

## CCA-K-387



- pressure transmitter
- nominal pressure: from 0...100 mbar up to 0...40 bar
- output signals: 2-wire: 4...20 mA; 3-wire: 0...10 V
- ceramic sensor
- diaphragm 99.9% Al<sub>2</sub>O<sub>3</sub>
- accuracy 0.35% / 0.25% span
- high long-term stability



The pressure transmitter CCA-K-387 has been specially designed for applications in plant and machine engineering as well as laboratory techniques and is suitable for measuring small system pressure and filling heights.

By using our own-developed capacitive sensor, available in Al<sub>2</sub>O<sub>3</sub> 99.9%, the CCA-K-387 offers a high overpressure resistance and a high temperature and media resistance. The pressure transmitter is available in an intrinsically safe version for usage in explosive environments.

## PREFERRED AREAS OF USE ARE



Plant and Machine Engineering



Aggressive media



Laboratory Techniques



Water

## TECHNICAL DATA

Input pressure range																
Nominal pressure gauge	[bar]	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6	10	16	25	40	
Level	[mH <sub>2</sub> O]	1	1.6	2.5	4	6	10	16	25	40	60	100	160	250	400	
Overpressure	[bar]	3	4	5	5	5	7	7	12	12	20	20	20	40	70	
Burst pressure	[bar]	4	6	8	8	8	9	9	18	18	25	30	30	45	80	
Permissible vacuum	[bar]	-0.2	-0.3				-0.5									-1

Output signal / Supply	
Standard	2-wire: 4 ... 20 mA / V <sub>S</sub> = 14 ... 36 V <sub>DC</sub>
On request	3-wire: 0 ... 10 V / V <sub>S</sub> = 14 ... 36 V <sub>DC</sub>

Performance	
Accuracy <sup>1</sup>	standard: ± 0.35 % span option: ± 0.25 % span others on request
Permissible load	current 2-wire: R <sub>max</sub> = [(V <sub>S</sub> - V <sub>S min</sub> ) / 0.02 A] W voltage 3-wire: R <sub>min</sub> = 10 kW
Influence effects	supply: 0.05 % span / 10 V load: 0.05 % span / k
Long term stability	± 0.1 % span / year
Turn-on time	450 msec
Mean response time	70 msec
Measuring rate	80 Hz

<sup>1</sup> accuracy according to EN IEC 62828-2 - limit point adjustment (non-linearity, hysteresis, repeatability)

Thermal effects (on set and span)	
Tolerance band	± 1 % span
In compensated range	-20 ... 80 °C

Permissible temperatures	
Medium <sup>2</sup>	-40 ... 125 °C
Electronics / environment	-40 ... 85 °C
Storage	-40 ... 85 °C

<sup>2</sup> for pressure port in PVDF the operation medium temperature is -30 ... 60 °C and in PP-HT 0 ... 60 °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

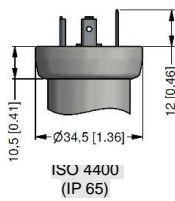


<b>Mechanical stability</b>			
Vibration	10 g RMS (25 ... 2000 Hz)	according to DIN EN 60068-2-6	
<b>Materials</b>			
Pressure port / housing	standard: options for G3/4" flush:	pressure port stainless steel 1.4404 (316 L) PVDF ( $p_{max} = 20$ bar) PP-HT ( $p_{max} = 10$ bar)	housing stainless steel 1.4404 (316 L) PVDF PP-HT
Option compact field housing	stainless steel 1.4301 (304) cable gland M12x1.5, brass, nickel plated (clamping range 2 ... 8 mm)		
Seals (O-rings)	FKM, EPDM, FFKM	others on request	
Diaphragm	ceramics Al <sub>2</sub> O <sub>3</sub> 99.9 %	others on request	
Media wetted parts	pressure port, seals, diaphragm		
<b>Miscellaneous</b>			
Current consumption	max. 22 mA		
Weight	approx. 180 g		
Operational life	100 million load cycles		
CE-conformity	EMC Directive: 2014/30/EU		

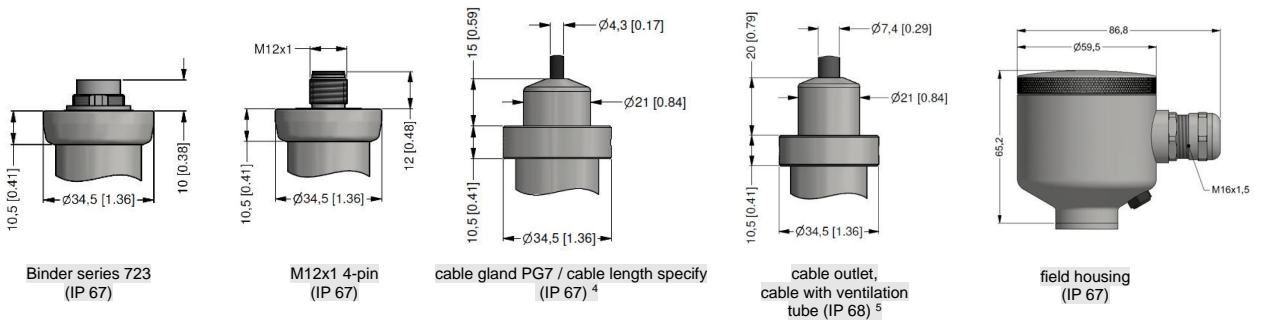
ELECTRICAL CONNECTION

<b>Wiring diagram</b>						
2-wire-system (current)			3-wire-system (current / voltage)			
<b>Pin configuration</b>						
Electrical connection	ISO 4400	Binder 723 (5-pin)	M12x1 (4-pin)	field housing	cable colours (DIN 47100)	
	Supply +	1	3	Vs +		wh (white)
	Supply -	2	4	Vs -		bn (brown)
Signal + (only for 3-wire)	3	1	3	S +	gn (green)	
Shield	ground contact ⚡	5	4	GND	ye/gn (yellow / green)	

standard



options

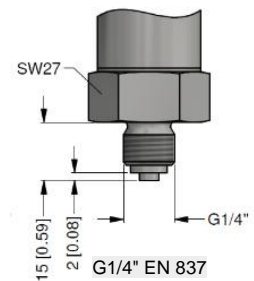
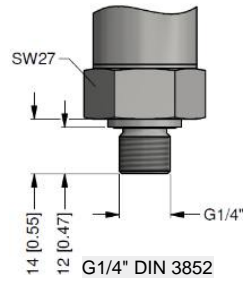
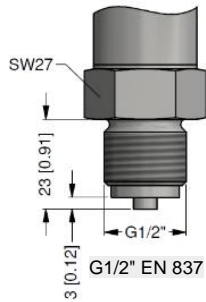
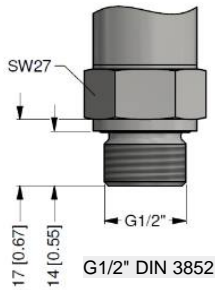
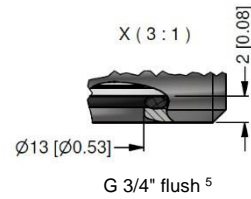
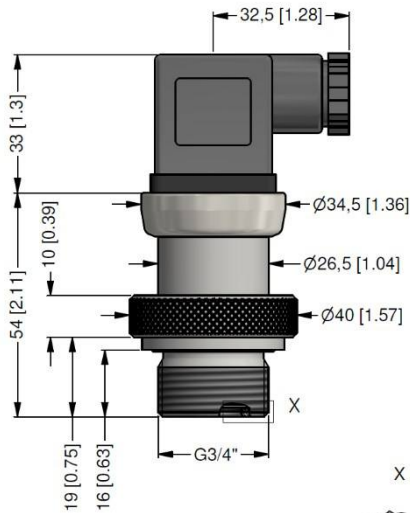
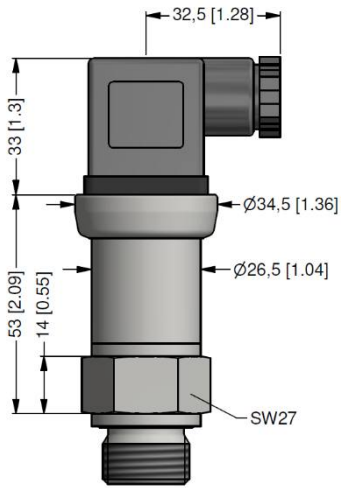


<sup>4</sup> standard: 2 m PVC-cable without ventilation tube (permissible temperature: -5 ... 70°C), optional cable with ventilation tube

<sup>5</sup> different cable types and lengths available, permissible temperature depends on kind of cable



DIMENSION DRAWINGS



ORDER CODE

CCA-K-387- [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Pressure																				
Gauge in bar			2	8	5															
Gauge in mH <sub>2</sub> O			2	8	6															
Input [mH <sub>2</sub> O]	[bar]																			
0 ... 1	0 ... 0,1				1	0	0	0												
0 ... 1,6	0 ... 0,16				1	6	0	0												
0 ... 2,5	0 ... 0,25				2	5	0	0												
0 ... 4	0 ... 0,4				4	0	0	0												
0 ... 6	0 ... 0,6				6	0	0	0												
0 ... 10	0 ... 1				1	0	0	1												
0 ... 16	0 ... 1,6				1	6	0	1												
0 ... 25	0 ... 2,5				2	5	0	1												
0 ... 40	0 ... 4				4	0	0	1												
0 ... 60	0 ... 6				6	0	0	1												
0 ... 100	0 ... 10				1	0	0	2												
0 ... 160	0 ... 16				1	6	0	2												
0 ... 250	0 ... 25				2	5	0	2												
0 ... 400	0 ... 40				4	0	0	2												
Customer					9	9	9													
Output																				
4 ... 20 mA / 2-wire																				1
0 ... 10 V / 3-wire																				3
Customer																				9



