



PRESSURE TRANSMITTER PCS1

DESCRIPTION

The PCS1 series pressure transmitters are suitable for all industrial applications, specially in severe conditions where high temperatures, pressure peaks and high levels of shock and vibrations are present. They are extremely robust and reliable, thanks to their state of the art SMD electronics and compact all stainless steel construction.

MAIN FEATURES

Very compact size.

All stainless steel construction.

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

2-wire 4 - 20 mA current loop output.

G 1/4" pressure port with embedded o-ring.

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:

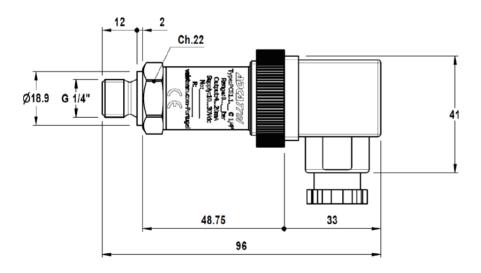
Siphons and connector fitting adaptors for ADCA

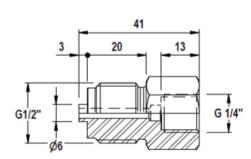
GS series siphons.

M12 electrical connection (IP67 protection class).

IDCITTO *** PC31.110 - G9** *** PC31.110 - G9** **** PC31.110 - G9** *** PC31.110 - G9**

DIMENSIONS (mm)





Connection fitting adaptor for ADCA GS series siphons (optional)

| PRESSURE RANGES (bar) | | | | | | | | | | |
|-----------------------|----|-----|-----|-----|-----|------|------|------|------|--|
| RANGE | 06 | 010 | 016 | 025 | 040 | 0100 | 0250 | 0400 | 0600 | |
| Overpressure | 12 | 20 | 32 | 50 | 80 | 200 | 500 | 800 | 1200 | |
| Burst pressure | 24 | 40 | 64 | 100 | 160 | 400 | 1000 | 1500 | 1500 | |

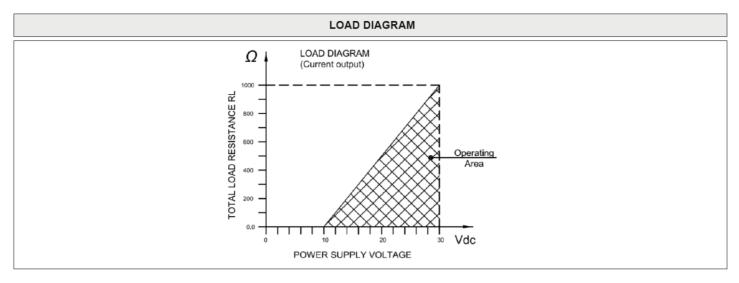


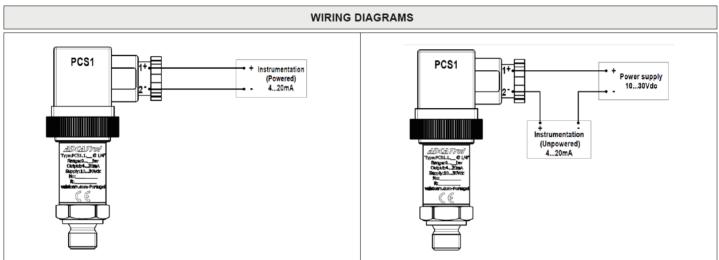
| TECHNICAL DATA | | | | | | | |
|--|--|--|--|--|--|--|--|
| Non linearity (BFSL) | ±0.15% FS; ±0.25% FS (max) | | | | | | |
| Hysteresis | ±0.1% FS; ±0.15% FS (max) | | | | | | |
| Repeatability | ±0.025% FS; ±0.05% FS (max) | | | | | | |
| Zero offset tolerance | ±0.15% FS; ±0.25% FS (max) | | | | | | |
| 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 | 1030 V DC | | | | | | |
| Dielectric strength | 250 V DC | | | | | | |
| Zero output signal | 4 mA | | | | | | |
| Full scale output signal | 20 mA | | | | | | |
| Allowed load | See load diagram | | | | | | |
| Long term stability | <0.2% FS/per year | | | | | | |
| Operating temperature range (process) | -40+125 °C (-40+257 °F) | | | | | | |
| Operating temperature range (ambient) | -40+105 °C (-40+221 °F) | | | | | | |
| Compensated temperature range | -20+85 °C (-40+185 °F) | | | | | | |
| Storage temperature range | -40+125 (-40+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 (1090% FSO) | < 1 ms | | | | | | |
| Warm-up time c) | < 30 s | | | | | | |
| Mounting position effects | Negligible | | | | | | |
| Humidity | 100% RH non-condensing | | | | | | |
| Weight | 80 g to 120 g nominal | | | | | | |
| Mechanical shock | 100 g / 11 ms according to IEC 60068-2-27 | | | | | | |
| Vibrations | 20 g max at 102000 Hz according to IEC 60068-2-6 | | | | | | |
| Type of protection | IP 65 / IP 67 | | | | | | |
| Output short circuit and reverse polarity protection | Yes | | | | | | |
| EC Conformity | According to directive 2014/30/EU | | | | | | |

FS = Full Scale.

<sup>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 which the rated performance is achieved.</sup>







| 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) | | | | | | | | |
| Measurement Range | | | | | | | | |
| 06 bar | | | .6 | | | | | |
| 010 bar | | | .10 | | | | | |
| 016 bar | | | .16 | | | | | |
| 025 bar | | | .25 | | | | | |
| 040 bar | | | .40 | | | | | |
| 0100 bar | | | .100 | | | | | |
| 0250 bar | | | .250 | | | | | |
| 0400 bar | | | .400 | | | | | |
| 0600 bar | | | .600 | | | | | |

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