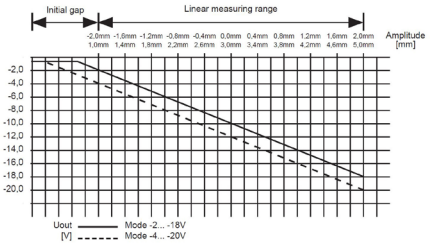
16mm Eddy Current Sensor



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) ≤ ±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 1,000µm (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	≥80mm
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

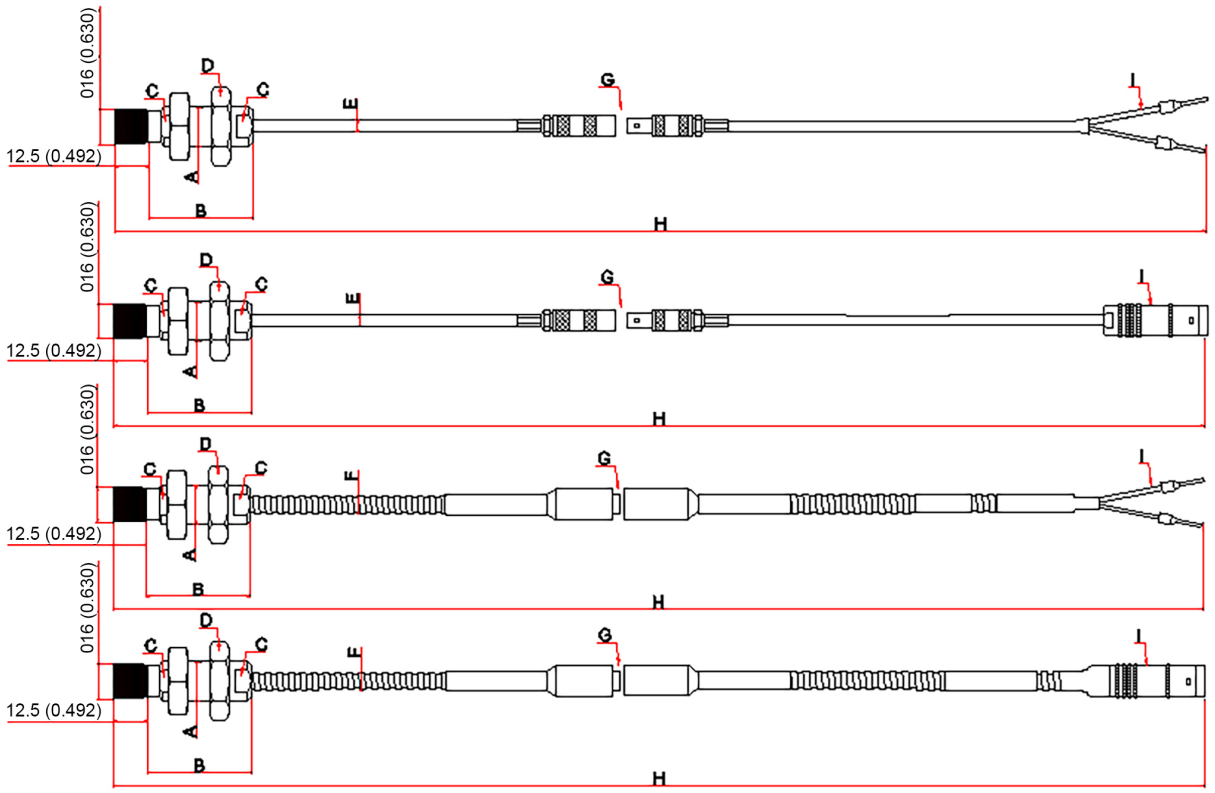
Hazardous Area Approvals

Compliance and Certifications	
ATEX / IEC-Ex	Area classification depends on converter, see converter documentation for details, sensor temperature classification: T6: Ta ≤ 84°C T4: Ta ≤ 114°C T3: Ta ≤ 160°C
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
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

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 fron Sensor
H. Cable Length (Tolerances 0...+10%)
I. Lemo connector (male), 11.0 mm (0433.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), B(150), G(200), M(250), R(290)			X				
Adaptor Plug	WITH WITHOUT					0 1		
Total Cable Length	0(4m), 1(5m), 3(8m), 4(10m)						X	
Cable End	LEMO OPEN							0 1

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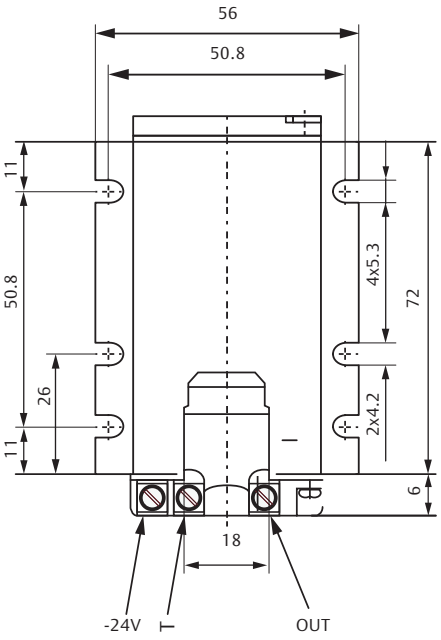
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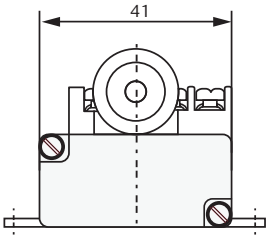
Eddy Current Signal Converter

Sensor Signal Converter designed for critical turbo machinery applications such as steam, gas and hydro turbines, compressors, pumps and fans to measure radial and axial shaft displacement, position, eccentricity and speed/key.



Dynamic Performance	
Frequency Range (-3 dB)	0 to 20000 Hz
Rise Time	<15 µs
NOTE: Designed for PR6422, PR6423, PR6424, PR6425, PR6426, PR 6453 For extended range use: CON021/91x-xxx PR6425 always requires extended range converter	
Environmental	
Operating Temperature Range	-30 to 100°C (-22 to 212°F)
Shock and Vibration	5g @ 60 Hz @ 25°C (77°F)
Protection Class	IP20
Power & Electrical	
Supply Voltage Range	-23V to -32V (Output Range -4V to -20V)
	-21V to -32V (Output Range -2V to -18V)
Physical	
Housing Material	LMgSi 0.5 F22
Weight	~120 grams (4.24 oz)
Mounting	4 Screws M5x20 (Included in Delivery)
Connections: Transduer	Self-Locking Lemo-Plug
Supply/Output	Screw Terminal Type (max.1.5mm², wire)





Compliance and Certifications	
CE	2014/30/EU 2014/34/EU 2011/65/EU EN61326-1 DIN EN 50581
ATEX	EN 60079-0:2009 EN 60079-11:2012
IEC-Ex	IEC 60079-0:2007-10; Edition 5 IEC 60079-11:2011; Edition: 6.0 IEC 60079-26:2006; Edition: 2
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	II 2 G Ex ia IIC T4 Gb, -20°C ≤ Ta ≤ 80°C (Use with current limiting, e.g.: safety barrier)
IEC-Ex	Ex ia IIC T4 Gb, -20°C ≤ Ta ≤ 80°C (Use with current limiting, e.g.: safety barrier)
CSA	Class I Division 1, Groups A, B, C, D, T4 T4: -25°C ≤ Ta ≤ 80°C (Use with current limiting, e.g.: safety barrier)
Non-sparking (nA)	
CSA	Class I Division 2, Groups A, B, C, D Ex nA II T3..T4 AEx nA II T3..T4 T4: -25°C ≤ Ta ≤ 80°C

Ordering Information

Model Number	Sensor Type	Measuring Range	Linearity Error
CON021	PR6422 PR6423 PR6424 PR6426	1.0mm (Standard Range) 2.0mm (Standard Range) 4.0mm (Standard Range) 8.0mm (Standard Range)	≤ 1.5% ≤ 1.0% ≤ 1.5% ≤ 1.5%
CON021/912-015	PR6422	1.5mm (Extended Range)	≤ 2.0%
CON021/913-030	PR6423	3.0mm (Extended Range)	≤ 1.5%
CON021/913-040	PR6423	4.0mm (Extended Range)	≤ 2.0%
CON021/914-060	PR6424	6.0mm (Extended Range)	≤ 1.0%
CON021/914-080	PR6424	8.0mm (Extended Range)	≤ 1.5%
CON021/914-100	PR6424	10.0mm (Extended Range)	≤ 2.0%
CON021/915-040	PR6425	4.0mm (Standard Range)	≤ 1.5%
CON021/915-060	PR6425	6.0mm (Extended Range)	≤ 2.0%
CON021/915-080	PR6425	8.0mm (Extended Range)	≤ 3.0%
CON021/915-100	PR6425	10.0mm (Extended Range)	≤ 4.0%
CON021/916-120	PR6426	12.0mm (Extended Range)	≤ 1.5%
CON021/916-160	PR6426	16.0mm (Extended Range)	≤ 2.0%
CON021/916-200	PR6426	20.0mm (Extended Range)	≤ 2.5%
CON021/916-240	PR6426	24.0mm (Extended Range)	≤ 3.5%

Emerson
Reliability Solutions
835 Innovation Drive
Knoxville, TN 37932 USA
+1 865 675 2400

www.emerson.com/ams

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