

PR6423-010-000

PR6423 8 mm eddy-current displacement sensor

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

PRODUCT SNAPSHOT

BRAND

Emerson

FAMILY

Emerson PR6423 8 mm eddy-current measureme

PART

PR6423-010-000

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PRODUCT OVERVIEW

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

1

Uses a compact 25 mm armored probe body

2

Includes a four-metre integral cable

3

Provides the PR6423 two-millimetre static span

4

Connects through the standard LEMO termination

SYSTEM COMPONENTS

PR6423-configured CON021 or CON041

M10 x 1 mounting bracket

Conductive shaft target

Compatible vibration or position monitor

TECHNICAL NOTE

Verify the compact 25 mm body clearance, M10 x 1 thread, armored four-metre cable and PR6423 converter calibration before setting the operating gap.

TECHNICAL DATA

PARAMETER	VALUE
Sensor family	PR6423
Sleeve thread	M10 x 1
Armor	Yes
Probe length Cx	25 mm
Overall sensor length C	34 mm
Adapter plug	Included
Total cable length	4 m
Cable end	LEMO

PARAMETER	VALUE
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

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
8752-CA-NS-02	Related Emerson product	View 8752-CA-NS-02 page
KJ3241X1-BA1-12P2506X062	Related Emerson product	View KJ3241X1-BA1-12P2506X062 page
38B6041X082	Related Emerson product	View 38B6041X082 page
KJ3222X1-BA1-12P2532X092...	Related Emerson product	View KJ3222X1-BA1-12P2532X092... page
PR6424-013-140-CON021-91...	Related Emerson product	View PR6424-013-140-CON021-91... page
PR6424-000-041-CON041	Related Emerson product	View PR6424-000-041-CON041 page
KJ4001X1-BE1-12P0818X072...	Related Emerson product	View KJ4001X1-BE1-12P0818X072... page
SP4401	Related Emerson product	View SP4401 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Compact bearing radial vibration

Uses a compact 25 mm armored probe body

Short-bracket thrust position

Includes a four-metre integral cable

Pump shaft centerline monitoring

Provides the PR6423 two-millimetre static span

Eccentricity channels

Connects through the standard LEMO termination

PRODUCT PRECAUTIONS

- 1 Verify the complete PR6423-010-000 order code, M10 x 1 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 PR6423-010-000.
- 3 Protect the probe tip from impact and keep the mounting thread and bracket free from burrs or contamination.
- 4 Route the 4 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.
- 6 Confirm the paired signal converter or monitor input, cable length and target material match the documented measuring chain.
- 7 Set the static gap within the documented linear region while preserving shaft and probe mechanical clearance.
- 8 Prove polarity, static gap, dynamic response and alarm action before returning the protection channel to service.

ENGINEER FAQ

Q1 Does PR6423-010-000 match PR6423-configured CON021 or CON041 in a Compact bearing radial vibration installation?

Verify the complete PR6423-010-000 marking, the documented Emerson PR6423 8 mm eddy-current measurement system position and the installed PR6423-configured CON021 or CON041 before fitting the assembly.

Q2 How should PR6423-010-000 be wired when it must use a compact 25 mm armored probe body?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for PR6423-010-000; then continuity-test the affected path.

Q3 Which Emerson PR6423 8 mm eddy-current measurement system records should be captured before removing PR6423-010-000?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with PR6423-010-000 before disconnection.

Q4 What controlled test confirms that PR6423-010-000 can include a four-metre integral cable?

Apply the approved field or simulated stimulus, observe the Emerson PR6423 8 mm eddy-current measurement system indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which M10 x 1 mounting bracket condition should be checked when PR6423-010-000 reports an abnormal state?

Check the M10 x 1 mounting bracket supply, seating and connection first, then compare channel diagnostics with the recorded PR6423-010-000 baseline.

Q6 Can PR6423-010-000 be moved directly into Short-bracket thrust position without validating Compatible vibration or position monitor?

No. Confirm the Compatible vibration or position monitor, revision, connection scheme and Emerson PR6423 8 mm eddy-current measurement system configuration before transferring PR6423-010-000 to that duty.

Q7 What maintenance evidence is required after PR6423-010-000 is used for Pump shaft centerline monitoring?

Retain the nameplate record, corrective action, final diagnostics and a controlled pump shaft centerline monitoring functional-test result for PR6423-010-000.

Q8 How should PR6423-010-000 be returned to service in Eccentricity channels?

Restore power under control, verify provides the pr6423 two-millimetre static span, exercise the intended signal path and release PR6423-010-000 only after the Emerson PR6423 8 mm eddy-current measurement system remains in its approved operating state.

SOURCE Emerson PR642x Eddy Current Sensor Installation Guide | MHM-97857 Rev. 1.11, January 2026

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