Al. housing pressure transmitters
LCD white bright digital window
accuracy ≤ 0.5%, ≤ 0.25%, ≤ 0.1%
series EDN.810

4 1/2 - digit LCD window with back light
Housing & bodies are made of Aluminium
all st. steel wetted parts
Declaration of Conformity, CE

CE

General features

- Piezosistive Silicon Pressure sesnors installed & calibrated
- St. steel pressure sensors for various applications
- Pressure range from -1…1 bar to 0…1000 bar
- Multi-functional display
- Zero point, range adjustable
- LCD bright back light

Application area

- Hydraulic and pneumatic control systems
- Industrial process detection and control
- Explosion Hazard Area
- Pressure calibration, pressure checking
- Liquid pressure system and switch

Pressure transmitter series EDN.810

General specification

Pressure ranges
-1…0 bar to 0…1000 bar

Accuracy
± 0.5% FS
included Linearity+Hysteriesis+Repeatability

[Options]
Accuracy: ± 0.25%, ± 0.1% FS

Overpressure
1.3 X pressure range

Output type
4…20mA, 2-wire system
0…10V, 3-wire system

Power supply

Ref. power:	DC 24V
Available power:	DC 12…30V

Isolation
> 100MΩ at 100 VDC

Temperature range

Operating:	-20…80℃
Temperature compensating range:	
	0…70℃
	-20…80℃ / option
Ambient:	-20…85℃
Storage:	-20…100℃

Thermal error

Zero thermal error:	±0.75%FS @ 25℃, typical
Span thermal error:	±0.75%FS @ 25℃, typical

Materials

Wetted parts:	St.steel 316L
Housing	Aluminum alloy

Electrical connection
M20x1.5 screwed cable gland

Pressure connection
G 1/4", G 3/8", G 1/2"
R 1/4", R 3/8", R 1/2"

Display
LCD Display, 4 1/2 - digit

Adjustable Pressure units
bar, mbar, MPa, kPa, psi
kg/cm^2, mmH2O, inH2O
mmHg, inHg, torr, atm

Background
Light white

Possible operation

- Pressure range,
- Zero point adjustment,
- Characteristic curve
- Damping rate are adjustable on the device

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Technical specifications

Input pressure range

Norminal 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	Vs=12…30 VDC

Voltage:

3-wire	0…10V, 0…5V, 1...5V	Vs=12…30 VDC

Performance

[1]Accuracy: ≤ ±0.5%FSO @ 25℃

[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=[(Vs-Vs min)/0.02A]Ω

Voltage: 3-wire, R_L min=10kΩ

Influence effects:

Supply:	0.05%FSO/10V
Longterm stability:	≤±0.5%FS / year
Response time:	<5ms

Thermal effects (Offset and Span) / Permissible temperatures

FS thermal error:	±0.75%FS @ 25℃, typical
Zero thermal error:	±0.75%FS @ 25℃, typical
Operating temperature:	-20…80℃
Compensated tempearture:	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.

Pressure port:	stainless steel 316L
Housing / body:	Aluminum alloy
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, 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 (±40VDC).
- High Noise Immunity Performance against Electrical Fast Transient (EFT) noise.
- High Precision against variations in ambient temperature. (±1.3% in -20…70℃).
- 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.

Ordering information

Model code **EDN.810** · ____ · ____ · ____ · ____ · ____ · **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
O6	0.5…4.5V / 3-wire system

Digital communication	
O11	RS485
No.	without

2 relay channel, switches	
O12	2 relay channel, switches
No.	without

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
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

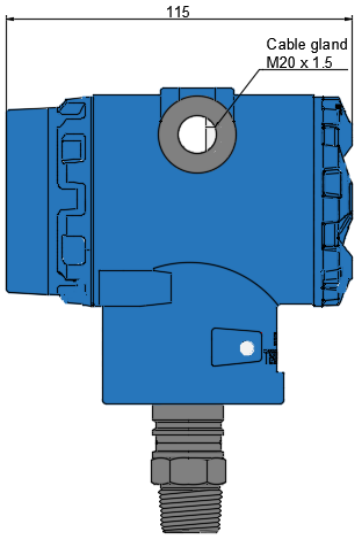
Code	Description
TFC	Teflon coated / PTFE coated
HC22	Hastelloy C22 / Hastelloy C276
MON	Monel
TIT	Titanium or Tantalum
NO	"USE NO OIL" for Oxygen application
TCD	Teflon coated on wetted part of diaphragm
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate
CC	Certificate of conformance / origin

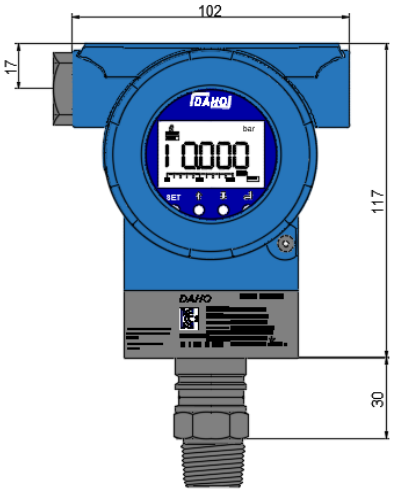
How to order

EDN.810.A4.O1.G4BR35

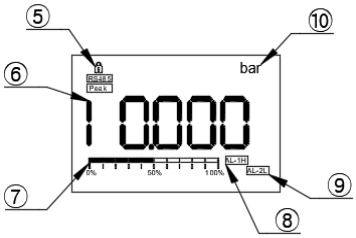
EDN.810, 0.5% F.S, 4…20mA, G 1/4", 0…16 bar

Outline drawing





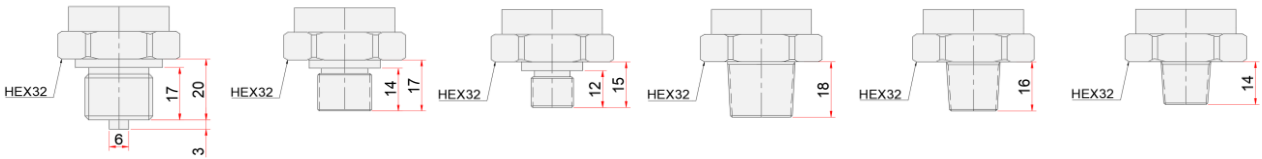
Display and Control unit



Functions

① Menu, Cancel
② Select function, increase
③ Select function, decrease
④ Confirm selected function or selected value
⑤ Lock mode
⑥ Pressure values, output signal values
⑦ Bar graph
⑧ Relay 1
⑨ Relay 2
⑩ R 1/4", R 3/8", R 1/2" NPT 1/4", NPT1/2"

Process connection



G1/2" B	G3/8" A	G1/4" A	R1/2"	R3/8"	R1/4"
EN 837-1	DIN EN ISO 1179-2	DIN EN ISO 1179-2	ISO 7	ISO 7	ISO 7

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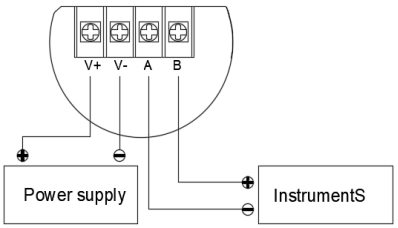
Electrical connection diagram

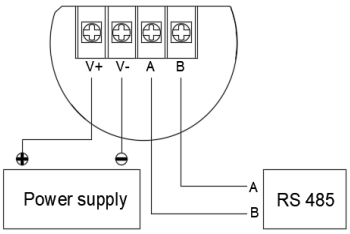
Analog output

Output signal	
Pin No.	Wire
V+	+Vcc
V-	-Vcc
B	Signal +
A	Signal -



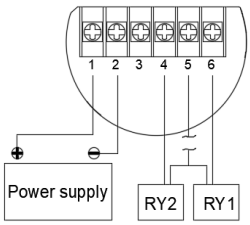
Analog output

RS 485	
Pin No.	2-wire
V+	+Vcc
V-	-Vcc
A	RS 485A
B	RS 485B



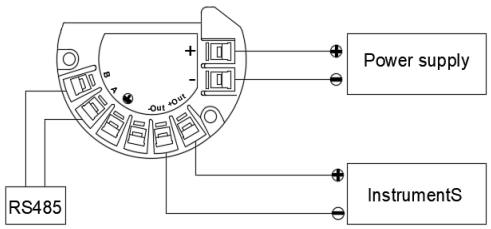
Relay

Pin No.	Wire
1	+Vcc
2	-Vcc
6	Relay 1
4	Relay 2
5	Relay COM



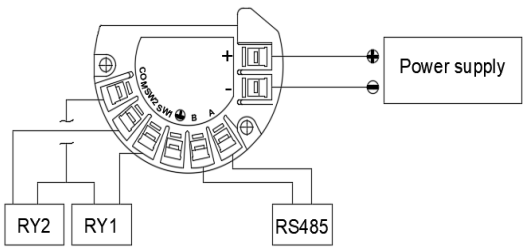
Analog output + RS485

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



Relay + RS485

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



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