PR6423-10R-010-CON021

01 / Product identity and control context

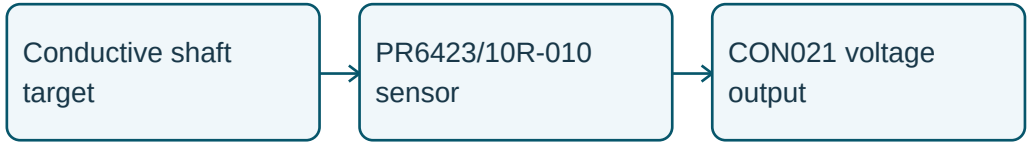
Eddy Current Sensor

Emerson PR6423-10R-010-CON021 combines a reverse-mount 8 mm eddy-current sensor with a CON021 signal converter for non-contact shaft displacement measurement.

Key characteristics

Product type	Eddy-current sensor and converter
Sensor configuration	8 mm, reverse mount, 3/8-24 UNF
Measurement range	2 mm with standard matched chain
Signal converter	CON021 panel-mount unit

Functional relationship



Complete chain identity

Match PR6423-10R-010-CON021, the sensor cable option and the actual converter marking before replacement.

Configuration boundary

Sensor configuration refers to PR6423/10R-010; converter ratings refer to CON021. Measurement performance requires a matched sensor, cable and converter adjusted for the target material. Sensor and converter environmental limits are different.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

PR6423-10R-010-CON021

02 / Sensor and measurement configuration

Sensor identity and mounting

Product type	Eddy-current sensor with signal converter
Sensor reference	PR6423/10R-010
Converter	CON021
Sensor tip diameter	8 mm
Mounting configuration	Reverse mount; 3/8-24 UNF thread

Measurement and target

Cable configuration	Unarmored; adapter plug; 5.0 m; LEMO cable end
Linear measurement range	2 mm, standard PR6423 measurement chain
Scale factor	8 V/mm ±5%, 0 to 45 °C
Reference target	42CrMo4 / AISI 4140 steel
Sensor protection	IP66

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03 / Converter and environmental limits

Converter electrical characteristics

Converter protection	IP20
Converter frequency response	0 to 20 kHz (-3 dB)
Converter rise time	Less than 15 µs
Converter supply	-23 to -32 V for -4 to -20 V output; -21 to -32 V for -2 to -18 V output

Environment and connections

Converter temperature	-30 to +100 °C
Sensor temperature	-35 to +180 °C including first 1 m cable
Cable and connector temperature	-35 to +150 °C
Converter connections	Self-locking LEMO sensor input; supply/output screw terminals, max. 1.5 mm²

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04 / Application and integration contexts

Radial shaft vibration

Measure shaft motion relative to the probe mounting point. Position the sensor on a suitable conductive target track and configure the monitoring channel for radial displacement.

Axial position

Use the static distance signal to monitor an appropriate axial target. Set the operating gap within the matched chain range and allow for expected shaft travel.

Signal relationship

Use the matched sensor, cable and converter adjusted for the target material. The standard PR6423 range is 2 mm.

Shaft eccentricity

Monitor changes in the shaft-to-probe gap during the intended operating condition. Target geometry, surface condition and material must suit the measurement.

Turbomachinery monitoring

Integrate the sensor/converter chain with the selected machinery-monitoring input on turbines, compressors or pumps. Verify input scaling and channel purpose before commissioning.

Electrical setup

Match negative supply polarity and selected output range. Keep the IP20 CON021 protected separately from the IP66 sensor.

05 / Installation and release decisions

Preserve the complete chain

Retain PR6423-10R-010-CON021, its cable option and converter marking. Changing a component can change the calibrated measurement relationship.

Check reverse mounting

Use the PR6423/10R-010 reverse-mount arrangement and matching 3/8-24 UNF mounting thread. Avoid twisting the cable while positioning the sensor.

Protect cable and adapter

Provide strain relief and thermal-movement allowance. The unarmored cable requires a minimum bending radius of 25 mm; isolate the adapter connection as instructed.

Separate environmental limits

The IP66 sensor does not make the IP20 converter weatherproof. Assess sensor, cable/connector and converter temperatures individually.

Verify negative supply polarity

Match the CON021 negative DC supply and output range. Do not connect it as an ordinary positive 24 V device without checking the approved wiring.

Set the gap using the signal

Adjust the installed gap using the complete converter-and-sensor output. Confirm target material and measurement response before enabling the monitoring function.

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PR6423-10R-010-CON021

06 / Lifecycle, evidence and related portfolio

Lifecycle status

The current manufacturing and service-support phase for PR6423-10R-010-CON021 is unconfirmed. Obtain guidance for the complete sensor, cable and converter configuration before selecting a replacement.

Supply boundary

Apter Power availability and dispatch are confirmed separately from the manufacturer lifecycle phase.

Technical basis

Emerson PR6423 Specifications Sheet, December 2024; CON021 Specifications Sheet, August 2017; PR 642x Installation Guide, MHM-97857 Rev 1.11, January 2026.

Related product references

Emerson PR6423/000-010 CON021

Emerson PR6423/004-111 CON041

Navigation only; no substitute or accessory compatibility is implied.

Offered-unit verification

Compare the complete label, connectors, mounting arrangement and applicable hardware/software revision. Confirm included components and accompanying documents in the quotation.

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