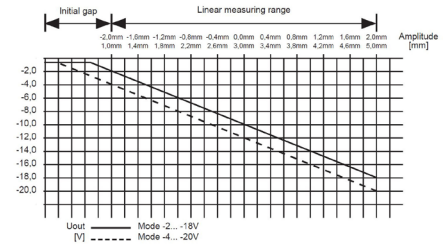


# 16mm Eddy Current Sensor

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	4 V/mm (101.6 mV/mil) $\leq \pm 1.5\%$
Air Gap (Center)	Approx. 2.7 mm (0.11") Nominal
Long Term Drift	< 0.3%
Range:	Static $\pm 2.0$ mm (0.079")
	Dynamic 0 to 1,000 $\mu$ m (0 to 0.039")
Target	
Target/Surface Material	Ferromagnetic Steel (42 Cr Mo4 Standard)
Maximum Surface Speed	2,500 m/s (98,425 ips)
Shaft Diameter	$\geq 80$ mm
Environmental	
Operating Temperature Range	-35 to 150°C (-31 to 302°F)
Temperature Error	<4%/100°K (API 670 Compliant)
Pressure Resistance to Sensor Head	10,000 hPa (145 psi)
Shock and Vibration	5g @ 60Hz @ 25°C (77°F)
Physical	
Material	Sleeve – Stainless Steel, Cable – PTFE
Weight (Sensor & 1M Cable, no Armor)	~200 grams (7.05 oz)



Compliance and Certifications	
CE	2014/30/EU (EN 61326-1) 2014/34/EU 2011/65/EU
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

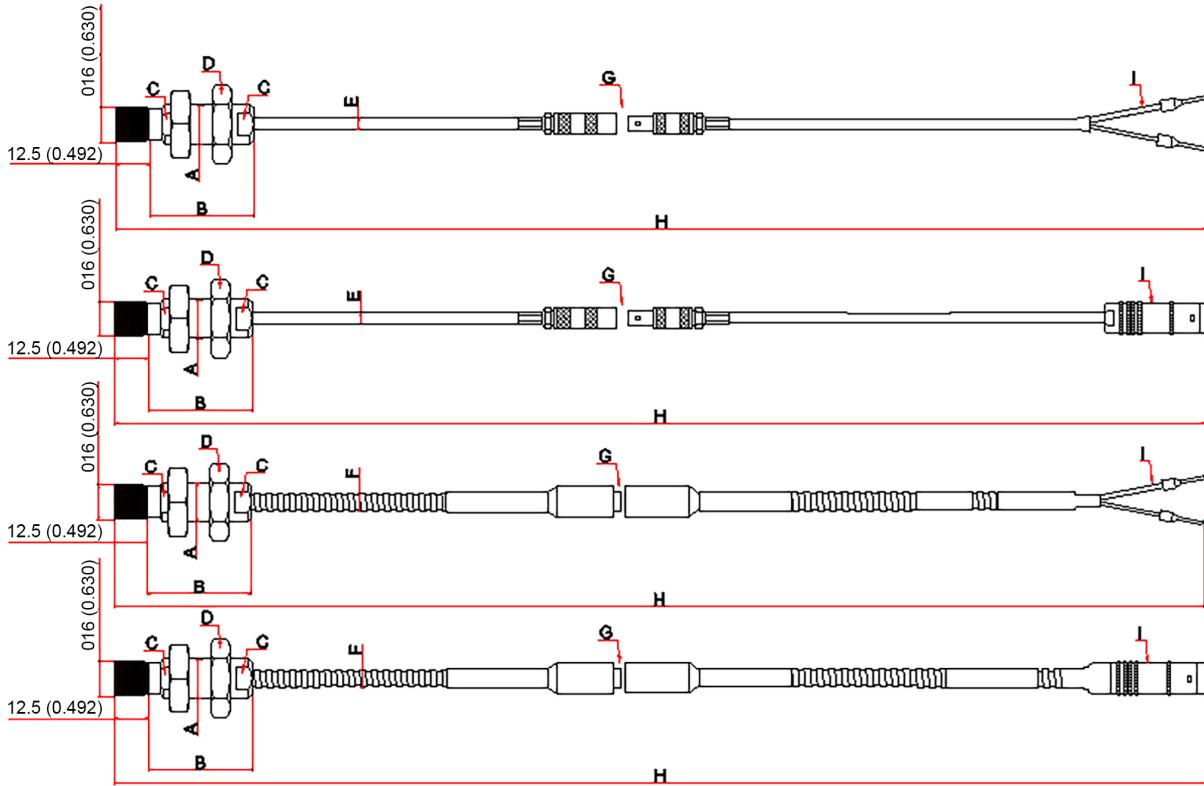
## Hazardous Area Approvals

Compliance and Certifications	
ATEX / IEC-Ex	Area classification depends on converter, see converter documentation for details, sensor temperature classification: T6: $T_a \leq 84^\circ\text{C}$ T4: $T_a \leq 114^\circ\text{C}$ T3: $T_a \leq 160^\circ\text{C}$
CSA	Area classification depends on converter, see converter documentation for details, sensor temperature classification: T6: $T_a \leq 64^\circ\text{C}$ T4: $T_a \leq 114^\circ\text{C}$ T3: $T_a \leq 160^\circ\text{C}$
Non-sparking (nA)	
CSA	Area classification depends on converter, see converter documentation for details, sensor temperature classification: T6: $T_a \leq 64^\circ\text{C}$ T4: $T_a \leq 114^\circ\text{C}$ T3: $T_a \leq 160^\circ\text{C}$

Dimensions

PR6424/xxx-xxx

Note: All dimensions shown in millimetres (inches)



- A. Case thread, M18x1.5 or 3/4-16UNF
- B. Case Length
- C. Wrench flats. SW 16 mm
- D. SW 27 mm
- E. Standard cable diameter 2.8 mm (0.11 in), minimum bending radius 25 mm (0.984 in)
- F. Armored cable diameter 6 mm (0.236 in), minimum bending radius 35 mm (1.378 in)
- G. Optional Adapter Plug after 1m cable from Sensor
- H. Cable Length (Tolerances 0...+10%)
- I. Lemo connector (male), 11.0 mm (0.433 in) diameter or open cable end

## Ordering Information

Order Matrix		PR6424	X	X	X	-	X	X	X
Sleeve Thread	M18x1.5 3/4"-16 UNF	0 1							
Armored Cable	WITH WITHOUT		1 0						
Total Sensor Length C=Cx +12.5mm	0(Cx=40mm), 1(50), 2(60), 3(70), 4(80), 5(90), 6(100), 7(110), 8(120), 9(130), A(140), B(150), C(160), D(170), E(180), F(190), G(200), H(210), J(220), K(230), L(240) M(250), N(260), P(270), Q(280), R(290)			X					
Adaptor Plug	WITH WITHOUT					0 1			
Total Cable Length	0(4m), 1(5m), 2(6m), 3(8m), 4(10m)							X	
Cable End	LEMO OPEN								0 1

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