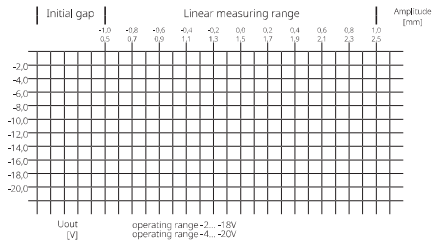


8mm Eddy Current Sensor

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 +180°C (-31 to 356°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)



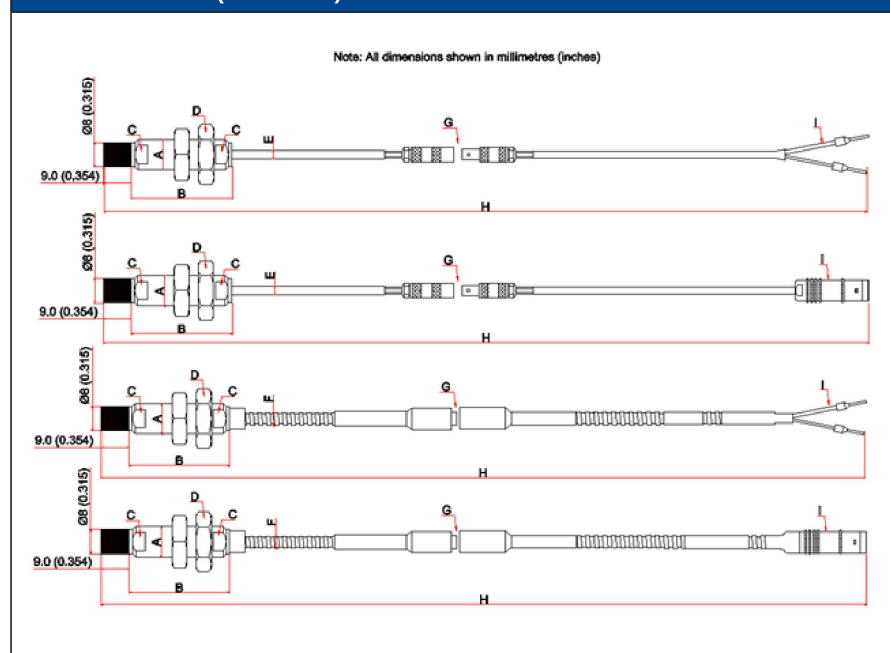
Compliance and Certifications	
CE	2014/30/EU (EN 61326-1) 2014/34/EU 2011/65/EU
ATEX	EN 60079-0 EN 60079-11
IEC-Ex	IEC 60079-0 IEC 60079-11 IEC 60079-26
CSA	CAN/CSA-C22.2 NO. 0-M91 CAN/CSA-C22.2 NO. 157-92 CAN/CSA-C22.2 NO. 213-M1987 CAN/CSA-E60079-15-02 (R2006) CAN/CSA-C22.2 NO. 25-1966 CAN/CSA-C22.2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

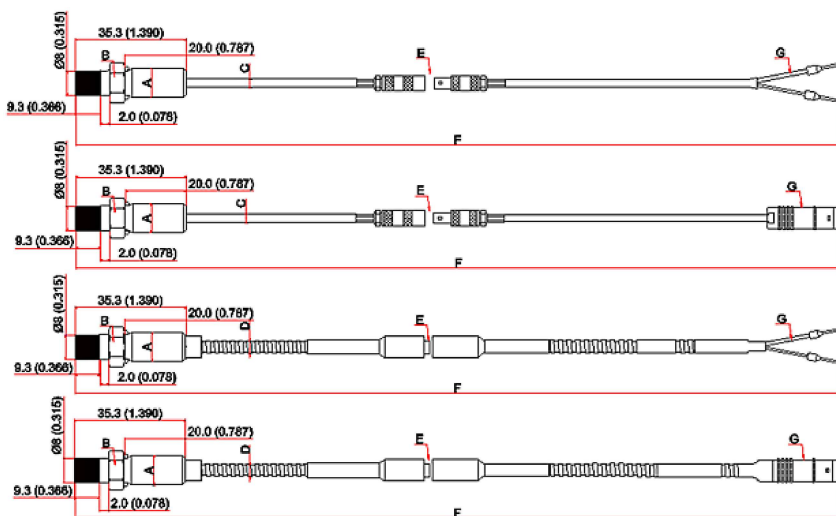
PR6423/xxx-xxx (Standard)



- A. Case thread, M10x1 or 3/8-24UNF
- B. SW 11 mm for M10 threads, SW 7/9-16 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

PR6423/xxR-xxx (Reverse Mount)

Note: All dimensions shown in millimetres (inches)



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		3 8.0m	
PR6423/11	3 55mm		F 9.0m	
	4 65mm		4 10.0m	
	5 75mm			
	6 85mm			
	7 95mm			
	8 105mm			
	9 115mm			
	E 155mm			
	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

Special Version PR6423/xxx-xxx-RAD

Technical Data differing from Standard	
Material	Sensor Tip (Epoxy Resin) Case (Stainless Steel with EPDM O-Ring Sealing) Cable (Polyolefine)
Operating Temperature Range	-35 to +80°C (-31 to 176°F)
Radiation Resistance	Sensor & 1m Cable: up to 80Mrad Extension Cable & Converter: up to 0.1Mrad
Calculated Lifetime @ radiation of 0.5Sv/h:	With neutron radiation: 18.26 years With beta or gamma radiation: 183 years
Certifications	No hazardous area certification available!

Product Accessories

Model Number	Product Description
EZ 1600	Probe Holder
MPT 064	Metal Protection Tube

©2024, 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.

Contact Us

🌐 www.emerson.com/contactus

AMS

