APTER■POWER

PRODUCT TECHNICAL REFERENCE

INDUSTRIAL AUTOMATION PRODUCT

PR6423-10R-010

PR6423 reverse-mount 8 mm eddy-current displacement sensor

Non-contact eddy-current displacement measurement of a conductive shaft or target

IDENTITY	VERIFIED VALUE
Manufacturer	Emerson
System family	Emerson PR6423 8 mm eddy-current measurement system
Part number	PR6423-10R-010
Country	USA
HS code	8537101190

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2 Technical Specifications

Technical values below are limited to the named Emerson product record.

PARAMETER	TECHNICAL VALUE
Sensor family	PR6423
Sleeve thread	3/8-24 UNF-2A
Armor	No
Mounting style	Reverse mount
Adapter plug	Included
Total cable length	5 m
Cable end	LEMO
Static nominal range	+/-1.0 mm
Recommended dynamic range	50 to 500 um p-p
Sensitivity	8 V/mm
Nominal distance center	Approximately 1.5 mm
Basic air gap	0.4 to 0.7 mm
Operating temperature	-35 to +180 degC; +200 degC short term
Pressure at sensor head	10,000 hPa
Vibration endurance	5 g at 60 Hz

3 System Role and Architecture

Non-contact eddy-current displacement measurement of a conductive shaft or target

FUNCTION 1

Uses a reverse-mount PR6423 construction

FUNCTION 2

Provides a 3/8-24 UNF-2A sleeve thread

FUNCTION 3

Includes a five-metre unarmored cable

FUNCTION 4

Maintains the documented PR6423 sensitivity

Matched system components

- Reverse-mount probe bracket
- PR6423-compatible converter
- Conductive target
- LEMO-connected monitoring input

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	Reverse-mount probe bracket
Companion hardware	PR6423-compatible converter
Field connection	Conductive target
Primary system function	Uses a reverse-mount PR6423 construction
Controlled acceptance duty	Inside-out bearing bracket installations

4 Applications and Engineering Context

Inside-out bearing bracket installations

Uses a reverse-mount PR6423 construction

Reverse-access shaft vibration

Provides a 3/8-24 UNF-2A sleeve thread

Thrust-collar position monitoring

Includes a five-metre unarmored cable

Special machine retrofit points

Maintains the documented PR6423 sensitivity

TECHNICAL NOTE

Confirm reverse-mount clearance and 3/8-24 UNF engagement, support the five-metre lead and verify probe polarity plus gap response after mechanical tightening.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	PR6423-10R-010 / PR6423-10R-010 recorded
Physical interface	Reverse-mount probe bracket
Companion check	PR6423-compatible converter
Functional proof	Uses a reverse-mount PR6423 construction
Application test	Inside-out bearing bracket installations

5 Engineering Precautions

1. Verify the complete PR6423-10R-010 order code, 3/8-24 UNF-2A reverse mount mounting interface and assigned PR6423 8 mm eddy-current system measuring point before work.
2. Place the monitored machine and its protection channel in the approved maintenance state before disturbing PR6423-10R-010.
3. Protect the probe tip from impact and keep the mounting thread and bracket free from burrs or contamination.
4. Route the 5 m sensor lead without sharp bends, crushing, tensile load or contact with hot and moving surfaces.
5. Keep the LEMO or open-end connection clean, dry and fully identified before reconnecting the measurement loop.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
FX-490	Related Emerson product	**View FX-490 page**
ES0350-M1A05L-27N0	Related Emerson product	**View ES0350-M1A05L-27N0 page**
960177-02	Related Emerson product	**View 960177-02 page**
KJ2003X1-BB1	Related Emerson product	**View KJ2003X1-BB1 page**
EC3-X33	Related Emerson product	**View EC3-X33 page**
FX-340	Related Emerson product	**View FX-340 page**
7379A31G04	Related Emerson product	**View 7379A31G04 page**
KJ3224X1-EA1-12P4367X022	Related Emerson product	**View KJ3224X1-EA1-12P4367X022 page**

MANUFACTURER SOURCE RECORD

Emerson PR642x Eddy Current Sensor Installation Guide

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