

INDUSTRIAL AUTOMATION PRODUCT

PR6423/002-001 CON041

Eddy Current Measurement System

EPRO PR6423/002-001 CON041 combines an 8 mm PR6423 eddy-current sensor with a CON041 signal converter for non-contact shaft-displacement and position measurements. The documented PR6423 measuring range is 2 mm and the CON041 bandwidth extends to 20 kHz.

IDENTITY	VERIFIED VALUE
Manufacturer	EPRO
Complete model	PR6423/002-001 CON041
Product role	Eddy Current Measurement System
System family	Industrial automation
Source record	PR6423 specification sheet, December 2024

DOCUMENT SCOPE

Model identity, official technical data, model-specific applications, precautions, FAQ and controlled acceptance records.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



PR6423/002-001 CON041

Technical Specifications

PARAMETER	VERIFIED VALUE
Sensor	PR6423/002-001, 8 mm eddy-current sensor
Converter	CON041 DIN-rail signal converter
Linear measuring range	2 mm (80 mil)
Initial air gap	0.5 mm (20 mil)
Scale factor	8 V/mm (203.2 mV/mil) ±5% at 0 to 45 °C
Target material	42CrMo4 / AISI 4140 ferromagnetic steel
Converter frequency range	0 to 20,000 Hz (-3 dB)
Converter output range	-2 to -18 V or -4 to -20 V, configuration dependent
Converter supply range	-21 to -32 V or -23 to -32 V, output-range dependent
Converter mounting	DIN rail with screw terminals

ENGINEERING BOUNDARY

Use only the complete EPRO PR6423/002-001 CON041 identity and the current manufacturer documentation. Verify the installed revision, companion hardware, wiring and saved configuration before replacement or release.

Related Products on Apter Power

MODEL	APTER POWER PAGE
Epro MMS6831	View Epro MMS6831
Epro PR6423-002-000-CON021	View Epro PR6423-002-000-CON021
Epro PR6423-002-001-CN-CON041	View Epro PR6423-002-001-CN-CON041
Epro PR6423-003-030-CON021	View Epro PR6423-003-030-CON021
Epro PR6423-004-120-CN-CON021	View Epro PR6423-004-120-CN-CON021
Epro PR6423-010-100-CN-CON021	View Epro PR6423-010-100-CN-CON021

System Role and Common Applications

EPRO PR6423/002-001 CON041 combines an 8 mm PR6423 eddy-current sensor with a CON041 signal converter for non-contact shaft-displacement and position measurements. The documented PR6423 measuring range is 2 mm and the CON041 bandwidth extends to 20 kHz.

FUNCTION 1
Measures shaft displacement without contact

FUNCTION 2
Uses a 2 mm linear measuring range with an 8 mm sensor

FUNCTION 3
Provides high-frequency response through the CON041 converter

FUNCTION 4
Supports radial, axial, position, eccentricity and speed/key measurements

APPLICATION	ENGINEERING CONTEXT
Radial shaft vibration	Measures dynamic shaft displacement on critical rotating machinery.
Axial position	Monitors thrust position with a matched target and calibrated gap.
Eccentricity monitoring	Tracks low-speed shaft orbit and eccentricity through the eddy-current loop.
Speed and key reference	Provides a non-contact pulse signal from a suitable shaft target.

ACCEPTANCE DUTY
Confirm identity, interface, companion hardware, configured values and controlled functional response before release.

Engineering Precautions and FAQ

NO.	PRECAUTION
1	Verify the complete PR6423/002-001 and CON041 markings as a matched measurement loop.
2	Confirm the target material and minimum shaft requirements from the PR6423 data sheet.
3	Set the documented initial air gap before operation.
4	Use the correct CON041 supply and output-range configuration.
5	Route sensor and converter wiring away from high-energy interference sources.
6	Protect the sensor cable, connector and DIN-rail terminals from damage and contamination.
7	Do not interchange sensor or converter without recalibrating the complete loop.
8	Verify gap voltage, scale factor, frequency response and monitor indication before release.

QUESTION	ANSWER
What is EPRO PR6423/002-001 CON041?	It is an 8 mm PR6423 eddy-current sensor matched with a CON041 signal converter.
What measuring range applies to EPRO PR6423/002-001 CON041?	The PR6423 specification lists a 2 mm linear measuring range with a 0.5 mm initial air gap.
What scale factor is documented for EPRO PR6423/002-001 CON041?	The sensor specification gives 8 V/mm, or 203.2 mV/mil, within the stated tolerance and temperature range.
What bandwidth does the CON041 in EPRO PR6423/002-001 CON041 provide?	The converter frequency range is 0 to 20,000 Hz at the -3 dB point.

Related Products on Apter Power

MODEL	APTER POWER PAGE
Epro PR6423-015-040	View Epro PR6423-015-040
Epro PR6423-018-040-CON021	View Epro PR6423-018-040-CON021
Epro PR6423-018-140-CON021	View Epro PR6423-018-140-CON021
Epro PR6423-01K-010	View Epro PR6423-01K-010
Epro PR6424-014-140-CON021	View Epro PR6424-014-140-CON021
Epro PR6426-010-040-CON021-916-120	View Epro PR6426-010-040-CON021-916-120

FAQ, Related Products and Official Sources

QUESTION	ANSWER
Which output ranges are available for EPRO PR6423/002-001 CON041?	The CON041 supports -2 to -18 V or -4 to -20 V depending on the selected supply/output configuration.
Why must EPRO PR6423/002-001 CON041 be calibrated as a complete loop?	Sensor, cable, converter, target material and gap together determine the measurement scale and linearity.
What confirms successful commissioning of EPRO PR6423/002-001 CON041?	Correct gap voltage, scale factor, dynamic response and monitor indication under a controlled test confirm release.

MODEL	APTER POWER PAGE
Epro PR9268-200-000	View Epro PR9268-200-000
Epro PR9268-203-000	View Epro PR9268-203-000
WOODWARD DYN2-94025-004	View WOODWARD DYN2-94025-004
WOODWARD 9907-186	View WOODWARD 9907-186
WOODWARD 8237-1246	View WOODWARD 8237-1246
Allen Bradley 1203-GD1	View Allen Bradley 1203-GD1

MANUFACTURER SOURCE RECORDS

Emerson PR6423 8 mm Eddy Current Sensor Specification Sheet - PR6423 specification sheet, December 2024
Emerson CON041 Eddy Current Signal Converter Specification Sheet - CON041 specification sheet, June 2017

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