

Pressure transmitter UNIVERSAL CA

with threaded connection

Type series CA2100



Application area

- Chemical and petrochemical industry
- General process engineering
- General process technology

Features

- Universal pressure transmitter
- Stainless steel case, degree of protection IP 65
- Direct ventilated sensor element
- Measuring ranges
 - 0...100 mbar to 0...400 bar rel.
 - 0...1 bar to 0...6 bar abs.
- Accuracy $\leq 0.2\%$
- Output signal 4...20 mA, 2-wire technology
- Easy zero setting by using a magnet
- Various process connections

Options

- Approvals/Certificates
 - Certificate of measuring equipment for Russian Federation
 - Material certificate as per EN 10204-3.1
 - Calibration certificate as per EN 10204-3.1
- Degree of protection IP 67

Application

The pressure transmitter UNIVERSAL CA is suited for measuring gauge pressure and absolute pressure of gases, vapors and liquids.

Technical data

Constructional design / case

Design:	Sturdy case design Excellent moisture protection Fully encapsulated electronics unit
Material:	Stainless steel mat.-no. 1.4301 (304)
Degree of protection per EN 60529:	<ul style="list-style-type: none">■ IP 65■ Optional IP 67
Pressure compensation:	Aeration via sintered filter
El. connection:	<ul style="list-style-type: none">■ Circular connector M12x1■ Right angle plug EN 175301-803-A (DIN 43650 model A) others upon request
Climatic category per EN 60721 3-4:	4K4H

Process connection

Design:	See order details
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Material wetted parts

Sensor :	Piezoresistive	Thin film
Sensor diaphragm:	1.4404/1.4435 (316L)	1.4542 (630)
Socket:	1.4404/1.4435 (316L)	1.4301/1.4404 (304/316L)

Measuring system

Sensor:	Piezoresistive	Thin film
Sensor filling:	Synthetic oil, free of silicone FD1, FDA listed	Without

Measuring ranges / overload limits

Measuring range / overload limit:	See order details
Vakuum tightness:	Long term vacuum measurements at relative measurement ranges can alter the device characteristics. (piezoresistive measuring system, only)

Zero settings

Zero point:	Easy zero setting max. $\pm 20\%$.
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Accuracy

Limit point setting:	per DIN 16086
Accuracy (Lin./Hyst./Repr.):	0.2 % v. of mr (mr ≥ 250 mbar) 0.5 mbar (mr < 250 mbar)
Long-term drift:	$\leq 0.1\%$ / year per EN 61298-1
Temperature influence:	<u>Range: 0...50 °C:</u> $\leq 0.25\%$ of mr (mr ≥ 400 mbar) $\leq 0.4\%$ of mr (mr < 400 mbar) $\leq 0.5\%$ of mr (mr < 160 mbar) <u>Range: -20...0 and 50...85 °C:</u> $\leq 0.4\%$ of mr (mr ≥ 400 mbar) $\leq 0.6\%$ of mr (mr < 400 mbar) $\leq 0.8\%$ of mr (mr < 160 mbar) mr = measuring range

Output

Signal:	4...20 mA in 2-wire technology
Sampling rate:	10 measurement/second
Current range:	3.8...20.8 mA
Resolution:	2 μ A
Current limitation:	≤ 22 mA
Alarm state:	< 3.6 mA
Load, R:	$R \leq (U-9V)/0.02$ A [Ω] U = supply voltage

Supply voltage

Function range:	9...30 V DC
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Temperature ranges

Ambient:	-20...85 °C
Media:	-20...100 °C
Storage:	-40...85 °C

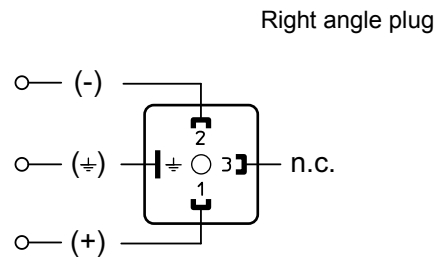
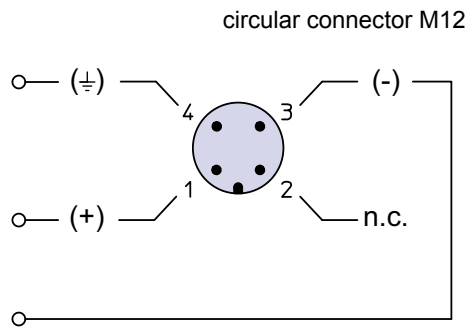
Tests and certificates

EMC:	EMC directives 2014/30/EU
	<ul style="list-style-type: none">■ EAC declaration upon request■ Certificate of measuring equipment for Russian Federation

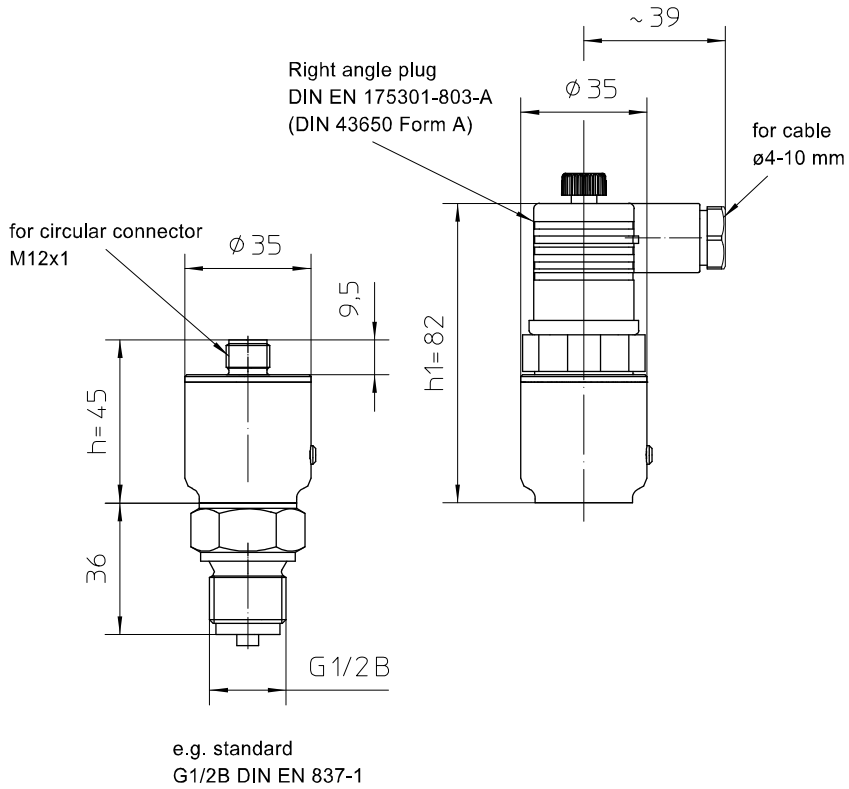
Mounting information

Mounting position:	At choice
Calibration position:	Vertical

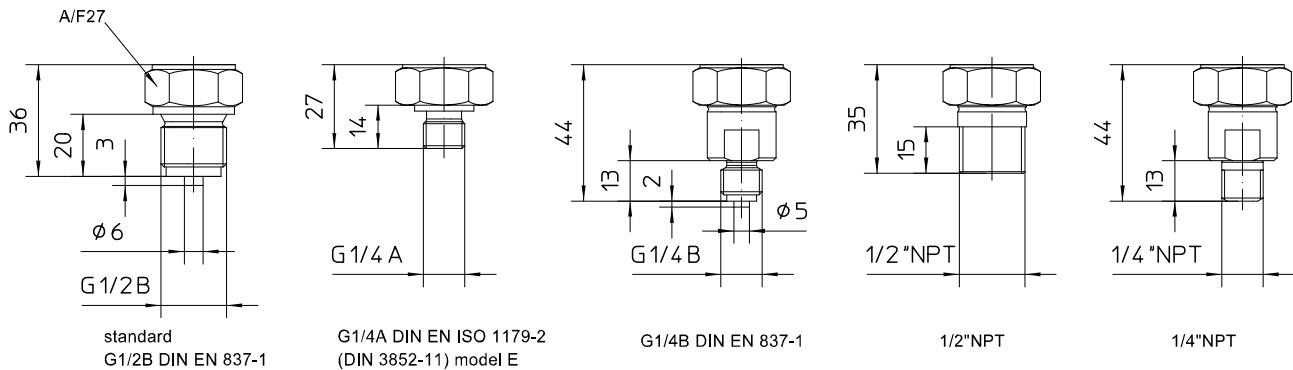
Connection diagram



Dimensions

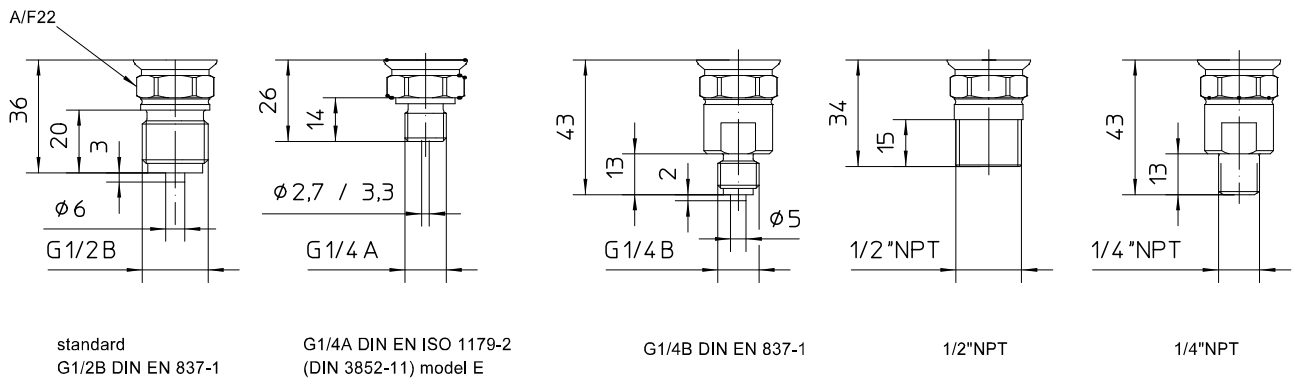


Process connections piezoresistive, internal diaphragm



All dimensions are in mm

Process connections thin film, internal diaphragm



All dimensions are in mm

Order details

Pressure transmitter UNIVERSAL CA with threaded connection Type series CA2100

Order details UNIVERSAL CA

CA2100	Pressure transmitter UNIVERSAL CA with threaded connection			
		measuring range	overload limit	sensor type
A1008	measuring range	0...100 mbar	1 bar	piezoresistive
A1009		0...160 mbar	1 bar	
A1010		0...250 mbar	3 bar	
A1011		0...400 mbar	3 bar	
A1012		0...600 mbar	3 bar	
A1053		0...1 bar	10 bar	
A1054		0...1.6 bar	10 bar	
A1055		0...2.5 bar	10 bar	
A1056		0...4 bar	20 bar	
A1057		0...6 bar	20 bar	
A1058		0...10 bar	100 bar	
A1059		0...16 bar	100 bar	
A1060		0...25 bar	100 bar	
A1061		0...40 bar	100 bar	
A3062		0...60 bar	200 bar	
A3063		0...100 bar	200 bar	
A3064		0...160 bar	400 bar	
A3065		0...250 bar	600 bar	
A3066		0...400 bar	600 bar	
A1025		-100...0 mbar	1 bar	piezoresistive
A1026		-160...0 mbar	1 bar	
A1027		-250...0 mbar	3 bar	
A1028		-400...0 mbar	3 bar	
A1552		-600...0 mbar	3 bar	
A1086		-1...0 bar	10 bar	
A1087		-1...0.6 bar	10 bar	
A1088		-1...1.5 bar	10 bar	
A1089		-1...3 bar	20 bar	
A1090		-1...5 bar	20 bar	
A1091		-1...9 bar	100 bar	
A1092	-1...15 bar	100 bar		
A1093	-1...24 bar	100 bar		
B1053	0...1 bar abs	10 bar		
B1054	0...1.6 bar abs	10 bar		
B1055	0...2.5 bar abs	10 bar		
B1056	0...4 bar abs	20 bar		
B1057	0...6 bar abs	20 bar		
A9999		variants as writing		
H11	output signal	4...20 mA, 2-wire technology		
T30	electrical connection	circular connector M12		
T51		right angle plug, DIN EN 175301-803-A (DIN 43650 model A ¹)		
T99		others upon request		
K1002	process connection material stainless steel	internal diaphragm	G1/4 B per EN 837-1	
K1010			G1/2 B per EN 837-1	
K1024			G1/4 A per DIN EN ISO 1179-2 (DIN 3852-11) Form E	
K1070			1/2" NPT	
K1072			1/4" NPT	

Additional features (to be indicated if required)		
T1	Degree of protection	IP 67 ²
W1020	material certificate	per EN 10204-3.1, wetted parts (stainless steel) ³
W2673	certificate of measuring equipment for Russian Federation	

Order code (example): CA2100 – A1056 – H11 – T30 – K1072 - ...

¹ not with degree of protection IP 67

² only with circular connector

³ only for piezoresistive measuring systems