SCHREIBER MESSTECHNIK

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

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

Standard version:

Type	output	Sense**	U_B* ±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

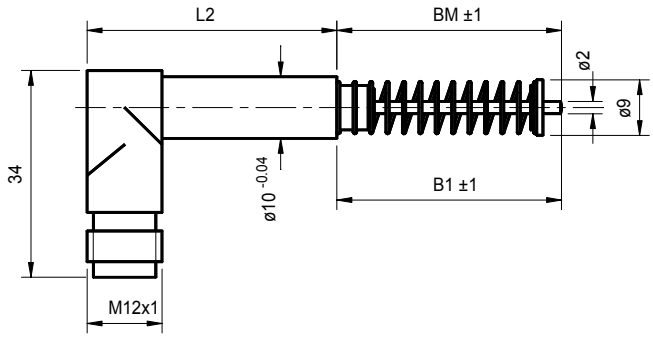
Note: Unless otherwise stated, all values are valid at +20°C ambient temperature and 5 VDC supply voltage, starting 10 minutes after switch-on.

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

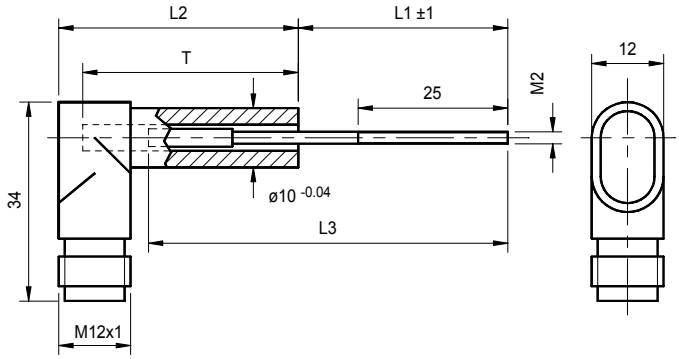
stroke mm	L1 mm	L2 mm	L3 mm	T mm
5	35	76	64	40
10	35	76	64	40
15	35	86	74	50
20	35	90	74	54

L1: plunger in central position

Model SM27 .ST (connector S, gauge T)



Model SM27 (connector S)



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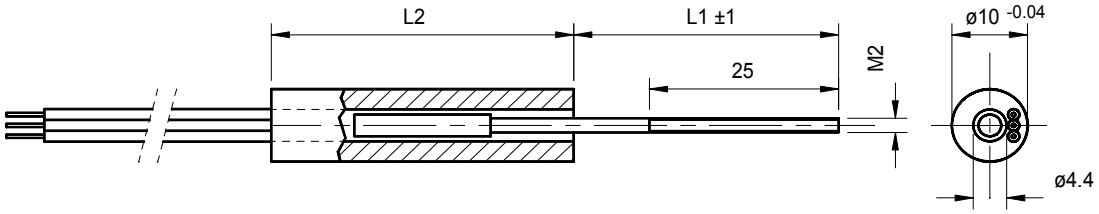
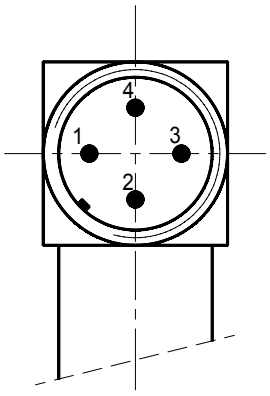
Model SM27 .K (with 300mm flat cable AWG28)



Terminal assignment

.S		**.K**
1:	$+U_B$	brown
2:	nc	
3:	U_A (output)	green
4:	$-U_B$ (0V)	white



accessories

5m connection cable with sealed connector	**SM901.211.3.K5**
mating plug (straight)	**SM901.210**
mating plug (angled)	**SM901.212**
mounting bloc	**SM901.202**