



HEAVY DUTY POTENTIOMETER CONDUCTIVE PLASTIC ELEMENT

Here is a high-quality, single turn precision potentiometer that you can depend on.

Developed to meet the demands of the Automotive Industry, the Bourns® model 3802 will also ideally fit into many industrial applications, wherever high reliability in rough environments is required.

- Custom design capability available.
- Outstanding resistance to humidity, saltspray, dust, fuel, oil, fungus.
- Conductive plastic element provides essentially infinite resolution.
- Extended temperature range: -40°C to $+130^{\circ}\text{C}$

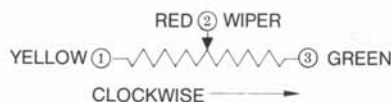
SPECIFICATIONS

Electrical Characteristics	
Resistance Range	500 Ω to 20K Ω
Resistance Tolerance	$\pm 10\%$
Independent Linearity	$\pm 2\%$
Effective Electrical Angle	$90^{\circ} \pm 2^{\circ}$
Continuity Angle	over full mech. angle
Resolution	essentially infinite
Output Smoothness	0.1% max.
End Voltage	1% max.
Power Rating at 70°C @	1.5 Watt
at 130°C @	0 Watt
Dielectric Strength, Sea Level	500 VAC min.
Insulation Resistance, 500 VDC	1000 Meg. min.
Environmental Characteristics	
Operating Temperature Range	-40°C to $+130^{\circ}\text{C}$
Vibration, Contact Bounce 0.1 ms max.	20 G
Shock, Contact Bounce 0.1 ms max.	50 G
Resistant to:	
Saltspray, Dust, Fuel, Oil, Fungus	
Mechanical and Physical Characteristics	
Mechanical Angle	$105^{\circ} \pm 5^{\circ}$
Rotational Life	3'000'000 cycles
Dither Life	50 hours at 40 Hz
Torque (Starting and Running)	0.5 oz. in. / 0.35 N·cm max.
Stop Strength	140 oz. in. / 100 N·cm min.
Backlash	0.5° max.
Weight	approx. 75 grams
Terminals	PVC insulated stranded leads

Marking: Manufacturer's name, part number, resistance value and tolerance, wiring diagram and date code.

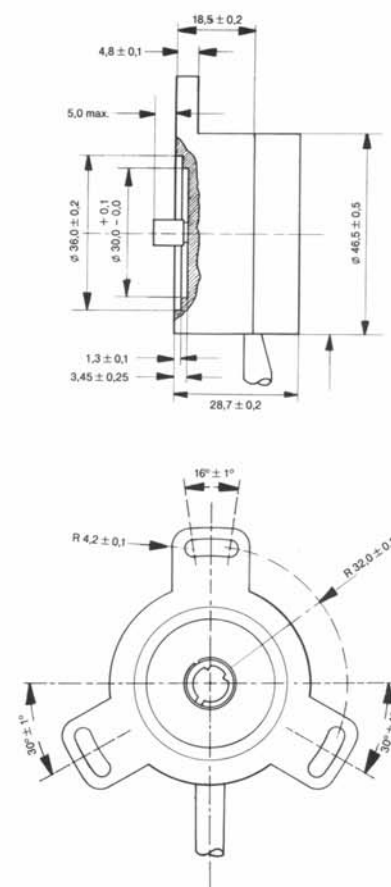
ORDERING INFORMATION

Resistance Ω	Part Number
500	3802S-1-501
1 000	3802S-1-102
2 000	3802S-1-202
5 000	● 3802S-1-502
10 000	● 3802S-1-103
20 000	3802S-1-203



● Preferred resistance values

DIMENSIONS (mm)



Specifications are subject to change without notice.