

PR6424-003-030

PR6424 16 mm eddy-current displacement sensor

CONTROLLED ENGINEERING COPY

Match the M18 x 1.5 installation and PR6424 converter range, protect the 70 mm probe body, support the eight-metre cable and verify the full linear response.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	PR6424-003-030
Manufacturer part	PR6424-003-030
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 PR6424-003-030 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 PR6424-003-030.
- 3

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

Route the 8 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

- CON021 or CON041 converter configured for PR6424
- Conductive target surface
- M18 mounting hardware
- Compatible monitor input

INSTALLATION CONTROL RECORD

CONTROL ITEM	REQUIRED RECORD
Identity	PR6424-003-030 / PR6424-003-030 recorded
Physical interface	CON021 or CON041 converter configured for PR6424
Companion check	Conductive target surface
Functional proof	Uses the larger M18 x 1.5 sensing body
Application test	Large-shaft radial vibration

02 WIRING & INTERFACE CHECKS

CHECK ITEM	REQUIRED VALUE
Sensor family	PR6424
Sleeve thread	M18 x 1.5
Armor	No
Probe length Cx	70 mm
Overall sensor length C	82.5 mm
Adapter plug	Included
Total cable length	8 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

Match the M18 x 1.5 installation and PR6424 converter range, protect the 70 mm probe body, support the eight-metre cable and verify the full linear response.

03 COMMISSIONING WORKFLOW



COMMISSIONING ACCEPTANCE EVIDENCE

EVIDENCE ITEM	ACCEPTANCE CONDITION
Identity	PR6424-003-030 / PR6424-003-030 recorded
Physical interface	CON021 or CON041 converter configured for PR6424
Companion check	Conductive target surface
Functional proof	Uses the larger M18 x 1.5 sensing body
Application test	Large-shaft radial vibration

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	PR6424-003-030
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
KJ1501X1-BC4-C2-A013P006 ...	Related Emerson product	View KJ1501X1-BC4-C2-A013P006... page
IC31197G05	Related Emerson product	View IC31197G05 page
KJ3243X1-BK1-C2-A0SE402 2	Related Emerson product	View KJ3243X1-BK1-C2-A0SE4022 page
KL2101X1-BA1-C2-A0SE650 1T01	Related Emerson product	View KL2101X1-BA1-C2-A0SE6501T01 page
KL2101X1-BB1-SE6504	Related Emerson product	View KL2101X1-BB1-SE6504 page
KJ3241X1-BK1-C2-A0SE400 6P2	Related Emerson product	View KJ3241X1-BK1-C2-A0SE4006P2 page
KJ2005X1-BK1-C2-A0SE300 7	Related Emerson product	View KJ2005X1-BK1-C2-A0SE3007 page
8752-CA-NS-02	Related Emerson product	View 8752-CA-NS-02 page

SOURCE IDENTIFIERS

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

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