

**Al. housing Pressure Transmitters
with LCD window
a/w process flange MDF
optional relay switches & RS485
Model EDN.817**

Aluminum housing for industrial version
LCD window with a bar graph and a white back light
made of all st. steel for wetted parts
KOSHA, Ex d IIC T6 will be certified by December, 2025



General features

- Specially designed for the measurement in Hazardous area
- Pressure range from 0...1.6 bar to 0...250 bar
- Assembled with process flange according to the standard
- Zero point, range adjustable
- Switch function, 2 switches
- RS485 digital communication

Application area

- Hazardous area for pressure measurement
- Refineries and petrochemical industry
- Oxygen supplying station
- Gas compressors
- General process industry

General specification

Pressure ranges

From 0...1.6 bar to 0...250 bar

Accuracy

included Linearity+Hysteresis+Repeatability
± 0.5% FS

Overpressure

1.3 X pressure range

Output type

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

Power supply

Available power: DC 12...30V

Temperature range

Operating: -20...80 °C
Ambient: -20...60 °C
Storage: -10...80 °C
Temperature compensating range: 0...60 °C

Thermal error

Zero thermal error: ±0.75%FS @ 25 °C (typ.)
Span thermal error: ±0.75%FS @ 25 °C (typ.)

Isolation

> 100MΩ at 100 VDC

Electrical connection

Flameproof



series EDN.817 for hygienic application

Display

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

Background

Light white

Materials

Wetted parts: St. steel 316L
Body: Aluminum alloy

Pressure connection

According to DIN 1092-1
According to ASME B16.5
According to JIS

Special material of diaphragm [Options]

- Teflon / PTFE coated
- Hastelloy C22 or Hastelloy C276
- Monel
- Titanium
- Tantalum

Optional special functions

- Switches, 2 contacts
- RS485 digital communication

Selectable 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...1.6 bar up to 0...250 bar

Permissible static pressure:
1.3 x pressure range

Output signal / Supply

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

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

Performance

¹Accuracy: $\leq \pm 0.3\% \text{FSO @ } 25^\circ\text{C}$
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: $< 5 \text{ms}$

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: $-20 \dots 80^\circ\text{C}$
Compensated tempearture: $0 \dots 60^\circ\text{C}$

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.

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 $-20 \dots 70^\circ\text{C}$).
- 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

Materials

Pressure port: stainless steel 316L
Housing / body: Aluminum alloy
Sensor diaphragm: stainless steel 316L
Wetted parts: stainless steel 316L

Ordering information

Model code

EDN.817 · · · · 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 / 3-wire system

2 relay switches

2SW	2 switches, relays
No.	without

RS485 digital communication

485	2 switches, relays
No.	without

Pressure range code, unit bar

Code	Range
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

Process connection

Process flange	See tables on
as per each standard	page 4

Material of wetted parts

SS	St. steel, 316L
TF	Teflon coated
HT	Hastelloy C22 or C276
TI	Titanium
TA	Tantalum
MO	Monel

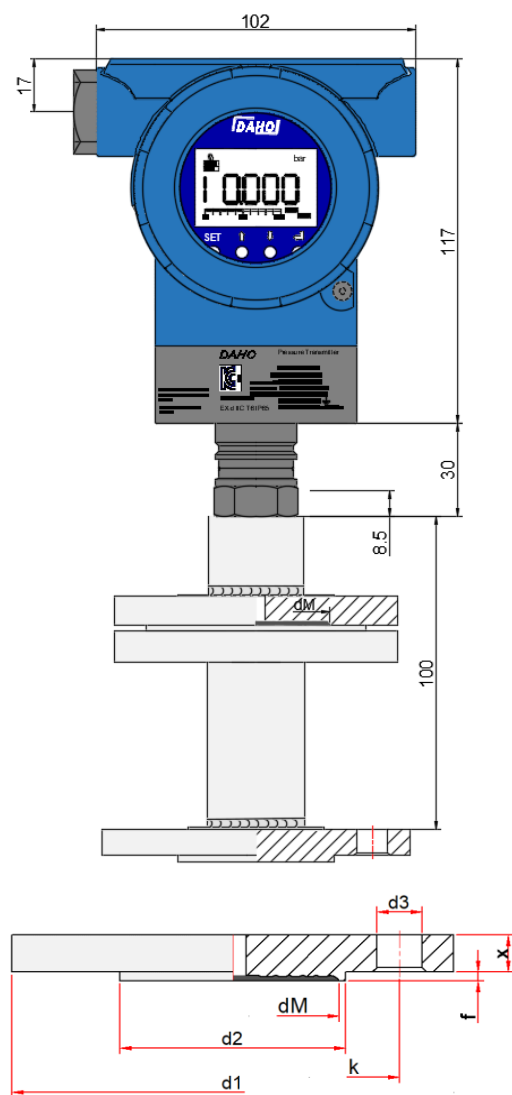
Option code

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

How to order

EDN817.O1.BR47. a/w MDI DN25 PN100.A4

EDN.817, 0.5%, 4...20mA, cable gland, 0-250 bar assembled with MDI, DN25 PN100 according to the DIN 1092-1,



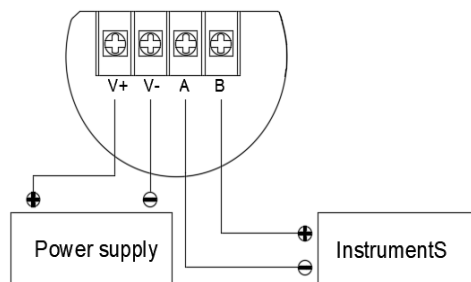
DIN 1092-1									
DN	PN	d1	d2	d3	dM	f	k	x	
25	10/40	115	68	Ø 14 x 4	28	2	85	18	
	63/100	140		Ø 18 x 4			100	24	
	160						105	28	
	250						115	34	
	320						130	38	
	400						180	Ø 26 x 4	
32	10/40	140	78	Ø 18 x 4	34		100		
40	10/40	150	88	Ø 18 x 4	38		110	18	
50	25/40	165	102	Ø 22 x 4	57	3	125	20	
	63	180		Ø 26 x 4			135	26	
	100	195		Ø 26 x 8			145	28	
	160						30		
	250						150	38	
	320						160	42	
	400						235	Ø 30 x 8	180
65	25/40	185	122	Ø 18 X 8	72		145	22	
80	10/16	200	138		Ø 22 X 8	84	3	160	20
	25/40			24					
	63			71				170	28
	100			75				180	32
	160			79					36
	250			89				Ø 30 X 8	200
100	10/16	63	158	Ø 18 X 8	84	3	180	20	
	25/40	67	162	Ø 22 X 8			190	24	
	63	73		Ø 26 X 8			200	30	
	100	79		Ø 30 X 8			210	36	
	160	83						40	
	250	97					Ø 33 X 8	235	54

ASME B16.5								
NPS	Class	d1	d2	d3	dM	f	k	x
1"	150	108	50.8	Ø 15.7 x 4	28	1.6	79.2	14.2
	300	124		Ø 19.1 x 4			88.9	17.5
	400/600	124		Ø 19.1 x 4		6.4	101.6	23.9
	900/1500	149.4		Ø 25.4 x 4			108	34.8
	2500	158.8		Ø 25.4 x 4			108	41.5
1 1/2"	150	127	73.2	Ø 15.7 x 4	38	1.6	98.6	17.5
	300	155.4		Ø 22.4 x 4			114.3	20.6
	400/600	155.4		Ø 22.4 x 4		6.4	114.3	28.8
2"	150	152.4	91.9	Ø 19.1 x 4	57	1.6	120.7	19.1
	300	165.1		Ø 19.1 x 8			127	22.4
	400/600	165.1		Ø 19.1 x 8		6.4	127	31.8
	900/1500	215.9		Ø 25.4 x 8			165.1	44.5
	2500	235		Ø 28.4 x 8			171.5	57.2
3"	150	190.5	127	Ø 19.1 x 8	84	1.6	152.4	23.9
	300	209.6		Ø 22.4 x 8			168.1	28.4
	400/600	209.6		Ø 22.4 x 8		6.4	168.1	38.2
	900	241.3		Ø 25.4 x 8			190.5	44.5
	1500	266.7		Ø 31.8 x 8			203.2	54.2
	2500	304.8		Ø 35.1 x 8			228.6	72.9
4"	150	228.6	157.2	Ø 19.1 x 8	84	1.6	190.5	23.9
	300	254		Ø 22.4 x 8			200.2	31.8
	400	254		Ø 22.4 x 8		6.4	200.2	41.5
	600	273.1		Ø 25.4 x 8			215.9	44.5
	900	292.1		Ø 31.8 x 8			234.9	50.8
	1500	311.2		Ø 35.1 x 8			241.3	60.2
	1500	311.2		Ø 35.1 x 8			241.3	60.2

Electrical connection Diagram

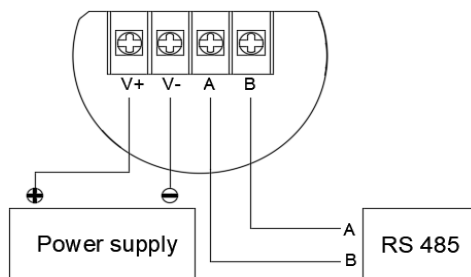
Analog output signal

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



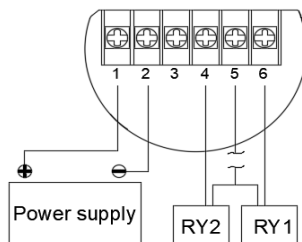
RS485 digital communication

Pin No.	Wire
V+	+Vcc
V-	-Vcc
A	RS 485A
B	RS 485B



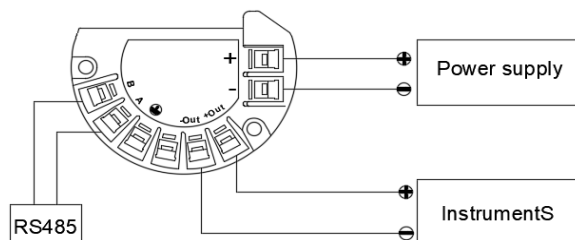
2 relay, switches

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



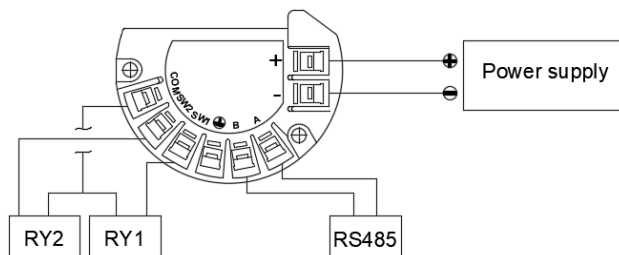
Analog + RS485 digital

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



Analog + 2 relay + RS485 digital

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



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