

Pressure transmitter UNIVERSAL CA

with threaded connection

Type series CA2100



Application area

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

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
 - Material certificate as per EN 10204-3.1
 - Calibration certificate as per EN 10204-3.1
- As per UKCA regulations
- 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:	■ IP 65 ■ Optional IP 67
Pressure compensation:	Aeration via sintered filter
El. connection:	■ Circular connector M12x1 ■ Right angle plug EN 175301-803-A (DIN 43650 model A) others upon request
Climatic category:	4K4H per EN 60721 3-4

Process connection

Design:	See order details
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Material wetted parts

Sensor :	Piezoresistive	Thin film
Sensor dia-phragm:	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 < 100 mbar abs at relative measurement ranges can alter the device characteristics. (piezoresistive measuring system, only)

For information on definitions of terms regarding the Pressure Equipment Directive, see Technical Instruction TA_068.

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:</u> 0...50 °C: $\leq 0.25\%$ of mr (mr ≥ 400 mbar) $\leq 0.4\%$ of mr (mr < 400 mbar) $\leq 0.5\%$ of mr (mr < 160 mbar) <u>Range:</u> -20...0 and 50...85 °C: $\leq 0.4\%$ 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

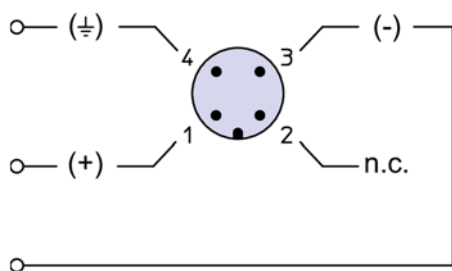
EMC:	EMC directives 2014/30/EU
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Mounting information

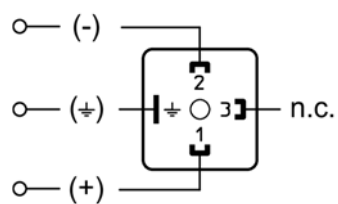
Mounting position:	At choice
Calibration position:	Vertical

Connection diagram

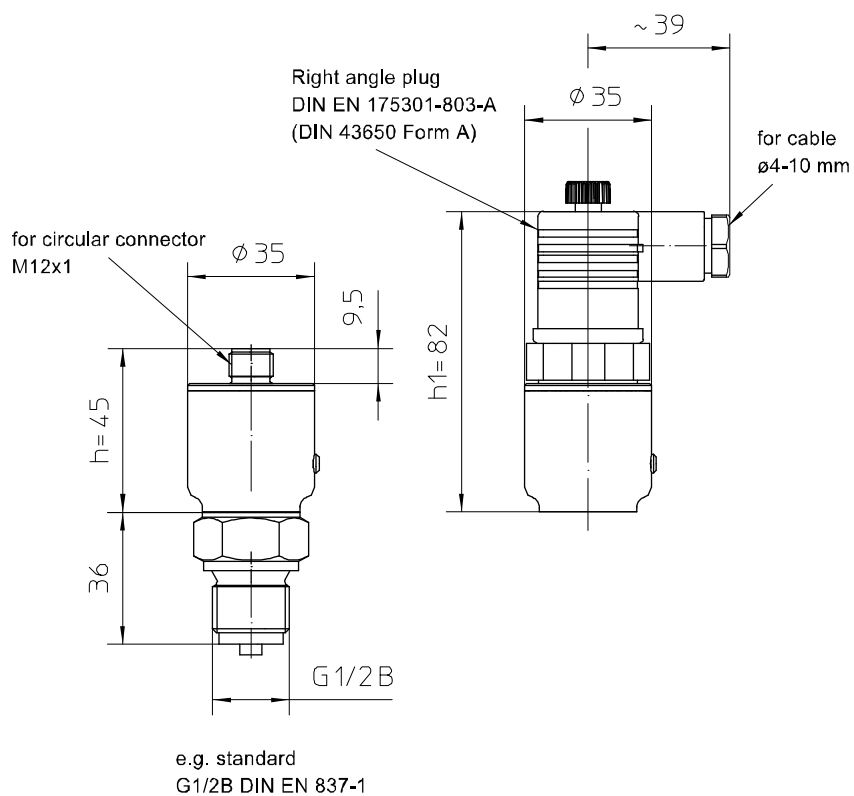
circular connector M12



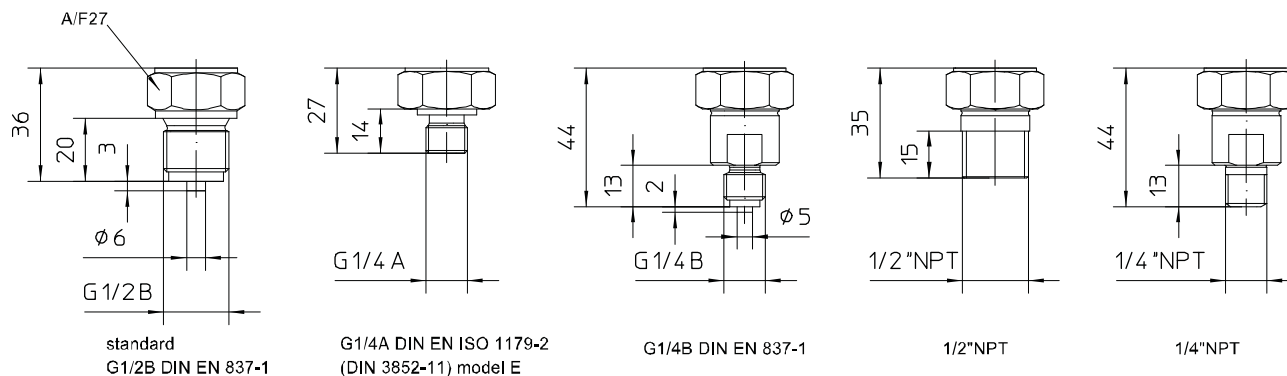
Right angle plug



Dimensions

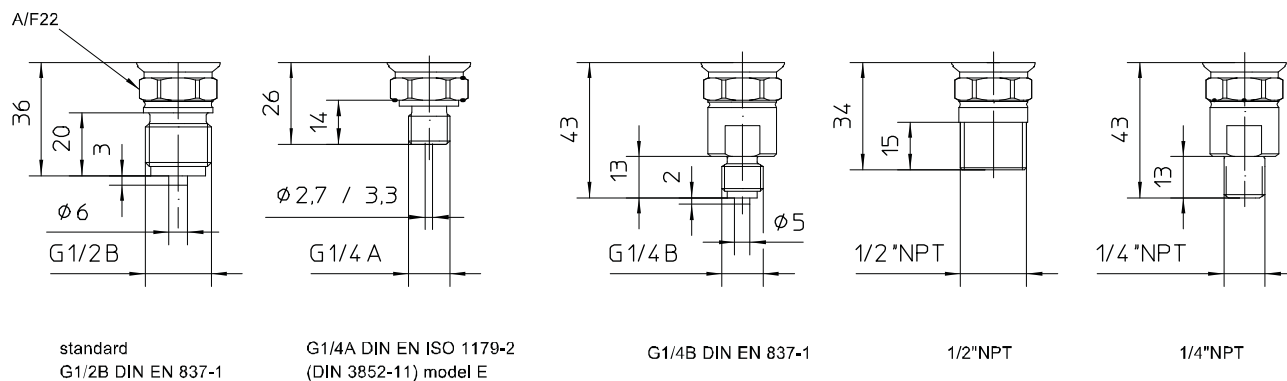


Process connections piezoresistive, internal diaphragm



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					
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	thin film	
A3063		0...100 bar	200 bar		
A3064.5		0...160 bar	200 bar		
A3065.5		0...250 bar	500 bar		
A3066.5		0...400 bar	500 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
W2660	As per UKCA regulations	

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.