

CCE-30.600 G



- low cost pressure transmitter
- nominal pressure: from 0...1.6 bar up to 0...250 bar
- output signals: 2-wire: 4...20 mA; 3-wire: 0...10 V / 1...10V / 0,5...4,5 V / ratiometric
- ceramic sensor
- accuracy 1 % span
- option: oil and grease free version



PREFERRED AREAS OF USE ARE



Plant and Machine Engineering



Energy industry



Utility vehicles / mobile hydraulics

TECHNICAL DATA

Input pressure range													
Nominal pressure gauge	[bar]	1,6	2,5	4	6	10	16	25	40	60	100	160	250
Overpressure	[bar]	5	5	12	12	20	50	50	120	120	200	400	400
Burst pressure ≥	[bar]	7	7,5	15	18	30	70	75	150	180	300	500	750
Vacuum resistance		unlimited											
Output signal / Supply													
Standard		2-wire:		4 ... 20 mA		/		$V_S = 8 \dots 32 V_{DC}$					
Options		3-wire:		0 ... 10 V		/		$V_S = 14 \dots 30 V_{DC}$					
		3-wire ratiometric:		10...90 % of V_S		/		$V_S = 2.7 \dots 5 V_{DC}$					
Performance													
Accuracy ¹		≤ ± 1 % span											
Permissible load		2-wire:		$R_{max} = [(V_S - V_{S min}) / 0.02 A] \Omega$									
		3-wire:		$R_{min} = 10 k\Omega$									
Influence effects		supply:		0.05 % span / 10 V									
		load:		0.05 % span / kΩ									
Response time		2-wire:		≤ 10 msec									
		3-wire:		≤ 3 msec									
Long term stability		≤ ± 0.3 % span / year at reference conditions											
Measuring rate		1 kHz											
¹ accuracy according to EN IEC 62828-2- limit point adjustment (non-linearity, hysteresis, repeatability)													
Thermal effects (Offset and Span) / Permissible temperatures													
Thermal error		≤ ± 0.5 % span / 10 K (typ.)		in compensated range		-25 ... 85 °C							
Permissible temperatures		medium: -25 ... 125 °C		electronics / environment:		-25 ... 85 °C				storage: -40 ... 85 °C			
Electrical protection													
Short-circuit protection		permanent		3-wire ratiometric: none									
Reverse polarity protection		no damage, but also no function											
Electromagnetic protection		emission and immunity according to EN 61326											
Mechanical stability													
Vibration		10 g, 25 Hz ... 2 kHz		according to DIN EN 60068-2-6									
Shock		500 g / 1 msec		according to DIN EN 60068-2-27									
Materials													
Pressure port / housing		stainless steel 1.4301 (304)											
Seals (media wetted)		FKM		others on request									
Diaphragm		ceramics Al ₂ O ₃ 96 %											
Media wetted parts		pressure port, seals, diaphragm											



Pressure transmitters

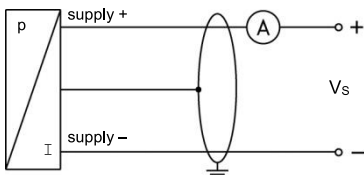
Miscellaneous

Weight	approx. 120 g	
Current consumption	2-wire: max. 25 mA 3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)	3-wire ratiometric: typ. 1.5 mA
Operational life	100 million load cycles	
CE-conformity	EMC Directive: 2014/30/EU	Pressure Equipment Directive: 2014/68/EU (module A) ²
² This directive is only valid for devices with maximum permissible overpressure > 200 bar		

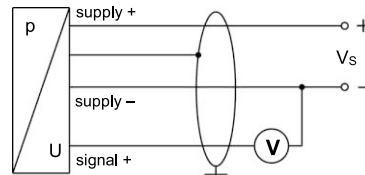
ELECTRICAL CONNECTION

Wiring diagrams

2-wire-system (current)

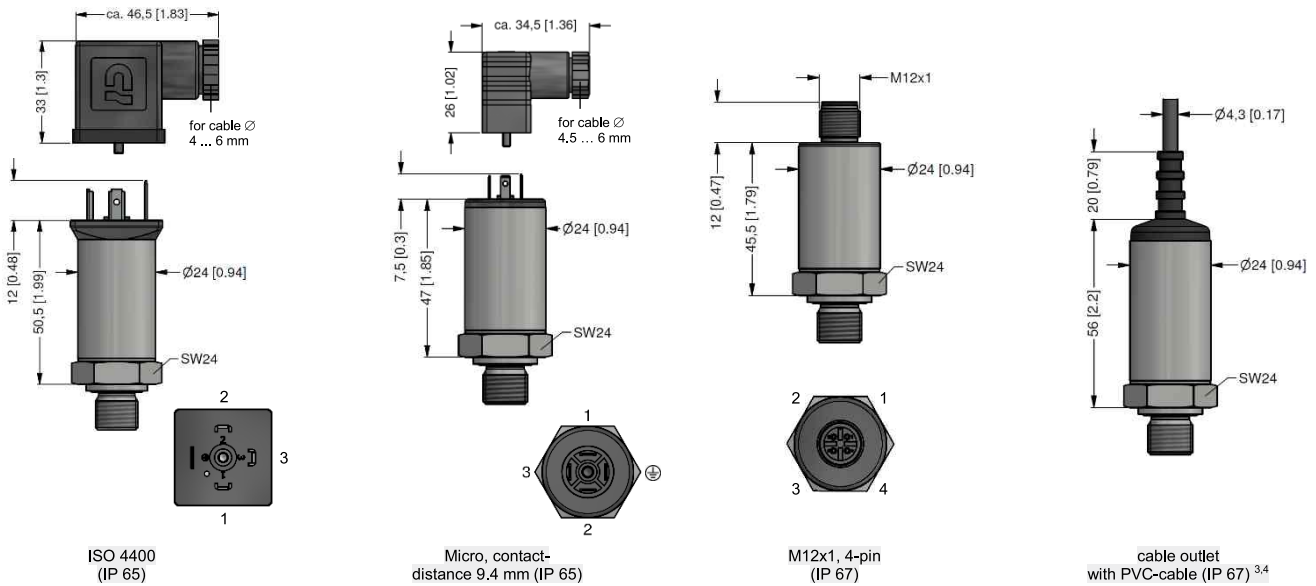


3-wire-system (voltage)



Pin configuration

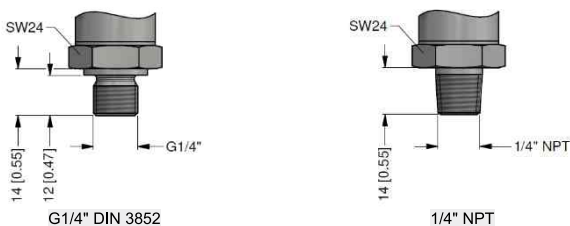
Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), metal	cable colour (IEC 60757)
Supply +	1	1	1	wh (white)
Supply -	2	2	2	bn (brown)
Signal + (for 3-wire)	3	3	3	gn (green)
Shield	ground pin	ground pin	4	gn/ye (green / yellow)



³ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)

⁴ different cable types and lengths available, permissible temperature depends on kind of cable

MECHANICAL CONNECTION



Pressure transmitters

ORDER CODE

CCE-30.600G- - R - - - - - 2 - -

Input [bar]													
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									
0 ... 60	6	0	0	2									
0 ... 100	1	0	0	3									
0 ... 160	1	6	0	3									
0 ... 250	2	5	0	3									
Customer	9	9	9	9									
Customer underpressure	X	X	X	X									
Pressure													
Gauge													R
Output													
4 ... 20 mA / 2-wire													1
0 ... 10 V / 3-wire													3
1 ... 10 V / 3-wire													34
0,5 ... 4,5 V / 3-wire													8
10 ... 90 % Vs / 3-wire ratiometric (Vs = 2,7 ... 5 V DC)													R
Customer													9
Accuracy													
1 %													8
1 % including Calibration Certificate													U
Customer													9
Electrical connection													
Connector DIN 43650 (ISO 4400) (IP 65)													1 0 0
Cable gland PG7 / cable length specify (IP 67)													4 0 0
+ PVC cable / 1 m													
Connector M12 x 1, 4-pin (IP 67)													M 0 0
Connector M12 x 1, 4-pin (IP 67) - metal													M 1 0
Cable outlet / cable length specify (IP 67) ¹													T A 0
+ PVC cable / 1 m													
Customer													9 9 9
Mechanical connection													
G 1/2" EN 837													2 0 0
G 1/4" DIN 3852 (only with seals "P")													3 0 0
M 20 x 1,5 EN 837													8 0 0
1/4" NPT													N 4 0
G 1/8" DIN 3852													Z 3 7
Customer													9 9 9
Seals													
Viton (FKM)													1
Customer													9
Special version													
Standard													0 0 0
Oil and grease free													0 0 8
Customer													9 9 9

1 - cable without through capillary (permissible temperature -5... +70°C)

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

