

# Pressure transmitters a/w process flange MDI Model EDN.317

all st. steel housing of wetted parts  
with Declaration of Conformity, CE

## General features

- Pressure Transmitters assembled with various flanges called by MDI
- Pressure range from 0...1.6 bar to 0...250 bar
- Assembled with process flange according to the standard
- Ingress protection IP65
- Wetted parts of stainless steel, 316L

## Application area

- Petroleum and chemical industry
- Water supply and water treatment plant
- Hydraulic and pneumatic control systems
- Hydro and nuclear power application
- General process industry

## General specification

### Pressure ranges

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

### Accuracy

± 0.5% FS

included Linearity+Hysteresis+Repeatability

### 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 20V

Available power: DC 12...28V

### Response time

≤ 5ms

### Isolation

> 100MΩ at 100 VDC

### Temperature range

Operating: -20...100 °C

-40...120 °C / option

Temperature compensating range:

0...60 °C

-10...80 °C / option

Ambient: -20...100 °C

Storage: -20...100 °C



## Pressure transmitter series EDN.317

### Thermal error

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

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

### Materials

Wetted parts: St. steel 316L

Body: St. steel 316L

### Electrical connection

DIN43650 A

M12 Plug

Cable type

Others on request

### Process connection

According to DIN 1092-1

According to ASME B16.5

According to JIS

### Protection

IP65 with plug DIN 43650A

### Weight

Approx. 140g and additionally depends on each flanges

### Option

High temperature adapter

up to 200 °C / up to 300 °C

## 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...28 VDC

Voltage:  
3-wire 0...10V, 1-5V Vs=12...28 VDC

### Performance

<sup>1</sup>Accuracy:  $\leq \pm 0.5\% \text{FSO @ } 25^\circ\text{C}$

<sup>1</sup> 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:  $-20 \dots 100^\circ\text{C}$

Compensated teperature:  $0 \dots 60^\circ\text{C}$

### 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.

### 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, 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.317 · [ ] · [ ] · 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

### Electrical connection

D	DIN 43650 A
B	Binder plug
C	2m cable
H	General head

### 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
RYY	Others on request

### Process connection

Process flange as per each standard	See tables on page 4
--	-------------------------

### Option code

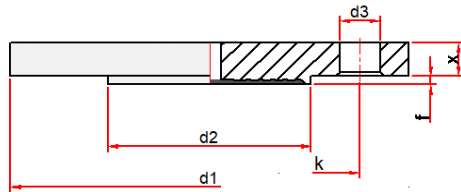
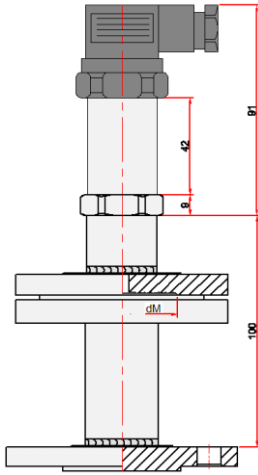
Code	Description
RS	Restrictor screw in socket hole
NO	"USE NO OIL" for Oxygen application
AD	Adapter
CD2	Cooling device up to 200 °C
CD3	Cooling device up to 300 °C
TP	St. steel tag plate, 60 x 20 x 0.5t
DMCC	Manufacture calibration certificate
KC	KOLAS Ilac-MRA calibration certificate
CC	Certificate of conformance / origin

### How to order

EDN.317.O1.D.BR35 aw MBI DN25 PN160 according to DIN 1092-1

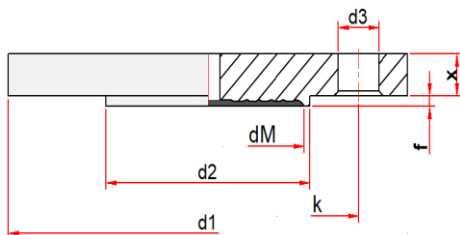
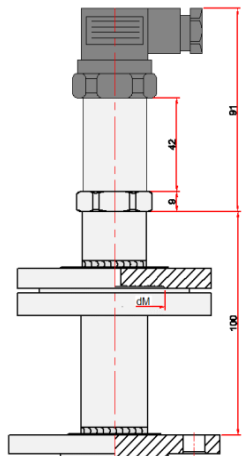
EDN.317, 4...20mA, DIN 43650, 0...16 bar aw MBI, DN25 PN160 according to DIN 1092-1,

assembled with process flange based on 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	150		Ø 22 x 4			105	28
	250	160		Ø 26 x 4			115	34
	400	180		Ø 26 x 4			130	38
32	10/40	140	78	Ø 18 x 4	34	3	100	18
40	10/40	150	88	Ø 18 x 4	38		110	18
50	25/40	165	102	Ø 22 x 4	57		125	20
	63	180		Ø 26 x 4			135	26
	100	195		Ø 26 x 8			145	28
	160	200		Ø 26 x 8		150	38	
	250	210		Ø 30 x 8		160	42	
320	210	Ø 30 x 8	180	52				
400	235	Ø 30 x 8	180	52				
65	25/40	185	122		72	3	145	22
80	10/16	200	138	Ø 18 X 8	84		160	20
	25/40			Ø 22 X 8			170	28
	63	71		Ø 26 X 8			180	32
	100	75		Ø 26 X 8			180	36
	160	79		Ø 30 X 8		200	46	
250	89	Ø 30 X 8	180	20				
100	10/16	63	158	Ø 18 X 8	162	84	180	20
	25/40	67	Ø 22 X 8	190			24	
	63	73	Ø 26 X 8	200			30	
	100	79	Ø 30 X 8	210			36	
	160	83	Ø 30 X 8	210			40	
250	97	Ø 33 X 8	235	54				

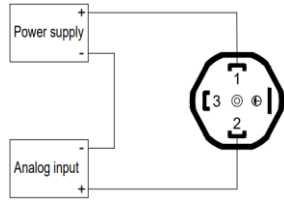
assembled with process flange based on ASME B16.5



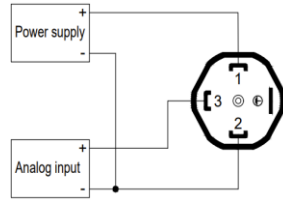
NPS	Class	d1	d2	d3	dM	f	k	x
1"	150	108	50.8	Ø 15.7 x 4	28	1.6	79.2	14.2
	300	124		Ø 19.1 x 4			88.9	17.5
	400/600	124		Ø 25.4 x 4		6.4	101.6	34.8
	900/1500	149.4		Ø 25.4 x 4			108	41.5
	2500	158.8		Ø 25.4 x 4			108	41.5
1 1/2"	150	127	73.2	Ø 15.7 x 4	38	1.6	98.6	17.5
	300	155.4		Ø 22.4 x 4			114.3	20.6
	400/600	155.4		Ø 22.4 x 4		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 25.4 x 8		6.4	165.1	44.5
	900/1500	215.9		Ø 28.4 x 8			171.5	57.2
	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	190.5	44.5
	900	241.3		Ø 25.4 x 8			203.2	54.2
	1500	266.7		Ø 31.8 x 8			228.6	72.9
	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 25.4 x 8		6.4	215.9	44.5
	600	273.1		Ø 25.4 x 8			234.9	50.8
	900	292.1		Ø 31.8 x 8			234.9	50.8
	1500	311.2		Ø 35.1 x 8			241.3	60.2

## 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)

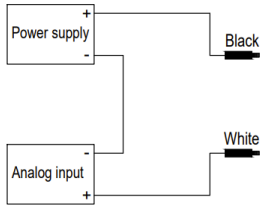
M12 x 1, 5-pin / male



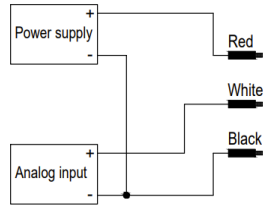
Pin No.	2-Wire	3-Wire
1	+Vcc	+Vcc
2	Output(mA)	GND
3		Output(VDC)
4		

## Connection wiring diagram

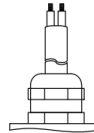
Flying leads with 2m cable



2-wire / current



3-wire / voltage



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