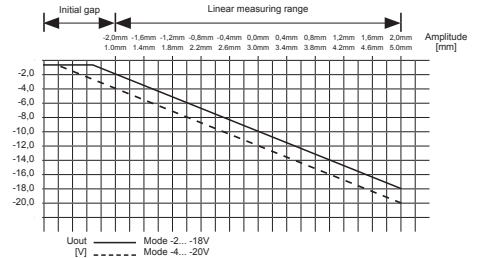


16mm Eddy Current Sensor

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 ± 2.0 mm (0.079")
	Dynamic 0 to 1,000 μ 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	≥ 80 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	<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)



EMERSON

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

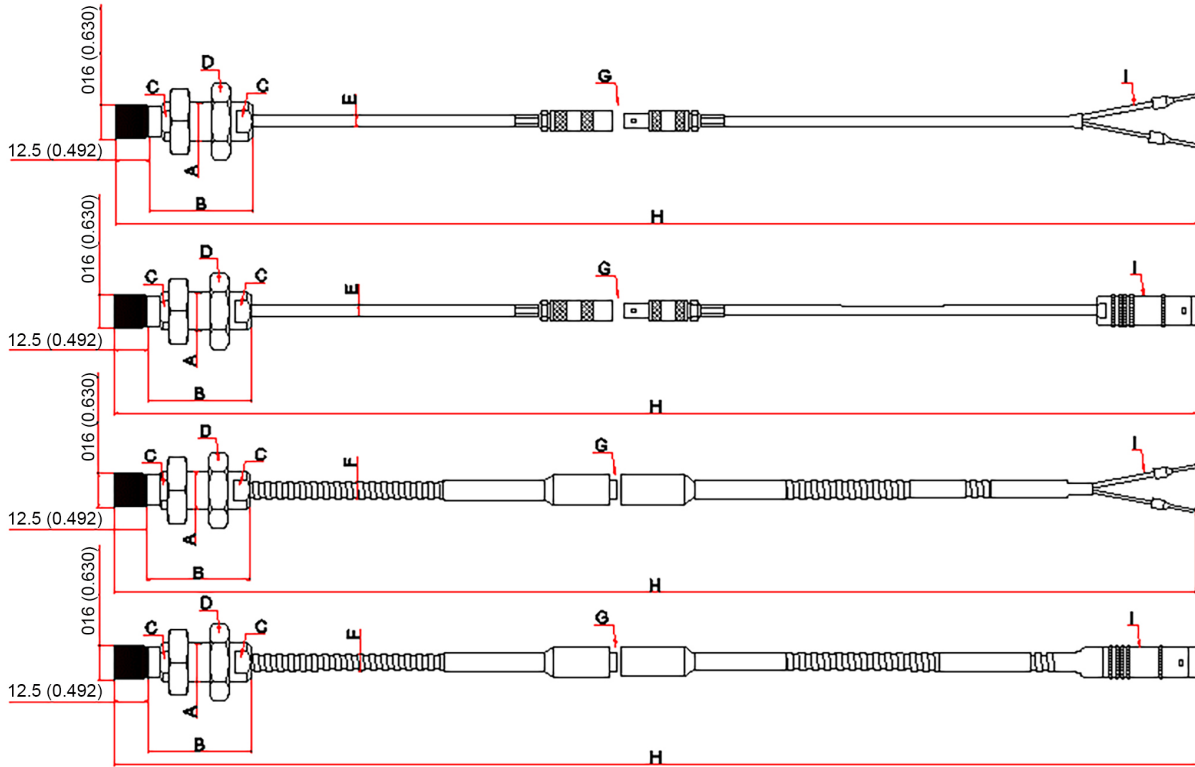
Hazardous Area Approvals

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

©2020, Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. The AMS logo is a mark of one of the Emerson family of companies. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while diligent efforts were made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

Emerson
Reliability Solutions
 835 Innovation Drive
 Knoxville, TN 37932 USA
 ☎ +1 865 675 2400
 🌐 www.emerson.com/ams