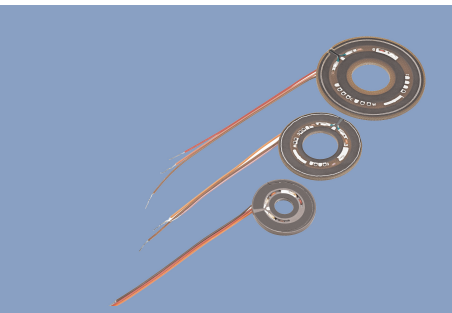


Resistance Elements up to 355°

Series PRS



Special features

- suitable for mounting in small fitting conditions
- easy mounting by bonding (silicone free)
- outstanding linearity
- very long live

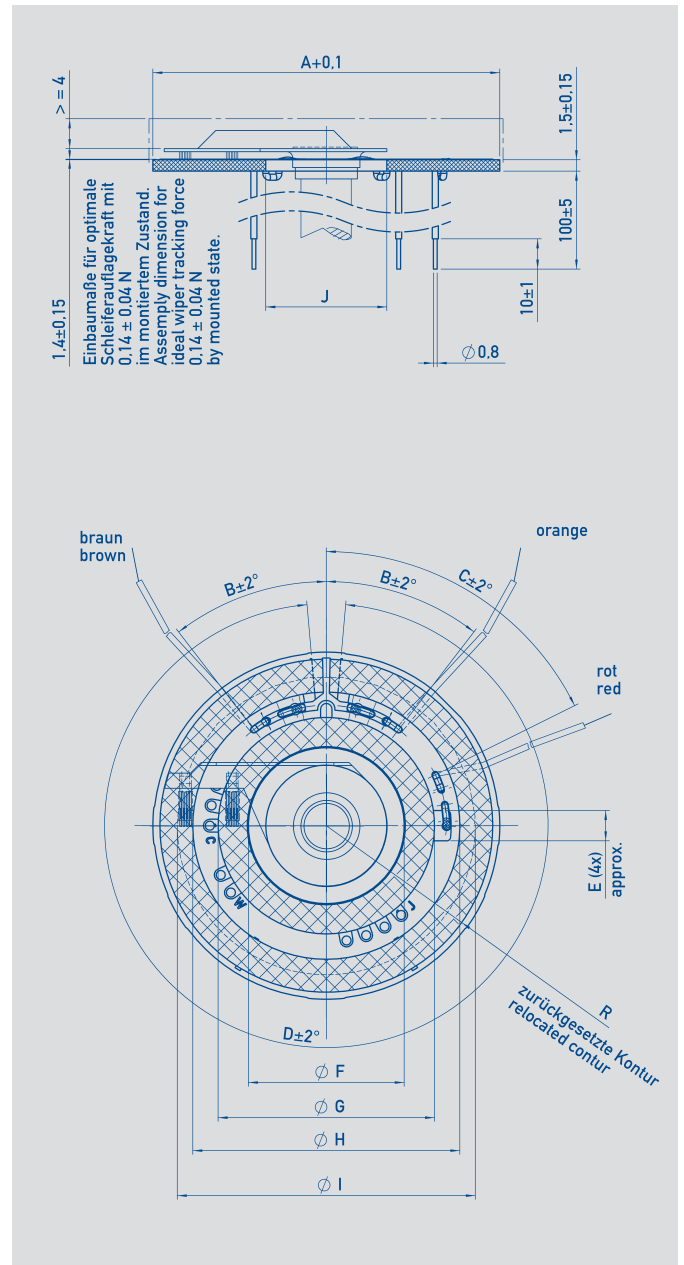
Rotary resistance elements paired with an appropriate wiper, but not completed with a housing (open systems) are suitable for installation in closed devices, which allows only small fitting conditions.

The installation is easy: The resistance element is centred via the internal diameter and an axially supporting surface in right situation to the wiper and is fastened by bonding.

In addition, the stated distance between the wiper carrier and the resistance element must be adhered to. Thus ensure the necessary wiper tracking force as well as the operability and durability.

As standard sizes are available PRS25 paired with wiper S-94, PRS45 paired with wiper S-98 and PRS65 paired with wiper S-152.

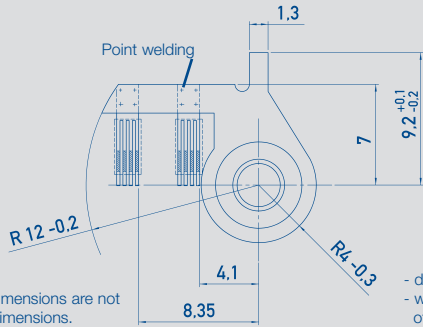
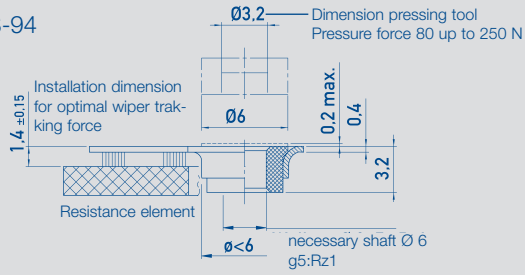
Resistance elements in other designs, measuring range and wire lengths on request.



Description

Substrate	glas filled epoxy
Resistance element and collector	conductive plastic
Wiper	precious metal multi-finger wiper
Electrical connections	PTFE-isolated wipers, AWG 32, 0.034 mm ²

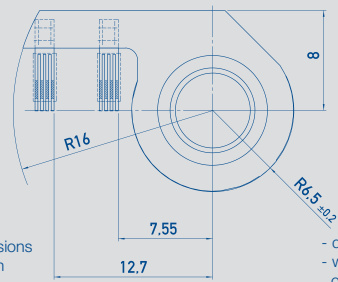
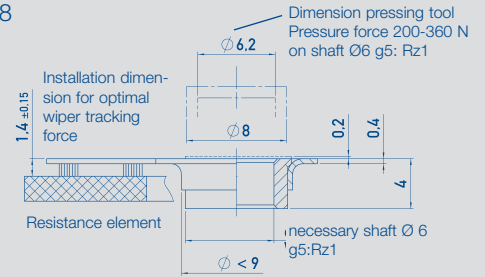
Wiper S-94



Installation dimensions are not production dimensions. Subject to change.

- damped wiper
- wiper tracking force of 4 fingers mounted $0,14 \pm 0,04$ N

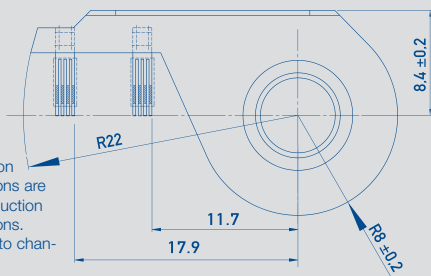
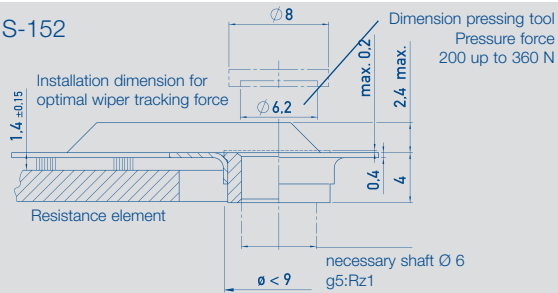
Wiper S-98



Installation dimensions are not production dimensions. Subject to change.

- damped wiper
- wiper tracking force of 4 fingers mounted $0,14 \pm 0,04$ N

Wiper S-152



Installation dimensions are not production dimensions. Subject to change.

- damped wiper
- wiper tracking force of 4 fingers mounted $0,14 \pm 0,04$ N

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Type designations	PRS25 A502	PRS45 A502	PRS65 A502	
Electrical Data				
Electrical range (dimension D)	345	350	355	±2°
Defined electrical range	339	344	349	±2°
Total resistance	5			kΩ
Resistance tolerance	±20			%
Independent linearity	0.20	0.15	0.10	±%
Repeatability	0.01			°
Recommended operating wiper current	≤ 1			μA
Max. wiper current in case of malfunction	10			mA
Max. permissible applied voltage	42			V
Temperature coefficient of the output-to-applied voltage ratio	5 typ.			ppm/K
Insulation resistance (500 VDC)	> 10			MΩ
Mechanical Data (nominal dimension)				
Dimension A	25.2	34.0	45,86	∅ ±0.1 mm
Dimension B	76	50	37	° ±2°
Dimension C	165	123	65	° ±2°
Dimension D	345	350	355	° ±2°
Dimension E 4 x ca.	3	4	5	mm
∅ Dimension F	8	14.7	20.6	mm
∅ Dimension G	11.8	18.6	28.6	mm
∅ Dimension H	16.4	25	35.3	mm
∅ Dimension I	20.2	28.9	39.4	mm
∅ Dimension J	7.6 +0.04	14.4 +0.04	16 +0.05	mm
Dimension R	12.5	16.9	22.8	mm
Environmental Data				
Temperature range	-40 ... +100			°C
Life (depending on mounting tolerances and environmental conditions)	100 x 10 ⁶			movements

Order designations	
Type	Art.-No.
PRS25 A502	065111
paired with wiper S-94	070137
PRS45 A502	065114
paired with wiper S-98	070138
PRS65 A502	065115
paired with wiper S-152	070139

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 ($I_E \leq 1 \mu A$).