



Application area

- Machinery construction
- Chemical and petrochemical industry
- General process technology

Technical data

Constructional design / case

Design:	Compact case with outstanding protection against moisture
Material:	Stainless steel mat.-no. 1.4301 (304)
Degree of protection:	IP 65 per EN 60529
Pressure compensation:	Ventilation via electrical connection
Electrical connection	<ul style="list-style-type: none"> ■ Circular connector M12x1 (4 pin) ■ Right-angle plug per DIN EN 175 301-803-A (DIN 43650 model A)
Weight:	Approx. 0.15 kg

Features

- Digital pressure transmitter
- Case and wetted parts of stainless steel, degree of protection IP 65
- Measuring ranges
 - 0...1 bar up to 0...1000 bar
 - -1...0 bar up to -1...15 bar
- Output signal 4...20 mA, 2-wire technology
- Accuracy $\leq 0.5\%$
- Easy zero point correction using a magnet
- Media temperature -20...120 °C

Options

- Output signal (invers) 20...4 mA
- Various process connections
- Further electrical connections
- Accuracy $\leq 0.3\%$

Application

The pressure transmitter COMPACT ECONoMIC is suitable for measuring the relative and absolute pressure of gases, vapors and liquids.

Process connection

Design:	<ul style="list-style-type: none"> ■ G 1/2 B per DIN EN 837-1 ■ G 1/4 B per DIN EN 837-1 ■ G 1/4 A per DIN 3852-11, model E ■ G 1/2 A per DIN 3852-11, model E ■ 1/4" NPT per DIN EN 837-1 ■ 1/2" NPT per DIN EN 837-1 ■ M20 x 1.5
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Material wetted parts

Process connection:	Stainless steel mat.-no. 1.4301 (304), 1.4542 (630) at nominal range 1000 bar
Diaphragm:	Stainless steel mat.-no. 1.4542 (630)

Measuring system

Sensor:	Thin film sensor
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Nominal range

Nominal range [bar]	Standard measuring range* [bar]		Measuring spans		Overload limits [bar]	Vacuum tight
			min. [bar]	max. [bar]		
3	0..1 0...1.6 0...2.5	-1...0 -1...0.6 - 1...1,5	1	3	6	-1 bar
10	0..4 0...6 0...10	-1...3 -1...5 -1...9	3	12	20	
50	0..16 0...25 0...40	-1...15	12.5	50	100	
200	0..60 0...100 0...160		50	200	400	
1000	0..250 0...400 0...600 0...1000		200	1000	1200	

* different measuring ranges upon request

Accuracy

General

Limit point setting:	per DIN 16086
Reference conditions:	per DIN EN 60770-1
Calibration position:	vertical mounting position
Accuracy: (Lin./Hyst./Rep.)	≤ 0.5 % of nominal range optional: ≤ 0.3 % of nominal range
Long term drift:	≤ 0.1 % / year of nominal range

Temperature influence: range 0...50° C:
≤ 0.2 % of nominal range
range -20...0 and 50...80° C:
≤ 0.3 % of nominal range

Output

Signal:	4...20 mA (20...4 mA), 2-wire technology
Damping:	30 ms
Measuring rate:	250 Hz
Current range:	3.7...23 mA
Resolution:	0.04 % of nominal range
Load, R _B :	R _B ≤ (U _V -10V)/20mA [Ohm] U _V = supply voltage

Supply voltage

Functional range: 10...30 V DC

Temperature ranges

Ambient:	-20...80° C
Media:	-20...120° C *
Storage:	-40...80° C

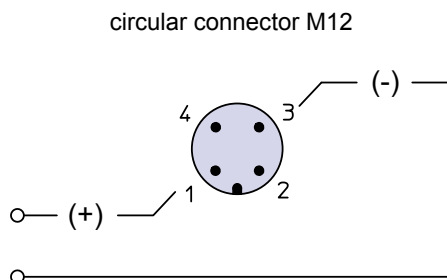
* at a maximal ambient temperature of 40° C

Extended temperature ranges upon request

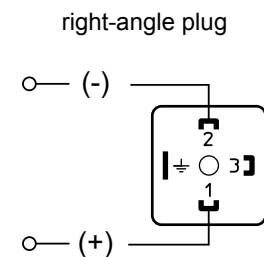
Tests and certificates

EMC: EMC directives 2004/108/EG

Connection diagram



Do not wire terminal 2 + 4

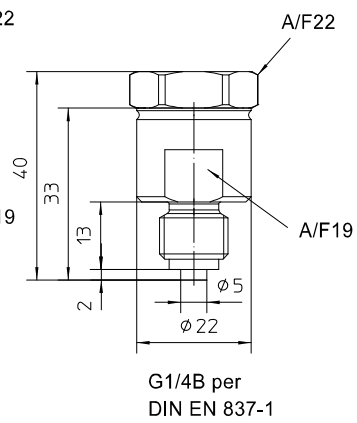
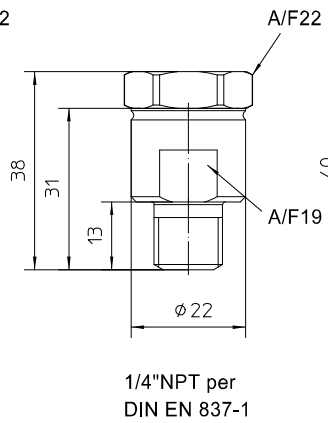
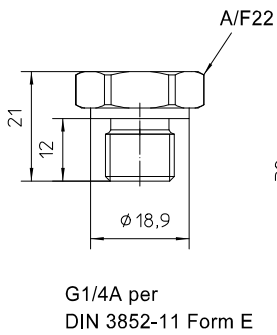
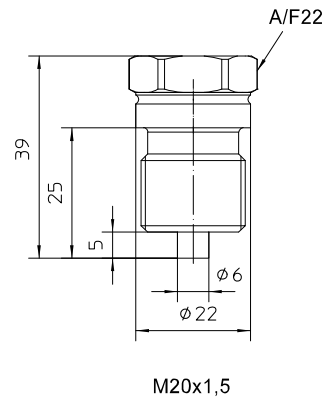
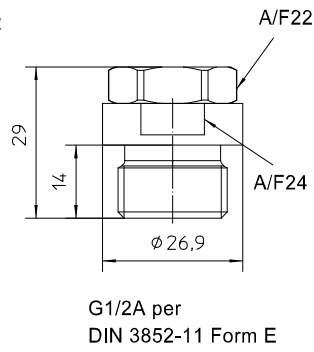
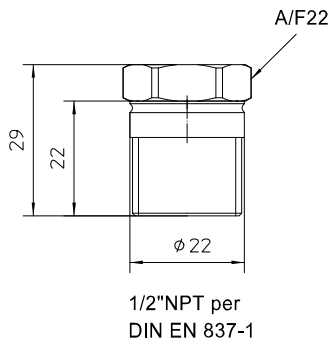
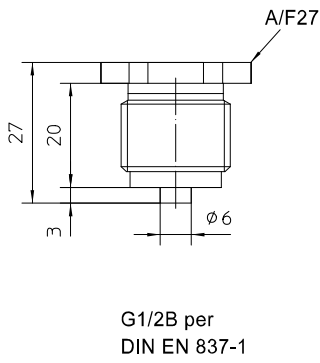
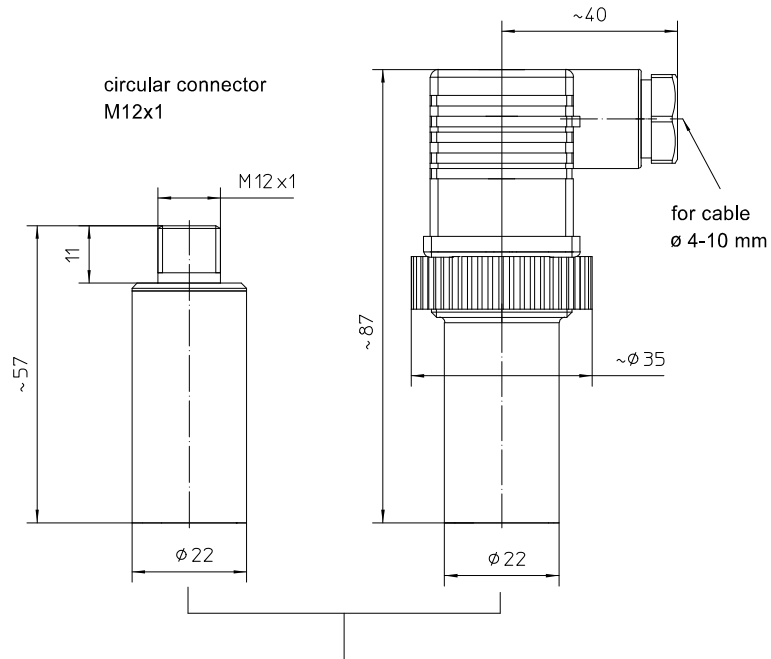


Do not wire terminals 3 + 4

The transmitter is grounded via the process connection

Dimensions

right-angle plug per
DIN EN 175301-803-A
(DIN 43650 model A)

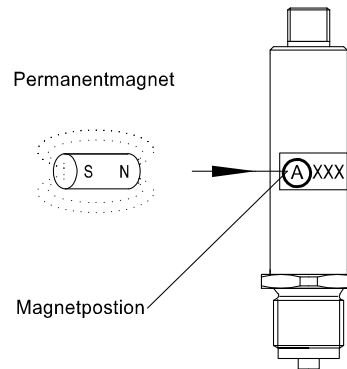


All dimensions are in millimeters

Zero point correction

The zero point can be set easily with a magnet within $\pm 10\%$ of the nominal range.

To correct the zero point, hold a permanent magnet – a pin board magnet, for example – at the position marked on the pressure transmitter (i.e. the letter in a circle) for 1/2 to 2 1/2 minutes after the power has been switched on. To correct the zero point, atmospheric pressure has to be applied. Offsets for previously set values for initial and ultimate pressures will be corrected automatically by the device. A magnetic field applied outside of this time period has no effect on the setting. The power must be switched off and on before the zero point can be set again.



Order details

Pressure transmitter COMPACT ECO for general application

Type Series CA1100

Order details COMPACT ECO CA1100		
CA1100	Pressure transmitter COMPACT ECO for general application	
A3053	Measuring range (bar)	0...1
A3054		0...1.6
A3055		0...2.5
A3056		0...4
A3057		0...6
A3058		0...10
A3059		0...16
A3060		0...25
A3061		0...40
A3062		0...60
A3063		0...100
A3064		0...160
A3065		0...250
A3066		0...400
A3068		0...600
A3070		0...1000 ¹
A3086		-1...0
A3087		-1...0.6
A3088		-1...1.5
A3089		-1...3
A3090	-1...5	
A3091	-1...9	
A3092	-1...15	
A9999	different measuring ranges upon request	
H1	Output signal	4...20 mA, 2-wire technology (standard)
H7		20...4 mA, 2-wire technology
T110	Electrical connection	right-angle plug per DIN EN 175 301-803-A (DIN 43650, model A)
T120		circular connector M12x1 (4 pin)
K10	Process connection internal diaphragm	G 1/2 B, DIN EN 837-1
K12		G 1/4 B, DIN EN 837-1
K20		G 1/2 A, DIN 3852-11, model E
K24		G 1/4 A, DIN 3852-11, model E
K30		1/2" NPT, DIN EN 837-1
K32		1/4" NPT, DIN EN 837-1
K40		M20 x 1.5
Additional features (to be indicated in case of need, only)		
Q3	Accuracy	$\leq 0,3\%$

Example: CA1100 – A1054 – H1 - T120 - ...

¹ only for process connections K10 and K24