PR6424/010-010

Epro / 16 mm Eddy-Current Displacement Probe

Epro PR6424/010-010 is a 16 mm PR6424 eddy-current probe with an M18 × 1.5 sleeve, armored cable and Cx 40 mm sleeve code.

Product identity and system role

This order-code execution selects the armored cable option and a Cx 40 mm sensing sleeve. The physical reach and cable construction are selection features for the installation; they do not alter the need to match the probe, adapter, converter and monitor as a complete measuring chain.

The 16 mm sensing family is used for non-contact measurement of relative shaft motion and position on a ferromagnetic target. A properly matched chain can support radial vibration, axial displacement, eccentricity or speed/key measurements, with the application determined by target geometry and monitor configuration.

Verified technical characteristics

Sensor family	PR6424, 16 mm eddy-current displacement sensor
Mounting thread	M18 × 1.5
Cable construction	Armored
Sleeve-length code	Cx 40 mm
Cable arrangement	5 m total, with adapter plug; LEMO end
Nominal center gap	Approximately 2.7 mm, matched PR6424 system
Static range	±2.0 mm, matched PR6424 system
Dynamic range	0–1,000 µm, matched PR6424 system
Scale factor	4 V/mm, matched PR6424 system
Target	Ferromagnetic steel, standard 42CrMo4

Engineering context

Large-shaft turbine monitoring

Measure relative movement on a suitable turbine shaft with the specified target and a matched 16 mm proximity chain.

Compressor axial position

Use a correctly mounted probe at an approved thrust target to monitor axial position.

Hydro-machine runout

Observe shaft eccentricity or slow-roll motion when the target diameter and surface satisfy the measuring arrangement.

Speed and key reference

Detect a suitable target feature when the converter and monitor are configured for a speed or key-pulse task.

Configuration and verification

Confirm the sleeve execution: Match the full PR6424/010-010 marking and the Cx 40 mm sleeve with the installed holder.

Check cable protection: Assess the armored cable route and bend clearance before fitting.

Confirm the target: Verify target material, diameter and surface condition at the measurement track.

Match the electrical chain: Use the approved adapter, total cable length, converter and monitor channel.

Selected engineering questions

Which components determine the calibrated output of PR6424/010-010?
The probe, total cable, converter and target together determine the measuring-chain response; verify the complete set.

How can an incorrect sleeve reach affect PR6424/010-010?
It can move the tip outside the intended target plane or prevent correct cold-gap adjustment; compare the installed holder and insertion depth.

What target condition is required for PR6424/010-010?
Use an approved ferromagnetic target with suitable diameter, finish and track geometry; confirm the project-specific calibration.

Why is cable construction relevant when installing PR6424/010-010?
The selected protection changes routing and bend constraints at the casing exit and adapter, even when the sensing family is the same.

How should an axial channel using PR6424/010-010 be checked?
Confirm mechanical travel, cold gap, converter polarity and monitor scaling before relying on axial alarm values.

Can the PR6424 family rating be applied to PR6424/010-010 without checking the converter?
No. Scale and operating limits are for a matched chain; confirm the exact converter and supplied execution.

Source and application boundary

Emerson PR6424 Specifications Sheet, 16mm Eddy Current Sensor, December 2024.

PR6424 performance figures are matched-family values. Confirm actual converter, target and installed order-code execution before applying them to a protection channel.

Related product references

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

EPRO PR6423/010-010	EPRO PR6423/10R-010
EPRO PR6424/006-010	EPRO PR9350/02

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