

# Position Sensor Model TRS

Type 2112A...

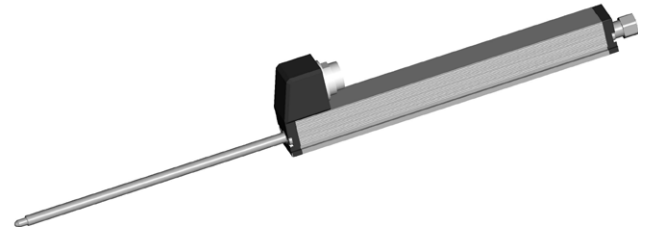
## with internal return spring for displacement, tolerance measurements and continuous position sensing

Displacement sensor with resistance and collector path of conductive-plastic – with internal return spring – for direct displacement and tolerance measurements and for continuous position sensing.

- Long life:  $100 \times 10^6$  movements
- Outstanding linearity up to 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 really 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, eloxiert
Actuating rod	stainless steel with anti-rotation device, inside thread M2,5
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	5-pin round connector IEC 130-9

### Technical data

Model		TRS25	TRS50	TRS75	TRS100
<b>Electrical data</b>					
Defined electrical range	mm	25	50	75	100
Electrical range	mm	27	52	77	102
Nominal resistance	kΩ	1	5	5	5
Resistance tolerance	±%	20			
Linearity, independent	±%	0,2	0,15	0,1	0,075
Repeatability	mm	0,002			
Max. permissible applied voltage	V	42			
Recommended operating wiper current	<μA	1			
Max. wiper current in case of malfunction	mA	10			
<b>Mechanical data</b>					
Overall length (dimension A <sup>+1 mm</sup> )	mm	63	94,4	134,4	166
Mechanical stroke (dimension B <sup>+1,5 mm</sup> )	mm	30	55	80	105
Weight	g	74	100	128	150
Operating force (horizontal)	≤N	5			
Operating frequency	Hz	18	14	11	10
<b>Environmental data</b>					
Temperature range	°C	-30 ... 100			
Vibration	Hz	5 ... 2,000			
Shock	g/ms	50/11			
Protection class (EN 60529)	IP	40			

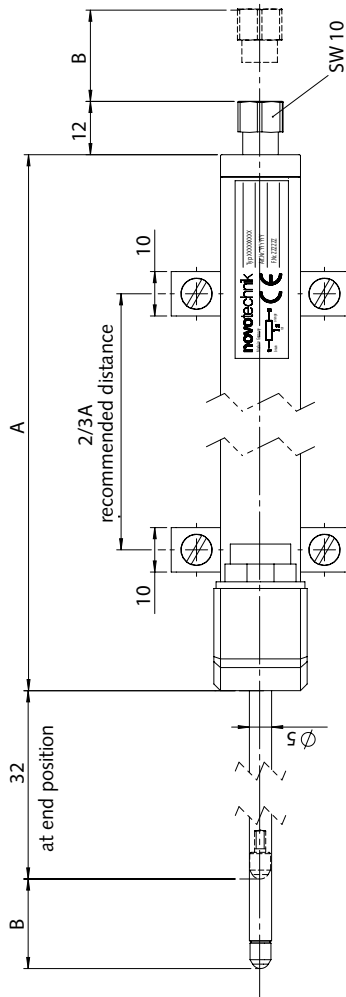
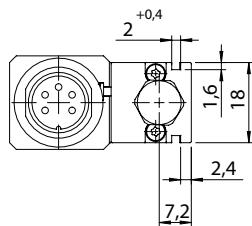
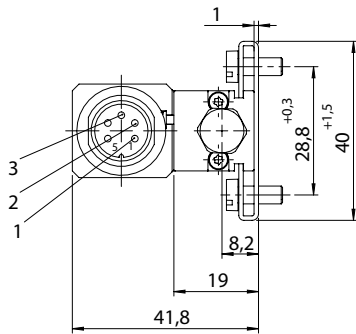
**Important:** All values specified in this data sheet for linearity, lifetime and temperature coefficient are only valid for a sensor used as a voltage divider with virtually no load applied to the wiper ( $I_e \leq 0,1 \mu A$ ).

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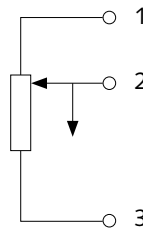
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## Dimensions



## Schematic



## Included accessories

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

## Accessories (optional)

- Connection cable for maXYmo family, L = 5 m **1200A151C5**
- Connection cable for maXYmo family, L = sp **1200A151CSP**
- Extension cable for maXYmo family, L = 5 m **18013960**
- Extension cable for maXYmo family, L = sp **18025475**
- Spare gauging head with hardened ball point **18042656**

## Ordering key

Type 2112A

### Position sensor TRS

25 mm	<b>25</b>
50 mm	<b>50</b>
75 mm	<b>75</b>
100 mm	<b>100</b>

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