

## Stainless Steel Pressure Sensor

### SPS 1000 Z



#### Features

- ratiometric output signal (0,5 ... 4,5V)
- excellent chemical resistivity
- easy to assemble
- temperature compensated

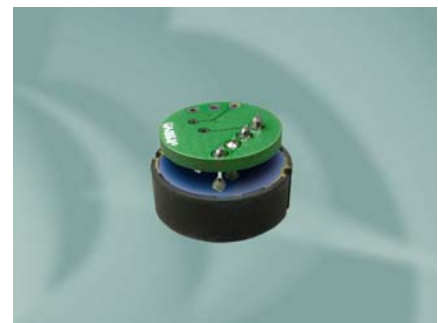
#### Applications

- pneumatic
- hydraulic
- electronic pressure switches
- electronic pressure transmitters

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# Stainless Steel Pressure Sensor

SPS 1000 Z



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## General data

Sensor type	Monolithic sensor
Pressure type	Gauge pressure
Reference conditions	Temperature $T_{ref}$ 25°C
	Supply voltage $U_{ref}$ 5 Vdc

## Electrical data

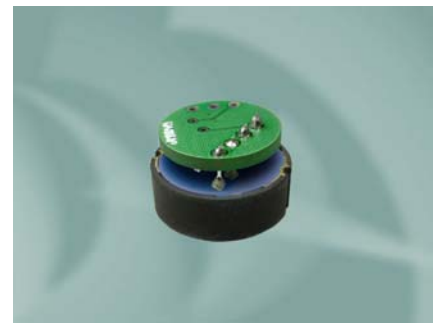
Supply voltage stabilised	$5 \pm 0,5$ Vdc
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## Pressure ranges

Pressure range $p_{Nom}$ [bar]	Overload pressure $P_s$ (max. 1 min) [bar]	Acceptable Minimum pressure	Burst pressure $p_b$ [bar]	Output voltage range [V]
0 ... 10	20	Vacuum	$\geq 50$	0,5 ... 4,5 ratiometric
0 ... 25	50		$\geq 125$	
0 ... 40	80		$\geq 200$	
0 ... 60	120		$\geq 300$	
0 ... 100	200		$\geq 500$	
0 ... 160	250		$\geq 650$	
0 ... 250	400		$\geq 750$	
0 ... 400	700		$\geq 1200$	
0 ... 600	1200		$\geq 1800$	
0 ... 1000	2000		$\geq 2500$	

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#### Output data

Output voltage range	0,5 ... 4,5 V *) 3 wire, ratiometric
Offset voltage	0,5 V @ $U_s = 5V$ *)
Span	4,0 V @ $U_s = 5V$ *)
Calibration error	$\pm 0,5$ % FS
Measuring error by clamping **)	$< 0,5$ % FS (typ.)
Total error **)	$\leq \pm 0,4$ % FS typ.
Sum of non-linearity, hysteresis and non-repeatability ***)	$\leq \pm 1,5$ % FS max.
Offset change after 1000h @ 125°C	$\leq \pm 0,3$ % FS
Temperature influence	$\leq \pm 0,04$ % FS/K
TC-Offset	$\leq \pm 0,03$ % FS/K
TC-Span	$\leq \pm 0,03$ % FS/K
Current consumption	$\leq 2,5$ mA
Response time (10 ... 90%)	$< 2$ msec
Switch-on delay	$< 250$ msec
Output load resistance	1 ... 5 k $\Omega$
Load capacitance	$< 0,05$ $\mu$ F

\*) 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 the pressure medium	Stainless Steel

\*) sensor without cable

#### Electrical connection

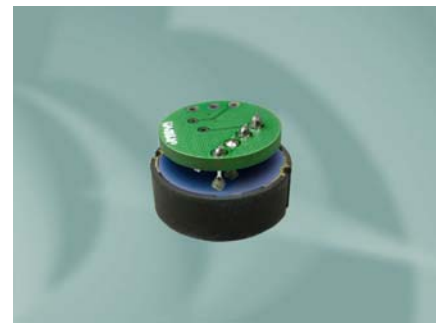
Standard	Soldering pads
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#### Dimensions

Diameter	18 $\pm$ 0,1 mm
Height	$< 12$ mm
Other dimensions	see drawing

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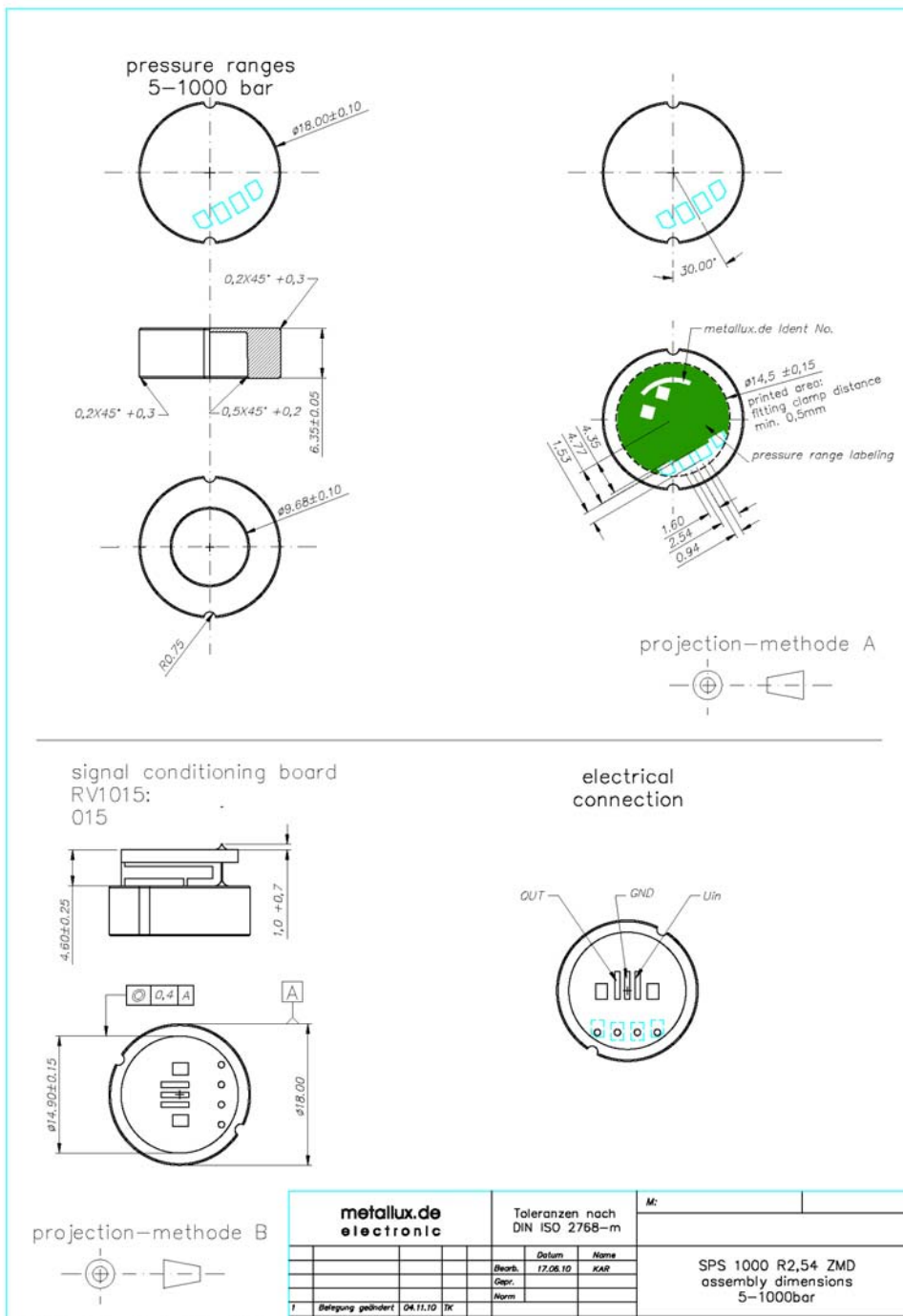
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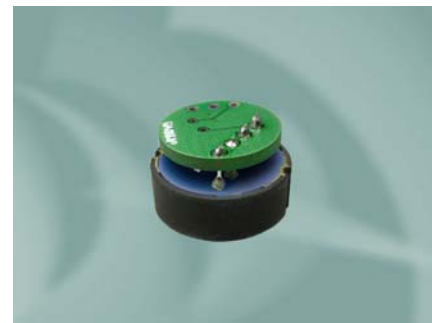
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## Drawing



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## How to order

Type	Pressure range	Pressure type	Electr. connection
SPS 1000 Z	200 bar	R (gauge)	Pads