

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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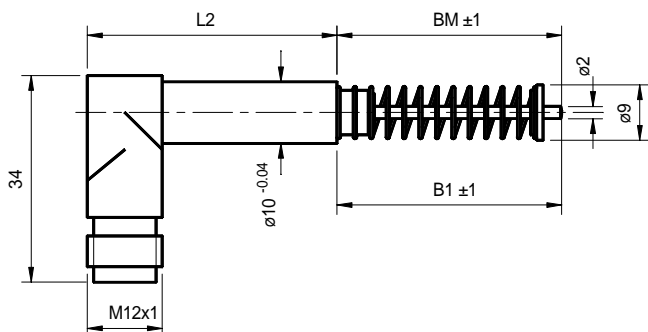
Technical data:

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 _{DC}	<5mA
SM278		decreasing		

* Pole reversal protection

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

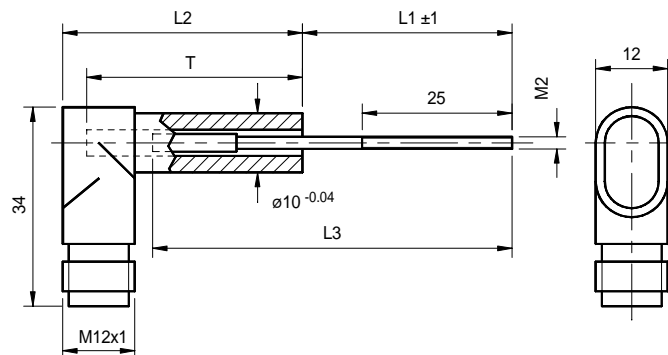
Note: Unless otherwise stated, all values are valid at +20°C ambient temperature and 30 VDC or ±15 VDC supply voltage, starting 10 minutes after switch-on.

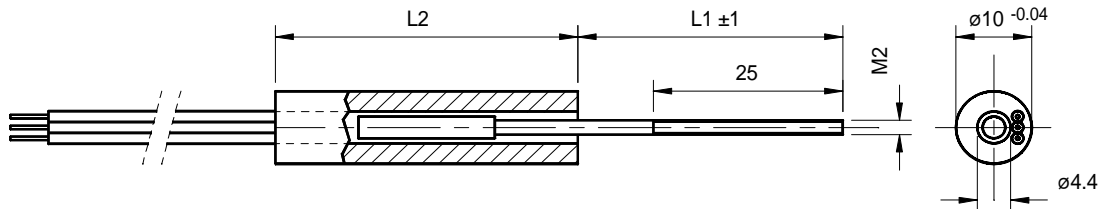
other output signal: ratio,
RS 232 10bit,
PWM Signal

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)

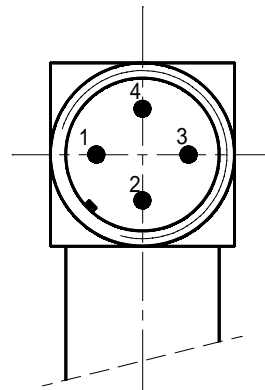


Model SM27 .K (with 300mm flat cable AWG28)

Terminal assignment
.S

- 1: +U_B
- 2: nc
- 3: U_A (output)
- 4: -U_B (0V)

.K

- brown
- green
- white


accessories

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

mounting bloc

SM901.211.3.K5
SM901.210
SM901.212

SM901.202

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