



#### Features

- High Resolution output
- Outstanding linearity
- Vibration resistant
- Compact size
- Light weight
- High temperature operation
- Reliability package
- Anti-corrosion design

## Application

- Rotating machinery
- Turbine machine
- Blower and compressor
- Power generation
- Gearbox monitoring
- Shaft displacement
- Lubrication film thickness
- Expansion differential test
- Metal part inspection



Signal conditioner

# **Precision Proximity Transducer**

#### Description

The D8111 + Signal Conditioner system provides an output voltage that is proportional to the distance between the probe tip and the observed conductive surface. The sensor can measure both Static (position) and Dynamic (vibration) distance values. The device primary applications are vibration and position measurements on fluid-film bearing machines, as well as phase reference and speed measurement. This eddy current proximity transducer system delivers the most advanced performance including outstanding linear range, accuracy, and temperature stability. All D8111 transducer systems provide this level of performance and support complete interchangeability of probes, extension cables, and proximitor, eliminating the need to match or bench calibrate individual components. The transducer performs good long-term high sensitivity, anti-interference, reliability, non-contact measurement, fast response and anti-corrosive to oil/water, thus be often applied to monitor the shaft displacement, shaft vibration and rotating speed of industrial rotating machinery in real time for a long term, so as to analyze the working condition and fault causes of the equipment, effectively protect the equipment and carry out predictive maintenance.





Connect view



## Specification

Typical at 18 °C ~27 °C (+64 °F to +80 °F), -24 Vdc power supply, a 10kΩ load, a 40CrMo steel target.

Performance Spec.	Standard	Units
Part Number	D8111	
Dynamic Range	4	mm
Sensitivity ±5%	4	V/mm
Freq. Resp. 10%	0-1000	Hz
Freq. Resp3dB	0-10000	Hz
Phase Resp – 10°	0-1000	Hz
Phase Resp – 100°	0-10000	Hz
Temp. Resp., -55 to +150°C	<b>≤0.05%/°</b> C	
Non-Linearity	1	%FSO
Weight	68 Exclude cable	Grams

Application Spec.	Standard	Units
Supply Voltage	-24	Vdc
Supply Current	1Max	mA
Output Impedance	50	Ω
Case Insulation (@100Vdc)	>100	MΩ
Operating Temperature	-55 to +150°C	°C
Pressure Prob	12 Max	Мра
Torque	20	N•m
Prob Case Material	316 Stainless Steel	
Cable material	PFA	
Probe resistance DC	<5.5	Ω
Conductor resistance DC	0.60±0.02	Ω <b>/m</b>
Cable capacitance	50±3	pF/m
Connector	Miniature male coaxial connector	
Proximity Transducer	IP67	

#### Accessories

Calibration certificate included.

Part Number	Description	Availability
PM0645	M14 Mounting nut	2pcs Included
WPT-D8-01-8V	Proximity signal conditioner	Optional
IN-91	Portable vibration analyzer	Optional
IN-SDG	8 channels data acquisition system	Optional



## **Measurement configuration**



## **Ordering information**

D8111	Α	-	5	-	K1	-	Α
Model	Integrated proximity transducer	-	Cable length	-	Cable armour	-	Signal conditioner
D8111	A= Integrated proximity	-	1=1 meter	-	K1= Plastic pipe armour	-	A= Accessories with
	transducer		5=5 meters		K2= Metal pile armour		proximity transducer
	Blank= w/o		Blank=Connector		Blank= w/o		Blank= w/o
			version				





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