

Ceramic Pressure Sensor

CPS 1010/2010



Features

- monolithic ceramic technology
- robust design
- temperature compensated
- easy to assemble

Applications

- brake systems
- printing machines
- forklift trucks
- pneumatic
- hydraulic
- electronic pressure switches
- pressure transmitters

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Electrical Characteristics

Resistance value	10k Ω *)
Resistance tolerance	± 20 %
Output signal	1,5 – 3,5 mV/V
Linearity/hysteresis/repeatability	$< \pm 0,2 \dots 1,5$ % FS
Supply voltage	$\approx 5 \dots 30$ V _{DC}
Offset	$< \pm 0,2$ mV/V (optional $\pm 0,1$ mV/V at 25°C)
Offset drift	$< \pm 0,2$ % FS 1000h @ 125°C
Insulation resistance	1G Ω at 500 V _{DC} , 25°C, 75 % rel. humidity
Influence offset	$< \pm 0,02$ % FS/K *)
Influence span	- 0,01 % FS/K (0 - 70°C) - 0,012 % FS/K (- 25 ... 0 / 70 ... 85°C) - 0,015 % FS/K (- 40 ... 25 / 85 ... 125°C)

*) other values on request

Mechanical Characteristics

Pressure range (P _{Nom}) gauge	1,6	2,5	4	6	10	16	(bar)
Burst pressure	2,5 x P _{Nom}						
Pressure range	25	40	60				(bar)
Burst pressure	2,5 x P _{Nom}						
Pressure range (P _{Nom}) gauge	100	160	250	400	600		(bar)
Burst pressure	175	280	400	700	1050		(bar)
Endurance	50 Mio cycles						

Environment characteristics

Storage temperature	- 40°C ... + 150°C *)
Operating temperature	- 40°C ... + 80°C (optional -40°C ... + 125°)

*) Sensor without cable

Material

Material of parts in contact with the pressure medium	Al ₂ O ₃ , 96 %**)
Pads	AgPd
Dimensions	see sketch

***) Aluminium oxide shows highest chemical resistivity against liquid and gaseous media. It is recommended, especially in the case of new and not tested applications, to do own tests.

Specifications subject to change without notice

Ceramic Pressure Sensor

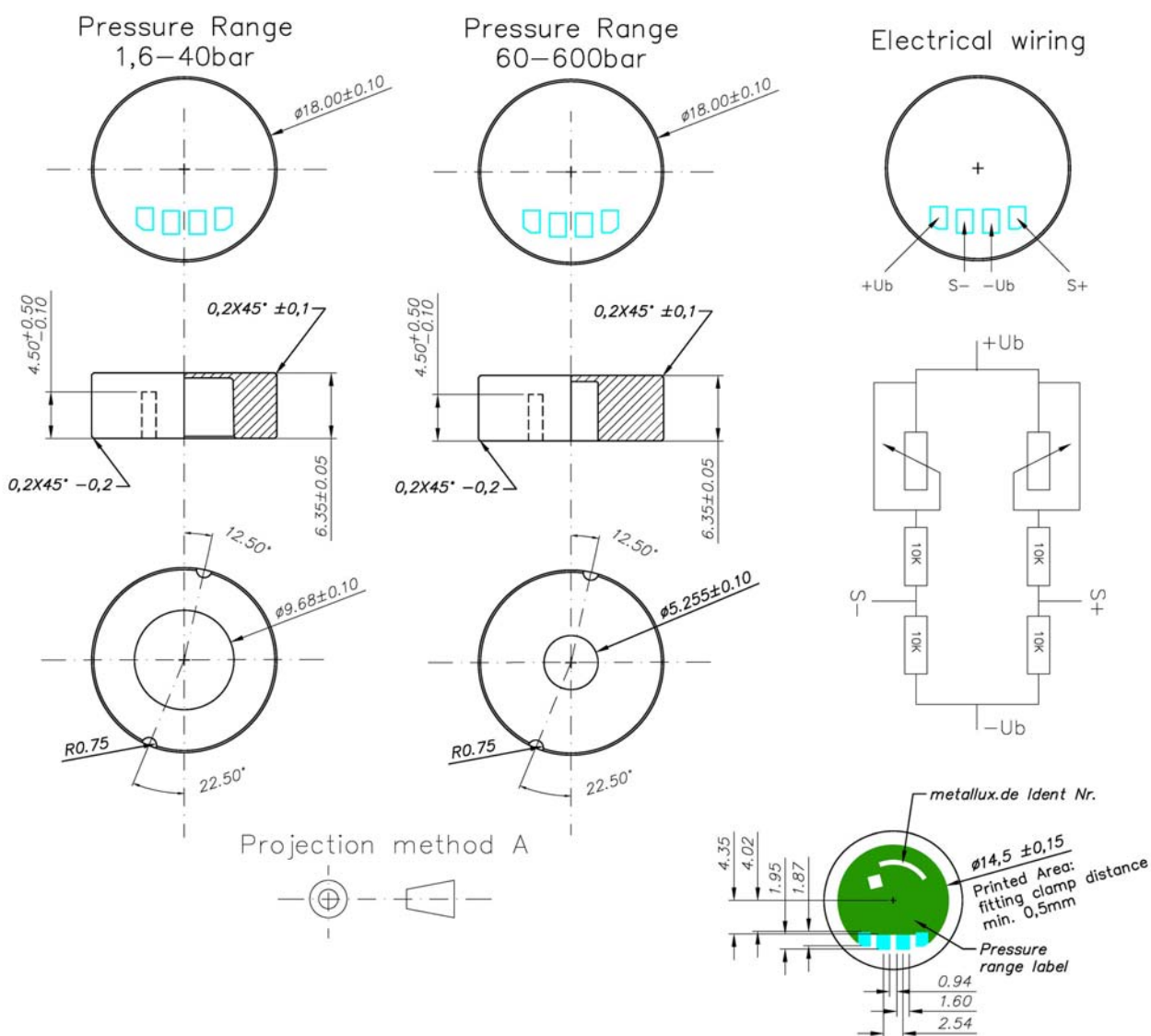
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Dimensions CPS 1010



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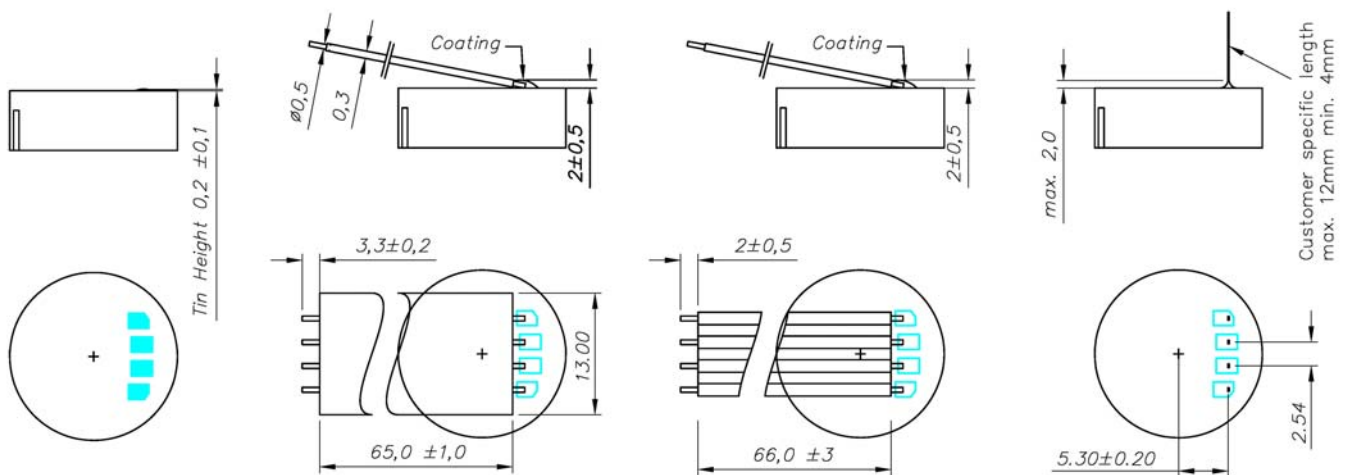
Dimensions CPS 1010

Tin-Plated:
Sn95,6Ag3,8Cu0,6

Flex: A04-N065-N(Nomex)
Coating: PUR 36788-1TM

Flat Cable: 4XAWG26 2,54mm
Coating: PUR 36788-1TM

Pins: 0,5X0,27 Tin Plated



How to order

Type	Pressure range	Grit dimensions	Electr. connection
CPS 1010	16 bar	R 2,54 mm	A04-N065-N, Nomex

Options: other flex cable connections, bondable terminals, integrated temperature sensor

Specifications subject to change without notice

Ceramic Pressure Sensor

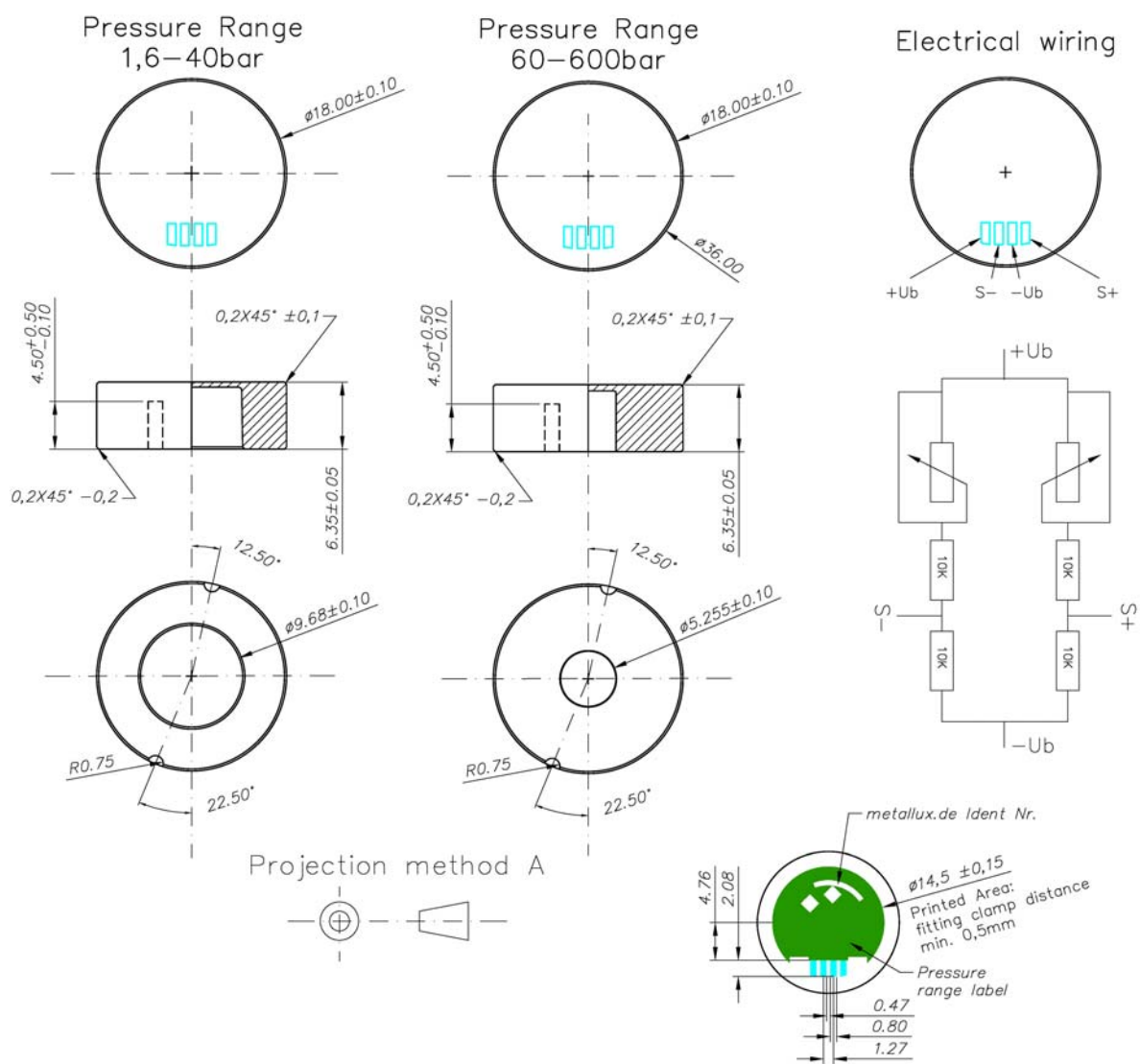
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Dimensions CPS 2010



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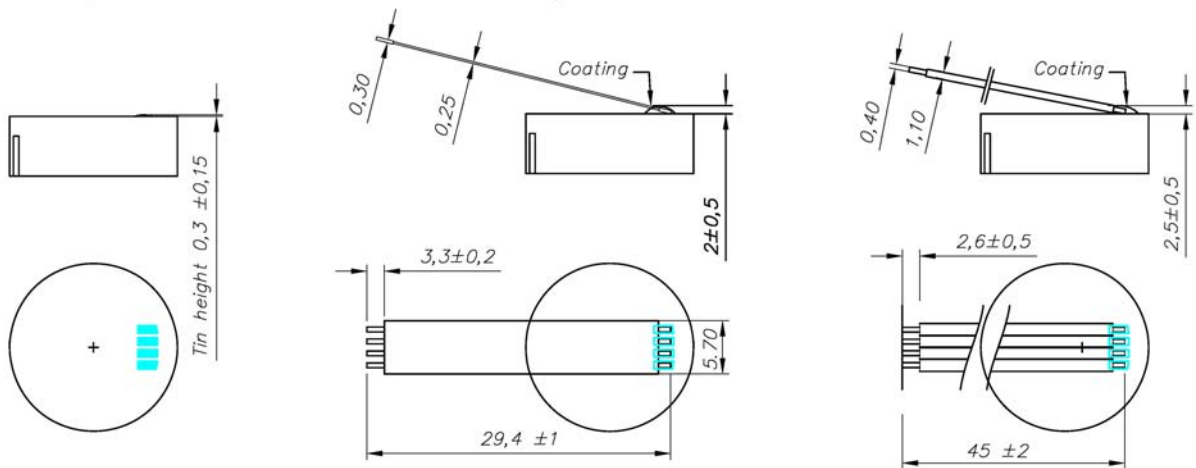
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Dimensions CPS 2010

Tin-Plated:
Sn95,6Ag3,8Cu0,6

Flex: B04-N025-A(Nomex)
Coating: PUR 36788-1TM

Flat Cable: 4XAWG28 1,27mm
Coating: PUR 36788-1TM



How to order

Type	Pressure range	Grit dimensions	Flex cable / Length (mm)
CPS 2010	16 bar	R 1,27 mm	KA 25 (B04-N025-A,Nomex)

Options: other flex cable connections, bondable terminals, integrated temperature sensor

Specifications subject to change without notice