

# 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

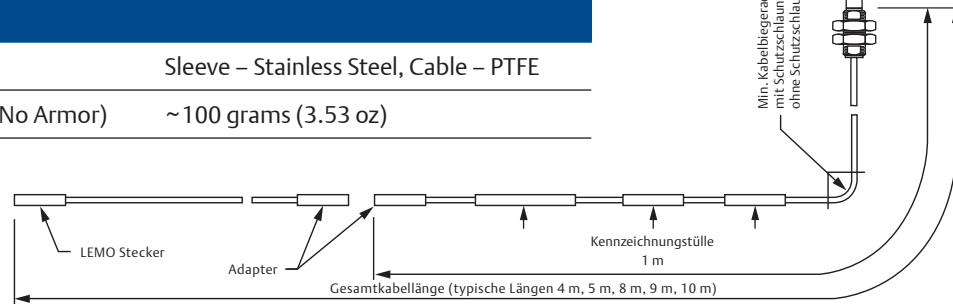
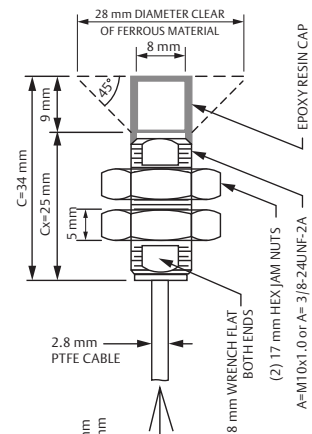
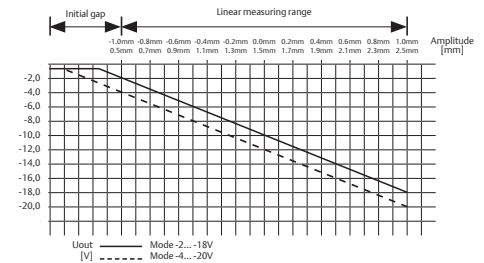
Target/Surface Material	Ferromagnetic Steel (42 Cr Mo 4 Standard)
Maximum Surface Speed	2500 m/s (98425 ips)
Shaft Diameter	$\geq 25$ mm

## Environmental

Operating Temperature Range	Sensor and Cable: -35 to 200°C (-31 to 392°F)
	Connector: -35 to 150°C (-31 to 302°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)	~100 grams (3.53 oz)



### Compliance and Certifications

CE	2014/30/EU 2014/34/EU 2011/65/EU EN61326-1 DIN EN 50581
ATEX	EN 60079-0 EN 60079-11
IEC-Ex	IEC 60079-0 IEC 60079-11 IEC 60079-26
CSA	CAN/CSA-C22.2 NO. 0-M91 CAN/CSA-C22.2 NO. 157-92 CAN/CSA-C22.2 NO. 213-M1987 CAN/CSA-E60079-15-02 (R2006) CAN/CSA-C22.2 NO. 25-1966 CAN/CSA-C22.2 NO. 61010-1-04 ANSI/UL Standard 913-2004 ANSI/UL Standard 1604-1995 UL 60079-15 2002 UL 61010-1

### Hazardous Area Approvals

#### Intrinsic Safety (iA)

ATEX / IEC-Ex / CSA	Area classification depends on converter, see converter documentation for details, sensor temperature classification: T6: Ta ≤ 64°C T4: Ta ≤ 114°C T3: Ta ≤ 160°C
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#### Non-sparking (nA)

CSA	Area classification depends on converter, see converter documentation for details, sensor temperature classification: T6: Ta ≤ 64°C T4: Ta ≤ 114°C T3: Ta ≤ 160°C
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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), C(125mm), , I(135mm), K(145mm), E(155mm), M(165mm), J(175mm), L(185mm), H(195mm)			X					
Adaptor Plug	WITH WITHOUT						0 1		
Total Cable Length	0(4m), 1(5m), 2(6m), 3(8m), F(9m), 4(10m)							X	
Cable End	LEMO OPEN								0 1

Product Accessories

Model Number	Product Description
PR 6480	Probe Holder
MPT 064	Metal Protection Tube

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