

PR6424-010-140

PR6424 16 mm eddy-current displacement sensor

CONTROLLED ENGINEERING COPY

Verify that the required adapter hardware is available, match the M18 thread and ten-metre system length, then prove the PR6424 linear span after installation.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	PR6424-010-140
Manufacturer part	PR6424-010-140
Hardware type	PR6424
System family	Emerson PR6424 16 mm eddy-current measurement system



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01 PRE-INSTALLATION PLAN

- 1

Verify the complete PR6424-010-140 order code, M18 x 1.5 mounting interface and assigned PR6424 16 mm eddy-current system measuring point before work.
- 2

Place the monitored machine and its protection channel in the approved maintenance state before disturbing PR6424-010-140.
- 3

Protect the probe tip from impact and keep the mounting thread and bracket free from burrs or contamination.
- 4

Route the 10 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.

MATCHED HARDWARE

- PR6424-configured converter
- M18 x 1.5 bracket
- Ten-metre cable route
- Compatible LEMO connection hardware

INSTALLATION CONTROL RECORD

CONTROL ITEM	REQUIRED RECORD
Identity	PR6424-010-140 / PR6424-010-140 recorded
Physical interface	PR6424-configured converter
Companion check	M18 x 1.5 bracket
Functional proof	Combines a short 40 mm probe with armored protection
Application test	Large-shaft radial monitoring

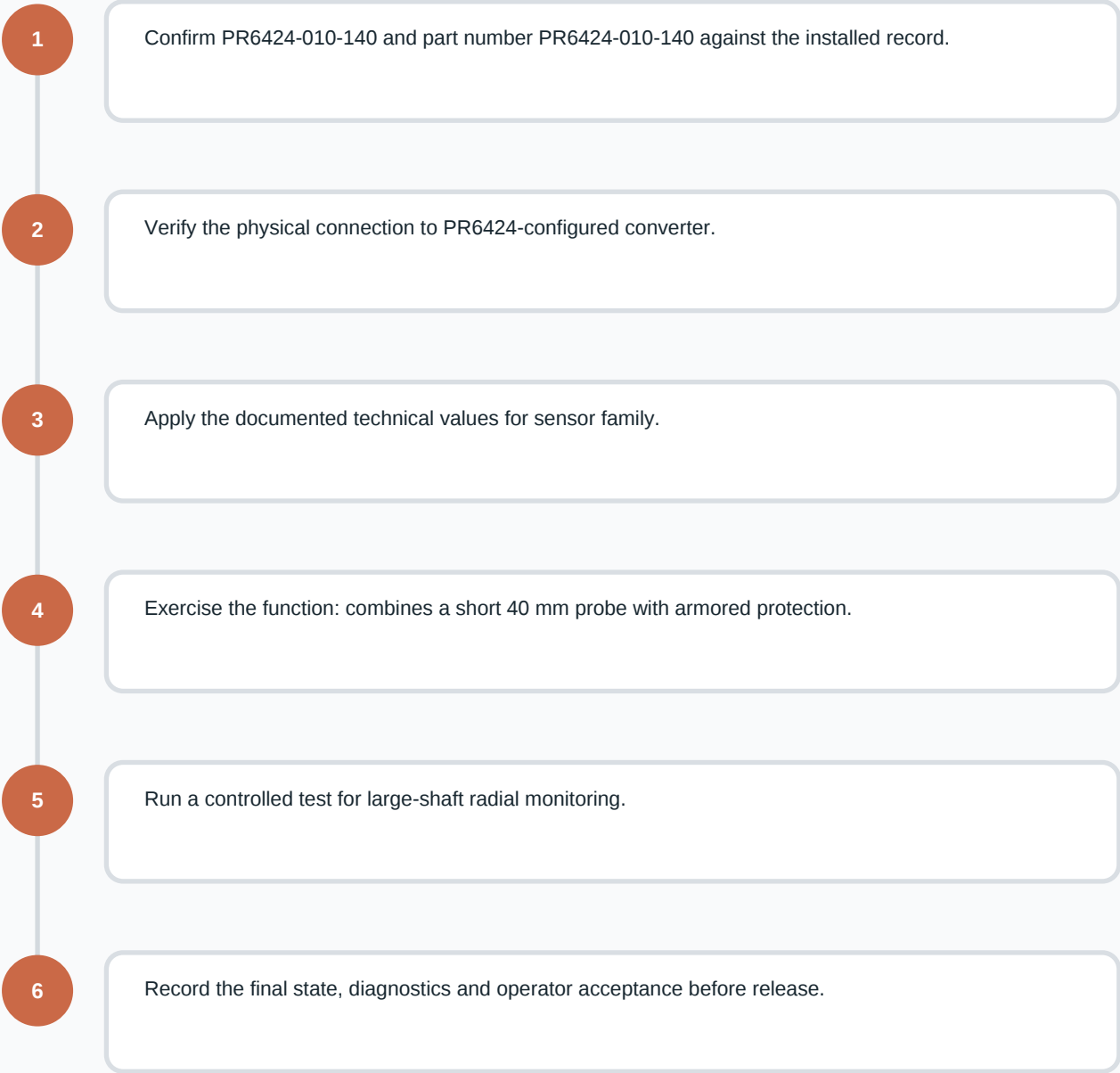
02 WIRING & INTERFACE CHECKS

CHECK ITEM	REQUIRED VALUE
Sensor family	PR6424
Sleeve thread	M18 x 1.5
Armor	Yes
Probe length Cx	40 mm
Overall sensor length C	52.5 mm
Adapter plug	Not included
Total cable length	10 m
Cable end	LEMO
Static nominal range	+/-2.0 mm
Recommended dynamic range	100 to 1000 um p-p
Sensitivity	4 V/mm
Nominal distance center	Approximately 2.7 mm
Basic air gap	0.55 to 0.95 mm
Operating temperature	-35 to +120 degC

FIELD NOTE

Verify that the required adapter hardware is available, match the M18 thread and ten-metre system length, then prove the PR6424 linear span after installation.

03 COMMISSIONING WORKFLOW



COMMISSIONING ACCEPTANCE EVIDENCE

EVIDENCE ITEM	ACCEPTANCE CONDITION
Identity	PR6424-010-140 / PR6424-010-140 recorded
Physical interface	PR6424-configured converter
Companion check	M18 x 1.5 bracket
Functional proof	Combines a short 40 mm probe with armored protection
Application test	Large-shaft radial monitoring

04 RETURN-TO-SERVICE RECORD

- ☐ Confirm the paired signal converter or monitor input, cable length and target material match the documented measuring chain.
- ☐ Set the static gap within the documented linear region while preserving shaft and probe mechanical clearance.
- ☐ Prove polarity, static gap, dynamic response and alarm action before returning the protection channel to service.
- ☐ Confirm the intended process response before normal operation.

VERIFICATION RECORD

PRODUCT IDENTITY	PR6424-010-140
INSTALLED POSITION	Documented Emerson PR6424 16 mm eddy-current measurement system position
VERIFICATION METHOD	Controlled inspection and functional test
RELEASE RECORD	Final diagnostic state retained before service

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
KJ3001X1-BB1-12P0550X142	Related Emerson product	View KJ3001X1-BB1-12P0550X142 page
PR6423-00R-101-CON031	Related Emerson product	View PR6423-00R-101-CON031 page
KJ4001X1-NB1-12P3368X012	Related Emerson product	View KJ4001X1-NB1-12P3368X012 page
KJ4001X1-NA1-12P3373X012	Related Emerson product	View KJ4001X1-NA1-12P3373X012 page
KJ4001X1-CC1-12P0733X042	Related Emerson product	View KJ4001X1-CC1-12P0733X042 page
KJ3101X1-BB1-12P1866X062	Related Emerson product	View KJ3101X1-BB1-12P1866X062 page
KJ3101X1-BA1-12P1865X062	Related Emerson product	View KJ3101X1-BA1-12P1865X062 page
KJ3001X1-BH1-12P0558X152	Related Emerson product	View KJ3001X1-BH1-12P0558X152 page

SOURCE IDENTIFIERS

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

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