

STAINLESS STEEL STANDARD PRESSURE SENSOR SPS 1000 Z

with output amplifier



Monolithic sensors in stainless steel provide high overload capacity and provide an output signal of 0.5V to 4.5V. The SPS 1000 Z amplifier makes it easy to further process the sensor signal.

As with the SPS 1000, an important feature of this sensor is its above average chemical resistance and an excellent long term stability.



TECHNICAL SPECIFICATIONS

Supply voltage	5 V ± 0.5 VDC
Power consumption	< 10 mA typ. Rload > 2 k (< 50 mA max.)
Output signal	0.5 – 4.5 V ratiometric
Calibration error	± 1 % / FS
Therm. offset shift	0 ± 0.08 % FS/K (0 – 80° C not compensated)
Therm. span shift	0 – -0.05 % FS/K (20 – 80° C)
Sample rate	1 kHz typ. / 0.5 kHz min.

Insulating resistor	>100 MΩm at 500 VDC, RT, 70 % rH
Sample rate	1 kHz typ. / 0.5 kHz min.
Body material	Stainless steel
Operating temperature	-40 – +125° C
Storage temperature	-40 – +125° C

Mechanical and electrical characteristics are customisable. Specifications are subject to change without notice.

PRESSURE RANGE (BAR)	LONG THERM STABILITY *	LINEARITY / HYSTERESIS (TYP./MAX.) (% FS) **	BURST PRESSURE (BAR)	OVER-PRESSURE (BAR) ***	VACUUM CAPABILITY (BAR)
10	± 0.6	± 0.25/0.6	≥ 10 x P _{nom}	≤ 15	-1
25	± 0.5	± 0.25/0.6	≥ 10 x P _{nom}	≤ 35	-1
40	± 0.5	± 0.25/0.6	≥ 10 x P _{nom}	≤ 60	-1
100	± 0.5	± 0.2/0.5	≥ 10 x P _{nom}	≤ 150	-1
200	± 0.5	± 0.2/0.5	≥ 10 x P _{nom}	≤ 300	-1
300	± 0.4	± 0.2/0.5	≥ 10 x P _{nom}	≤ 450	-1
400	± 0.4	± 0.2/0.5	≥ 10 x P _{nom}	≤ 600	-1
600	± 0.4	± 0.3/0.5	≥ 10 x P _{nom}	≤ 900	-1
1,000	± 0.4	± 0.3/0.5	≥ 10 x P _{nom}	≤ 1,350	-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 SPS 1000".

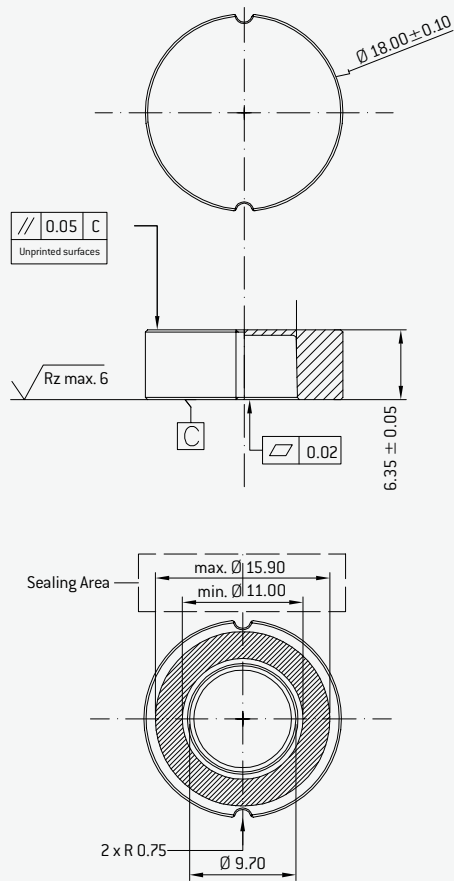
*** Over-Pressure indicates the maximum (short time < 1 sec.) operating pressure within no irreversible damage to the printed circuit are expected.

SAMPLE ORDER

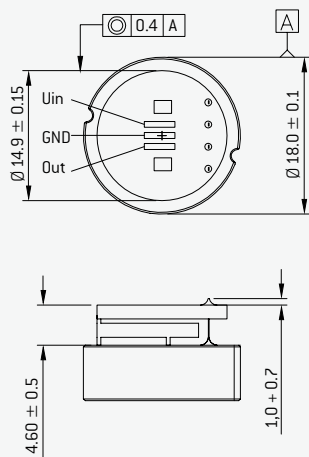
Type	Pressure range [bar]	Electrical connection (acc. to drawing)
SPS 1000Z	100 bar	Solder pads

Other dimensions and electrical specifications on request.

DIMENSIONAL DRAWINGS / CONNECTOR SCHEMATIC / ELECTRICAL CONNECTORS



Apilified Output:
RV1015 [ZSC31015]



Apilified Output:
RV1150 [ZSC31150]

