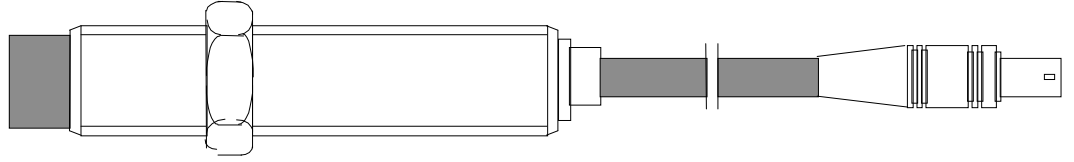




## SENTURION EDDY CURRENT PROBES

### STRAIGHT MOUNT TYPE - PRS 04 - Ø8mm TIP



- Measuring range 2.5 or 4mm
- Non contact measurement of static or dynamic surfaces
- Robust stainless steel threaded case, in various sizes
- Peek encapsulated tip, impervious to oil or water ingress
- Suitable for forward or reverse mounting in suitable bracketry
- Supplied with free running locknut
- Choice of cable lengths with or without armouring
- Connection directly to driver or via an extension cable
- Operating temperature range -30°C to +180°C
- Intrinsically safe options available

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 **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 via the afore mentioned extension cable. However the system is connected the total lengths must add up to 2, 5, 7, 9 or 14 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.

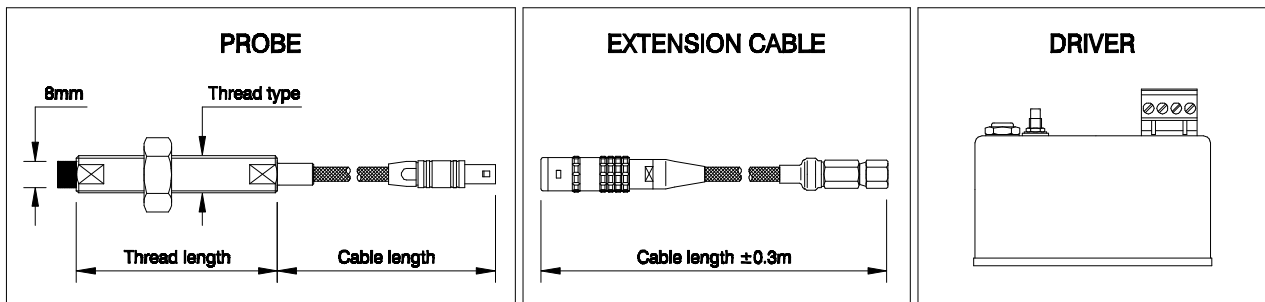
# SENTURION EDDY CURRENT PROBES

## STRAIGHT MOUNT TYPE – PRS04

### SPECIFICATION

Body material .....	Stainless steel
Tip material .....	PEEK with stycast potting
Cable specification .....	RG179 PTFE insulated
Linear range - $\pm 1\%$ of reading .....	0.25 to 2.25mm (For 2.5mm range)
- $\pm 1\%$ of full scale .....	0.125 to 2.5mm (For 2.5mm range)
Sensitivity .....	8mV/ $\mu\text{m}$ or (4mV/ $\mu\text{m}$ )
Temperature sensitivity - Probe .....	Less than 5% at 150°C
- Driver .....	Less than 5% 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 +180°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 .....	+2% for $\phi 150\text{mm}$
.....	+5% for $\phi 25\text{mm}$
Effect of target magnetism .....	Less than 1% at 110mT

### ORDERING INFORMATION



**PRS04/** **1.0** **U** **1** **0** **0**

**Cable length**  
 0.5 – 0.5m  
 1.0 – 1m  
 2.0 – 2m  
 5.0 – 5m  
 7.0 – 7m  
 9.0 – 9m  
 14 – 14m (not 4mm range)

**Cable protection**  
 U – Unarmoured (standard)  
 A – Armoured

**Connector gender**  
 0 – Female SMC (for direct driver connection)  
 1 – Male LEMO (f.u.w. extension cable)  
 2 – Male SMC coaxial jack (f.u.w. extension)

**Thread type**  
 0 – 3/8"UNF (standard)  
 1 – M10x1.0

Thread length is 50mm on standard units, but can be between 25mm and 115mm. Please specify separately.

**Range (sensitivity)**  
 0 – 2.5mm (8mV/ $\mu\text{m}$ ) (API1670)  
 1 – 4mm (4mV/ $\mu\text{m}$ )

**EXC/** **4.0** **A** **0**

**Cable length**  
 4.0 – 4m  
 4.5 – 4.5m  
 6.0 – 6m  
 6.5 – 6.5m  
 8.0 – 8m  
 8.5 – 8.5m

**Cable protection**  
 A – Armoured  
 U – Unarmoured

**Connector type**  
 0 – SMC  
 1 – LEMO 00

Note:  
 Remember that total system lengths must add up to 2, 5, 7, 9, or 14m (2 & 14m systems cannot include extension cables). A specific 16.5m system is available; please ask our sales dept. for details. Probe cables may be up to 0.7m longer than stated.

**ECD04/** **5** **0**

**Total system cable length**  
 2 – 2m  
 5 – 5m  
 7 – 7m  
 9 – 9m  
 14 – 14m (not 4mm range)

**Range (Sensitivity)**  
 0 – 2.5mm (8mV/ $\mu\text{m}$ ) (API1670)  
 1 – 4mm (4mV/ $\mu\text{m}$ )

\*Due to 'Sensonics' policy of continuous improvement, designs may be subject to alteration without notice.

L157 issue.3 Nov.2002



**Sensonics Ltd,**  
 Berkhamsted,  
 Hert's, HP4 1EF,  
 England  
 Tel: +44(0) 1442 876 833.  
 Fax: +44(0) 1442 876 477.