



# Smart Linearized proximity probe

## PPT-280

### FEATURES

- Designed for long life cycles and harsh environments
- One probe for sensitivity 8mV/μm or 4mV/μm
- Frequency range : 0 to 1.2kHz
- Built-in linearization electronic
- Active temperature compensation
- Built-in digital interface for calibration and sensor configuration
- Optional : configuration kit for setting and calibration

### Monitoring solution



Axial thrust position



Shaft & bearing vibration

### Typical applications



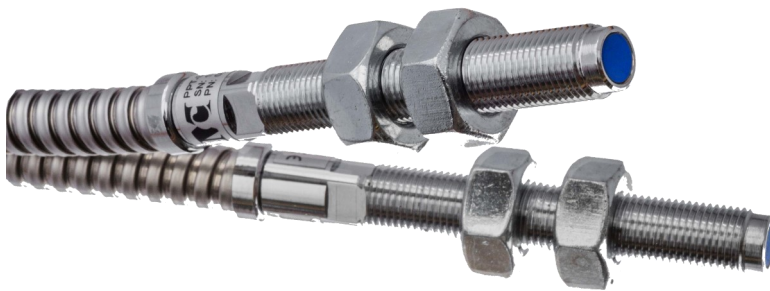
Hydrogenerators



Pumps, fan, cooling towers...



Gas & steam turbines



### DESCRIPTION

The PPT-280 Eddy current proximity probes are used for non-contact measurement of shaft vibration and position. The sensor is designed with integrated linearization electronic in order to ensure excellent linearity and active temperature compensation. The built-in oscillator tuned above 750kHz ensures measurement with minimal magnetic run out effect.

The PPT-280 can be used either for measurement between 0.2mm and 2.2mm or 0.2mm and 4.2mm. The voltage output is directly proportional to the measured distance between the metal target and the sensor tip. The sensor can be powered either with -24V or +24V depending on configuration or ordering code.

The embedded sensor head is resistant to shock. The sealed body is resistant to oil and water on both sides of the sensor.

Optional configuration kit (software, cable and USB adapter) allows to setup measuring range, power supply type (+24V or -24V) and to perform on-site recalibration.

## GLOBAL SPECIFICATIONS

### OPERATION

Power supply	-20V <sub>DC</sub> to -30V <sub>DC</sub> or +20V <sub>DC</sub> to +30V <sub>DC</sub>
Current consumption	< 20mA
Linear range	0.2 to 2.2mm or 0.2 to 4.2mm
Sensitivity	8mV/μm or 4mV/μm
Output range (corresponding to 0.2 to 2.2mm or 0.2 to 4.2mm depending on linear range configuration)	-2V to -18V (-24V <sub>DC</sub> configuration) or +2V to +18V (+24V <sub>DC</sub> configuration)
Temperature sensitivity (-25°C to +70°C, mid-range)	< 0.3% / °C, 0.2 to 2.2mm
Linearity (deviation from straight line)	0.2mm to 2.2mm : within ±0.02mm 2.2mm to 3.2mm : within ±0.07mm 3.2mm to 4.2mm : within ±0.2mm
Repeatability	< 0.2%
Frequency response (-3dB)	0 to 1.2kHz
Minimum target size	ø20mm

### COMMUNICATION

Proprietary interface	Sensor parameters setting and calibration with PPT Series Manager
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### ENVIRONMENTAL

Temperature range (sensor & cable)	
Operation	-25°C to 85°C
Storage	-40°C to 90°C
Ingress Protection	IP67

### PHYSICAL

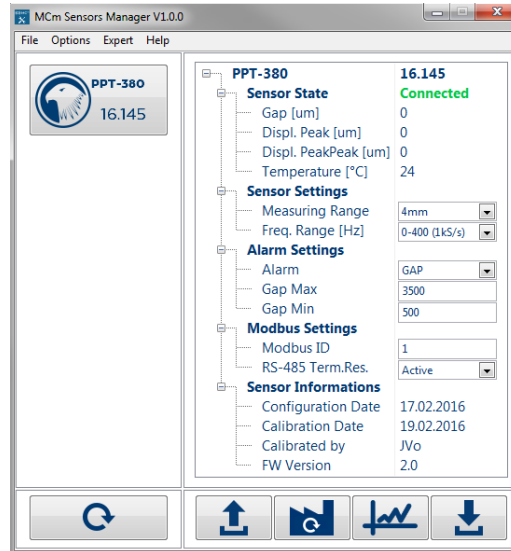
Standard probe design	M10x 1 with integral cable
Maximum tightening torque	5Nm
Sensor body length	79mm
Integral cable length	10m, 5 poles and shield with optional metal protection tube
Optional push-pull connector	1m fixed cable with 9m detachable cable
Sensor body material	Corrosion resistant

### PINOUT

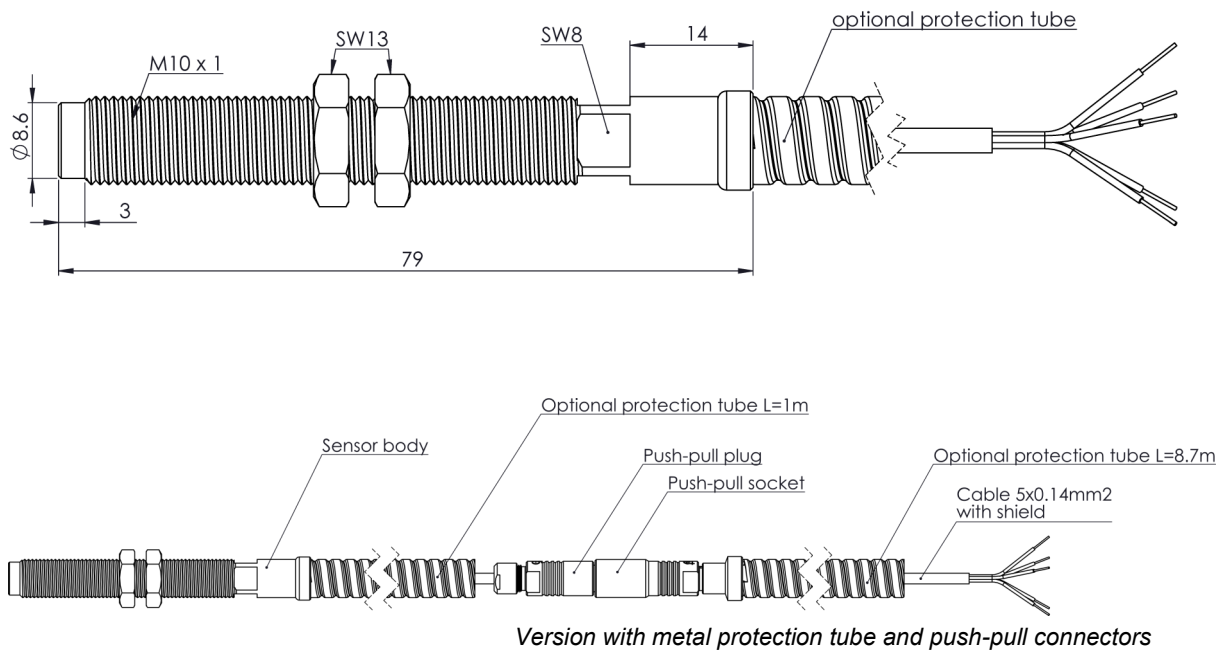
WIRE COLOUR	PPT-280	PPT-280
	+24V	-24V
BROWN	+24V	0V
GREEN	RS-485+	RS-485+
YELLOW	RS-485-	RS-485-
GREY	Analogue output signal	
WHITE	0V	-24V
CLEAR	Shield	

## ACCESSORIES INFORMATION

Part type	PPT-990
Ordering Number	05.990.000
Description	Calibration and configuration kit including USB adapter, cable and PPT-x80 Manager software



## MECHANICAL DRAWINGS



## ORDERING INFORMATION

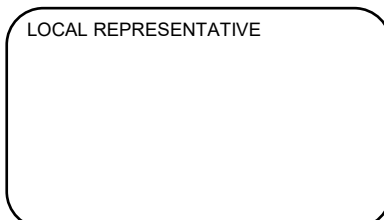
Part type	PPT-280	
Ordering Number	05.280.000 + Code <b>AA-BB-CC-DD-LL</b>	
<b>AA</b> - Protection tube	<b>N</b>	<b>None</b>
	<b>Y</b>	<b>Armor</b>
<b>BB</b> - Measuring range	<b>2</b>	<b>0.2 to 2.2mm</b>
	<b>4</b>	<b>0.2 to 4.2mm</b>
<b>CC</b> - Power supply	<b>1</b>	<b>+24V<sub>DC</sub></b>
	<b>2</b>	<b>-24V<sub>DC</sub></b>
<b>DD</b> - Target material	<b>1</b>	<b>VCL140 (1.7223</b>
	<b>2</b>	<b>C35E (1.1181)</b>
	<b>3</b>	<b>CA6NM (1.4317)</b>
	<b>99</b>	<b>on request</b>
<b>LL</b> - Cable option	<b>N</b>	<b>Without push-pull connector</b>
	<b>Y*</b>	<b>With push-pull connector</b>
<i>*LLY cable option only available with armored protection tube (AAY)</i>		

Default factory code (bold) : 05.280.000 **AAN-BB2-CC2-DD1-LLN**

MC-monitoring Quality certifications



LOCAL REPRESENTATIVE



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