Emerson

PR6424/006-131 CON041

16 mm Eddy-Current Sensor and Signal Converter Chain

This reference defines the engineering boundary of PR6424/006-131 CON041 using manufacturer-authored technical evidence and the exact supplied identity.

System position

Exact identity	System family	Functional role	Release basis
PR6424/006-131 CON041	AMS Machinery Health Measurement Chain	Eddy-Current Sensor	Recorded test and diagnostics

Control the identity boundary

Treat PR6424/006-131 CON041, its documented 16 mm Eddy-Current Sensor and Signal Converter Chain role and the receiving AMS Machinery Health Measurement Chain position as one controlled identity.

IDENTITY / RESOURCE	DOCUMENTED VALUE
Exact model	PR6424/006-131 CON041
Sensor principle	Eddy current, non-contact
Sensor diameter	16 mm
Static range	±2.0 mm
Recommended dynamic range	0 to 1000 µm peak-to-peak
Sensitivity	4 V/mm on 42CrMo4 steel

Technical evidence record: Emerson PR6424 specifications and CON041 converter specifications

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PR6424/006-131 CON041

Interfaces and integration

Trace the installed signal path

Integration review proceeds through mechanical, electrical, configuration and diagnostic interfaces before a replacement decision is released.

Exact model	PR6424/006-131 CON041
Sensor principle	Eddy current, non-contact
Sensor diameter	16 mm

Define the receiving position

The host review links the physical slot, companion hardware and retained engineering revision to the offered item.

Host	AMS Machinery Health Measurement Chain
Primary role	non-contact measurement of shaft displacement.
Acceptance	Recorded diagnostic response

Interface control matrix

CONTROL BAND	VERIFICATION RECORD
Identity	Model, designation and complete label
Mechanical	Position, seating and retention
Electrical	Loop supply and field conductors
Processing	Range, limits and correction
Supervision	Supply, range and wire-break states
Release	Controlled test with retained result

Configuration ownership

Keep assigned channel values under the approved project record.

Acceptance ownership

Name the retained result that authorizes handover of the measurement path.

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PR6424/006-131 CON041

Technical resource bands

Only capabilities tied to the exact execution appear here; operating assignments remain configuration-controlled.

PARAMETER	VALUE
Exact model	PR6424/006-131 CON041
Sensor principle	Eddy current, non-contact
Sensor diameter	16 mm
Static range	±2.0 mm
Recommended dynamic range	0 to 1000 µm peak-to-peak
Sensitivity	4 V/mm on 42CrMo4 steel

PARAMETER	VALUE
Nominal center air gap	Approximately 2.7 mm
Sensor operating temperature	-35 to +150 °C
Target material	Ferromagnetic steel; 42CrMo4 standard
Converter family	CON041 DIN-rail signal converter
Converter frequency range	0 to 20,000 Hz (-3 dB)
Standard converter range for PR6424	4.0 mm

Label decision

Accept the stated part number only when the complete installed identity agrees.

Circuit decision

Confirm the recorded field-circuit arrangement before reconnecting any loop.

Processing decision

Restore channel processing from the approved project rather than a neighboring position.

Evidence decision

Use diagnostic observations and a controlled response to support final handover.

Engineering boundary

A similar faceplate or matching channel total does not prove interchangeability. Resolve the host position, connection scheme and controlled revision before use.

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PR6424/006-131 CON041

Controls and service logic

Identity control

Preserves the complete PR6424/006-131 CON041 execution.

Host integration

Matches the installed AMS Machinery Health Measurement Chain position.

Interface control

Retains power, signal, keying and protective connections.

Release control

Uses diagnostics and a functional test to close the work.

Service decision path

STEP	REQUIRED OUTCOME
1. Identify	Resolve label, designation and receiving position
2. Compare	Review circuit type, processing and supervision
3. Restore	Rebuild the recorded connection and configuration state
4. Demonstrate	Retain diagnostic and functional acceptance evidence

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PR6424/006-131 CON041

Engineering decisions

What evidence should be captured before removing PR6424/006-131 CON041?

PR6424/006-131 CON041 is documented for non-contact measurement of shaft displacement, position, eccentricity or speed/key motion.

How can technicians prove that PR6424/006-131 CON041 was restored correctly?

Match the entire model string, the installed position, keying, terminal hardware and approved system record before changeout.

When should PR6424/006-131 CON041 be rejected as a substitute despite a similar appearance?

The verified value for sensor diameter is 16 mm.

What acceptance record closes work on PR6424/006-131 CON041?

Its function depends on the documented receiving position and connected hardware; similar appearance does not establish interchangeability.

Which field interface does PR6424/006-131 CON041 place under configuration control?

Record the full label, host position, wiring, connected devices, active settings and as-found diagnostics before isolation.

How does PR6424/006-131 CON041 separate product capability from site-specific settings?

Restore the documented interfaces, review diagnostics and functionally verify non-contact measurement of shaft displacement, position, eccentricity or speed/key

Related Apter Power pages

- Emerson PR6424/013-140 CON021/914-100
- Emerson PR6424/000-041 CON041
- Emerson KJ3002X1-BF1 12P1732X082

Technical evidence record: Emerson PR6424 specifications and CON041 converter specifications

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