

CCA-Xact



- pressure transmitter
- hygienic version
- for food / beverage, pharmaceutical industry and biotechnology
- nominal pressure: from 0...60 mbar up to 0...20 bar
- output signals: 2-wire: 4...20 mA
- internal or flush mounted capacitive ceramic sensor
- integrated display and operating module
- accuracy 0.1 % span
- turn-down 5:1
- diaphragm Al₂O₃ 99.9%

The precise pressure transmitter CCA-Xact measures the pressure of gases, steam and fluids. The special-developed capacitive ceramic sensor for this transmitter, which can optionally be delivered in pure ceramic, has a high overpressure capability and excellent media stability. Several process connections e.g. inch thread or hygienic versions like Varivent®, dairy pipe or Clamp are available. The robust stainless steel globe housing has a high ingress protection IP 67 and all characteristics for a residue-free and an antibacterial cleaning.

PREFERRED AREAS OF USE ARE



Laboratory Techniques



Chemical and petrochemical industry



Food and beverage



Viscous and pasty media

TECHNICAL DATA

Pressure ranges ¹									
Nominal pressure gauge	[bar]	0.06	0.16	0.4	1	2	5	10	20
Overpressure	[bar]	2	4	6	8	15	25	35	45
Permissible vacuum	[bar]	-0.2	-0.3		-0.5			-1	

¹ On customer request we adjust the devices by software on the required pressure ranges (within the turn-down-possibility; starting at 0.02 bar).

Output signal / Supply		
2-wire: 4 ... 20 mA	standard: analogue signal V_S = 12 ... 30 V_{DC}	
Current consumption	max. 25 mA	
Performance		
Accuracy ²	nominal pressure < 1 bar: ± 0.2 % span	
	nominal pressure ≥ 1 bar: ± 0.1 % span	
	for nominal pressure ranges: from 0.16 bar up to 0.4 bar	± (0.2 + (TD-1) x 0.02) % span
	for nominal pressure ranges: from 1 bar up to 20 bar	± (0.1 + (TD-1) x 0.01) % span
	with turn-down = nominal pressure range / adjusted range	
Permissible load	R _{max} [(V _S - V _{S min}) / 0.02 A] W	
Influence effects	supply: 0.05 % span / 10 V permissible load: 0.05 % span / kW	
Long term stability	± 0.1 % span / year	
Response time	200 msec – without consideration of electronic damping measuring rate 5/sec	
Adjustability	electronic damping: 0 ... 100 sec	
	offset: 0 ... 80 % span	
	turn-down of span: max. 5:1 (span min. 0.02 bar)	
² accuracy according to EN IEC 62828-2 – limit point adjustment (non-linearity, hysteresis, repeatability)		
Permissible temperatures		
Thermal error	± (0.02 x turn-down) % span / 10 K in compensated range -20 ... 80 °C	
Permissible temperatures	medium: -25 ... 125 °C environment: -20 ... 70 °C storage: -30 ... 80 °C	
³ Maximum permissible temperature with PVC pressure port is -25...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	

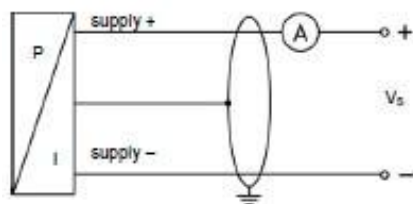


Mechanical stability	
Vibration	5 g RMS (25 ... 2000 Hz)
Shock	100 g / 11 msec
Materials	
Pressure port	inch thread, DRD and flange version, Varivent®, dairy pipe and clamp: stainless steel 1.4404 (316L) optionally for G1 1/2" flush (DIN 3852): PVDF
Housing	stainless steel 1.4301 (304)
Viewing glass	laminated safety glass
Seals	FKM EPDM others on request
Diaphragm	ceramics Al ₂ O ₃ 99,9 %
Media wetted parts	pressure port, seals, diaphragm
Miscellaneous	
Display	LC display, visible range 32.5 x 22.5 mm; 5-digit 7-segment main display, digit height 8 mm, range of indication ±9999; 8-digit 14-segment additional display, digit height 5 mm; 52-segment bargraph; accuracy 0.1% ± 1 digit
Ingress protection	IP 67
Installation position	any
Weight	min. 400 g (depending on mechanical connection)
Operational life	> 100 x 10 ⁶ cycles
CE-conformity	EMC Directive: 2014/30/EU

Varivent® is a trademark of GEA Tuchenhagen GmbH; Windows® is a registered trade mark of Microsoft Corporation

ELECTRICAL CONNECTION

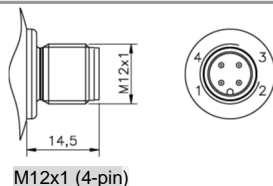
Wiring diagram



Pin configuration

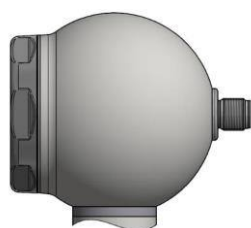
Electrical connection	M12x1 (4-pin)	cable colours (IEC 60757)
Supply +	1	wh (white)
Supply -	3	bn (brown)
Shield	plug housing	ye/gn (yellow / green)

Electrical connections (dimensions in mm)



M12x1 (4-pin)

DESIGNS



Side display

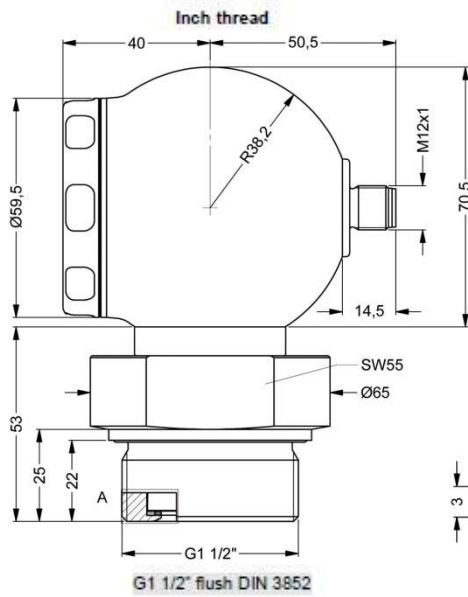


45° display (on request)

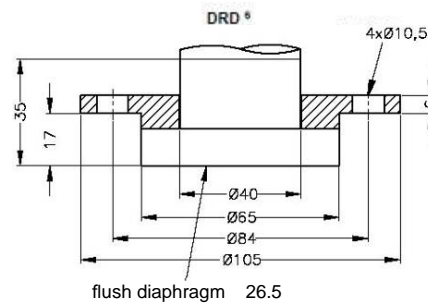
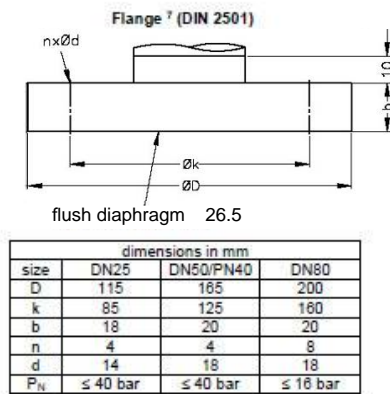
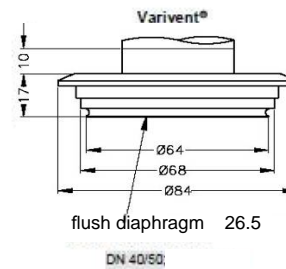
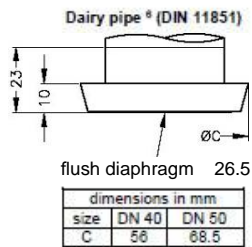
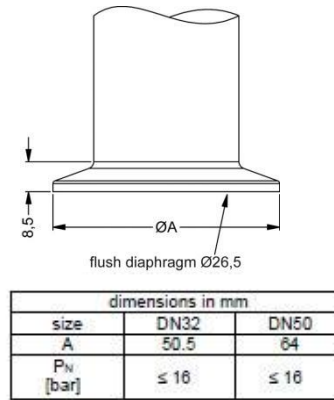
⁵ all designs in combination with G1 1/2" flush in horizontal rotatable housing as standard; other mech. connections in rotatable housing on request



DIMENSION DRAWINGS



Clamp (DIN 32676)



⁶ cup nut for dairy pipe or mounting flange for DRD is included in the delivery (already pre-assembled)

⁷ DN80/PN16 possible with nominal pressure ranges P_N ≤ 7 bar

Varivent® is a trademark of GEA Tuchenhausen GmbH; Windows® is a registered trade mark of Microsoft Corporation



ORDER CODE

CCA-Xact- [] [] [] - [] [] [] [] - [] [] [] [] - [] [] [] [] - [] [] [] [] - [] [] [] [] - [] [] [] [] - [] [] [] [] - [] [] [] [] - [] [] [] [] - [] [] [] []

Pressure															
Gauge	5	1	E												
Input [bar]															
0 ... 0,06				0	6	0	0								
0 ... 0,16				1	6	0	0								
0 ... 0,4				4	0	0	0								
0 ... 1				1	0	0	1								
0 ... 2				2	0	0	1								
0 ... 5				5	0	0	1								
0 ... 10				1	0	0	2								
0 ... 20				2	0	0	2								
Customer	9	9	9	9											
Design															
Stainless steel ball housing - side display (IP 67)											K	H			
Stainless steel ball housing - 45° display (IP 67)											K	4			
Output															
4 ... 20 mA / 2-wire												1			
Customer												9			
Accuracy															
0,1 % (P _N 1 bar)												1			
0,1 % including Calibration Certificate (P _N 1 bar)												P			
0,2 % (P _N < 1 bar)												B			
0,2 % including Calibration Certificate (P _N < 1 bar)												Q			
Customer												9			
Electrical connection															
Connector M12 x 1, 4-pin (IP 67) - metal											M	1	0		
Customer											9	9	9		
Mechanical connection															
G 1 1/2" DIN 3852											M	0	0		
Clamp DN 1 1/2" (DN 32)											C	6	2		
Clamp DN 2" (DN 50)											C	6	3		
Dairy pipe DIN 11851 DN 40 ¹											M	7	5		
Dairy pipe DIN 11851 DN 50 ¹											M	7	6		
Flange DN 80/PN 16 DIN 2501											F	1	4		
Flange DN 25/PN 40 DIN 2501											F	2	0		
Flange DN 40/PN 40 DIN 2501											F	2	2		
Flange DN 50/PN 40 DIN 2501											F	2	3		
DRD Ø 65 mm ¹											D	R	D		
Customer											9	9	9		
Diaphragm															
Ceramic Al ₂ O ₃ 96 %													2		
Ceramic Al ₂ O ₃ 99,9 %													C		
Customer													9		
Seals															
Viton (FKM)													1		
EPDM													3		
Customer													9		
Pressure port															
Stainless steel 1.4404 (316 L)													1		
PVDF (only for mechanical connection M00) ²													B		
Customer													9		
Special version															
Standard													0	0	0
Customer													9	9	9
Programming															
HART® modem HM02 + USB including SW CONFIG															

5031837

!!! When you make an order it is necessary to fill the questionnaire for transmitters with separators!!!

If setting range shall be different from nominal range please specify in your order

1 - cup nut resp. mounting flange is included in the delivery (already pre-assembled)

2 - for pressure port in PVDF the operation medium temperature is -25 ... 60 °C

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

