

# PRESSURE TRANSMITTER & SWITCH WITH ANALOG AND DIGITAL DISPLAYS

## PG27 SERIES

Electronic Pressure Sensor PG27  
Sanitary Process Connection

2 Outputs:

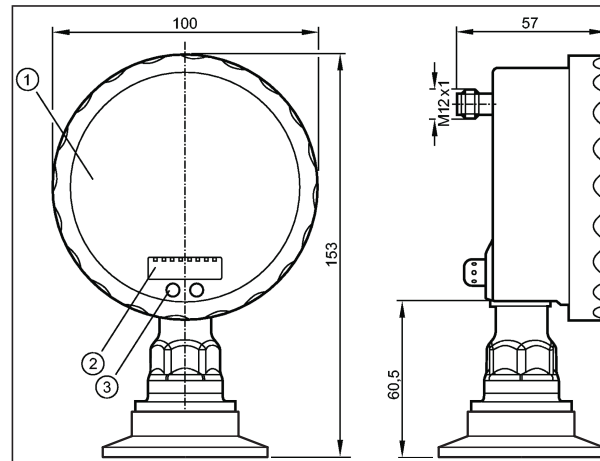
OUT1 = Switching Output  
OUT2 = Analog Output

Analog Display and  
4 Digit LCD Display

Simple Pushbutton Set-up  
Suitable for all standard  
CIP and SIP processes

Quickly Connects with Water Tight  
Standard M12 Industrial Connector  
(Cables and Connectors Sold Separately)

Available in the following Ranges  
with Field Selectable Scale



1: Analog Display  
2: 4 Digit Alphanumeric Display  
3: Programming Buttons



EHDG Certified

ACS

EC 1935/2004

Model	PSI	BAR	MPa	"H <sub>2</sub> O	mBAR	kPa
PI2793	-14.4 to 362.7	-1.00 to 25.00	--	--	--	--
PI2794	-14.5 to 145.0	-1.00 to 10.00	--	--	--	--
PI2795	-14.50 to 58.00	-1.000 to 4.000	--	--	--	--
PI2796	-1.8 to 36.27	-0.124 to 2.5	--	--	--	--
PI2797	-0.73 to 14.5	-0.05 to 1	--	--	--	--
PI2798	--	--	--	-5.0 to 100.4	-12.4 to 250.0	--
PI2789	--	--	--	-2.0 to 40.15	-5.0 to 100.0	--
PI2799	-14.5 to 14.5	-1 to 1	--	--	--	--

### Application

Application	Type of pressure: relative pressure Hygienic systems, viscous media and liquids with suspended particles Liquids and gases
Medium temperature [°C]	-25...125 (145 max. 1h)

### Electrical data

Electrical design	DC PNP/NPN
Operating voltage [V]	18...32 DC
Current consumption [mA]	< 70 (24 V)
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes

### Outputs

Output	2 Output OUT1 = Switching output OUT2 = Analog output
Output function	1 x normally open /closed programmable + 1 x analogue (4...20 /20...4 mA, scalable)
Current rating [mA]	250
Voltage drop [V]	< 2
Short-circuit protection	yes (non-latching)
Overload protection	yes

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Switching frequency [Hz]	50
Analog output	I: 4...20 mA (Ineg: 20...4 mA)
Max. load [Ω]	I / Ineg: max. (U <sub>b</sub> - 10 V) x 50

## Accuracy / deviations

Accuracy / deviations (in % of the span) Turn down 1:1	
Switch point accuracy	< ± 0.2
Characteristics deviation *)	< ± 0.2
Linearity	< ± 0.15
Hysteresis	< ± 0.15
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.1
Temperature coefficients (TEMPCO) in the temperature range 0...70° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	< ± 0.05
Greatest TEMPCO of the span	< ± 0.15

## Reaction times

Power-on delay time [s]	6
Min. response time switching output [ms]	10
Damping for the switching output (dAP) [s]	0.01...30
Damping for the analog output (dAA) [s]	0.01...30
Step response time analogue output [ms]	25
Integrated watchdog	yes

## Environment

Ambient temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 67 / IP 69K

## Tests / approvals

EMC	EN 61000-4-2 ESD:	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated:	10 V/m
	EN 61000-4-4 Burst:	2 kV
	EN 61000-4-5 Surge:	0.5/1 kV
	EN 61000-4-6 HF conducted:	10 V
	Shock resistance	DIN IEC 68-2-27:
Vibration resistance	DIN IEC 68-2-6:	20 g (10...2000 Hz)
MTTF [Years]		100

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## Mechanical data

Process connection	G 1 A / Aseptoflex Vario	
Materials (wetted parts)	ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); PTFE; stainless steel 316L / 1.4435; surface characteristics: Ra < 0.4 / Rz 4	
Housing materials	stainless steel 316L / 1.4404; PA; FPM (Viton); PTFE; viewing glass: laminated safety glass 4 mm	
Switching cycles min.	100 million	
Weight [kg]	0.559	

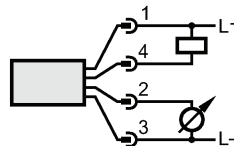
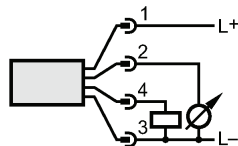
## Displays / operating elements

Display	Display unit	2 x LED green	
	Switching status	LED yellow	
	Switch points	LED ring	
	Function display	4-digit alphanumeric display	
	Measured values	analog display, 4-digit alphanumeric display	
Extended display range (max.)	6.4 bar	92.8 psi	

## Electrical connection

Connection	M12 connector; gold-plated contacts		
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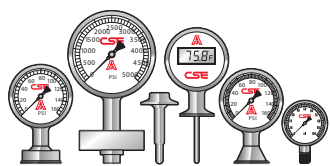
### Wiring



## Remarks

Remarks	<p>*) linearity, incl. hysteresis and repeatability; (limit value setting to DIN 16086)          characteristics deviation in the extended display range: 1.5 % of the span          switch point accuracy in the extended display range: 1.5 % of the span          **) with temperature fluctuations &lt; 10 K          ***) in % of the span per year</p>
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Pack quantity [piece]	1
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