

# CERAMIC STANDARD PRESSURE SENSOR CPS 1184 RM 2.54



Metallux monolithic pressure sensors are manufactured in large series and are in use in a range of applications in machinery production, the automotive industry, and ventilation and climate control equipment. The easy installation and calibration of the sensors simplifies the customer's production processes. The CPS 1184 features a compact design, high media compatibility and excellent long-term stability.



TECHNICAL SPECIFICATIONS	
Supply voltage	4 ... 30 VDC
Impedance	10 kOhm $\pm$ 20 %
FS output (Span)	Min. 1.5 / typ. 2.8 / max. 5.3 mV/V
Offset	0 $\pm$ 0.2 mV/V
Therm. offset shift	Typ. 0 $\pm$ 0.015 / max. 0 $\pm$ 0.02 % FS/K (25 ... 85 °C)
Therm. span shift	0 ... -0.013 % FS/K (0 ... 70 °C) 0 ... -0.015 % FS/K (-20 ... 0 °C / 70 ... 85 °C) 0 ... -0.018 % FS/K (-40 ... 0 °C / 85 ... 135 °C)
Insulating resistor	>1Gohm @ 500 VDC, RT, 70 % rH (clamping 16.00mm)

Insulating voltage	> 0.5 kVDC with minimal membrane thickness, from medium to printed circuit
Body material	Al <sub>2</sub> O <sub>3</sub> 96 %
Operating temperature	-40 ... +150 °C
Storage temperature	-40 ... +150 °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 [% FS] *	LINEARITY / HYSTERESIS [TYP./MAX.] [% FS] **	BURST PRESSURE [BAR]	OVER-PRESSURE [BAR] ***	VACUUM CAPABILITY [BAR]
2 (1.6 ... 2.5)	$\pm$ 0.15	$\pm$ 0.15 / 0.4	$\geq$ 5	$\leq$ 3	-0.6
5 (4 ... 6)	$\pm$ 0.15	$\pm$ 0.15 / 0.4	$\geq$ 15	$\leq$ 7,5	-0.8
10	$\pm$ 0.1	$\pm$ 0.15 / 0.4	$\geq$ 30	$\leq$ 15	-1
20 (16 ... 25)	$\pm$ 0.1	$\pm$ 0.15 / 0.4	$\geq$ 60	$\leq$ 30	-1
50 (40 ... 60)	$\pm$ 0.1	$\pm$ 0.15 / 0.4	$\geq$ 150	$\leq$ 75	-1
100	$\pm$ 0.1	$\pm$ 0.2 / 0.5	$\geq$ 250	$\leq$ 150	-1
200 (160 ... 250)	$\pm$ 0.1	$\pm$ 0.2 / 0.5	$\geq$ 450	$\leq$ 300	-1
400	$\pm$ 0.15	$\pm$ 0.3 / 0.6	$\geq$ 700	$\leq$ 550	-1
600	$\pm$ 0.15	$\pm$ 0.3 / 0.6	$\geq$ 900	$\leq$ 720	-1

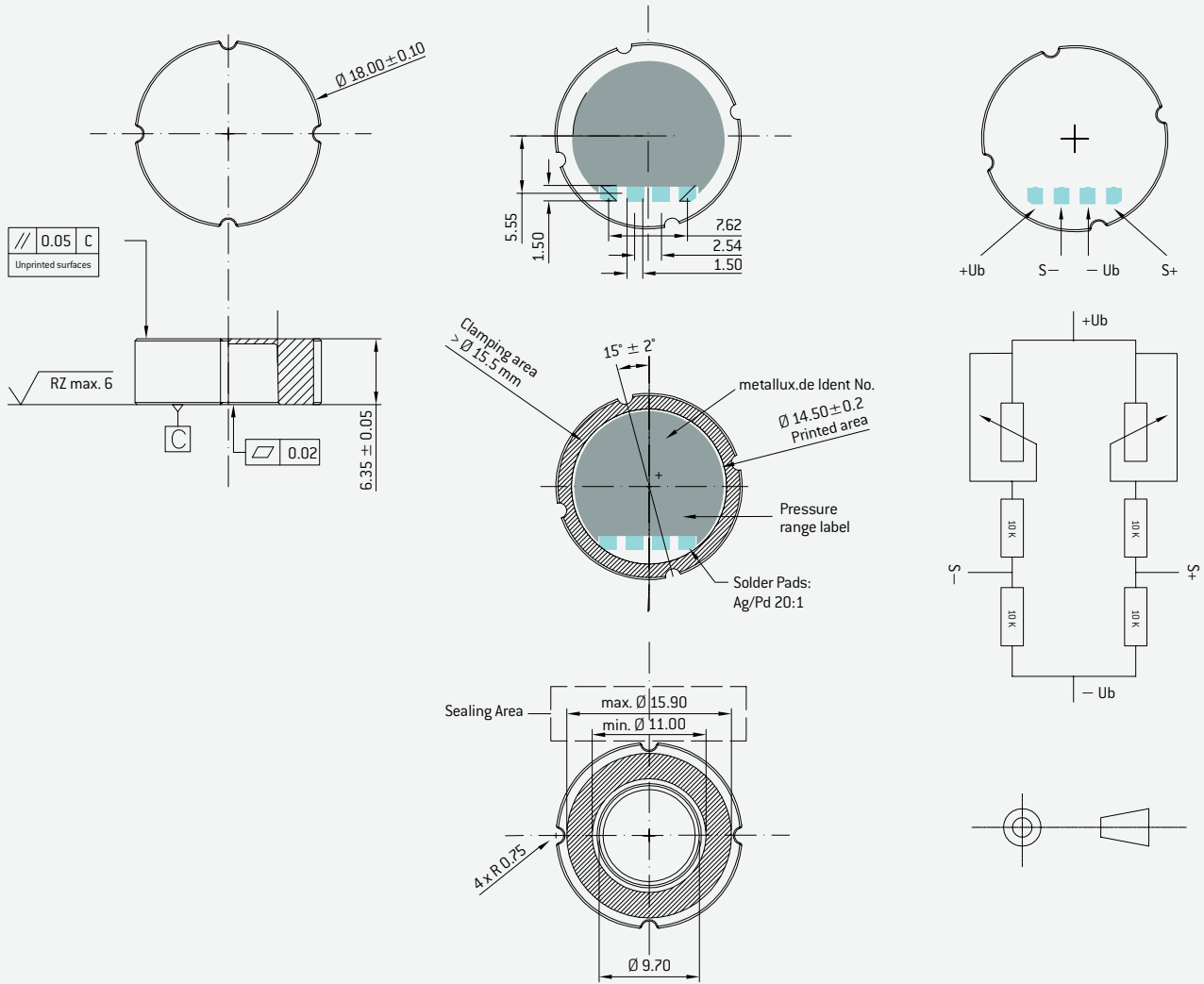
\* 1000 hours @ 150 °C | 50 million pressure cycles @ 125 °C, 10 - 90 % FS @ 2.5 Hz | 3 thermal shocks +130 °C / -20 °C 3 K/sec. | 50 thermal cycles +150 °C / -40 °C, 2 K/min.

\*\* 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 s) 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	100 bar	Solder pads
Other dimensions and electrical specifications on request.		

DIMENSIONAL DRAWINGS / CONNECTOR SCHEMATIC / ELECTRICAL CONNECTORS



Standard:  
Tin plated: Sn95.6; Ag3.8; Cu0.6

Type of connection:  
flat cable

Type of connection:  
Pins  $0.5 \times 0.27 \text{ mm}$

