

## Inductive Displacement Transducer

### Series SM27



- Stroke up to 20mm
- Integrated electronic circuit
- Supply voltage  $U_B = 5V$ ; Supply current  $I_B < 5mA$
- Protection class IP66/67
- Accuracy 0,5% or 0,25%

#### Construction and operating principle:

A nickel iron core will be moved linear inside of a coil form. The displacement of the core leads to a inductance variation in both coils. The integral electronic circuit convertes the variation into a signal proportional to the displacement.

#### Standard-measuring stroke:

5 mm	10 mm	15 mm	20 mm
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#### Technical data:

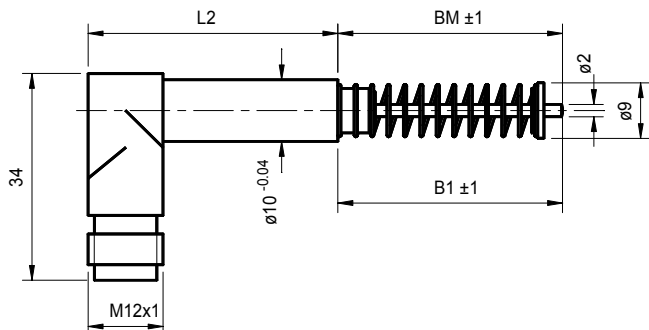
accuracy 5 - 15mm	< 0,5% or 0,25%
accuracy 20mm	< 0,5 %
Temperature drift	< 0,01% / °C
Temperature range	-20°C up to +85°C
Resistance to shock	250g SRS 20-2000Hz
Resistance to vibration	20g rms (50g peak)
Protection class	IP66/67 *

\*IP67 with mating plug SM901.211.3K5

Measuring stroke	L2 mm	BM mm	B1 mm	mechanical mm
5	86	22	36	24
10	86	22	36	24
15	96	26	40	28
20	100	26	40	28

BM: plunger in central position B1: plunger full out

#### Model SM27 .ST (connector S, gauge T)



#### Standard version:

Type	output	Sense**	$U_B^* \pm 10\%$	$I_B$
SM277	0..4 V	increasing	5V <sub>DC</sub>	<5mA
SM278		decreasing		

\* Pole reversal protection

\*\* Increasing signal by moving the plunger in the direction towards the plug

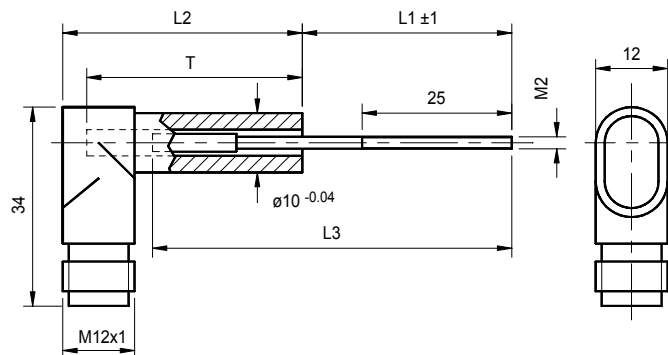
**Note:** Unless otherwise stated, all values are valid at +20°C ambient temperature and 30 VDC or ±15 VDC supply voltage, starting 10 minutes after switch-on.

**other output signal:** ratio,  
RS 232 10bit,  
PWM Signal

stroke mm	L1 mm	L2 mm	L3 mm	T mm
5	35	76	64	40
10	35	76	64	40
15	35	86	74	50
20	35	90	74	54

L1: plunger in central position

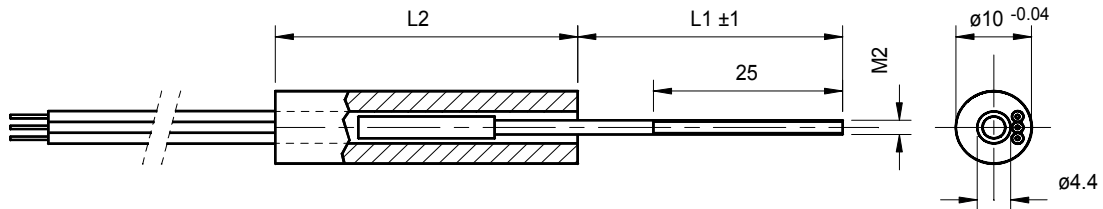
#### Model SM27 (connector S)



#### Nordic Transducer

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**Model SM27 .K** (with 300mm flat cable AWG28)



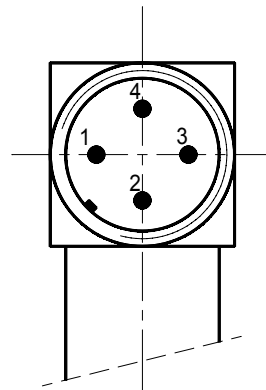
**Terminal assignment**

**.S**

- 1: +U<sub>B</sub>
- 2: nc
- 3: U<sub>A</sub> (output)
- 4: -U<sub>B</sub> (0V)

**.K**

- brown
- green
- white



**accessories**

- 5m connection cable with sealed connector
- mating plug (straight)
- mating plug (angled)

- SM901.211.3.K5**
- SM901.210**
- SM901.212**

- mounting bloc

- SM901.202**