

ME13 | Pressure Transmitter

- Robust stainless steel design
- High degree of overload pressure safety
- High acceleration and vibration strength
- Excellent long-term stability
- Protection class IP65

The pressure transducers of the ME13 series combine modern electronics with exceptionally robust sensors manufactured using thin-film technology. They are all-purpose parts and can be used e.g. in mechanical or process engineering applications.

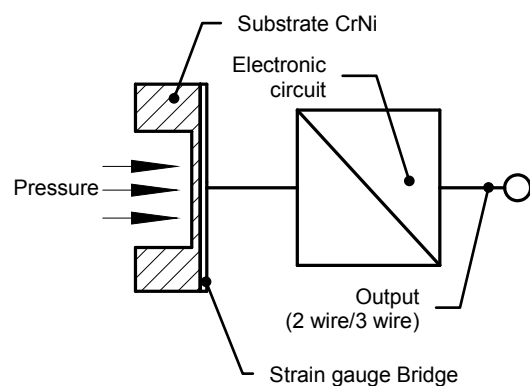


Principles of operation

The measuring pressure acts directly on a stainless steel membrane, deforming it. This deformation alters the output signal of the strain-gauge bridge attached to the rear of the membrane.

An electronic circuit integrated into the device converts the bridge signal into a standardized electrical output signal.

Functional scheme



Technical Data

Measuring Range	0 ... x [bar]																-1 ... x [bar]								
x	0,6	1	1,6	2,5	4	6	10	16	25	40	60	100	160	250	400	600	1000	0	0,6	1,5	3	5	9	15	24
Overpressure	1,2	2	3,2	5	8	12	20	32	50	80	120	200	320	500	600	900	1500	2	3,2	5	8	12	20	32	50
Burst pressure	1,8	3	4,8	7,5	12	18	30	48	75	120	180	300	480	750	600	900	1500	3	4,8	7,5	12	18	30	48	75

General

Linearity	0.15% FS
Hysteresis	0.1% FS
Characteristic curve deviation gauge pressure	± 0.5% FS
Ambient temperature	-40 ... +105 °C
Measuring medium	-40 ... +125 °C
Storage temperature	-40 ... +125 °C
Process Connection	Connection shanks with external thread G ¼ B, 1.4542 (AISI 630) G ½ B, 1.4542 (AISI 630) (via adapter) ¼ -18 NPT EXT, 1.4542 (AISI 630)
Electrical Connection	Connector DIN EN 175 301-803-A Optional: M12 connector
Weight	80 ... 120g (depending on the model)
Protection Class as per DIN 40 050	IP65

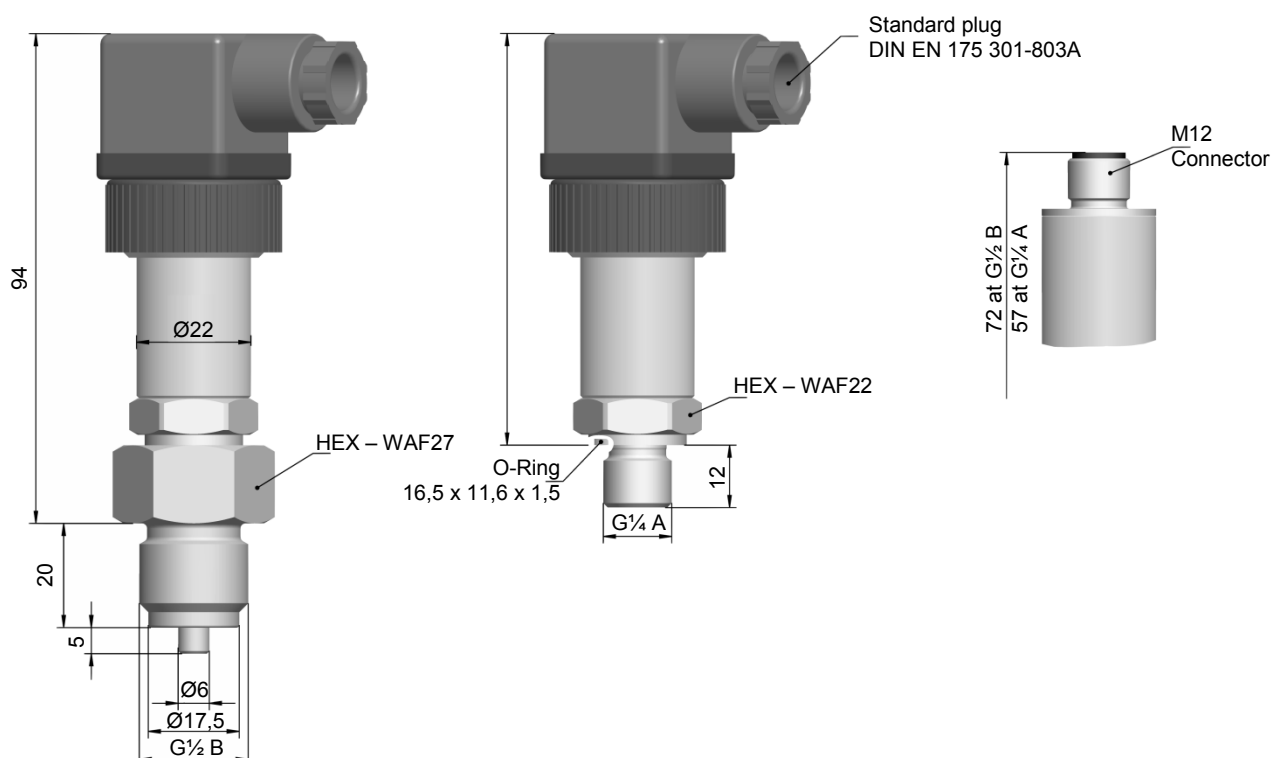
Electrical Data

Output	Current Output	Voltage Output
Contact termination	2-wire / 3-wire	3-wire
Nominal Voltage	24 VDC	24 VDC
Operating Voltage Range U_b	10... 32 VDC	12 ... 32 VDC
Load	$(U_b - 10V)/0,02A$	> 5 kΩ
Typical Temperature influence Offset	0.15 %FS / 10K	
Typical Temperature influence Span	0.15 %FS / 10K	
Insulation Resistance	> 100 MΩ at 50 VDC	

Material

Casing	CrNi Stahl 1.4301 (AISI 304)
in contact with Process media	CrNi Stahl 1.4542 (AISI 630)

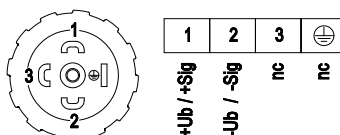
Dimensioned drawings (all dimensions in mm)



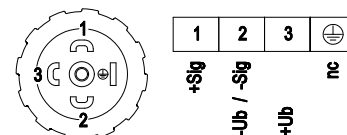
Electrical connection

Standard plug
DIN EN 175 301-803A

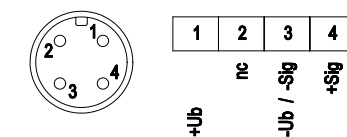
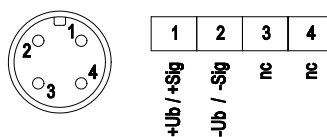
2 wire



3 wire



M12 Connector



Order codes

Pressure Transmitter

Type ME13

		0				9	0	0	0	0
--	--	---	--	--	--	---	---	---	---	---

Measuring Ranges

. 0 ... 0,6 bar	> 0 1
. 0 ... 1,0 bar	> 0 2
. 0 ... 1,6 bar	> 0 3
. 0 ... 2,5 bar	> 0 4
. 0 ... 4 bar	> 0 5
. 0 ... 6 bar	> 0 6
. 0 ... 10 bar	> 0 7
. 0 ... 16 bar	> 0 8
. 0 ... 25 bar	> 0 9
. 0 ... 40 bar	> 1 0
. 0 ... 60 bar	> 1 1
. 0 ... 100 bar	> 1 2
. 0 ... 160 bar	> 1 3
. 0 ... 250 bar	> 1 4
. 0 ... 400 bar	> 1 5
. 0 ... 600 bar	> 1 6
. 0 ... 1000 bar	> 1 7
-1 ... 0 bar	> 3 1
-1 ... 0,6 bar	> 3 2
-1 ... 1,5 bar	> 3 3
-1 ... 3 bar	> 3 4
-1 ... 5 bar	> 3 5
-1 ... 9 bar	> 3 6
-1 ... 15 bar	> 3 7
-1 ... 24 bar	> 3 8

Measuring Accuracy

Characteristic curve deviation gauge pressure 0.5.....> 0

Pressure Connection

Connection shanks with external thread G ¼ A, DIN 3852, Form E 1.4542.....> 7 9
 Connection shanks with external thread G ½ B, 1.4542 (via Adapter).....> 8 7

Electrical Output Signal

0 – 20 mA 3-wire (STANDARD).....> A
 4 – 20 mA 2-wire.....> B
 0 – 10 V DC 3-wire (STANDARD).....> C

Electrical Connection

Plug connection; standard plug DIN EN 175 301-803-A.....> H
 M12 plug connection.....> M

Operating Voltage

24 V DC.....> 9

Casing

IP65.....> 0

All Parts in Contact with Process Media

Stainless steel 1.4542 (AISI630).....> 0

Measuring System / Design

Standard.....> 0