PR6423/10R-010

Epro / 8 mm Eddy-Current Displacement Probe

Epro PR6423/10R-010 is an 8 mm non-contact eddy-current probe in the reverse-mounted PR6423 configuration for shaft displacement measurement.

Product identity and system role

The PR6423/10R-010 order code selects a 3/8-24 UNF case and unarmored cable. The reverse mount construction determines how the probe is fitted through the machine casing; retain the matching holder and accessible cable path when replacing an installed sensor.

A PR6423 probe forms one part of a matched proximity-measurement chain. The conditioned signal can support radial vibration, axial position or eccentricity monitoring when the converter, extension cable, target material and monitor input are selected together. The family range and scale factor belong to that calibrated chain.

Verified technical characteristics

Sensor family	PR6423, 8 mm eddy-current displacement sensor
Mounting thread	3/8-24 UNF
Mounting arrangement	Reverse mount
Cable construction	standard unarmored
Case configuration	reverse-mount case code
Cable arrangement	5 m total, with adapter plug; LEMO end
Linear measurement range	2 mm, PR6423 family
Nominal initial gap	0.5 mm, PR6423 family
Scale factor	8 V/mm ±5% at 0–45 °C, matched system
Protection	IP66, PR6423 family

Engineering context

Turbine shaft vibration

Monitor relative radial movement at a bearing when the chosen shaft target and proximity chain meet the project design.

Restricted casing access

Use the reverse-mounted execution where the engineered holder and cable access require insertion from the opposite side.

Runout and eccentricity

Observe slow-roll shaft geometry using an appropriate PR6423 measuring chain and machine reference.

Compressor monitoring

Use a matched probe and converter to feed shaft-displacement information into a machinery-protection system.

Configuration and verification

Match the full order code: Compare the complete PR6423/10R-010 marking with the installed probe and converter documentation.

Preserve the mounting geometry: Keep the 3/8-24 UNF engagement, probe position and intended reverse mount arrangement.

Check the measurement chain: Confirm the converter, extension cable, adapter and monitor input as one calibrated system.

Protect the cable route: Allow clearance for the standard unarmored construction and its minimum bending radius.

Selected engineering questions

How is the converter pairing verified for PR6423/10R-010?
Compare the installed converter and total cable arrangement with the approved PR6423 measurement-chain configuration; a matching tip alone is insufficient.

What target preparation matters before setting PR6423/10R-010?
Inspect the shaft surface and material at the selected track and remove burrs or deposits that alter the apparent gap.

Why can PR6423/10R-010 give a changed baseline after replacement?
Differences in cold gap, target track, cable chain or converter calibration can shift the steady output; compare all four with the service record.

How should cable routing be assessed for PR6423/10R-010?
Check mechanical clearance and the bend radius of the selected cable construction, especially at the casing exit and adapter.

Can PR6423/10R-010 alone establish a protection trip?
No. Trip behavior depends on the matched converter, monitor configuration, alarm limits and approved machine logic.

What is an appropriate commissioning check for PR6423/10R-010?
Record a stable cold-gap output, then compare the monitored displacement channel with a known machine condition under site controls.

Source and application boundary

Emerson PR6423 Specifications Sheet, 8mm Eddy Current Sensor, December 2024.

PR6423 electrical and environmental figures describe the matched 8 mm sensor family. Confirm converter and installation applicability to the offered complete order code.

Related product references

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

EPRO PR6423/010-010	EPRO PR6424/010-010
EPRO PR6424/006-010	EPRO PR9350/02

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