

# CERAMIC STANDARD PRESSURE SENSOR CPS 1184 Z

with output amplifier



The ceramic pressure sensors in the CPS 1184 Z series are integrated with an amplifier and are supplied calibrated to an output signal of 0.5 V to 4.5 V.

The excellent long-term stability and high resistance against a wide range of media are additional features of this sensor series.



## TECHNICAL SPECIFICATIONS

<b>Supply voltage</b>	5 V ± 0.5 VDC
<b>Power consumption</b>	[< 10 mA typ. Rload > 2 k] < 50 mA max.
<b>Output signal</b>	0.5 – 4.5 V ratiometric
<b>Calibration error</b>	± 1 % / FS
<b>Therm. offset shift</b>	0 ± 0.05 % FS/K (0 – 80° C not compensated)
<b>Therm. span shift</b>	0 – -0.012 % FS/K (20 – 80° C) 0 – -0.018 % FS/K (-40 – 125° C)
<b>Sample rate</b>	1 kHz typ. / 0.5 kHz min.

<b>Insulating resistor</b>	>1Gohm at 500 VDC, RT, 70 % rH (clamping 16.00mm)
<b>Insulating voltage</b>	> 0.5 kVDC with minimal membrane thickness, from medium to printed circuit
<b>Body material</b>	Ceramic AL203 96 %
<b>Operating temperature</b>	-40 – +125° C
<b>Storage temperature</b>	-20 – +125° C

Mechanical and electrical characteristics are customisable. Specifications are subject to change without notice. We recommend that customers perform their own tests for new or untested applications.

PRESSURE RANGE [BAR]	LONG THERM STABILITY *	LINEARITY / HYSTERESIS (TYP./MAX.) [% FS] **	BURST PRESSURE [BAR]	OVER-PRESSURE [BAR] ***	VACUUM CAPABILITY [BAR]
2 (1.6–2.5)	± 0.25	± 0.15 / 0.4	≥ 5	≤ 3	-0.6
5 (4–6)	± 0.25	± 0.15 / 0.4	≥ 15	≤ 7.5	-0.8
10	± 0.15	± 0.15 / 0.4	≥ 30	≤ 15	-1
20 (16–25)	± 0.15	± 0.15 / 0.4	≥ 60	≤ 30	-1
50 (40–60)	± 0.15	± 0.15 / 0.4	≥ 150	≤ 75	-1
100	± 0.2	± 0.2 / 0.5	≥ 250	≤ 150	-1
200 (160–250)	± 0.2	± 0.2 / 0.5	≥ 450	≤ 300	-1
400	± 0.25	± 0.3 / 0.6	≥ 700	≤ 550	-1
600	± 0.25	± 0.3 / 0.6	≥ 900	≤ 720	-1

\* 1,000 hours at 125° C | 50 million pressure cycles at 25° C, 10 – 90 % FS at 2.5 Hz | 50 thermal cycles +125° C/-40° C, 2 K/min.

\*\* For independent linearity 10 points are measured and compared to an ideal straight line. | For all measurements, DUT's are mounted in Metallux standard Housing according to "mounting proposal CPS 1184".

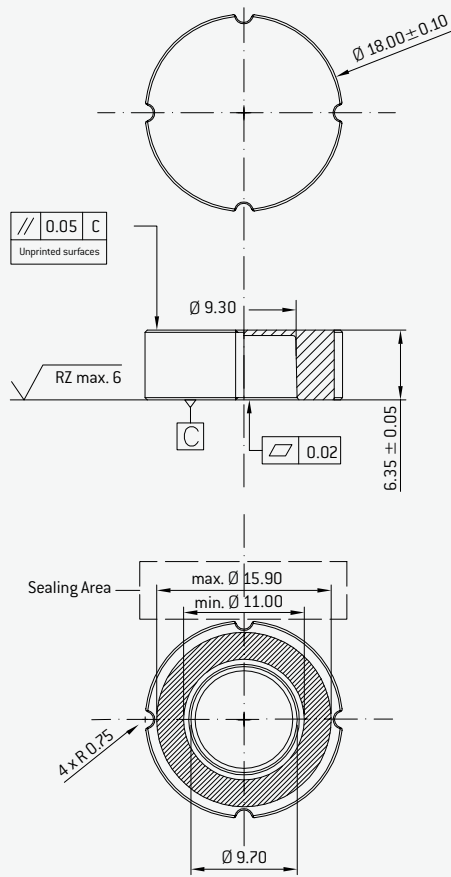
\*\*\* Over-Pressure indicates the maximum (short time < 1 sec.) operating pressure within no irreversible damage to the printed circuit are expected.

## SAMPLE ORDER

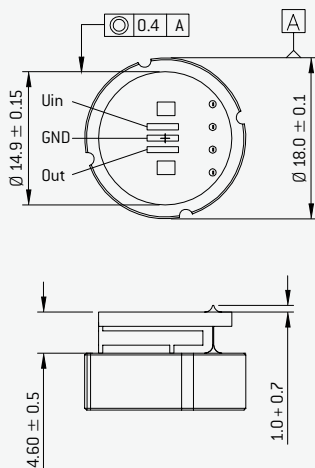
Type	Pressure range [bar]	Electrical connection (acc. to drawing)
CPS 1184 Z	100 bar	Solder pads

Other dimensions and electrical specifications on request.

DIMENSIONAL DRAWINGS / CONNECTOR SCHEMATIC / ELECTRICAL CONNECTORS



Aplified Output:  
RV1015 [ZSC31015]



Aplified Output:  
RV1015 [ZSC31150]

