

Differential Pressure Transmitters

Low pressure measurement series EDL.350

accuracy A4 $\leq \pm 0.5\%$ F.S
A7 $\leq \pm 0.25\%$ F.S

Piezoresistive silicon pressure sensors
all st. steel housing of wetted parts

General features

- Piezoresistive Silicon Pressure Transmitters applied
- Differential pressure range from 0...10 mbar to 0...1600 mbar
- Wiring with DIN43650A L-connector or various connectors
- Ingress protection IP65
- Wetted & housing parts are made of stainless steel

Application area

- Hydraulic and pneumatic control systems
- Level measurement system
- Control equipments and air conditioning system
- pressure checking system

General specification

Pressure ranges

from 0...10 mbar to 0...1600 mbar

Maximum Static Pressure

upto max. 200 bar

Accuracy

including non-linearity, hysteresis, zero point and full scale error according to IEC 61298-2

0.5% F.S in case of P. meas. range ≥ 10 mbar
0.25% F.S in case of P. meas. range ≥ 200 mbar
0.1% F.S in case of P. meas. range ≥ 1000 mbar

Overpressure

max. 1.5 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

Temperature range

Temperature compensating range: -10...+80 °C
Operating: -20...+100 °C
-40...+125 °C/option
Ambient: -20...+100 °C
Storage: -20...+140 °C

Thermal error

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



Pressure transmitter series EDL.350

Long term stability

- pressure range > 200 mbar, 0.1% FS typical.
0.2% FS max.
- pressure range ≤ 40 mbar, typical. 2 mbar max.

Power supply

Reference power: DC 24V
Available power: DC 9...30V

Response time

≤ 5 ms

Isolation

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

Materials

Wetted parts: st. steel 316L
Sensor sealing: FKM O-ring
Body: st. steel 316L

Electrical connection & weather protection

DIN43650 A IP65
M12 Plug IP65
Cable type IP65
Head type IP65
Others on request

Pressure connection

Female G 1/4" Female G1/4" accordance with ISO 228

Weight

≤ 350 g



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Technical specifications

Input pressure range

Normal pressure:

0...10 mbar up to 0...1600 mbar

Permissible static pressure:

1.3 x pressure range

Output signal / Supply

Current:

2-wire 4...20mA $V_s=9...30$ VDC

Voltage:

3-wire 0...10V, 0...5V, 1...5V $V_s=9...30$ VDC

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

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: $-20...80^\circ\text{C}$

Compensated temperature: $0...70^\circ\text{C}$

Electrical protection

Electromagnetic compatibility:

Emission and immunity according to

EN 61326-2-3:20B CISPR 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 type

- Current 4...20mA: 25 mA
- Voltage 0...10V, 0...5V, 1...5V: 7mA

■ 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

EDL.350 · [] · [] · [] · [] · B [] · []

Accuracy

A4	≤ 0.5 % F.S
A7	≤ 0.25 % F.S meas. P ≥ 200 mbar

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

Electrical connection

D	DIN 43650 A
M	M12 plug
C	2m cable
H	General head

Process connection

G4	G 1/4" Female + G1/4" Female
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Pressure range code, unit mbar

Code	Range
R161	0...10
R162	0...16
R163	0...25
R165	0...40
R167	0...60
R168	0...100
R170	0...160
R172	0...250
R174	0...400
R176	0...600
R23	0...1000
R26	0...1600

■ delta pressure is higher than 2 bar,
then should be used for EDN.351

Option code

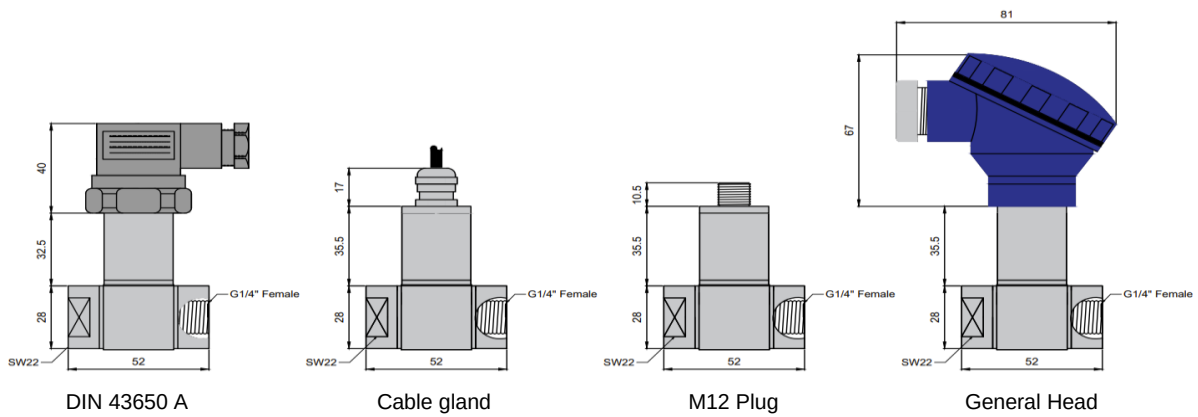
Code	Description
NO	"USE NO OIL" for Oxygen application
PCA	Adapter G1/4" Male + G1/4" Male
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate

How to order

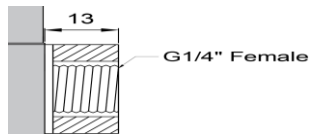
EDL.350.A4.O1.D.G4.BR162

EDL.350, 0.5%, 4...20mA, DIN 43650 A, G 1/4" Female, 0...16 mbar

Outline drawing



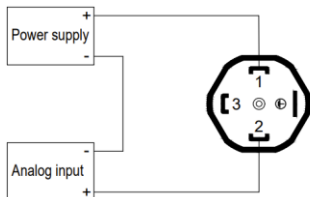
Process connection



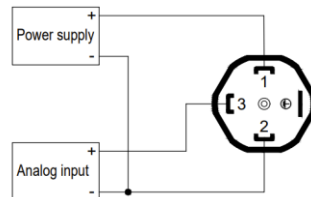
G 1/4" Female
DIN EN ISO 228

Pin assignment

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



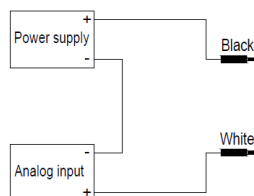
2-wire / current



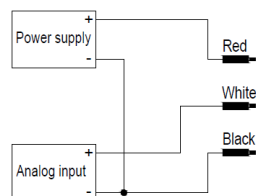
3-wire / voltage

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

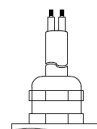
Flying leads with 2m cable



2-wire / current



3-wire / voltage



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