

Pressure transmitters for heat exchanger series EDN.338



all st. steel housing of wetted parts
with Declaration of Conformity, CE

General features

- Piezosistive Silicon Pressure Transmitters for heat exchangers.
- Pressure range from 0...1 bar to 0...200 bar
- Wiring with mPm plug and/or various connectors
- Ingress production IP65
- Housing parts of stainless steel

Application area

- Heat exchanger system
- Hydraulic and pneumatic control systems
- Pump and compressors
- Control equipments and system

General specification

Pressure ranges

0...1 bar to 0...200 bar
/ only for positive pressure ranges

Accuracy

better than 0.5% FS
including non-linearity, hysteresis, zero point and
full scale error according to IEC 61298-2

Non-linearity / BFSL

less than $\pm 0.25\%$ FS

Overpressure

1.3 X pressure range

Output type

4...20mA, 2-wire system
0...10V, 3-wire system
0...5V, 3-wire system
1...5V, 3-wire system
0.5...4.5V, 3-wire system

Power supply

Available power: DC 12...30V

Response time

$\leq 5\text{ms}$

Isolation

$> 100\text{M}\Omega$ at 100 VDC

Materials

Wetted parts: St. steel 316L
Sensor sealing: FKM
Body: St. steel 304



Pressure transmitter series EDN.338

Temperature range

Operating: -20...80 °C
-40...+125 °C / option
Ambient: -20...85 °C
Storage: -40...100 °C
Compensated temperature range: 0...70 °C

Thermal error

Zero thermal error: $\pm 0.75\%$ FS @ 25 °C, typical
Span thermal error: $\pm 0.75\%$ FS @ 25 °C, typical

Electrical connection & protection

mPm plug	IP65
DIN43650 A	IP65
M12 Plug	IP65
2m flyung cable type	IP65

Pressure connection

R 1/4", R 3/8"
G 1/4", G 1/2"
According to the DIN 3852-E with sealing by DIN 3869
ring seals

Weight

Approx. 140g

Option

High temperature adapter
up to 200 °C / up to 300 °C



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Technical specifications

Input pressure range

Normal pressure:
0...1 bar up to 0...200 bar

Permissible static pressure:
1.3 x pressure range, max.260 bar

Output signal / Supply

Current:
2-wire 4...20mA $V_s=12...30\text{ VDC}$

Voltage:
3-wire 0...10V, 0...5V, 1...5V $V_s=12...30\text{ VDC}$
0.5...4.5V / 24V

Performance

¹Accuracy: $\leq \pm 0.5\% \text{FSO @ } 25^\circ\text{C}$
¹ accuracy according to IEC 60770 - limit point adjustment
including non-linearity, hysteresis as well as repeatability

Permissible load / R_L
Current: 2-wire, $R_L \text{ max}=[(V_s-V_s \text{ min})/0.02\text{A}]\Omega$
Voltage: 3-wire, $R_L \text{ min}=10\text{k}\Omega$

Influence effects:
Supply: 0.05%FSO/10V
Longterm stability: $\leq \pm 0.5\% \text{FS / year}$
Response time: <5ms

Thermal effects (Offset and Span) / Permissible temperatures

FS thermal error: $\pm 0.75\% \text{FS @ } 25^\circ\text{C}$, typical
Zero thermal error: $\pm 0.75\% \text{FS @ } 25^\circ\text{C}$, typical
Operating temperature: -20...80°C
-40...+125 °C / option
Compensated temperature: 0...70°C

Electrical protection

Electromagnetic compatibility:
Emission and immunity according to
EN 61326-2-3:20B CCISPR II Group 1, Class A
EN IEC 61000-3-2:2019

Insulation: the transmitter is grounded via
the process connection

Mechanical stability

Vibration: No change at 10 g RMS (20...2000) Hz
Shock: 0.1 g (1m/s) Max.

Materials

Pressure port: Stainless steel 316L
Housing / body: Stainless steel 304
Sensor diaphragm: Stainless steel 316L
Wetted parts: Stainless steel 316L

Miscellaneous

Current consumption
Signal output current max. 25mA

Current
4...20mA, 2-wire system
Signal output voltage max. 7mA

Voltage:
0...10V, 3-wire system
0...5V, 3-wire system
1...5V, 3-wire system
0.5...4.5V / 12...30V, 3-wire system

Ingress protection: IP65

EMC Test report for CE conformance

■ EN 61326-2-3:2013 / Class A
■ EN 61326-2-3: 2013 / IEC 61326-1:2012

Ordering information

Model code

EDN.338 · · · · B

Output signal

O1	4...20mA / 2-wire system
O2	0...10V / 3-wire system
O3	0...5V / 3-wire system
O4	1...5V / 3-wire system
O6	0.5...4.5V / 24V, 3-wire system

Electrical connection

P	mPm plug
D	DIN 43650 A
M	M12 plug
C	2m flying cable

Process connection

G2	G 1/2" (PF 1/2")
G3	G 3/8" (PF 3/8")
G4	G 1/4" (PF 1/4")
R2	R 1/2" (BSPT 1/2")
R3	R 3/8" (BSPT 3/8")
R4	R 1/4" (BSPT 1/4")

Pressure range code, unit bar

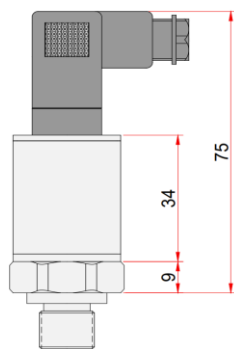
Code	Range
R23	0...1
R26	0...1.6
R28	0...2.5
R30	0...4
R32	0...6
R33	0...10
R35	0...16
R37	0...25
R39	0...40
R41	0...60
R43	0...100
R45	0...160
R46	0...200
RYY	Others on request

How to order

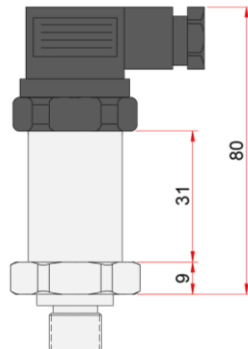
EDN.338.O1.P.G4.BR35

EDN.338, 4...20mA, mPm plug, G 1/4", 0...16 bar

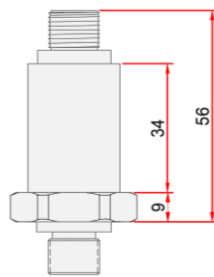
Outline drawing



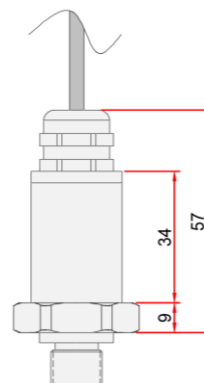
mPm plug type
/ IP65



DIN 43650A type
/ IP65

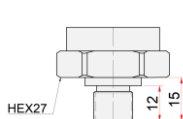


M12 plug type
/ IP65

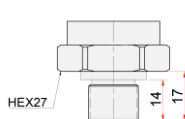


Cable gland type
/ IP67

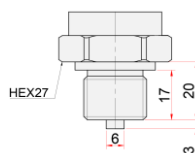
Process connection



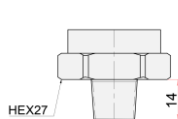
G1/4" A
DIN EN ISO 1179-2



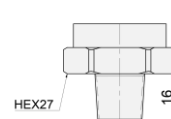
G3/8" A
DIN EN ISO 1179-2



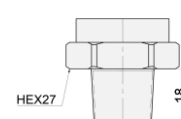
G1/2" B
EN 837-1



R1/4"
ISO 7



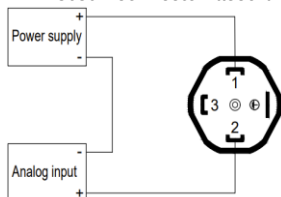
R3/8" -20...85°C
ISO 7



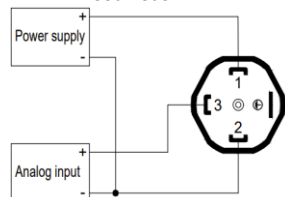
R1/2"
ISO 7

Pin assignment

DIN 43650A connector according to DIN EN 175301-803A



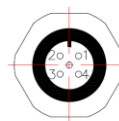
2-wire / current, 4...20mA



3-wire / voltage, 0...10V, 0...5V, 1...5V

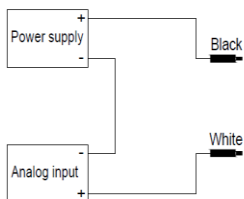
Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)

M12 x 1, 5-pin / male

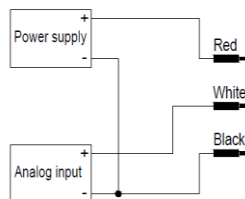


Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)
4		

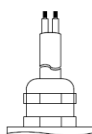
Flying leads with 2m cable



2-wire / current, 4...20mA



3-wire / voltage, 0...10V, 0...5V, 1...5V



	2-Wire	3-Wire
White	Output(mA)	Output(VDC)
Red		+Vcc
Black	+Vcc	GND

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