

PRESSURE TRANSMITTERS PCS1

DESCRIPTION

The ADCATrol PCS1 is a series of pressure transmitters suitable for all industrial applications. It is specially designed to operate in severe conditions where high temperatures, pressure peaks, shock and vibrations are present.

The PCS1 is extremely robust and reliable, thanks to its state of the art SMD electronics and compact all stainless steel construction.

MAIN FEATURES

Compact stainless steel construction.

Extended process media temperature from -40 °C to 125 °C.

2-wire 4 to 20 mA loop output.

Available in multiple pressure ranges.

Accuracy < 0.5% of full scale.

Fast response (< 1 ms).

Capable of withstanding high levels of mechanical shock and vibrations.



OPTIONS: Siphons and connector fitting adaptors for ADCA GS series siphons.
M12 electrical connection with IP 67 rating.

USE: Pressure measurement in pipelines and vessels.

AVAILABLE MODELS: PCS1.

SIZES: 1/4".

CONNECTIONS: Male threaded ISO 228 G.

INSTALLATION: In any position.
See IMI – Installation and maintenance instructions.

PRESSURE RANGES

RANGE	0 to 6 bar	0 to 10 bar	0 to 16 bar	0 to 25 bar	0 to 40 bar	0 to 100 bar	0 to 250 bar	0 to 400 bar	0 to 600 bar
Overpressure	12	20	32	50	80	200	500	800	1200
Burst pressure	24	40	64	100	160	400	1000	1500	1500

TECHNICAL DATA	
Non linearity (BFSL)	±0.15% FS; ±0.25% FS (max)
Hysteresis	±0.1% FS; ±0.15% FS (max)
Repeatability	±0.025% FS; ±0.05% FS (max)
Zero offset tolerance	±0.15% FS; ±0.25% FS (max)
Span offset tolerance	±0.15% FS; ±0.25% FS (max)
Accuracy at room temperature a)	< ±0.5% FS
Pressure ranges b)	See table
Resolution	Infinite
Overpressure (without degrading performance)	See table
Pressure containment (burst test)	See table
Pressure media	Fluids compatible with stainless steel AISI 430F and 17-4 PH
Housing	Stainless steel AISI 304
Power supply	10 to 30 V DC
Dielectric strength	250 V DC
Output	4 to 20 mA (loop powered)
Maximum loop resistance	approx. 700 Ω at 24 V DC, 1000 Ω at 30 V DC
Long term stability	<0.2% FS/per year
Operating temperature range (process)	-40 to +125 °C (-40 to +257 °F)
Operating temperature range (ambient)	-40 to +105 °C (-40 to +221 °F)
Compensated temperature range	-20 to +85 °C (-40 to +185 °F)
Storage temperature range	-40 to +125 (-40 to +257 °F)
Temperature effects over compensated range (zero)	±0.01% FS/°C; ±0.02% FS/°C (max)
Temperature effects over compensated range (span)	±0.01% FS/°C; ±0.02% FS/°C (max)
Response time (10...90% FSO)	< 1 ms
Warm-up time c)	< 30 s
Mounting position effects	Negligible
Humidity	100% RH non-condensing
Weight	80 to 120 g
Mechanical shock	100 g / 11 ms according to IEC 60068-2-27
Vibrations	20 g max at 10...2000 Hz according to IEC 60068-2-6
IP rating	IP 65 / IP 67
Output short circuit and reverse polarity protection	Yes
EC Conformity	According to directive 2014/30/EU

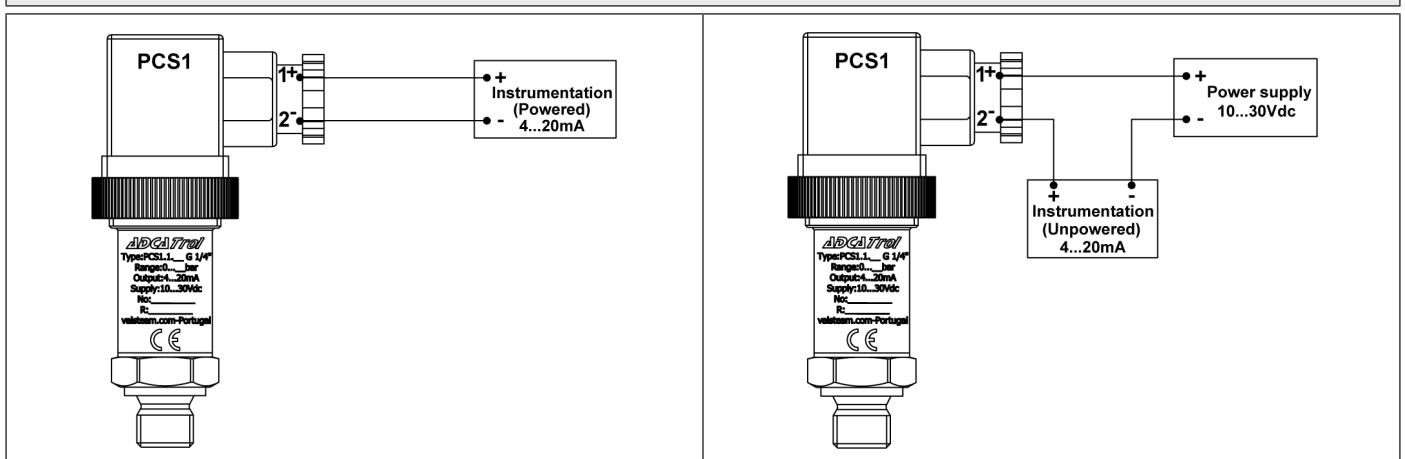
FS = Full Scale.

a) Including Non-linearity, Hysteresis, Repeatability, Zero-offset and Span-offset (acc. to IEC 61298-2).

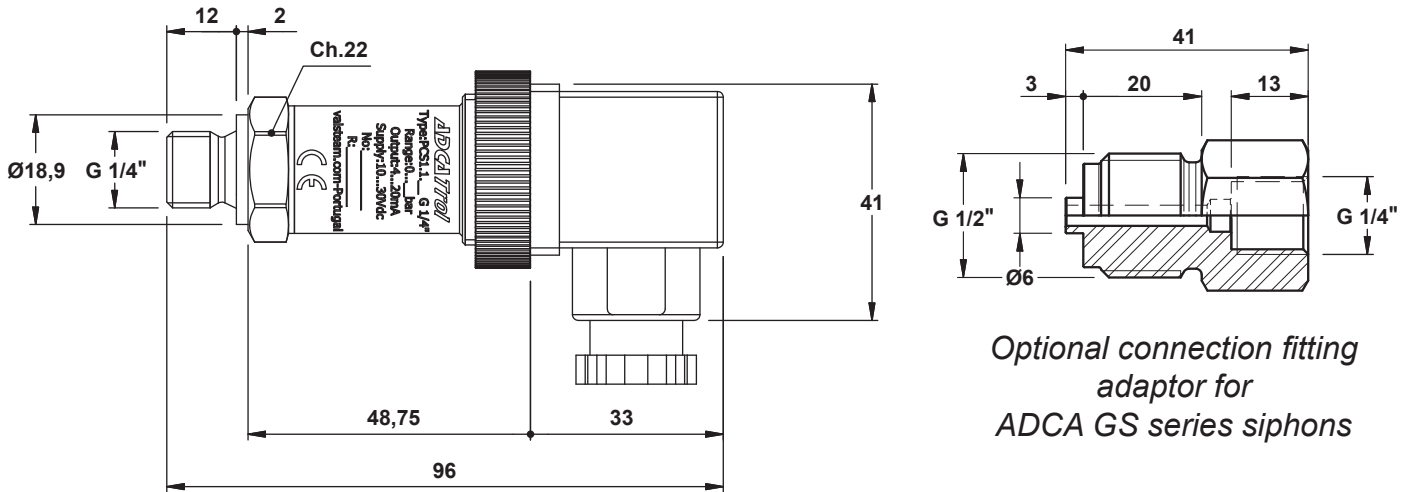
b) The operating pressure range is intended from 0.5% to 100% FS.

c) Time within the rated performance is achieved.

ELECTRICAL CONNECTIONS



DIMENSIONS (mm)



Optional connection fitting adaptor for ADCA GS series siphons

ORDERING CODES PCS1			
Group designation	PCS1	.1	.10
Pressure transmitter	PCS1		
Electrical connections			
4-pin DIN connector (EN 175301-803 Form A) IP 65 a)		.1	
Pressure range			
0 to 6 bar			.6
0 to 10 bar			.10
0 to 16 bar			.16
0 to 25 bar			.25
0 to 40 bar			.40
0 to 100 bar			.100
0 to 250 bar			.250
0 to 400 bar			.400
0 to 600 bar			.600

a) 4-pin male M12x1 connector IP 67 is available under special request.