function	Pin assignment
4 ... 20 mA (2-wire)			+Vs	1
			lout	3
			Frame Ground	Plug thread
			n.c.	2, 4
0 ... 10 V (3-wire)			+Vs	1
			Uout	2, 4
			GND (0 V)	3
			Frame Ground	Plug thread
			+Vs	1
			Uout	3
			GND (0 V)	2
			Frame Ground	Grounding lug

Ordering information
Ordering key - Configuration possibilities see website

	EF6	-	#	.	#	.	###	.	R	.	##	.	#
Product	EF6												
Process connection													
DIN EN 175301-803 A (DIN 43650 A), 4-pin + G 1/2 B EN 837-1 (G31)													1
M12-A, 4-pin + G 1/2 B EN 837-1 (G31)													2
M12-A, 4-pin + G 1/4 B EN 837-1 (G30)													3
DIN EN 175301-803 A (DIN 43650 A), 4-pin + G 1/4 A ISO 228-1 female thread (G21)													4
DIN EN 175301-803 A (DIN 43650 A), 4-pin + G 1/4 B EN 837-1 (G30)													5
DIN EN 175301-803 A (DIN 43650 A), 4-pin + G 1/4 A DIN 3852-E (G50)													6
M12-A, 4-pin + G 1/4 A DIN 3852-E (G50)													7
Option													
Standard screw with DIN 43650 A / Without screw with M12-A													0
With DIN 43650 with knurl screw													1
Measuring range													
0 ... 2.5 bar (EN)													B18
0 ... 4 bar (EN)													B19
0 ... 6 bar (EN)													B20
0 ... 10 bar (EN)													B22
0 ... 16 bar (EN)													B24
0...25 bar (EN)													B26
0...40 bar (EN)													B27
0...60 bar (EN)													B29
0...100 bar (EN)													B31
0 ... 160 bar (EN)													B33
0...250 bar (EN)													B35
Kind of pressure													
Relative (gauged)													R
Output signal													
4...20 mA													A1
0...10 V													A2
O-Ring													
FVMQ (standard)													0
NBR													1
EPDM													2
FKM (Viton®)													3