

Differential Pressure Transmitters
LED window with Bar graph
All st. steel wetted parts
series EDN.750



*all stainless steel housing & bodies
wetted parts are made of 316L
LED window with bar graph display
with Declaration of Conformity, CE*

General features

- Differential pressure range from 0...25 mbar to 0...35 bar
- Multi-functional LCD, 4 1/2-digit
- Zero point, range adjustable
- Switch function, 2 switches
- RS485 digital communication

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...25 mbar to 0...35 bar

Maximum Static Pressure

0...200 bar

Accuracy

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

0.5% F.S ≥ 0...25 mbar

0.25% F.S ≥ 0...100 mbar

0.1% F.S ≥ 0...1000 mbar

Overpressure

1.3 x pressure range

Output signal

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

Ref. power: DC 24V

Temperature range

Operating: -20...80 °C

Ambient: -20...80 °C

Storage: -40...120 °C

Temperature compensating range: -20...80 °C

Thermal error

Zero thermal error: ±0.75%FS @ 25 °C, typical

Span thermal error: ±0.75%FS @ 25 °C, typical



Pressure transmitter, series EDN.750

Special functions, optional

- Pressure switches SW1, SW2
- RS485 digital communication

Isolation

> 100MΩ at 100 VDC

Electrical connection

Flameproof cable gland

M12 plug

Display

LCD, 4 1/2 - digit -1999...9999

Background

Light white with back light

Materials

Wetted parts: St. steel 316L

Body: St. steel

Pressure connection

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

Female R 1/4" Female R 1/4"

Female NPT 1/4" Female NPT 1/4"

Adjustable pressure units

bar, mbar, MPa, kPa, psi, kg/cm², mmH₂O, inH₂O
mmHg, inHg, torr, atm

Operation

- Pressure range, zero point adjustment,
- Characteristic curve and damping rate are
- Adjustable on the device



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Technical specifications

Input pressure range

Norminal pressure:
0...25 mbar to 0...35 bar

Output signal / Supply

Current:
2-wire 4...20mA $V_s=12...30$ VDC

Voltage:
3-wire 0...10V $V_s=12...30$ VDC
3-wire 0...5V
3-wire 1...5V
3-wire 0.5...4.5V

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...100 °C
Compensated teperature: -20...80 °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

Wetted parts: stainless steel 316L
Housing / body: stainless steel 304
Sensor diaphragm: 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, 3-wire system

EMC Test report for CE conformance

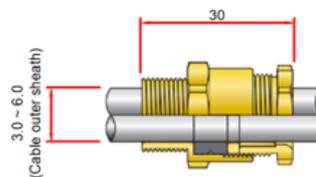
- EN 61326-2-3:2013 / Class A
- EN 61326-2-3: 2013 / IEC 61326-1:2012

Special features

- Protection against reverse polarity connections ($\pm 40 \text{VDC}$).
- High Noise Immunity Performance against Electrical Fast Transient (EFT) noise.
- High Precision against variations in ambient temperature. ($\pm 1.3\%$ in $-20...70^\circ\text{C}$).
- Wide pressure operating range. 30% lower than the minimum and 30% higher than the maximum.
- Protection against instantaneous surge voltage.
- Durable design for severe vibration.

Electrical connecting cable gland

- IP66
- Materials: Brass with nickel plated
- Cable outer : 3.0...6.0 mm



Ordering information

Model code

EDN.750 · [] · [] · [] · B [] · [] · []

Accuracy class

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
O6	0.5...4.5V / 3-wire system

Electrical connection

FP	Flameproof cable gland
M	M12 plug

Process connection

G4	G 1/4" Female + G 1/4" Female
R4	R 1/4" Female + R 1/4" Female
N4	NPT 1/4" Female + NPT 1/4" Female
	Other on request

Differential pressure range code

Code	Delta pressure range
R126	0...25 mbar
R128	0...40 mbar
R130	0...60 mbar
R131	0...100 mbar
R133	0...160 mbar
R135	0...250 mbar
R137	0...400 mbar
R21	0...600 mbar
R23	0...1000 mbar
R26	0...1.6 bar
R28	0...2.5 bar
R30	0...4 bar
R32	0...6 bar
R33	0...10 bar
R35	0...16 bar
R37	0...25 bar
R38	0...35 bar
RYY	Others on request

Option code

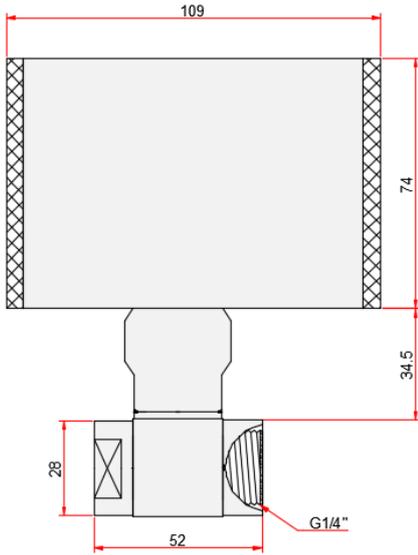
Code	Description
NO	"USE NO OIL" for Oxygen application
PCA	Adapter G1/4" Male + G1/4" Male
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate

How to order

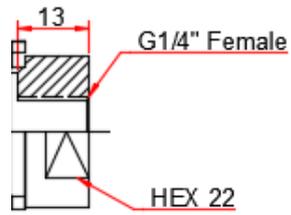
EDN.750.A4.O1.M12.G4.BR30

EDN.750, 0.5%, 4...20mA, M12 Plug, G 1/4" Female, 0...4 bar

Outline drawing



Process connection

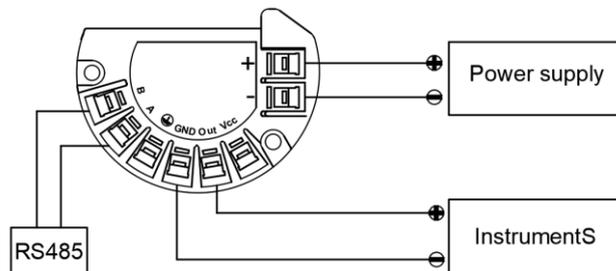


G 1/4" Female
DIN EN ISO 228

Electrical connection Diagram

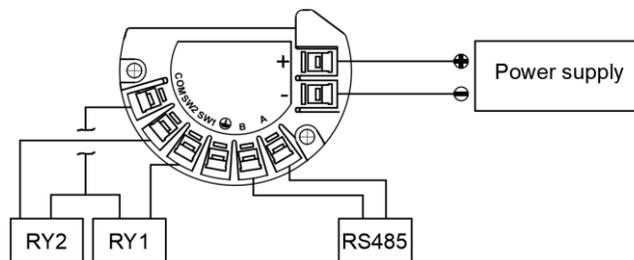
Output signals

Pin No.	Wire
+	+Vcc
-	-Vcc
Out	+ Signal
GND	- Signal
A	RS485 A
B	RS485 B



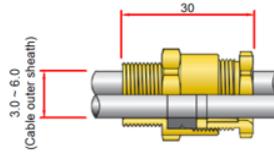
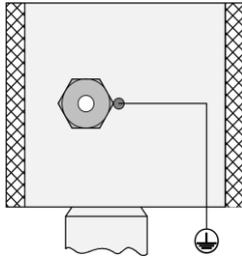
Switches

Pin No.	2-wire
+	+Vcc
-	-Vcc
A	RS 485A
B	RS 485B
SW1	switch 1
SW2	switch 2
COM	Relay COM



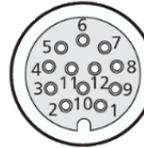
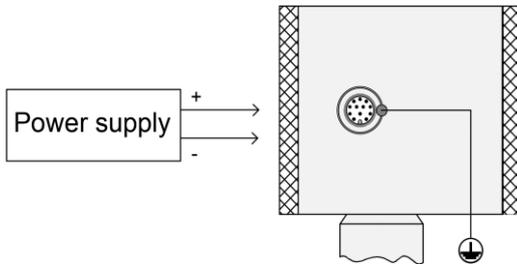
Electrical connection Diagram

Cable gland



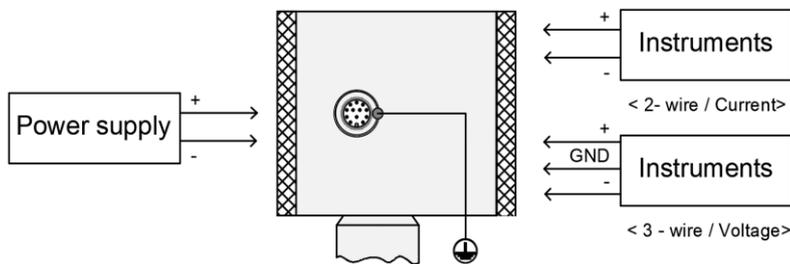
Electrical plug, M12

No Output signal



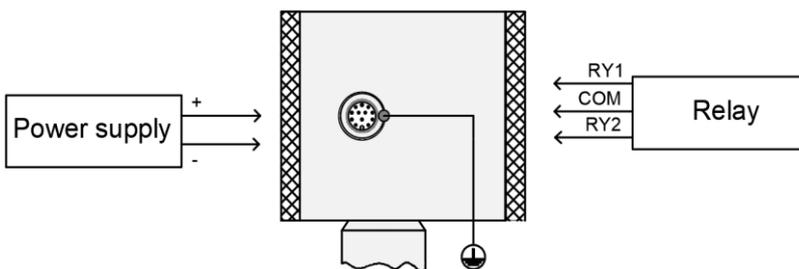
Pin No.	Wire
1	+Vcc
2	-Vcc
12	earth

Output signal



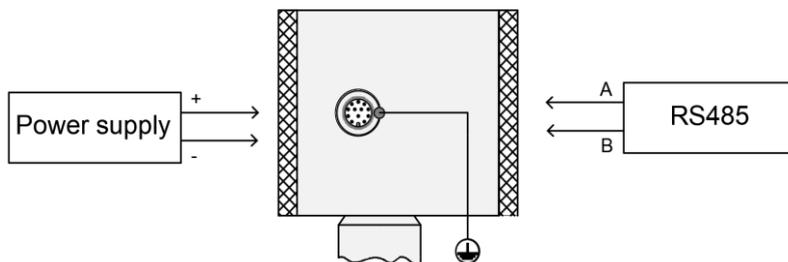
Pin No.	Current	Voltage
1	+Vcc	+Vcc
2	-Vcc	-Vcc
3	+Out	+Out
4	-Out	GND
5		-Out
12	earth	earth

Switches



Pin No.	Wire
1	+Vcc
2	-Vcc
6	Relay 1
7	Relay 2
8	COM
12	earth

RS485 Communication



Pin No.	Wire
1	+Vcc
2	-Vcc
9	RS 485A
10	RS 485B
12	earth