

CCA-P-331



- industrial pressure transmitter for low pressure
- nominal pressure: from 0...100 mbar up to 0...40 bar
- output signals: 2-wire: 4...20 mA; 3-wire: 0...20 mA / 0...10 V
- stainless steel sensor
- accuracy 0.35 % span
- perfect thermal behaviour
- excellent long term stability
- pressure port G 1/2" flush from 100 mbar
- options: pressure sensor welded



The pressure transmitter **CCA-P-331** can be used in all industrial areas when the medium is compatible with stainless steel 1.4404 (316 L) or 1.4435 (316 L). Additional are different elastomer seals as well as a helium tested welded version available. The modular concept of the device allows to combine different stainless steel sensors and electronic modules with a variety of electrical and mechanical versions. Thus a diversity of variations is created, meeting almost all requirements in industrial applications.

PREFERRED AREAS OF USE ARE



Plant and Machine Engineering



Environmental Engineering
(water - sewage - recycling)



Energy Industry

TECHNICAL DATA

Input pressure range									
Nominal pressure gauge	[bar]	-1...0	0.10	0.16	0.25	0.40	0.60	1	1.6
Nominal pressure abs.	[bar]	-	-	-	-	0.40	0.60	1	1.6
Overpressure	[bar]	5	0.5	1	1	2	5	5	10
Burst pressure ≥	[bar]	7.5	1.5	1.5	1.5	3	7.5	7.5	15

Nominal pressure gauge / abs.	[bar]	2.5	4	6	10	16	25	40
Overpressure	[bar]	10	20	40	40	80	80	105
Burst pressure ≥	[bar]	15	25	50	50	120	120	210
Vacuum resistance		P _N ≥ 1 bar: unlimited vacuum resistance P _N < 1 bar: on request						

Output signal / Supply	
Standard	2-wire: 4 ... 20 mA / V _S = 8 ... 32 V _{DC}
Option accuracy 0.1 % span	2-wire: 4 ... 20 mA / V _S = 12 ... 36 V _{DC} 3-wire: 0 ... 10 V / U _B = 14 ... 30 V _{DC}
Options 3-wire	3-wire: 0 ... 20 mA / V _S = 14 ... 30 V _{DC} 0 ... 10 V / V _S = 14 ... 30 V _{DC}

Performance	
Accuracy ¹	standard: nominal pressure < 0.4 bar: ≤ ± 0.5 % span nominal pressure ≥ 0.4 bar: ≤ ± 0.35 % span option 1: nominal pressure ≥ 0.4 bar: ≤ ± 0.25 % span option 2: for all nominal pressure: ≤ ± 0.1 % span
Permissible load	current 2-wire: R _{max} = [(V _S - V _S min) / 0.02 A] Ω current 3-wire: R _{max} = 500 Ω voltage 3-wire: R _{min} = 10 kΩ
Influence effects	supply: 0.05 % span / 10 V load: 0.05 % span / kΩ
Long term stability	≤ ± 0.1 % span / year at reference conditions
Response time	2-wire: ≤ 10 msec 3-wire: ≤ 3 msec

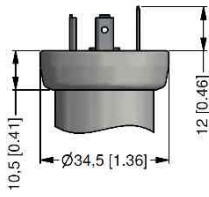
¹ accuracy according to EN IEC 62828-2— limit point adjustment (non-linearity, hysteresis, repeatability)

Thermal effects (Offset and Span)			
Nominal pressure P _N	[bar]	-1 ... 0	< 0.40
Tolerance band	[% span]	≤ ± 0.75	≤ ± 1
in compensated range	[°C]	0 ... 85	0 ... 70

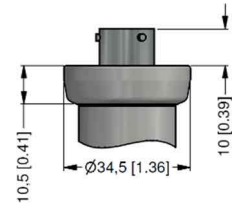
Permissible temperatures	
Permissible temperatures	medium: -40 ... 125 °C electronics / environment: -40 ... 85 °C storage: -40 ... 100 °C



standard

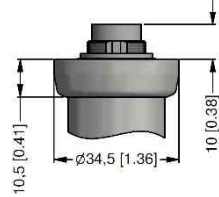


ISO 4400
(IP 65)

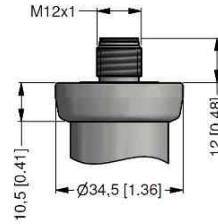


Bayonet MIL-C-26482 (10-6)
(IP 67)

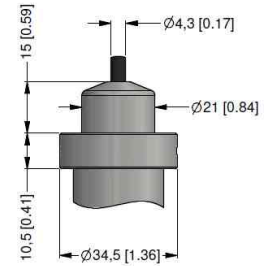
option



Binder Series 723 5-pin
(IP 67)



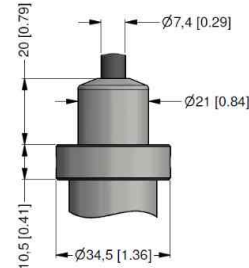
M12x1 4-pin
(IP 67)



cable gland PG7 / cable length specify
(IP 67) ⁵



field housing
(IP 67)



cable outlet, cable with ventilation tube
(IP 68) ⁶

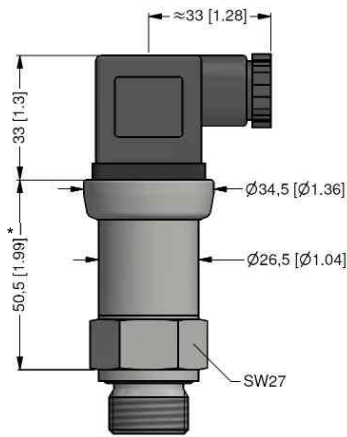
⇒ universal field housing stainless steel 1.4404 (316 L) with cable gland M20x1.5 (ordering code 880) and other versions on request

⁵ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70°C)

⁶ different cable types and lengths available, permissible temperature depends on kind of cable

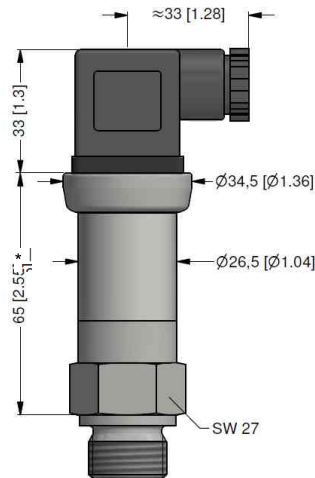
DIMENSION DRAWINGS

standard for accuracy 0.5 % / 0.35 / 0.25 %



G1/2" DIN 3852
with ISO 4400

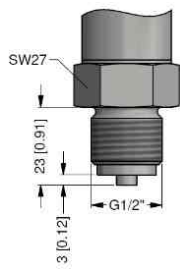
standard for accuracy 0.1%



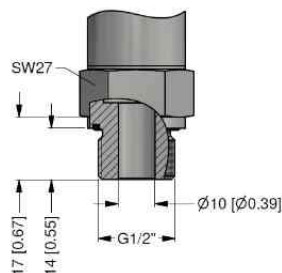
G1/2" DIN 3852
with ISO 4400

*with electrical connection Bayonet MIL-C-26482 (10-6) increases the length of devices by 5 mm

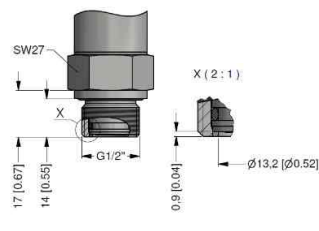
options



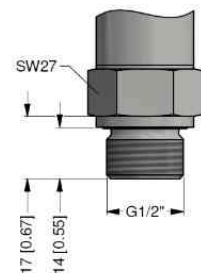
G1/2" EN 837



G1/2" open port



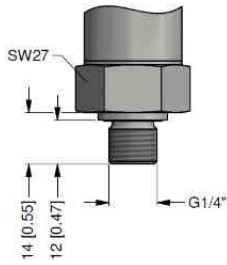
G1/2" DIN 3852
with flush sensor



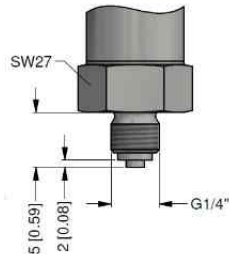
G1/2" DIN 3852

Pressure transmitters

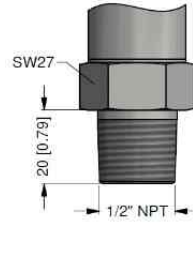
options



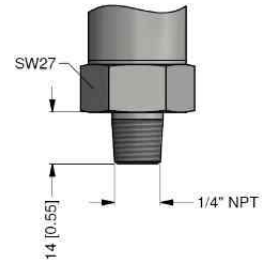
G1/4" DIN 3852



G1/4" EN 837



1/2" NPT



1/4" NPT

⇒ metric threads and other versions on request

ORDER CODE

CCA-P-331- [] - [] - [] - [] - [] - [] - [] - []

Pressure									
Gauge									
Absolute (possible from 0.4 bar)	1	1	0						
Input [bar]	1	1	1						
0 ... 0,1 (absolute pressure possible from 0.4 bar)				1	0	0	0		
0 ... 0,16 (absolute pressure possible from 0.4 bar)				1	6	0	0		
0 ... 0,25 (absolute pressure possible from 0.4 bar)				2	5	0	0		
0 ... 0,4				4	0	0	0		
0 ... 0,6				6	0	0	0		
0 ... 1				1	0	0	1		
0 ... 1,6				1	6	0	1		
0 ... 2,5				2	5	0	1		
0 ... 4				4	0	0	1		
0 ... 6				6	0	0	1		
0 ... 10				1	0	0	2		
0 ... 16				1	6	0	2		
0 ... 25				2	5	0	2		
0 ... 40				4	0	0	2		
-1 ... 0				X	1	0	2		
Customer				9	9	9	9		
Customer - underpressure				X	X	X	X		
Customer (0,5 ≤ P _N < 1 bar)				9	9	9	9		
Customer (0,25 ≤ P _N < 0,5 bar)				9	9	9	9		
Customer (0,1 ≤ P _N < 0,25 bar)				9	9	9	9		
Underpressure (0,5 ≤ P _N < 1 bar)				X	X	X	X		
Underpressure (0,25 ≤ P _N < 0,5 bar)				X	X	X	X		
Underpressure (0,1 ≤ P _N < 0,25 bar)				X	X	X	X		
Output									
4 ... 20 mA / 2-wire								1	
0 ... 20 mA / 3-wire								2	
0 ... 10 V / 3-wire								3	
0 ... 5 V / 3-wire								4	
0 ... 1 V / 3-wire								5	
1 ... 6 V / 3-wire								6	
4 ... 20 mA / 3-wire								7	
10 ... 90% of V _s / 3-wire ratiometric (V _s = 2,7 ... 5 V DC)								R	
Customer								9	
Accuracy									
0,5 %									5
0,35 % (P _N ≥ 0,4 bar)									3
0,25 % (P _N ≥ 0,4 bar)									2
0,1 % (only 4...20 mA / 2-wire or 0...10 V / 3-wire)									1
0,2 % (only 4...20 mA / 2-wire or 0...10 V / 3-wire)									B
0,5 % including Calibration Certificate									T
0,35 % including Calibration Certificate (P _N ≥ 0,4 bar)									S
0,25 % including Calibration Certificate (P _N ≥ 0,4 bar)									R
0,2 % including Calibration Certificate (4...20 mA / 2-wire or 0...10 V / 3-wire)									Q
Table of measured values for accuracy 0,5 %									N
Table of measured values for accuracy 0,35 %									M
Customer									9



