MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

EPRO

PR6423/015-000 CON021

EDDY-CURRENT DISPLACEMENT MEASURING ASSEMBLY

Used with the applicable PR6423 / CON021 configuration.

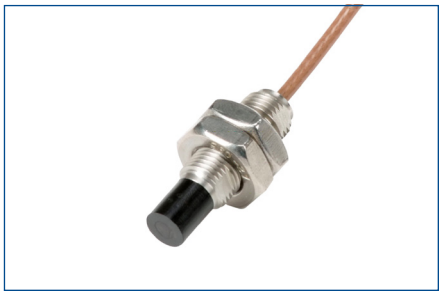
REFERENCE PACKAGE

OFFICIAL DOCUMENT

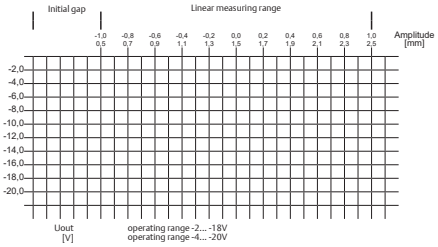
Selected official manufacturer pages follow this cover.

Source: Epro PR6423

8mm Eddy Current Sensor



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



Performance	
Linear Measurement Range	2 mm (80 mils)
Initial Air Gap	0.5 mm (20 mils)
Incremental Scale Factor (ISF)	ISO: 8 V/mm (203.2 mV/mil) ± 5% @ temperature range 0 to 45°C (+32 to +113°F)
Deviation from best fit straight line (DSL)	± 0.025 mm (± 1 mil) @ temperature range 0 to 45°C (+32 to +113°F)
Measuring Target	
Minimum Shaft Diameter	25 mm (0.79”)
Target Material (Ferromagnetic Steel)	42CrMo4 (AISI/SAE 4140) Standard Other (On Request)
Environmental, General	
Protection Class	IP66, IEC 60529
Operating Temperature Range	Sensor incl. 1m Cable: -35 to +200°C (-31 to 392°F) Cable & Connector: -35 to +150°C (-31 to 302°F)
Material	Sensor Tip (PEEK Polyether Ether Ketone), Case (Stainless Steel) Cable (PTFE Polytetrafluoroethylene), Connector (Brass, nickel-plated)
Weight (Sensor with 1m Cable)	Approx. 100 grams (3.53 oz)

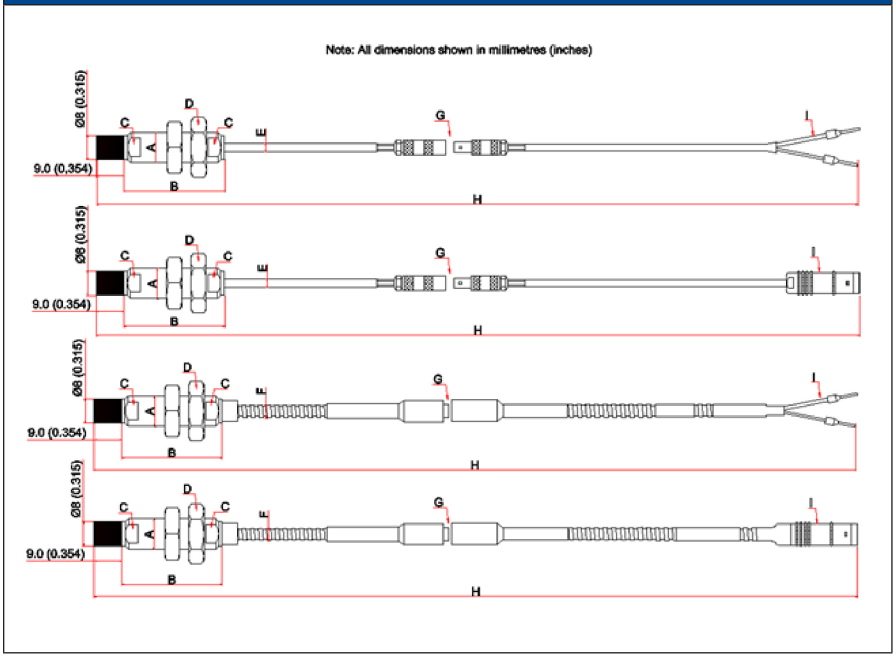
Compliance and Certifications	
CE	2014/30/EU (EN 61326-1) 2014/34/EU 2011/65/EU
ATEX	EN 60079-0 EN 60079-11
IEC-Ex	IEC 60079-0 IEC 60079-11 IEC 60079-26
CSA	CAN/CSA-C22.2 NO. 0-M91 CAN/CSA-C22.2 NO. 157-92 CAN/CSA-C22.2 NO. 213-M1987 CAN/CSA-E60079-15-02 (R2006) CAN/CSA-C22.2 NO. 25-1966 CAN/CSA-C22.2 NO. 61010-1-04 ANSI/UL Standard 913-2004 ANSI/UL Standard 1604-1995 UL 60079-15 2002 UL 61010-1

Hazardous Area Approvals

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
Non-sparking (nA)	
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

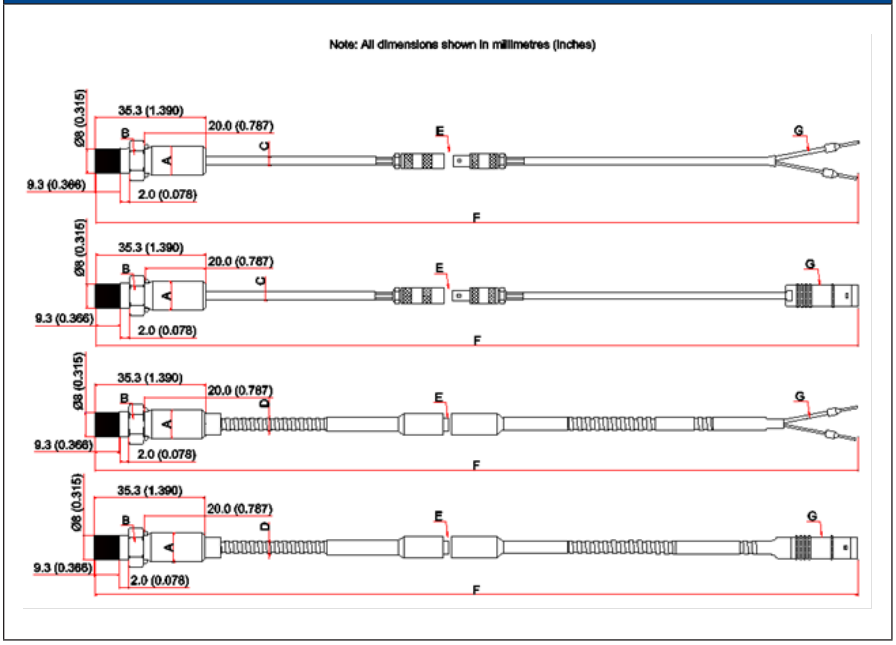
Dimensions

PR6423/xxx-xxx (Standard)



A. Case thread, M10x1 or 3/8-24UNF
B. Case Length
C. Wrench flats, SW 8 mm for M10 threads, WS 5/16 in for 3/8-24 UNF threads
D. SW 17 mm for M10 threads, SW 9-16 in for 3/8-24UNF threads
E. Standard cable diameter 2.8 mm (0.110 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

PR6423/xxR-xxx (Reverse Mount)



A. Case thread, M10x1 or 3/8-24UNF
B. SW 11 mm for M10 threads, SW 7/16 in for 3/8-24UNF threads
C. Standard cable diameter 2.8 mm (0.110 in), minimum bending radius 25 mm (0.984 in)
D. Armored cable diameter 6 mm (0.236 in), minimum bending radius 35 mm (1.378 in)
E. Optional Adapter Plug after 1m cable from Sensor
F. Cable Length (Tolerances 0... +10%)
G. Lemo connector (male), 11.0 mm (0.433 in) diameter or open cable end

Ordering Information

Tip Diameter	Case Threads	Armored Cable	Model No.
8mm	M10x1	No	PR6423/00
		Yes	PR6423/01
			PR6423/03*
	3/8”-24 UNF	No	PR6423/10
		Yes	PR6423/11
			PR6423/13*

**Armored cable option for Reverse Mount, if Adapter Plug is chosen.*

Model No.	Case Thread X	Adapter Plug X	Cable Length X	Cable End X
PR6423/00	**0** 25mm	**0** With	**0** 4.0m	**0** Lemo*
PR6423/01	**1** 35mm	**1** Without	**1** 5.0m	**1** Open
PR6423/10	**2** 45mm		**2** 6.0m	
PR6423/11	**3** 55mm		**3** 8.0m	
	4 65mm		**F** 9.0m	
	5 75mm		**4** 10.0m	
	6 85mm			
	7 95mm			
	8 105mm			
	9 115mm			
	C 125mm			
	I 135mm			
	K 145mm			
	E 155mm			
	M 165mm			
	J 175mm			
	L 185mm			
	H 195mm			
	R Reverse Mount			

**Not available, if Reverse Mount without Adapter Plug is chosen.*

Example: PR6423/000-000

ECS 8mm, M10X1, NO ARMOR, 25MM SLEEVE, 1+3M CABLE, LEMO