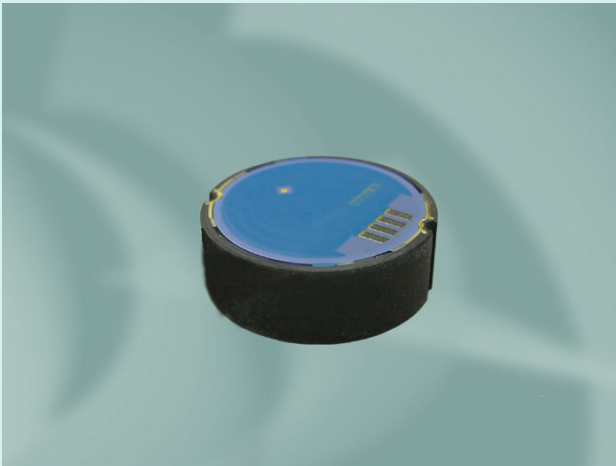


Stainless Steel Pressure Sensor

SPS 1000



Features

- thick film on stainless steel
- pressure port integrated
- high burst pressure
- resistant against aggressive media
- offset/temperature compensated

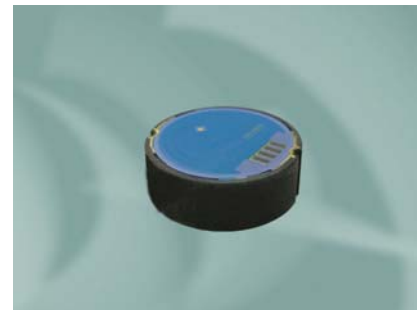
Applications

- brake systems
- forklift trucks
- hydraulic
- cooling systems
- pressure transmitters
- pressure switches

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Stainless Steel Pressure Sensor

SPS 1000



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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} 10 V _{DC}

Electrical data

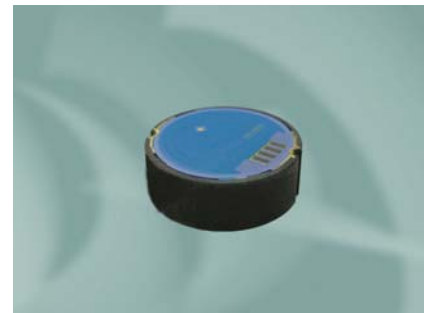
Supply voltage stabilised	≤ 30 V _{DC}
I_{max}	4 mA
Bridge resistance	10 ± 20 % k Ω
Isolation resistance	$>100M$ Ω

Pressure ranges

Pressure range p_{Nom} [bar]	Overload pressure P_s [bar]	Burst pressure p_B [bar]	Output voltage range [mV/V]	Acceptable min. pressure [bar]
0 ... 10	20	≥ 50	1,5 ... 3,5	Vacuum
0 ... 25	50	≥ 125	1,5 ... 3,5	
0 ... 40	80	≥ 200	1,5 ... 3,5	
0 ... 60	120	≥ 300	1,5 ... 3,5	
0 ... 100	200	≥ 500	1,5 ... 3,5	
0 ... 160	320	≥ 650	1,5 ... 3,5	
0 ... 250	500	≥ 750	1,5 ... 3,5	
0 ... 400	800	≥ 1200	1,5 ... 3,5	
0 ... 600	1200	≥ 1800	1,5 ... 3,5	
0 ... 1000	2000	≥ 2500	1,5 ... 3,5	

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Output data

Output voltage range	see pressure ranges
Offset range (mV/V)	- 0,5 ... 0 *)
Total error **)	$\leq \pm 0,5$ % FS typ.
Sum of non-linearity, hysteresis and non-repeatability **)	$\leq \pm 1,5$ % FS max.
Offset change after 1000h @ 125°C	$\leq \pm 0,4$ % FS/K
Influence of ambient temperature on offset TC - zero (0 ... 85°C)	$\leq \pm 0,05$ % FS/K *)
Influence of ambient temperature on span TC - span (0 ... 85°C)	$\leq \pm 0,03$ % FS/K

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

***) terminal based according to DIN 16086; 2006-01

Environmental conditions

Nominal temperature range	- 40 ... + 125°C *)
Working temperature range	- 40 ... + 150°C *)
Storage temperature range	- 50 ... + 150°C *)
Material of parts in contact with pressure media	Stainless steel 1.4404

*) Pressure sensor without cable

Electrical connections

Soldering pads	pitch 2,54 mm
PVC flat ribbon	50,8 mm **)

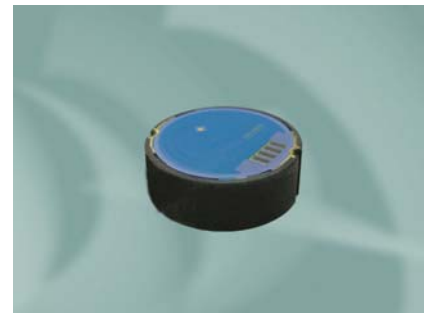
***) other material or length on request, minimum order quantity 150 pcs

Dimensions

Diameter	$18 \pm 0,1$ mm
Height	$6,35 \pm 0,05$ mm

Stainless Steel Pressure Sensor

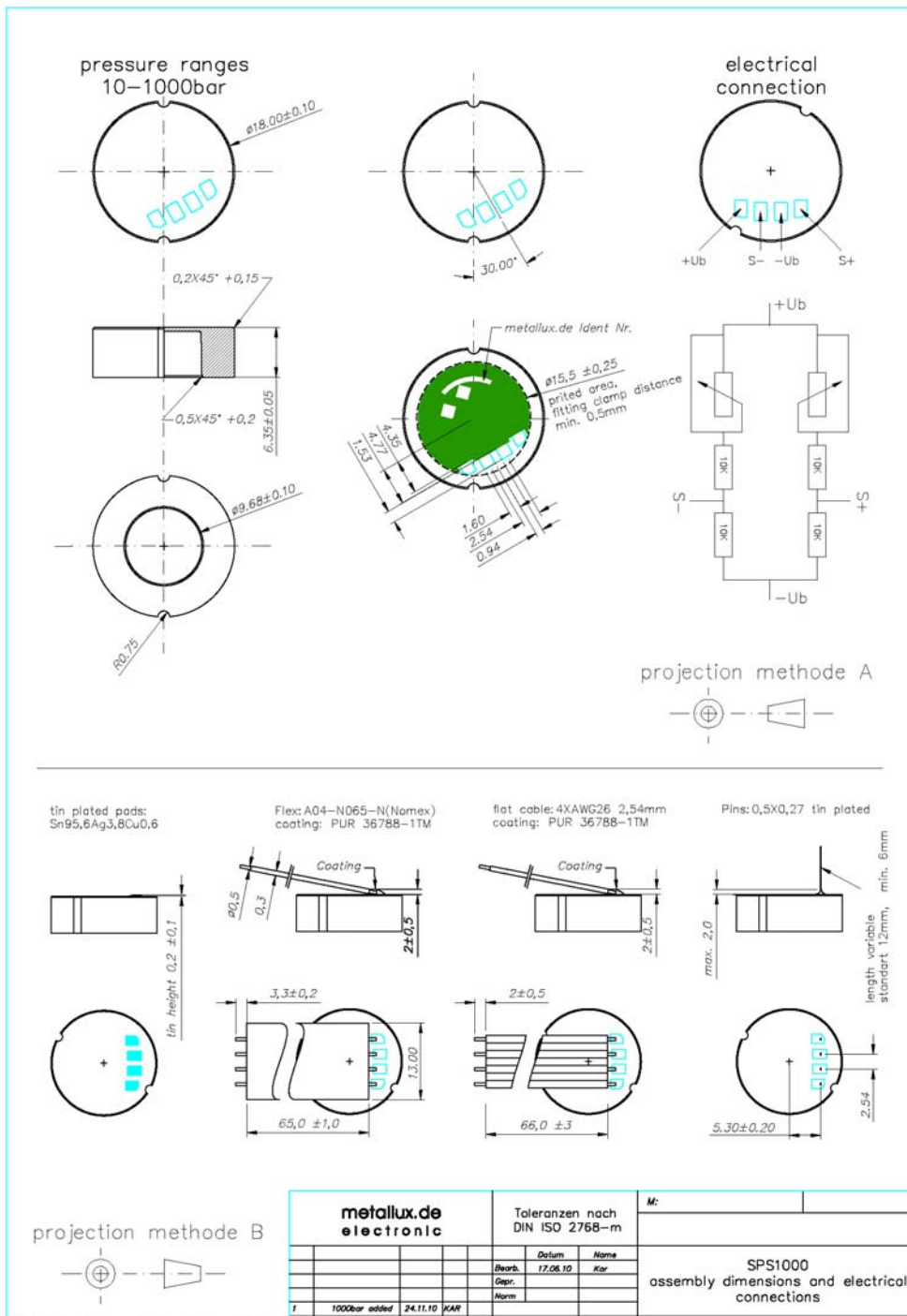
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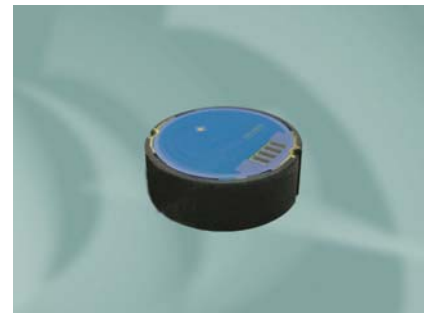
technology matters

Dimensions



Stainless Steel Pressure Sensor

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How to order

Type	Pressure range	Electr. connections
SPS 1000		