

**Pressure transmitters
for general industries
accuracy $\leq 0.5\%$, $\leq 0.25\%$, $\leq 0.1\%$
series EDN.331**

**General head mounting
for outdoor installation
with Declaration of Conformity, CE**

General features

- Piezosistive Silicon Pressure Transmitters for industrial applications
- Pressure range from -1...1 bar to 0...1000 bar
- Wiring with DIN43650A L-connector or various connectors
- Ingress protection IP65
- Housing parts of stainless steel

Application area

- Hydraulic and pneumatic control systems
- Pump and compressors
- Cooling equipment and air conditioning system
- Liquid pressure system
- Outdoor installation in the field

General specification

Pressure ranges

-1...0 bar to 0...1000 bar

Accuracy

included Linearity+Hysteresis+Repeatability

A4: $\leq \pm 0.5\%$ FS

A7: $\leq \pm 0.25\%$ FS

A9: $\leq \pm 0.1\%$ 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

Power supply

Ref. power: DC 24V

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.331

Temperature range

Operating: -20...80 °C
-10...70 °C / option

Temperature compensating range: 0...70 °C

Ambient: -20...85 °C

Storage: -20...100 °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

General head type

Pressure connection

G 1/4", DIN 3852-E with sealing by DIN 3869 ring seals

G 3/8"

G 1/2"

R 1/4"

R 1/2"

Protection

IP65 with general head mounting

Weight

Approx. 140g

Option available

High temperature cooling device
up to 200 °C / up to 300 °C

Technical specifications

Input pressure range

Normal pressure:

-1...0 bar up to 0...1000 bar

Permissible static pressure:

1.3 x pressure range, max.1100 bar

Output signal / Supply

Current:

2-wire 4...20mA $V_s=12...30 V_{DC}$

Voltage:

3-wire 0...10V, 0...5V, 1...5V $V_s=12...30 V_{DC}$

Performance

¹Accuracy: $\leq \pm 0.5\%FSO @ 25^\circ C$

¹ accuracy according to IEC 60770 - limit point adjustment including non-linearity, hysteresis as well as repeatability

Permissible load / R_L

Current: 2-wire, $R_L \max=[(V_s-V_{s \min})/0.02A]\Omega$

Voltage: 3-wire, $R_L \min=10k\Omega$

Influence effects:

Supply: 0.05%FSO/10V

Longterm stability: $\leq \pm 0.5\%FS / \text{year}$

Response time: <5ms

Thermal effects (Offset and Span)

/ Permissible temperatures

FS thermal error: $\pm 0.75\%FS @ 25^\circ C$, typical

Zero thermal error: $\pm 0.75\%FS @ 25^\circ C$, typical

Operating temperature: -20...80°C

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, 0...5V, 1...5V: 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.331 · · · · · B ·

Accuracy

A4	≤ 0.5 % F.S
A7	≤ 0.25 % F.S
A9	≤ 0.1 % F.S

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
O5	0.5...4.5V / 3-wire system

Electrical connection

H	General head mounting
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Process connection

R2	R 1/2"
R4	R 1/4"
G2	G 1/2"
G3	G 3/8"
G4	G 1/4"
others on request	

Pressure range code, unit bar

Code	Range
R19	-1...0
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
R47	0...250
R50	0...400
R53	0...600
R55	0...1000
RYY	Others on request

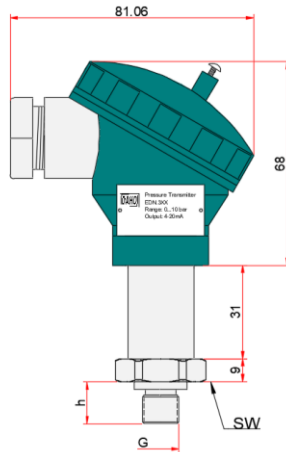
Option code

Code	Description
T4	-40...125 °C / operating temperature
RS	Restrictor screw in socket hole
NO	"USE NO OIL" for Oxygen application
PCA	Adapter
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate
CC	Certificate of conformance / origin

EDN.331.A4.O1.H.G4.BR35.

EDN.331, 0.5%FS, 4...20mA, Head mounting, G 1/4", 0...16 bar

Outline drawing



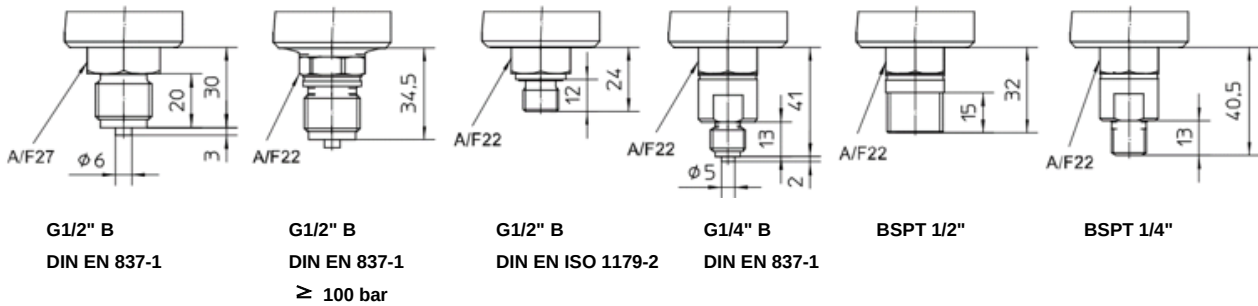
General Head Mounting Type

■ thread connection

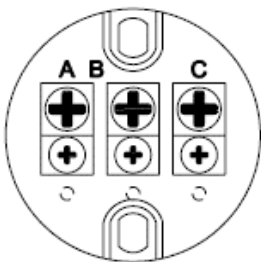
ISO 1179-2, KS B0222

Standard	G	h	SW
KS B0222	R 1/4"	13	32
	R 3/8"	15	
	R 1/2"	19	
A DIN EN ISO 1179-2	G 1/4"	14	
	G 3/8"	16	
	G 1/2"	20	

Process connection



Pin assignment



Connection diagram

Pin No.	Current output	Voltage output
A	+Vcc	+Vcc
B	Output	Output
C	⊥	GND