

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

-  Shaft & bearing vibration
-  Axial thrust position

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/ μ m	3.94mV/ μ m
Temperature sensitivity (-30°C to 120°C)	$\pm 0.3\%/^{\circ}\text{C}$ (middle of the linear range)	$\pm 0.4\%/^{\circ}\text{C}$ (middle of the linear range)
Linearity (deviation from straight line)		
if calibrated as system	$\pm 0.0254\text{mm}$	$\pm 0.06\text{mm}$
including interchangeability errors	$\pm 0.038\text{mm}$	$\pm 0.16\text{mm}$
Frequency response ($\pm 3\text{dB}$)	0 to 10kHz	0 to 3kHz
Minimum target size	$\varnothing 15\text{mm}$	$\varnothing 33\text{mm}$
Maximum load (PPC-081 4..20 output)	500 Ω	
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 $\varnothing 8$ terminated by 1m cable $\varnothing 8$
PPT-110	70 L x $\varnothing 11$ terminated by 1m cable $\varnothing 8$
PPT-110 int	100 L x $\varnothing 11$ with integral cable (5m or 9m length)
Driver dimensions [mm]	94 x 34 x 75 LxWxH
Extension cable dimensions	8m x $\varnothing 8\text{mm}$ or 4m x $\varnothing 8\text{mm}$ (depending on req. length version)

ORDERING INFORMATION

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

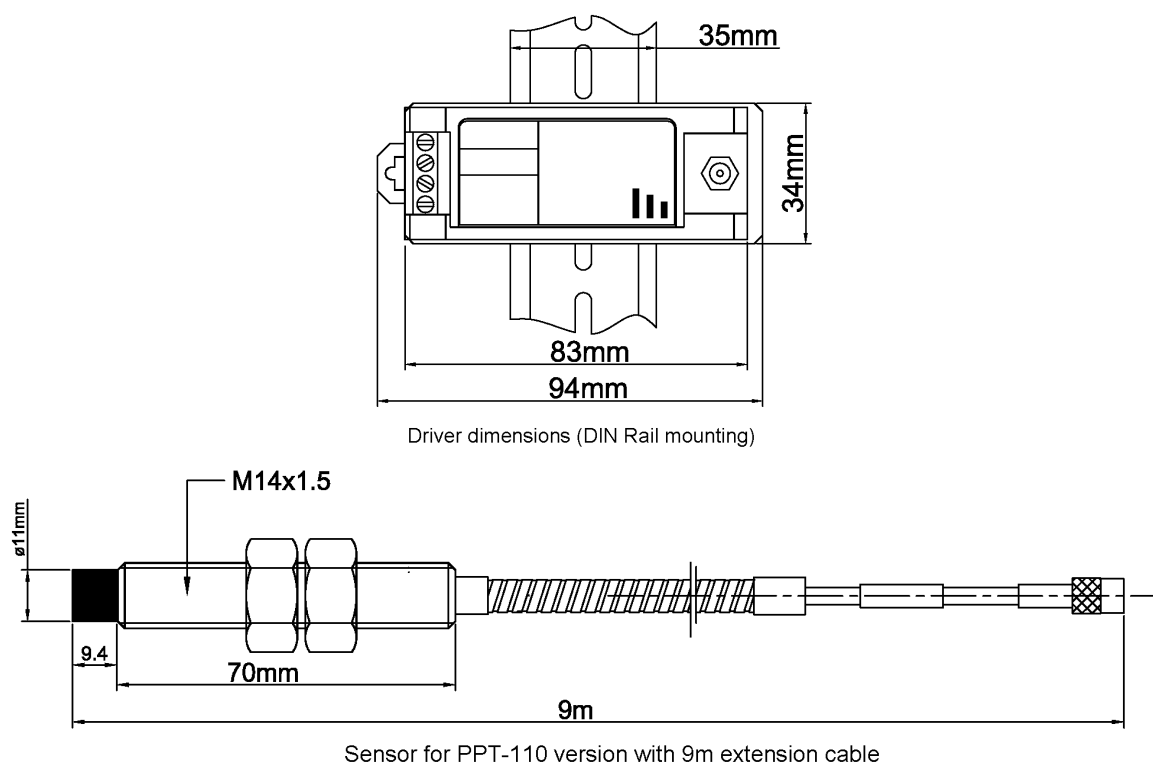
Part type	PPT-110
Ordering code	05.110.000
Information	Proximity probe transducer 11mm

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

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

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

MECHANICAL DRAWING



Due to the continual development of our products we reserve the right to modify the specifications without notification

MC-monitoring Quality certifications



LOCAL REPRESENTATIVE

MC-monitoring SA
Route André Pillier 19 | PO BOX 97
CH-1762 Givisiez | Switzerland
Phone : +41 58 411 54 00
Fax : +41 58 411 54 10
Mail : info@mc-monitoring.com
sales@mc-monitoring.com
Web : mc-monitoring.com