



PROTECTED SIDE VIEW – PRSV04 *BEAM*- Ø10mm SHIELDED TIP



- Measurement range of 2.0mm with high linearity.
- Target focused, eliminating side view effects.
- Can be mounted flush to machine case.
- Non-contact measurement of static or dynamic surfaces
- Robust stainless steel threaded case
- Polymer resin filled tip capable of high pressure operation
- Suitable for operation in highly corrosive environments
- Operating temperature range -30°C to +180°C
- Applications include Thrust bearing wear, shaft vibration & position monitoring

Sensorics 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 PRSV04 *BEAM* has been developed specifically for providing accurate relative position measurements in restricted space applications, where standard proximity probes would be substantially affected by side target views. The fully flush tip arrangement eliminates side views completely and utilising a unique head arrangement permits the probe to be mounted flush with the machine case if required with minimal effect on performance.

The probe is also suitable for 'blind-hole' applications where calibration of the probe installed position is not possible. The sensor is normally calibrated against a 4140 steel target, but can be factory calibrated to customer specific targets to assist with this type of application.

The probe is 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 connected directly to the driver or via the extension cable in total lengths of 2, 5, 7, 9 or 14 metres.

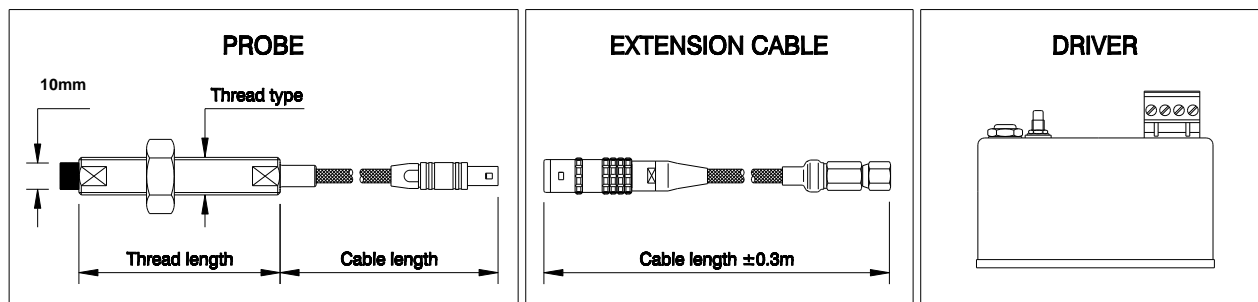
SENTURION EDDY CURRENT PROBES

STRAIGHT MOUNT TYPE – PRSV04

SPECIFICATION

Body material	Stainless steel
Tip material	Flush arrangement, polymer resin filled.
Tip pressure rating	300bar
Cable specification	RG179 PTFE insulated
Linear range $\pm 1\%$ of reading	0.2 to 1.7mm
-5% of full scale	1.7 to 2.2mm
Sensitivity	8mV/ μ m
Temperature sensitivity - Probe	<2% variation at 90°C (0.5mm to 1.5mm gap)
Output impedance	<50 Ω
Interchangeability	<5%
Calibration 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 side view (flush fitting)	<0.5% at 2.0mm target distance
.....	<0.2% at 1.0mm target distance
Effect of target magnetism	<1% at 110mT

ORDERING INFORMATION



PRSV04/ **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 – 1/2"-20UNF
 1 – M12x1.25 (standard)
- Thread length is 50mm on standard units, but can be between 25mm and 115mm. Please specify separately.
- Range (sensitivity)**
 0 – 2.0mm (8mV/ μ 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

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

- Total system cable length**
 2 – 2m
 5 – 5m
 7 – 7m
 9 – 9m
 14 – 14m
- Range (Sensitivity)**
 0 – 2.0mm (8mV/ μ m)
- Mounting**
 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.



Sensonics Ltd
 Northbridge Road
 Berkhamsted
 Herts, HP4 1EF
 United Kingdom
 Tel: +44 (0)1442 876833
 Fax: +44 (0)1442 876477
www.sensonics.co.uk