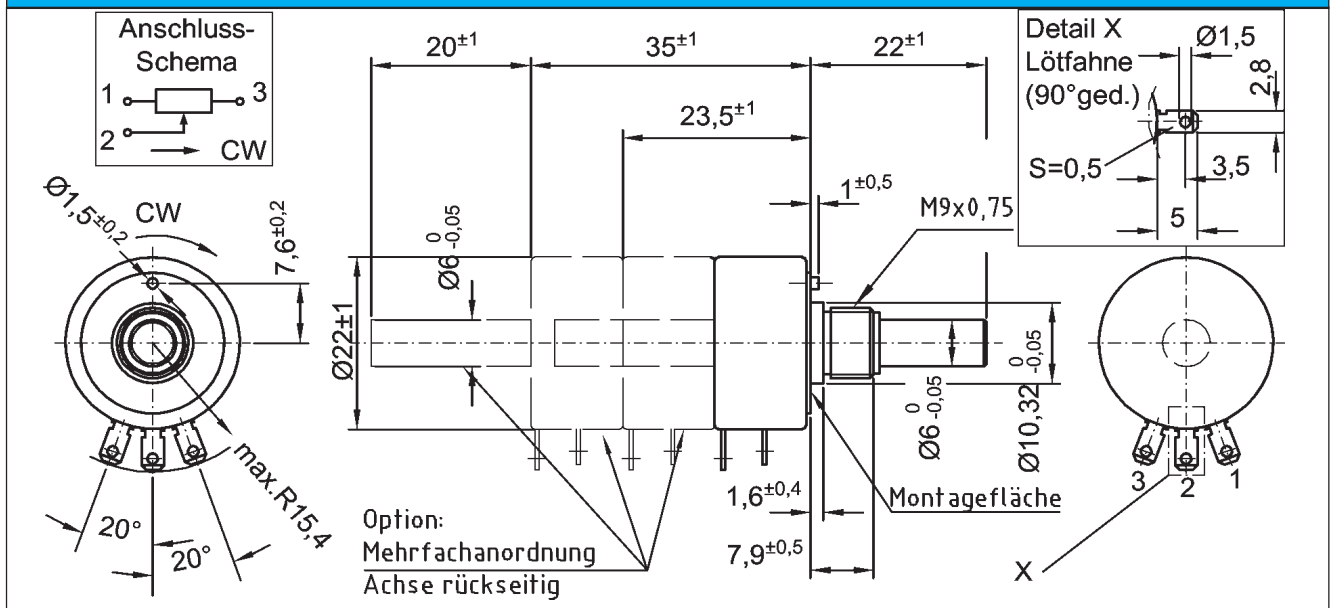


- Body diameter 22 mm
- With or without mechanical stops
- Multi ganging up to 10 Pot. possible
- Rear shaft optional
- Linearity tolerance 0,5% (0,25%)
- Custom specific adaptations



The series RP19/20 is a robust angular sensor with an excellent linearity.
Sealed shaft (IP65) and body (IP64) is possible.
Preference types from stock.

Dimensional Drawing



Electrical Specifications	RP19	RP20
Electrical angle	$320^\circ \pm 5^\circ$	$355^\circ \pm 5^\circ$
Resistance value	0,01..20 kOhm	
Resistance tolerance	$\pm 3\%$ ($\pm 1\%$)	
Independent linearity tolerance	$\pm 0,5\%$ (opt. $\pm 0,25\%$, below 1kOhm 0,35%)	
Noise (ENR)	< 100 Ohm	
Power at $+40^\circ\text{C}$ (0W bei 125°C)	0,5 W	
Wiper current	35 mA max. / >0,02 mA recommended	
Insulation resistance	1000 MOhm bei 1000 V DC	
Dielectric strength	1000 VAC (1 min.)	

Number of windings, resolution		50	100	200	500	1k	2k	5k	10k	20k
Resistance value	[Ohm]	50	100	200	500	1k	2k	5k	10k	20k
Number of windings		300	370	470	450	570	740	1000	1270	1670
Resolution in % (100% / no. wind.)		0,333	0,270	0,213	0,222	1,754	0,135	0,1	0,079	0,599

Mechanical Specifications	RP19	RP20
Mechanical angle	$320^\circ \pm 5^\circ$ with stop	360° without stop
Max. rotational speed	40 rpm	
Life expectancy (turns)	1 million	
Starting torque	0,5 Ncm	
Stopper strength	60 Ncm	--
Max. torque for fastening the mounting nut	150 Ncm	

Environmental Specifications and Materials	
Protection grade standard / optional shaft-sealing	IP40 / IP65
Operating temperature	-55°C .. +105°C
Bearing	sleeve bearing
Housing material	fiber-glas reinforced plastic PA66
Shaft material	Stainless steel
Terminals	gold-plated solder lugs for push-on contact (AMP 110 no. 42236-1)
Mounting parts (included in delivery)	Hex-nut, inner teeth washer
Weighth	20 g

Options and Order Descriptons											
Description	Serie	Options									
		Wirewound without stop	RP20								
Wirewound with stop	RP19										
Resistance value 10, 20 Ohm (optional)											
Resistance value 50, 100, 200, 500 Ohm											
Resistance value <u>1, 2, 5, 10</u> kOhm		<u>R2k</u>									
Resistance value 20 kOhm (optional)											
Rear shaft length (standard 20 mm)			RA								
Rear shaft diameter (standard 6 mm)				RADM							
Resistance tolerance ± 3 % (standard)					W3%						
Resistance tolerance ± 1 %					W1%						
Linearity tolerance $\pm 0,5$ % (Standard)						L0,5%					
Linearity tolerance $\pm 0,25$ %						L0,25%					
Center tap							CT				
Shaft length (standard 22 mm)								A			
Shaft diameter (standard 6 mm)									DM		
Screw driver slot										B	
Sealing ring in the bushing											D
Ordering example* standard	RP20	<u>R2k</u>			W3%	L0,5%					
Ordering example** special version	RP20	<u>R20k</u>	<u>RA9</u>	<u>RADM5</u>	W1%	L0,25%	CT	A9	DM4	B	D

Example* standard: RP20, resistance value 2 KOhm, resistance tolerance $\pm 3\%$, linearity tolerance 0,5%

Example** special: RP20, resistance value 20 kOhm, rear shaft length 9 mm, rear shaft diameter 5 mm, resistance tolerance $\pm 1\%$, linearity tolerance $\pm 0,25\%$, center tap (voltage type), front shaft length 9 mm, front shaft diameter 4 mm, screw driver slot, sealing ring in the bushing.

Preference types underlined (available from stock)

Please ask for more options and fittings (tandem-version, etc.)

A wide range of options on request for reasonable prices also for small quantities
Special shaft (length, shape, flat, slot, etc.), o-ring for shaft sealing, sealed housing, special electrical and mechanical angles, tighter tolerances, center tap. Mounting of gear wheels and other mechanical parts, assembling of cables and connectors.

Please note
All the specifications and information in this datasheet can not consider the special demands that are caused by the application. Because of this, they are no general description of the properties of the product. Please consider also our detail specifications.