

- precision industrial pressure transmitter for high pressure
  - nominal pressure: from 0...600 bar up to 0...2200 bar
- output signals: 2-wire: 4...20 mA
- thinfilm sensor welded with the pressure port
- accuracy 0.1 % span
- turn-down 10.1
- robust and long-term stable
- optional: communication interface for adjusting offset, span and damping, pressure port M20 x 1.5 or 9/16 UNF, various kinds of electrical connections

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The precision pressure transmitter **CCA-P-334i** is a consistent further development of the approved industrial pressure transmitter CCA-P-334. Basic element is a thinfilm sensor which is welded with the pressure port. The integrated digital electronics compensates actively sensor specific deviations like non-linearity and thermal error.

It is therefore possible to o era high pressure transmitter with excellent metrological qualities.

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## PREFERRED AREAS OF USE ARE



Plant and machine engineering Test benches



Commercial vehicles and mobile hydraulics

### **TECHNICAL DATA**

Input pressure range									
Nominal pressure gauge	[bar]	600 <sup>1</sup>	1000	1600	2000	2200			
Overpressure	[bar]	800	1400	2200	2800	2800			
<sup>1</sup> only available with pressure port G1/2" EN 837									

Output signal / Supply									
Standard	2-wire: 4 20 mA / Vs = 12 36 Vpc								
Options	2-wire: 4 20 mA with communication interface <sup>2</sup>								
<sup>2</sup> only possible with el. connection Binder series 723 (7-pin)									
Performance									
Accuracy	EC 60770 <sup>3</sup> : ± 0.1 % span								
performance after turn-down - TD 5:1	no change of accuracy								
- TD > 5:1	for calculation use the following formula:								
	± (0.1 + 0.015 x turn down) % span								
	with turn-down = nominal pressure range / adjusted range								
	e.g. with a turn-down of 10:1 following accuracy is calculated:								
	± (0.1 + 0.015 x 10) % span i.e. accuracy is ± 0.25 % span								
Permissible load	current 2-wire: $R_{max} = [(V_S - V_{S min}) / 0.02 A] W$								
Influence e ects	supply: 0.05 % span / 10 V load: 0.05 % span / kW								
Long term stability	± (0.1 x turn-down) % span / year at reference conditions								
Response time	approx. 10 msec								
Adjustability (option) <sup>4</sup>	configuration of following parameters possible (interface / software necessary): - electronic damping: 0 100 sec - offset: 0 90 % span - turn down of span: max. 10:1								
<sup>3</sup> accuracy according to EN IEC 62828-2– limit point adjustment (non-linearity, hysteresis, repeatability) <sup>4</sup> adjustable version is only possible in combination with Binder Series 723, 7 -pin; activerse, and apple have to be andered apparentiate for Windows® 05, 08, 2000, NT Version 4.0 or higher, and XD)									
Thermal e acts (0 set and Snan) / Permissible temperatures									
TC average	< 0.25 % span / 10 K in compensated range - 20 85 °C								
Permissible temperatures	medium: - 40, 140 °C, electronics / environment: - 25, 85 °C, storage: -40, 100 °C								
Electrical protection									
Short-circuit protection	permanent								
Reverse polarity protection	no damage, but also no function								
Electromagnetic compatibility	emission and immunity according to EN 61326								
Mechanical stability									
Vibration	10 g RMS (20 2000 Hz) according to DIN EN 60068-2-6								
Shock	100 g / 11 msec. according to DIN EN 60068-2-27								

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stainless steel 1.4542 (17-4 PH)						
stainless steel 1.4404 (316L)						
stainless steel 1.4301 (304); cable gland M16x1.5, brass, nickel plated (clamping range 2 8 mm)						
none (welded)						
stainless steel 1.4542 (17-4 PH)						
pressure port, diaphragm						
signal output current: max. 25 mA						
approx. 300 g						
any						
$p_N = 600$ bar: 100 million load cycles $p_N > 600$ bar: 10 million load cycles						
EMC Directive: 2014/30/EU Pressure Equipment Directive: 2014/68/EU (module A)						

# ELECTRICAL CONNECTION





universal field housing in stainless steel 1.4404 (316 L) with cable gland M20x1.5 (ordering code 880) and other versions on request <sup>6</sup> standard: 2 m PVC cable (without ventilation tube, permissible temperature: -5 ... 70 °C)



# DIMENSION DRAWINGS



 $^{7}$  adjustable version is only possible in combination with Binder Series 723, 7 pin  $^{8}$  according to EN 837, the pressure port and the complement at pressure over 1000 bar must be preferably made of stainless steel with a tensile strength of R<sub>P</sub> > 260 N/mm<sup>2</sup> in accordance with DIN 17440. The maximum allowed pressure is 1600 bar!

### ORDER CODE

CCA-P-33	4i-	- []			]-[	- 🗌	-			-		].	- 🗆	-		
Pressure																
Gauge	1 4 0															
Input [bar]																
0 600 <sup>1</sup>		6	0 0	3												
0 1000		1 (	0 0	4												
0 1600		1 (	6 0	4												
0 2000		2 (	0 0	4												
0 2200		2	2 0	4												
Customer		9 9	9 9	9												
Output		·														
4 20 mA / 2-wire					1											
Customer					9											
Accuracy																
0,1 %						1										
Customer						9										
Electrical connection																
Connector DIN 43650 (ISO 4400) (IP 65)							1	0	0							
Connector Binder 723 5-pin (IP 67)							2	0	0							
Connector Binder 723/423 7-pin (IP 67) for RS-232 interface							Α	0	0							
Cable gland PG7 / cable length specify (IP 67)							4	0	0							
+ PVC cable / 1 m																
Connector DIN 43650 (ISO 4400) - potting compound inside (IP 6	67)						Е	0	0							
Connector M12 x 1, 4-pin (IP 67)							Μ	0	0							
Connector M12 x 1, 4-pin (IP 67) - metal							М	1	0							
Customer							9	9	9							
Mechanical connection																
G 1/2" EN 837 (P <sub>N</sub> 1000 bar) <sup>2</sup>										2	0	0				
M 20 x 1,5 internal thread										D	2	8				
9/16 UNF internal thread										V	0	0				
Customer										9	9	9				
Seals																
Without seals - welded													2			
Customer													9			
Special version																
Standard														1	1	1
RS-232 interface <sup>3</sup>														1	2	1
Customer														9	9	9

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1 - only available with pressure port G1/2" EN 837

2 - according to EN 837, the pressure port and the complement, at pressure over 1000 bar must be preferably made of stainless steel with a tensile

- strength of RP > 260 N/mm<sup>2</sup> in accordance with DIN 17440. The maximum allowed pressure is 1600 bar!
- 3 RS-232 interface only possible with el. connection Binder serie 723/423 (7pin)

Software, Interface and cable for DMP 334i with option RS-232 have to be order separately (Ordering code: CIS Set 510; Software appropriate for Windows® 95, 98, 2000, NT Version 4.0 or newer and XP)

Manufacturer reserves the right to change sensor specifications without further notice.

#### The manufacturer provides the EU declaration of conformity.

Calibration - All production undergoes output control, which is performed by comparison with standards. The traceability of standards and working gauges is ensured in accordance with Act No. 505/1990, as amended, on metrology.

The manufacturer o ers the possibility to supply sensors calibrated in the calibration laboratory, accredited according to SN EN ISO / IEC 17025: 2018.

