



## CCE-17.600G

- pressure transmitter
- heavy duty
- nominal pressure: from 0...6 bar up to 0...600 bar
- output signals: 2-wire: 4...20 mA; 3-wire: 0...10 V / ratiometric
- stainless steel sensor, welded
- accuracy 0.5 % span
- optionally: oxygen application



### PREFERRED AREAS OF USE ARE



Plant and Machine Engineering



Commercial vehicles and mobile hydraulics



Medical technology



Refrigeration engineering

### TECHNICAL DATA

Input pressure range													
Nominal pressure gauge	[bar]	6	10	16	25	40	60	100	160	250	400	600	
Overpressure (static)	[bar]	12	20	32	50	80	120	200	320	500	800	1 200	
Burst pressure $\geq$	[bar]	30	50	80	125	200	300	500	800	1 400	2 000	3 000	
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 <sup>1</sup>		$\leq \pm 0.5 \% \text{ span}$											
Permissible load	2-wire:	$R_{max} = [(V_S - V_S \text{ min}) / 0.02 \text{ A}] \Omega$											
	3-wire:	$R_{min} = 10 \text{ k}\Omega$											
Influence effects	supply:	0.05 % span / 10 V											
	load:	0.05 % span / k $\Omega$											
Response time	2-wire:	$\leq 10 \text{ msec}$							3-wire: $\leq 3 \text{ msec}$				
Long term stability		$\leq \pm 0.3 \% \text{ span / year}$ at reference conditions											
Measuring rate		1 kHz											
<sup>1</sup> accuracy according to EN IEC 62828-2—limit point adjustment (non-linearity, hysteresis, repeatability)													
Thermal effects (Offset and Span) / Permissible temperatures													
Thermal error		$\leq \pm 0.3 \% \text{ span / 10 K}$				in compensated range:				0 ... 70 °C			
Permissible temperatures		medium: -40 ... 125 °C				electronics / environment:				-40 ... 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		20 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		stainless steel 1.4571 (316Ti)											
Housing		stainless steel 1.4301 (304)											
Seal of pressure port		FKM: G 1/4" DIN 3852					others on request						
Seal of sensor		none (welded)											
Diaphragm		stainless steel 1.4542 (630)											
Media wetted parts		pressure port, seal of pressure port, diaphragm											

# Pressure transmitters

## Miscellaneous

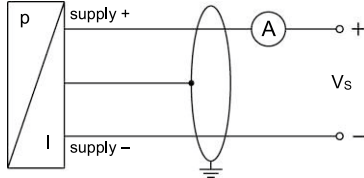
Weight	approx. 120 g		
Current consumption	2-wire: max. 25 mA	3-wire ratiometric: typ. 3 mA	
	3-wire voltage: max. 7 mA (short circuit current: max. 20 mA)		
Operational life	100 million load cycles		
CE-conformity	EMC Directive: 2014/30/EU	Pressure Equipment Directive: 2014/68/EU (module A) <sup>2</sup>	

<sup>2</sup> This directive is only valid for devices with maximum permissible overpressure > 200 bar

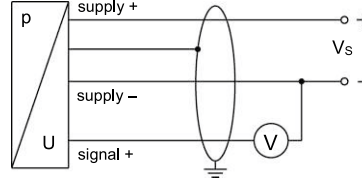
## ELECTRICAL CONNECTION

### Wiring diagrams

#### 2-wire-system (current)

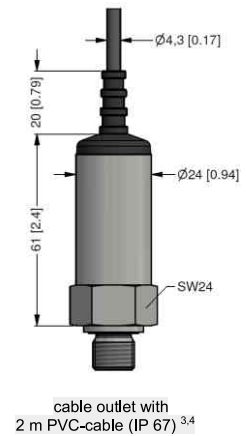
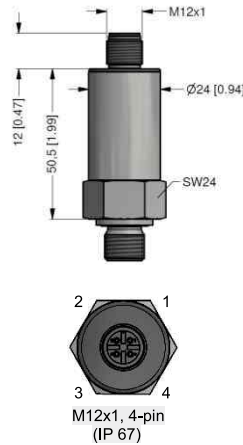
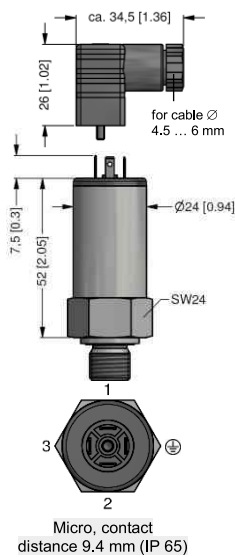
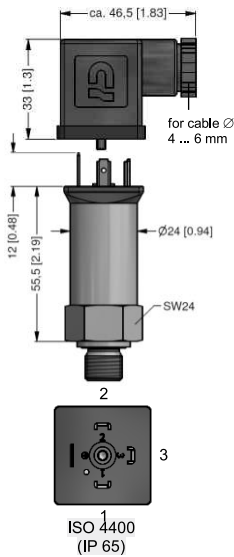


#### 3-wire-system (voltage)



### Pin configuration

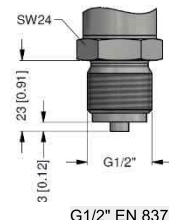
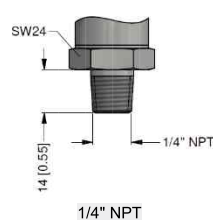
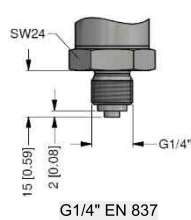
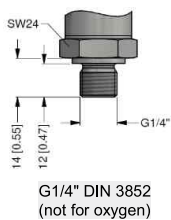
Electrical connection	ISO 4400	Micro (contact distance 9.4 mm)	M12x1 (4-pin), metal	cable colour (DIN 47100)
Supply +	1	1	1	wh (white)
Supply -	2	2	2	bn (brown)
Signal + (for 3-wire)	3	3	3	gn (green)
Shield	ground pin	ground pin	4	gn/ye (green / yellow)



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

<sup>4</sup> different cable types and lengths available, permissible temperature depends on kind of cable

## MECHANICAL CONNECTION



ORDER CODE

CCE-17.600G-    - R -  -   -   -  -

<b>Input [bar]</b>										
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						
0 ... 400	4	0	0	3						
0 ... 600	6	0	0	3						
Customer	9	9	9							
Customer underpressure	X	X	X	X						
<b>Pressure</b>										
Gauge					R					
<b>Output</b>										
4 ... 20 mA / 2-wire						1				
0 ... 10 V / 3-wire						3				
10 ... 90% of Vs / 3-wire ratiometric (Vs = 2,7DC $\bar{V}$ )						R				
Customer						9				
<b>Accuracy</b>										
0,5 %						5				
0,5 % including Calibration Certificate						T				
Table of measured values for acc. 0,5 %						N				
Customer						9				
<b>Electrical connection</b>										
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 DIN 43650 (ISO 4400) - potting compound inside (IP 67)						E	0	0		
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) <sup>1</sup>						T	A	0		
+ PVC cable / 1 m										
Customer						9	9	9		
<b>Mechanical connection</b>										
G 1/2" EN 837						2	0	0		
G 1/4" DIN 3852 (only with seals "P")						3	0	0		
G 1/4" EN 837						4	0	0		
1/4" NPT						N	4	0		
1/2" NPT						N	0	0		
G 1/4" internal						J	0	0		
M 20 x 1,5 EN 837						8	0	0		
Customer						9	9	9		
<b>Seals</b>										
Without - welded + Viton (FKM)								P		
Without - welded								2		
Customer								9		
<b>Special version</b>										
Standard								0	0	0
Oxygen application (DIN 3852 possible only up to 25 bar)								0	0	7
Oil and grease free								0	0	8
With throttle screw M4								0	7	0
Customer								9	9	9

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

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

