PR6423/002-121 CON041

Emerson / Eddy-current proximity measurement set

Emerson PR6423/002-121 CON041 combines a PR6423 eddy-current probe execution with a CON041 signal converter reference for rotating-machinery displacement measurement.

Product identity and system role

The PR6423/002-121 CON041 measurement set senses relative movement between a conducting shaft target and the noncontact PR6423 probe tip. The converter conditions the probe signal for a compatible monitoring input. Selection of the target, cable and converter determines the calibrated measurement chain.

The PR6423 family uses an 8 mm probe tip and is applied to shaft vibration, axial position and related relative displacement measurements. CON041 is a matching eddy-current signal-converter family. The exact /002-121 probe option and converter execution must be checked against the supplied labels before assigning family ratings to the offered combination.

Verified technical characteristics

Sensor family	PR6423, 8 mm eddy-current probe
Converter family	CON041
Measurement principle	Noncontact eddy-current displacement
Sensor execution	PR6423/002-121
Converter identity	CON041; match actual label
System boundary	Probe, converter, cable and target form the measurement chain

Engineering context

Radial shaft vibration

Measure shaft motion relative to a bearing housing with a matched PR6423/CON041 chain.

Axial position monitoring

Track thrust movement using an approved target face and calibrated axial probe arrangement.

Slow-roll diagnostics

Observe target runout or eccentricity with a suitable monitor and machine reference.

Machinery protection input

Provide conditioned displacement information to the installed protection channel after approved chain calibration.

Configuration and verification

Match the probe option: Compare PR6423/002-121 and CON041 with both offered labels and the installed channel.

Inspect the target: Review target material, surface condition and probe track.

Preserve the cable chain: Match extension cable, connector and total cable arrangement.

Protect the probe: Avoid impact on the tip and over-bending the cable at its casing exit.

Selected engineering questions

Why is converter matching important for PR6423/002-121 CON041?
The PR6423 probe, cable and CON041 converter form a calibrated chain; changing one component can alter sensitivity or baseline.

What can cause a baseline shift after fitting PR6423/002-121 CON041?
Check probe gap, target track, cable continuity and converter setting before changing alarm limits.

How should shaft target condition be assessed for PR6423/002-121 CON041?
Inspect material, surface finish, deposits and runout at the measurement track.

Can PR6423/002-121 CON041 be used as a stand-alone vibration transmitter?
The complete measurement requires the matched converter and appropriate monitoring input.

What should be recorded before removing PR6423/002-121 CON041?
Record probe insertion depth, target position, total cable path, converter identity and monitored gap voltage.

How can an intermittent signal from PR6423/002-121 CON041 be isolated?
Inspect connector seating, cable damage, converter power and target movement under controlled conditions.

How should the initial gap be set for PR6423/002-121 CON041?
Use the applicable converter output and machine procedure rather than a visual gap estimate.

What acceptance test should follow installation of PR6423/002-121 CON041?
Compare stable gap output and dynamic channel behavior with an approved machine condition before returning protection to service.

Source and application boundary

Emerson PR 642x eddy-current sensor specifications and CON041 signal-converter product information.

PR6423 and CON041 family descriptions establish the measurement roles; option-specific ratings for /002-121 are reserved for the supplied labels and approved chain configuration.

Related product references

Separate product listings for project review; confirm each order code and system fit independently.

Emerson KJ1501X1-BC1 12P2186X032 VE5008	Emerson KJ2003X1-BB1 12P3439X012
Emerson KJ2003X1-BB1 12P3439X012 VE3006	Emerson KJ3002X1-BA1 12P0680X072 VE4003S2B2
Emerson KJ3002X1-BF1 12P1732X082 VE4003S6B1	Emerson KJ3203X1-BA1 12P3270X042 VE4001S2T2B4
Emerson KJ3221X1-BA1 12P2531X102	Emerson KJ3221X1-BA1 12P2531X102 VE4035S2B1

Apter Power | Technical enquiry

sales13@apterpower.com | +86 18030235313

Send the complete model and installed-system details when requesting a quotation.