



Smart Linearized proximity probe

PPT-380 - Eagle

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 digital Modbus interface providing pk-pk, mean, min and max, temperature
- Active temperature compensation
- Two operating modes: digital or analogue
- Optional configuration kit for setting and calibration



DESCRIPTION

The PPT-380 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-380 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 metallic target and the sensor tip.

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

Built-in Modbus interface provides time based calculated values such as pk-pk, pk, mean (gap) and sensor temperature. The sensor can be operated in two modes: digital or analogue. The digital operating mode provides the calculated values via modbus interface and the analogue operating mode provides the analogue output for commissioning or raw signal analysis.

Optional configuration kit (software, cable and USB adapter) allows to setup the measuring range, the target material, the Modbus parameters, the alarm threshold, and the sampling rate, to perform on-site recalibration, to select the operating mode and to visualise trending values.

Monitoring solution



Axial thrust position



Shaft & bearing vibration

Typical applications



Hydrogenerators



Pumps, fan, cooling towers...



Windturbines

GLOBAL SPECIFICATIONS

OPERATION

Power supply	+20V _{DC} to +30V _{DC}
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 _{DC} 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
Sampling rate	8.2kS/s or 820S/s
Processing buffer size	8192 values (1sec. or 10sec. observing time depending SR)

COMMUNICATION

Proprietary interface	Sensor parameters setting and calibration with PPT Series Manager
Modbus RTU protocol	Available values registers : pk-pk, pk, mean (gap), temperature

ENVIRONMENTAL

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

PHYSICAL

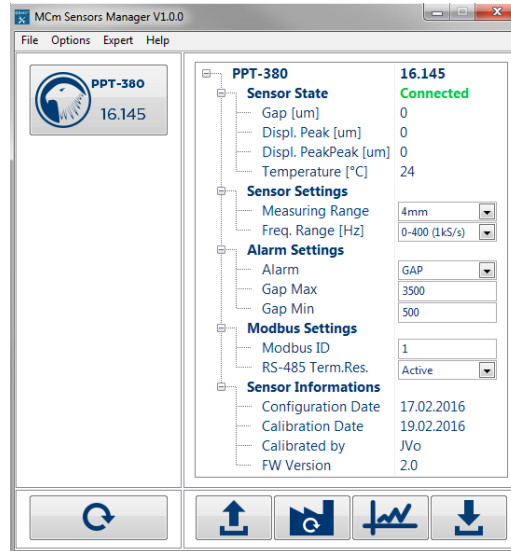
Standard probe design	M10x 1 with integral cable
Maximum tightening torque	5Nm
Sensor body length	79mm
Cable length	10m, 5 poles and shield with optional metal protection tube
Optional push-pull connector	1m fixed cable with 9m detachable cable
Sensor body material	Corrosion resistant

PINOUT

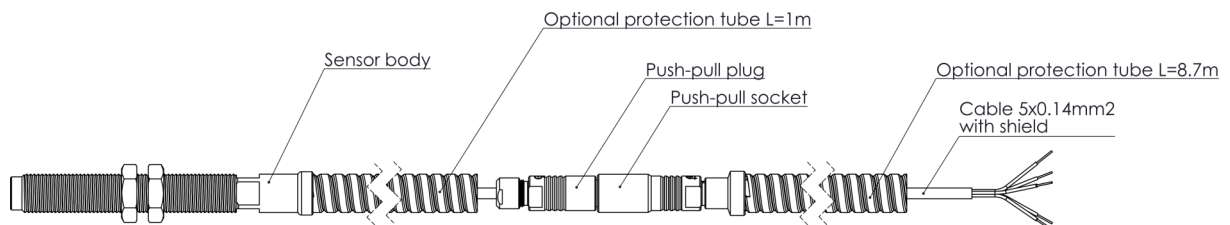
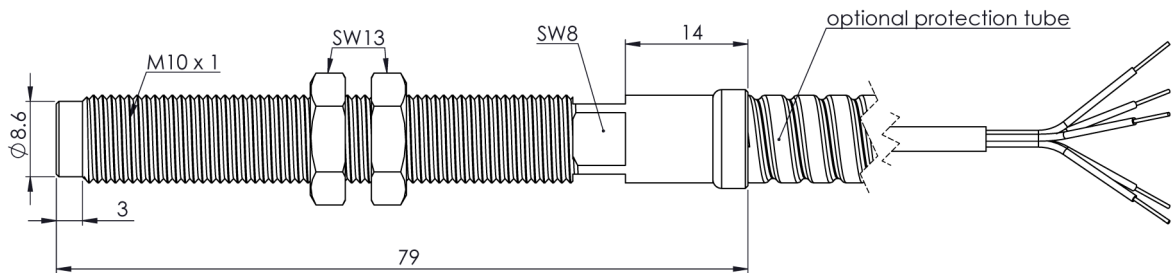
WIRE COLOUR	PPT-380
BROWN	+24V
GREEN	Modbus RTU+
YELLOW	Modbus RTU-
GREY	Analogue output signal
WHITE	0V
CLEAR	Shield

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 DRAWING



Version with metal protection tube and push-pull connectors

ORDERING INFORMATION

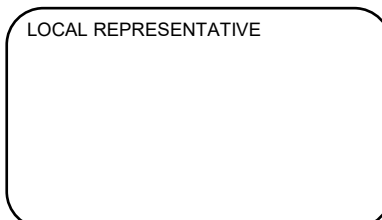
Part type	PPT-380	
Ordering Number	05.380.000 + Code AA-BB-DD-EE-FF-GG-HH-II-KK	
AA - Protection tube	N	None
	Y	Armor
BB - Measuring range	2	0.2 to 2.2mm
	4	0.2 to 4.2mm
DD - Target material	1	VCL140 (1.7223)
	2	C35E (1.1181)
	3	CA6NM (1.4317)
	99	on request
EE - RS-485 terminal resistor	N	None
	Y	Active
FF - Modbus address	1..247	
GG - Alarm threshold Low	200..4200 (µm)	
HH - Alarm threshold High	200..4200 (µm)	
II - Alarm parameter on register	0	None (Alarm threshold Low or High non applicable)
	1	Gap
	2	Displacement Peak
	3	Displacement Peak to Peak
KK - Sampling rate	1	8.2kS/s
	2	820S/s

Default factory code (bold) : 05.380.000 **AAN-BB2-DD1-EEN-FF1-II0-KK1**

MC-monitoring Quality certifications



LOCAL REPRESENTATIVE



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