

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..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 sensor can be powered either with -24V or +24V depending on the 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.




Built-in Modbus interface provides time based calculated values such as pk-pk, mean, minimum, maximum and 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 power supply type (+24V or -24V) and the target material, to perform on-site recalibration, to select the operating mode and to visualise trending values.

Monitoring solution

-  Shaft & bearing vibration
-  Axial thrust position

Typical applications

-  Hydrogenerators
-  Pumps, fan, cooling towers...
-  Windturbines

GLOBAL SPECIFICATIONS

OPERATION

Power supply	-20V _{DC} to -30V _{DC} or +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) or +2V to +18V (+24V _{DC} configuration)
Temperature sensitivity (-25°C to +80°C, probe with 5m cable)	< 300ppm/°C at mid-range (to be confirmed)
Linearity (deviation from straight line)	Within ±0.06mm (to be confirmed)
Repeatability	< 0.2%
Frequency response (±3dB)	0 to 2kHz
Minimum target size	ø20mm
Sampling rate	10kS/s
Processing buffer size	8192 values

COMMUNICATION

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

ENVIRONMENTAL

Temperature range (sensor & cable)	
Operation	-25°C to 80°C
Storage	-40°C to 90°C
Ingress Protection	IP67

PHYSICAL

Standard probe design	M10x 1 with integral cable
Maximum tightening torque	5Nm
Case length	70mm
Cable length	10m, 5 poles and shield
Sensor body material	Corrosion resistant

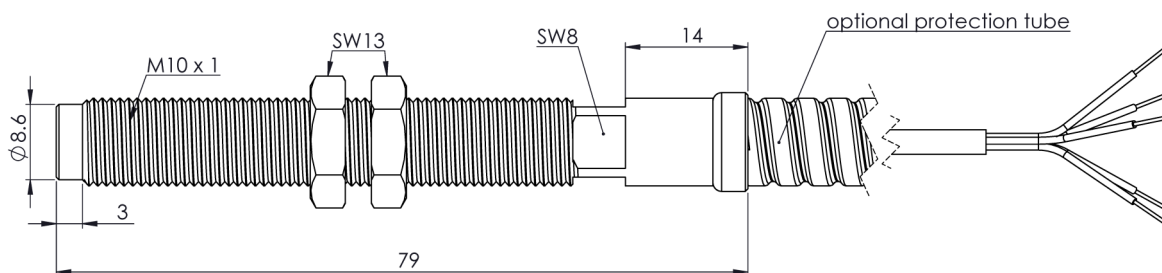
ORDERING INFORMATION

Part type	PPT-380			
Ordering code	05.38w.xyz			
	w - measuring range	x - power supply	y - target material	z - armor
	1 0.2 to 2.2mm	1 +24V _{DC}	1 VCL140 (1.7223)	1 Armored
	2 0.2 to 4.2mm	2 -24V _{DC}	2 C35E (1.1181)	2 Without armor
			3 CA6NM (1.4317)	
			4 Other material on request	

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



MECHANICAL DRAWING

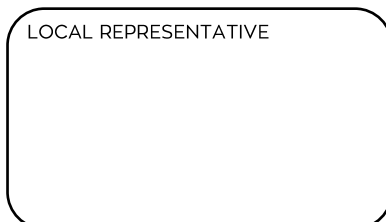


Due to the continual development of our products we reserve the right to modify the specifications without notification

MC-monitoring Quality certifications



LOCAL REPRESENTATIVE



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