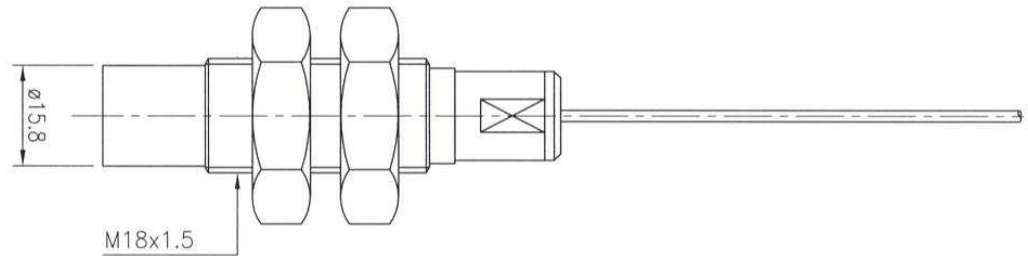




**STRAIGHT MOUNT TYPE - PRS 05 - Ø16mm TIP  
FOR HIGH TEMPERATURE APPLICATIONS**



- Measuring range 5mm
- Non-contact measurement of static or dynamic surfaces
- Robust stainless steel threaded case
- Glass filled PPS tip, impervious to oil or water ingress
- Suitable for forward or reverse mounting in suitable bracketry
- Supplied with free running locknuts
- Choice of cable lengths with or without armouring
- Connection directly to driver or via an extension cable
- Operating temperature range -30°C to +240°C

Sensonics range of **SENTURION** eddy current probes are designed to be the most robust and reliable units available, and are ideally suited to a vast range of industrial applications. The PRS05 has been developed to provide an extended temperature range and exhibits a measurement accuracy of better than  $\pm 5\%$  over an operating temperature range of -30°C to +240°C, ideal for thrust and differential expansion measurements on steam turbines.

The **SENTURION** eddy current probes are intended for use within a system comprising of the probe, an extension cable (if required) and a driver unit. The probes are supplied in tuned lengths, and can be linked directly to the driver or in combination with an extension cable. However the system is connected the total lengths must add up to 5, 7 or 9 metres.

A free running locknut is supplied with the straight mount probes, which is used to lock the unit in position when mounted in a bracket. Sensonics can supply a range of ancillary items such as brackets, housing for probes and drivers, glands, as well as offer advice on probe applications and mounting.

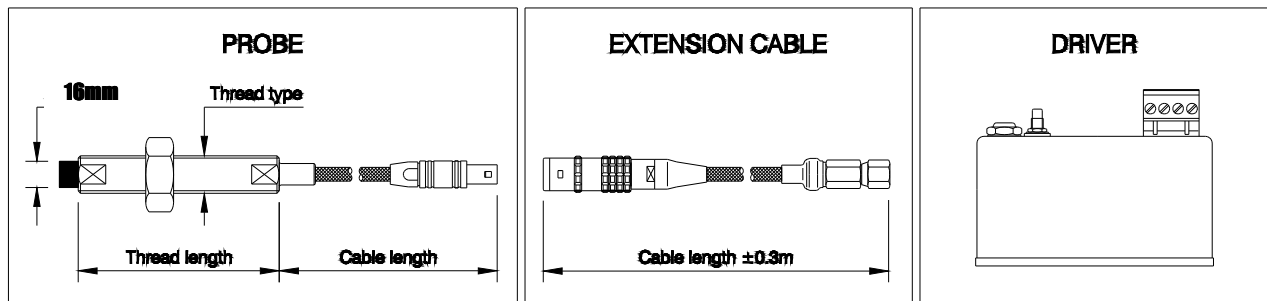
# SENTURION EDDY CURRENT PROBES

## STRAIGHT MOUNT TYPE – PRS05

### SPECIFICATION

Body material .....	Stainless steel
Tip material .....	PEEK with stycast potting
Probe cable specification .....	High Temperature Low Noise PTFE
Extension cable specification .....	RG179 PTFE insulated
Linear range - $\pm 1\%$ of full scale .....	0.5mm to 4.5mm
Sensitivity .....	4mV/ $\mu$ m
Temperature sensitivity - Probe .....	Less than 5% of FSD at 240°C
- Driver .....	Less than 5% of FSD at 90°C
Output impedance .....	Less than 50 $\Omega$
Interchangeability .....	Less than 5%
Cal pot range .....	$\pm 5\%$ or greater
Operating temperature - Probe .....	-30°C to +24 0°C
- Driver .....	-30°C to +90°C
Survival temperature .....	As operating temperature
Power supply .....	-24Vdc at 30mA nominal
Power supply tolerance .....	-18Vdc to -30Vdc (linear range will be affected)
Frequency range .....	DC to 10khz
Resolution (restricted by noise, drift & stability) .....	0.002mm
Effect of target curvature .....	+5% for $\phi 150$ mm
.....	+12% for $\phi 25$ mm
Effect of target magnetism .....	Less than 1% at 110mT

### ORDERING INFORMATION



<b>PRS05/</b>	<b>0.5</b>	<b>U</b>	<b>1</b>	<b>0</b>	<b>0</b>
<u>Cable length</u> 0.5 – 0.5m					
<u>Cable protection</u> U – Unarmoured (standard) A – Armoured					
<u>Connector gender</u> 0 – Female SMC (for direct driver connection)					
<u>Thread type</u> 0 – M18x1.5 (standard)					
Thread length is 50mm on standard units, but can be between 25mm and 115mm Please specify separately.					
<u>Range (sensitivity)</u> 0 – 5mm (4mV/ $\mu$ m)					

<b>EXC/</b>	<b>4.5</b>	<b>A</b>	<b>0</b>
<u>Cable length</u> 4.5 – 4.5m 6.5 – 6.5m 8.5 – 8.5m			
<u>Cable protection</u> A – Armoured U – Unarmoured			
<u>Connector type</u> 0 – SMC			

<b>ECD04/</b>	<b>5</b>	<b>0</b>	<b>0</b>
<u>Total system cable length</u> 5 – 5m 7 – 7m 9 – 9m			
<u>Range (Sensitivity)</u> 0 – 5mm (4mV/ $\mu$ m)			
<u>Mounting</u> 0 - std plate 1 - 35mm DIN rail			

**Note: Total system lengths must add up to 2, 5, 7 or 9m (2m systems cannot include extension cables). Probe system length may be up to 0.7m longer than stated.**