

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

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

Process 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 pressure	Refer to section "Operating conditions"

Process connection

Connection variants	Refer to section "Dimensional drawings"
Wetted parts material, process connection	AISI 316L (1.4404)
Wetted parts material, membrane	Ceramic, 96% AL2O3

Process connection

Wetted parts material, gasket	EPDM, optional FVMQ, optional NBR, optional FKM, optional, gaskets require a minimum ambient temperature of -20 °C and a minimum medium temperature of -25 °C
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Ambient conditions

Operating temperature range	-40 ... 85 °C
Storage temperature range	-40 ... 100 °C
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
Shock and vibration tests (EN 61373:1999, 2010)	Category 1, class B

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	Rs ≤ (Vs - 8 V)/0.020 A

Housing

Style	Compact transmitter
Overall size	Refer to section "Dimensional drawings"
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

Voltage supply range	15 ... 30 V DC , with voltage output 8 ... 30 V DC , with current output
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Fully welded pressure transmitter for railway applications

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Technical data

Power supply

Power input 3 mA for a supply voltage of 24 VDC

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

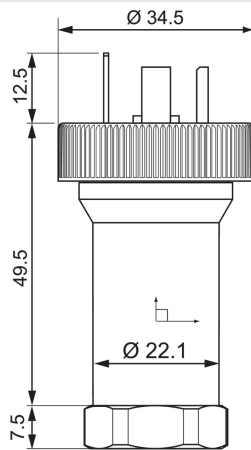
Railway applications EN 50155
EN 50155:2007, 5 electrical conditions,
12 tests

Operating conditions

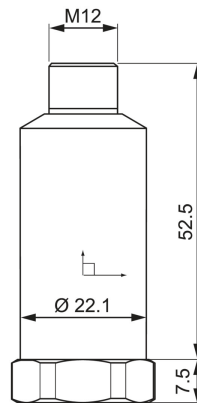
Measuring range (bar)	Proof pressure (bar)	Burst Pressure (bar)
0 ... 2,5	4	7
0 ... 4	8	12
0 ... 6	12	18
0 ... 10	20	30
0 ... 16	32	48
0 ... 25	50	75
0 ... 40	80	120
0 ... 60	120	180
0 ... 100	200	300
0 ... 160	320	480
0 ... 250	360	480

Dimensional drawings (mm)

Housing



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



Housing with connector M12-A, 4-pin

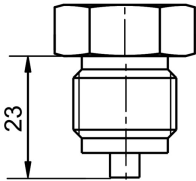
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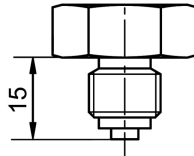
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Dimensional drawings (mm)

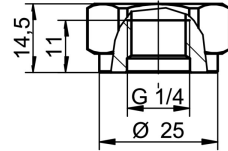
Process connection



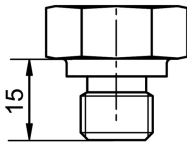
G 1/2 B EN 837-1 (BCID: G31)



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)

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Electrical connection

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

Ordering information

Ordering key - Configuration possibilities see website

Product	EF6	-	#	.	#	.	###	.	R	.	##	.	#
Process connection	EF6												
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

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Ordering information

Ordering key - Configuration possibilities see website

EF6 - # . # . ### . R . ## . #

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
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Output signal

4...20 mA	A1
0...10 V	A2

O-Ring

FVMQ (standard)	0
NBR	1
EPDM	2
FKM	3