Proximity Probes Transducer

PPT-080 & PPT-110

FEATURES

- Designed for long life cycles and harsh environments
- Custom rugged cable jacket preventing breaking and tearing of the probe cable
- High resistance to corrosive environments
- Probes and extension cables equipped with standard protective rubber boot, covering connectors preventing oil and dirt penetration

Monitoring solution

Axial thrust position

Shaft & bearing vibration

Typical applications

Hydrogenerators

Pumps, fan, cooling towers...

Gas & steam turbines

DESCRIPTION

The Proximity Probe Transducer (PPT) is used for non-contact measurements of shaft vibration and position. Each system consists of a probe, an extension cable and a driver.
The PPT series proximity probe systems are designed to meet API 670 standard.

The voltage output is directly proportional to the measured distance between the metallic target and the sensor face.

Probe and extension cable :
Designed for long life cycles and suitable for harsh environments, probe and extension cables are equipped with armor and protective rubber boots, which cover the connectors and prevent oil and dirt penetration. Extension cable is compliant with API670 standard, allowing compatibility with other manufacturers' proximity probe systems.

Driver :
Used with related probe and extension cable. The circuit is isolated from ground. The total length of cable between the probe and the driver is either 5m or 9m.

GLOBAL SPECIFICATIONS

OPERATION		
Transducer version	PPT-080	PPT-110
Linear range	0.25mm to 2.25mm	0.4mm to 4.40mm
Sensitivity	7.87mV/µm	3.94mV/µm
Temperature sensitivity (-30°C to 120°C)	±0.3%/°C (middle of the linear range)	±0.4%/°C (middle of the linear range)
Linearity (deviation from straight line)		
if calibrated as system	±0.0254mm	±0.06mm
including interchangeability errors	±0.038mm	±0.16mm
Frequency response (±3dB)	0 to 10kHz	0 to 3kHz
Minimum target size	ø15mm	ø33mm
Maximum load (PPC-081 4..20 output)	500Ω	
Power		
Supply	$-23V_{DC}$ to $-30V_{DC}$ / $+24V_{DC}$ for PPC-081	
Current consumption (static)	< 12mA	
ENVIRONMENTAL		
Temperature range		
Sensor & cable		
Operation	-40° to +120°C	
Storage	-40° to +120°C	
Driver		
Operation	-15° to +80°C	
Storage	-40° to +100°C	
Humidity	100% non-condensing	
ATEX	II 1 G, EEx ia IIC T4	
CSA		
Intrinsically safe	Class I, Div. 1, Gr. A, B, C and D,T4	
	Class I, Zone 0, Ex ia IIC T4	
Non-incendive	Class 1, Div. 2, Gr. A, B, C and D, T4	
PCEC	Ex ia IIC T4	
PHYSICAL		
Sensor dimensions [mm]		
PPT-080	70 L x ø8 terminated by 1m cable ø8	
PPT-110	70 L x ø11 terminated by 1m cable ø8	
PPT-110 int	100 L x ø11 with integral cable (5m or 9m length)	
Driver dimensions [mm]	94 x 34 x 75 LxWxH	
Extension cable dimensions	8m x ø8mm or 4m x ø8mm (depending on req. length version)	

ORDERING INFORMATION

Part type	PPT-080	(Proximity probe transducer 8mm)
Ordering code	05.080.000	

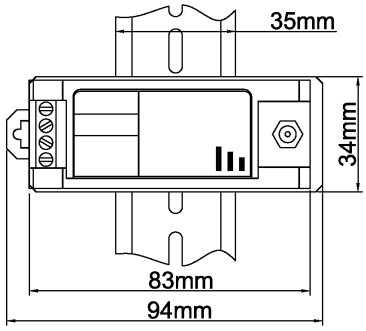
Part type	PPT-110	(Proximity probe transducer 11mm)
Ordering code	05.110.000	

Part type	PPT-110 int	(Proximity probe transducer 11mm, with integral cable)
Ordering code	05.110.000-int	

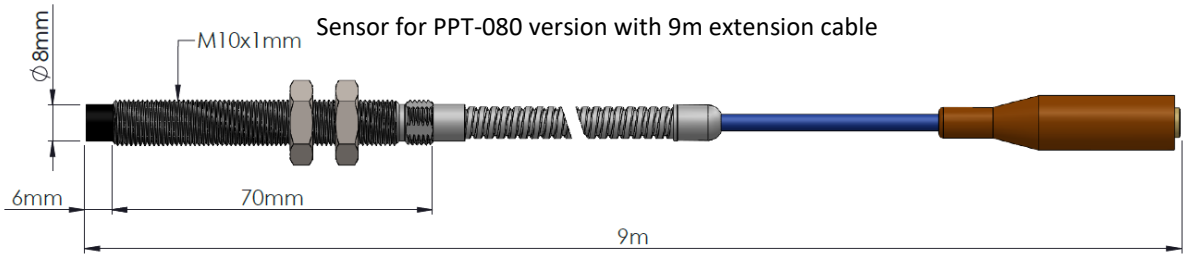
Part type	PPC-081 - Conditioner with 4..20mA output			
Ordering code	PPC-081-AA-EE-GG-SS			
Information	AA: Full scale 00: 0-200µmpp 01: 0-500µmpp 02: 0-1000µmpp	EE: Probe and cable (not included) 00: PPS-080, 8mm probe / 5m cable 01: PPS-080, 8mm probe / 9m cable 08: PPS-110, 11mm probe / 5m cable 09: PPS-110, 11mm probe / 9m cable	GG = 00 DIN rail mount	SS = 00 CE Mark approval

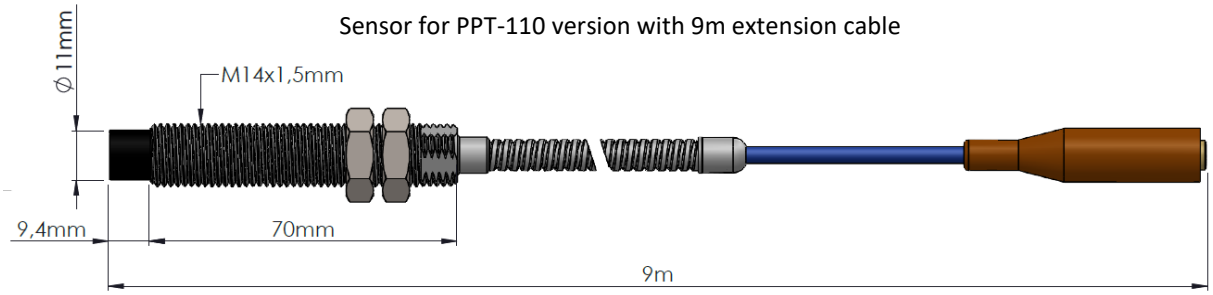
All models are available with 9m or 5m total cable length between sensor and driver

MECHANICAL DRAWING



Driver dimensions (DIN Rail mounting)





MC-monitoring Quality certifications

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