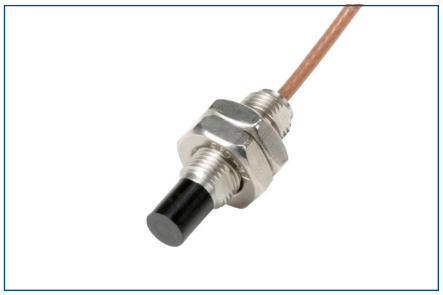
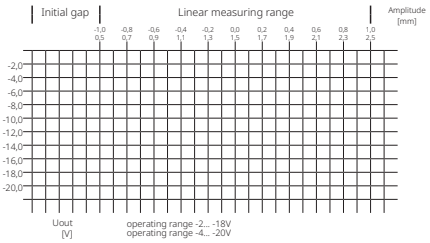
# 8mm Eddy Current Sensor



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%<br>@ temperature range 0 to 45°C<br>(+32 to +113°F) |
| Deviation from best fit straight line (DSL) | ± 0.025 mm (± 1 mil)<br>@ temperature range 0 to 45°C<br>(+32 to +113°F) |
| **Measuring Target** | |
| Minimum Shaft Diameter | 25 mm (0.79”) |
| Target Material (Ferromagnetic Steel) | 42CrMo4 (AISI/SAE 4140) Standard<br>Other (On Request) |
| **Environmental, General** | |
| Protection Class | IP66, IEC 60529 |
| Operating Temperature Range | Sensor incl. 1m Cable:<br>-35 to +180°C (-31 to 356°F)<br>Cable & Connector:<br>-35 to +150°C (-31 to 302°F) |
| Material | Sensor Tip (PEEK Polyether Ether Ketone), Case (Stainless Steel)<br>Cable (PTFE Polytetrafluoroethylene),<br>Connector (Brass, nickel-plated) |
| Weight (Sensor with 1m Cable) | Approx. 100 grams (3.53 oz) |

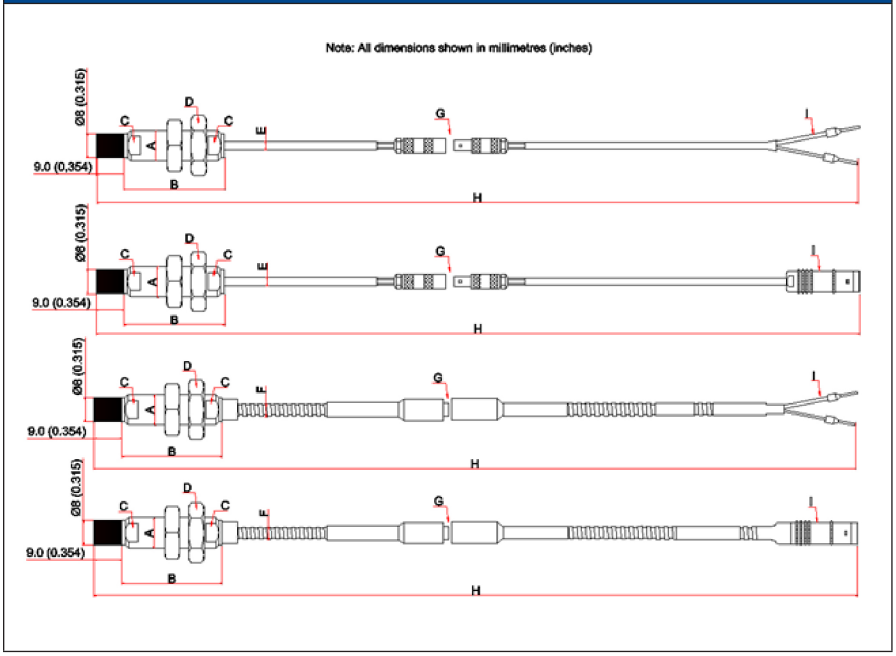
| Compliance and Certifications | |
|---|---|
| CE | 2014/30/EU (EN 61326-1)<br>2014/34/EU<br>2011/65/EU |
| ATEX | EN 60079-0<br>EN 60079-11 |
| IEC-Ex | IEC 60079-0<br>IEC 60079-11<br>IEC 60079-26 |
| CSA | CAN/CSA-C22.2 NO. 0-M91<br>CAN/CSA-C22.2 NO. 157-92<br>CAN/CSA-C22.2 NO. 213-M1987<br>CAN/CSA-E60079-15-02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

## Hazardous Area Approvals

| Intrinsic Safety (ia) | |
|---|---|
| ATEX / IEC-Ex / CSA | Area classification depends on converter, see converter documentation for details.<br>Sensor temperature classification:<br>T6: Ta ≤ 64°C<br>T4: Ta ≤ 114°C<br>T3: Ta ≤ 160°C |
| **Non-sparking (nA)** | |
| ATEX / IEC-Ex / CSA | Area classification depends on converter, see converter documentation for details.<br>Sensor temperature classification:<br>T6: Ta ≤ 64°C<br>T4: Ta ≤ 114°C<br>T3: Ta ≤ 160°C |

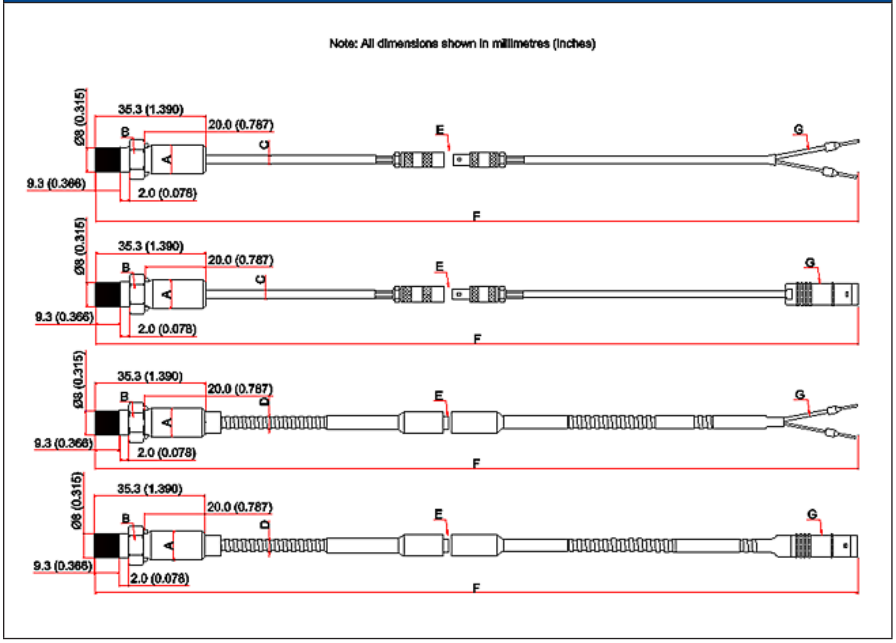
## Dimensions

**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)




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<br>PR6423/01<br>PR6423/10<br>PR6423/11 | **0** 25mm<br>**1** 35mm<br>**2** 45mm<br>**3** 55mm<br>**4** 65mm<br>**5** 75mm<br>**6** 85mm<br>**7** 95mm<br>**8** 105mm<br>**9** 115mm<br>**E** 155mm<br>**H** 195mm<br>**R** Reverse Mount | **0** With<br>**1** Without | **0** 4.0m<br>**1** 5.0m<br>**3** 8.0m<br>**F** 9.0m<br>**4** 10.0m | **0** Lemo*<br>**1** Open |

**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