

# 8mm Eddy Current Sensor

Non-contact sensor designed for critical turbomachinery applications such as steam, gas and hydro turbines, compressors, pumps and fans to measure radial and axial shaft dynamic displacement; position, eccentricity and speed/key.



## Dynamic Performance

Sensitivity/Linearity	8 V/mm (203.2 mV/mil) $\leq \pm 1\%$	
Air Gap (Center)	Approx. 1.5 mm (0.06") Nominal	
Long Term Drift	$< 0.3\%$	
Range:	Static	$\pm 1$ mm (0.040")
	Dynamic	0 to 500 $\mu\text{m}$ (0 to 0.020")

## Target

Target/Surface Material	Ferromagnetic Steel (42 Cr Mo 4 Standard)
Maximum Surface Speed	2500 m/s (98425 ips)
Shaft Diameter	$\geq 25$ mm

## Environmental

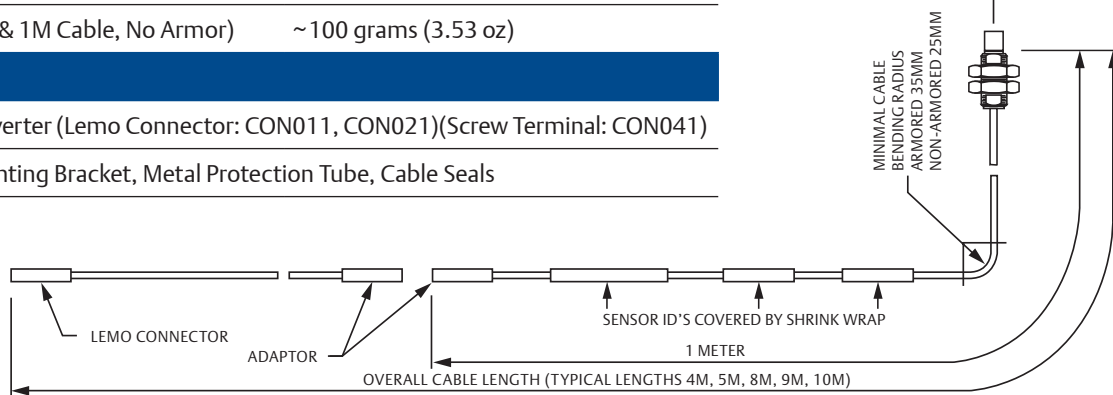
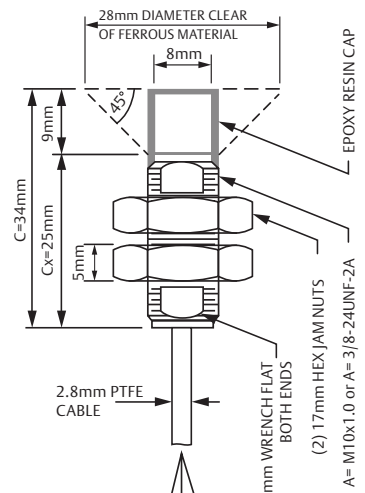
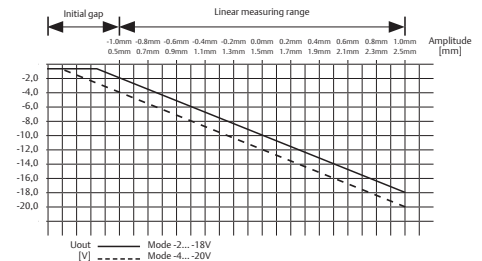
Operating Temperature Range	-35 to 180°C (-31 to 356°F)
Temperature Excursions <4 Hours	200°C (392°F)
Maximum Cable Temperature	200°C (392°F)
Temperature Error	$< 2\%/100^\circ\text{K}$ (API Compliant)
Pressure Resistance to Sensor Head	10000 hpa (145 psi)
Shock and Vibration	5g @ 60 Hz @ 25°C (77°F)

## Physical

Material	Sleeve – Stainless Steel, Cable – PTFE
Weight (Sensor & 1M Cable, No Armor)	$\sim 100$ grams (3.53 oz)

## Accessories

- Required – Converter (Lemo Connector: CON011, CON021)(Screw Terminal: CON041)
- Optional – Mounting Bracket, Metal Protection Tube, Cable Seals



**Agency Approvals**

Dependent on Converter, mounting and safety Barriers; various CSA and ATEX agency approvals are standard, see Converter spec sheet for details. Standards: DIN 45670, ISO 10817-1, API 670

Order Matrix		PR6423 /	X	X	X	-	X	X	X
Sleeve Thread	M10x1 3/8-24UNF-2A	0 1							
Armored Cable	WITH WITHOUT		1 0						
Total Sensor Length C=Cx +9mm	0(Cx=25mm), 1(35mm), 2(45mm), 3(55mm), 4(65mm), 5(75mm), 6(85mm), 7(95mm), 8(105mm), 9(115mm)			X					
Cable Termination	WITH WITHOUT					0 1			
Total Cable Length	0(4m), 1(5m), 2(6m), 3(8m), F(9m), 4(10m)						X		
Cable End	LEMO OPEN A9360 CONNECTION								0 1 2

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