

Position Sensor Model TR

Type 2118A...

with Internal Return Spring for Displacement, Tolerance Measurements and Continuous Position Sensing

Position transducers employing conductive-plastic resistance and collector tracks provide direct means of measuring position or profile, without the need of any form of solid mechanical coupling.

- Long life: 100×10^6 movements
- Outstanding linearity up to $\pm 0,075$ %
- DIN standard gauging end
- Double bearing system on shaft
- Insensitive to shock and vibration

Description

An important and special feature of these particular units are their robust, industry-proven design. Of particular significance is the double bearing arrangement which is useful when side forces are met. The rear end of the actuating rod has a special collar, which can be easily employed where automatic retraction by means of air cylinders or solenoid is required.



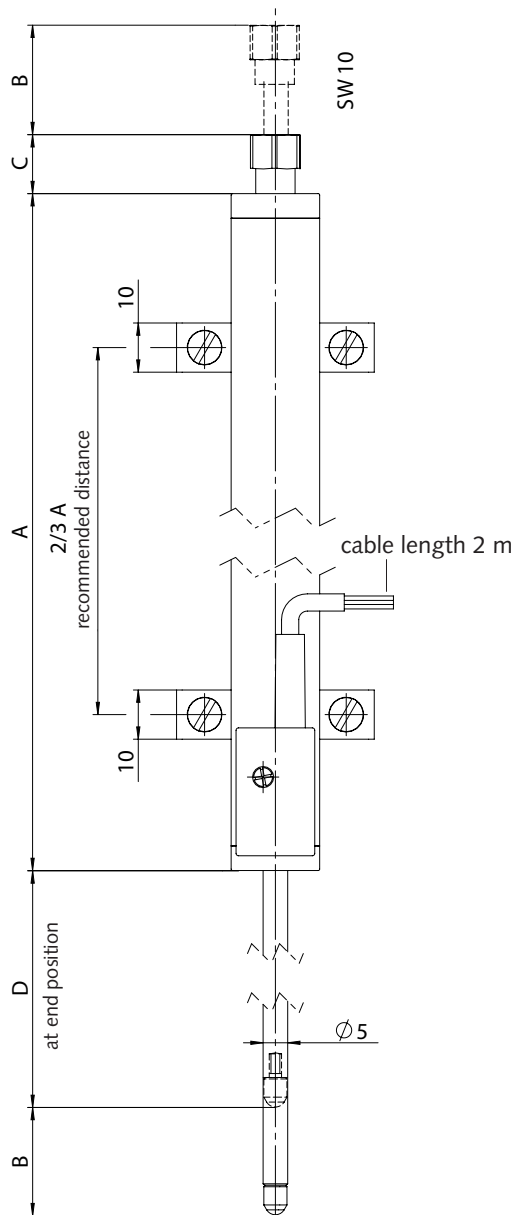
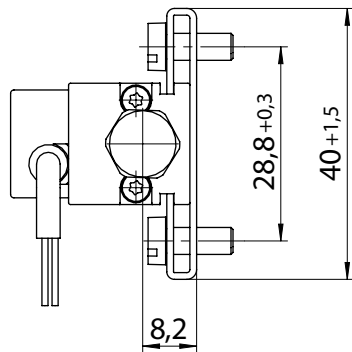
Housing	aluminium, anodized
Actuating rod	stainless steel with anti-rotation device, inside thread M2,5x6
Gauging head	stainless steel with external M2,5 thread and hardened ball point
Resistance element	conductive plastic
Wiper assembly	precious metal multi-finger wiper, elastomer-damped
Electrical connection	3-wire, shielded cable strain-relieved, 2 m long

Technical Data

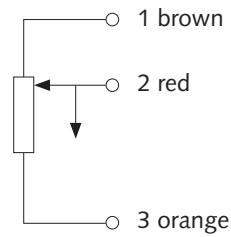
Model		TR10	TR25	TR50	TR75	TR100
Electrical Data						
Defined electrical range	mm	10	25	50	75	100
Nominal resistance	k Ω	1	1	5	5	5
Linearity, independent	\pm %	0,25	0,2	0,15	0,1	0,075
Repeatability	mm			0,002		
Max. permissible applied voltage	V	24	42	42	42	42
Recommended operating wiper current	< μ A			1		
Max. wiper current in case of malfunction	mA			10		
Mechanical Data						
Overall length (dimension A ^{+1 mm})	mm	48	63	94,4	134,4	166
Mechanical stroke (dimension B ^{+1,5 mm})	mm	15	30	55	80	105
Dimension C (at TR)	mm	7	12	12	12	12
Dimension D (at TR)	mm	6	32	32	32	32
Weight	g	80	120	150	180	200
Operating force (horizontal)	\leq N			5		
Operating frequency	Hz	20	18	14	11	10
Environmental Data						
Temperature range	$^{\circ}$ C			-30 ... 100		
Vibration	Hz			5 ... 2 000		
Shock	g/ms			50/11		
Protection class (EN60529)	IP			40		

Important: All values specified in this data sheet for linearity, lifetime and temperature coefficient are only valid for a sensor used as a voltage divider with virtually no load applied to the wiper ($I_e \leq 0,1 \mu$ A).

Dimensions



Schematic



Included Accessories

- 2 mounting clamps Z-45
incl. 4 allen screw M4x10
- 1 gauging head with hardened ball point

Accessories (Optional) for Type 2118AxxA01

- | | |
|---|-------------|
| • Extension cable for CoMo Net®/View®/Sys | 1200A151ASP |
| • Extension cable for DMF-P family | 1200A151BSP |
| • Extension cable for maXYmos family | 1200A151CSP |
| • Extension cable for Sigmoid Sys | 1200A151DSP |

Type

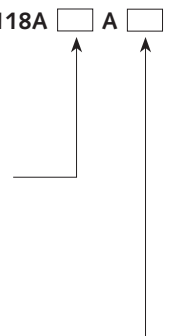
Ordering Key

Type 2118A A

Position Sensor TR

10 mm	10
25 mm	25
50 mm	50
75 mm	75
100 mm	100

with open cable end	00
with 5 pin round conn. to Sigmoid Sys	01
with 15 pin D-Sub conn. to maXYmos	03



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