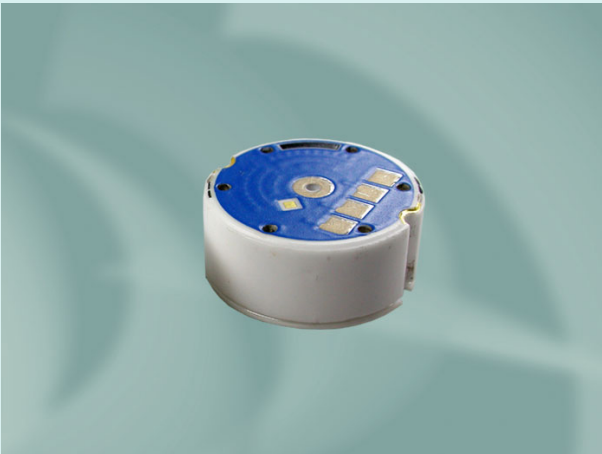


## Ceramic Pressure Sensor with flush mounted membrane

### CPS 2152



#### Features

- excellent chemical resistance
- robust design
- temperature compensated
- easy to assemble
- easy to clean

#### Applications

- brake systems
- forklift trucks
- pneumatic
- hydraulic
- electronic pressure switches
- electronic pressure transmitters
- food industry
- pharma division

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# Ceramic Pressure Sensor with flush mounted membrane

CPS 2152



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## General data

Sensor type	Pressure sensor with flush mounted membrane
Pressure type	0,5 ... 50 bar: gauge, absolute
Reference conditions	Temperature $T_{ref}$ 25°C
	Supply voltage $U_{ref}$ 10 V <sub>DC</sub>

## Electrical data

Supply voltage stabilised	≤ 30 V <sub>DC</sub>
$I_{max}$	4 mA
Bridge resistance	10 ± 20 % kΩ

## Pressure ranges

Pressure range $p_{Nenn}$ [bar]	Overload pressure $P_s$ (max. 1min) [bar]	Burst pressure $p_B$ [bar]	Output voltage range [mV/V]	Acceptable minimum pressure [bar]	Sensor thickness [mm]
0,5 *)	1	2	1,5 ... 2,4	- 0,15	6,13
1	2	4	2,2 ... 3,5	- 0,20	6,20
2	4	5	2,0 ... 4,0	- 0,40	6,25
5	10	12	2,4 ... 4,5	- 0,80	6,30
10	20	25	3,6 ... 6,0	vacuum	6,35
20	40	50	2,4 ... 4,0	vacuum	6,55
50	100	120	3,8 ... 6,0	vacuum	6,70

\*) only gauge pressure

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## Output data

Output voltage range	See pressure ranges
Offset range	- 0,2 ... 0 mV/V *)
Total error **)	$\leq \pm 0,4$ % FS
Sum of non-linearity, hysteresis and non-repeatability ***)	$\leq \pm 0,25$ % FS
Offset change after 1000h @ 125°C	$\leq \pm 0,25$ % FS
Influence of ambient temperature on offset TC-Offset (0 ... 85°C)	$\leq \pm 0,02$ % FS/K relativ $\leq \pm 0,03$ % FS/K absolut und sealed gauge
Influence of ambient temperature on span TC-Span (0 ... 85°C)	$\leq - 0,02$ % FS/K

\*) other data on request, minimum order quantity 150 pieces

\*\*\*) depending on housing geometry and assembly conditions

\*\*\*) terminal based according to DIN 16086:2006...01

## Environmental conditions

Nominal temperature range	- 40 ... 125°C *)
Working temperature range	- 40 ... 125°C *)
Storage temperature range	- 50 ... 125°C *)
Material of parts in contact with pressure media	Al <sub>2</sub> O <sub>3</sub> - 96 %**)

\*) sensor without cable

\*\*\*) 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.

## Electrical connections

Soldering pads	Pitch 2,54 mm
Pins	Pitch 2,54 ; length 13 mm **)

\*\*\*) other electrical connection on request

## Dimensions

Diameter	15 ± 0,1 mm
Height	see pressure range
Weight	ca. 5 g

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## How to order

Type	Pressure range	Pressure type	Electr. connection
CPS 2152	2 bar	A (absolute) R (gauge)	Pins