

INDUSTRIAL AUTOMATION PRODUCT

CON041

PR642x eddy-current sensor signal converter

Conditioned -4 to -20 V DC output proportional to PR642x probe displacement

IDENTITY	VERIFIED VALUE
Manufacturer	Emerson
System family	PR642x DIN-rail eddy-current transducer system
Part number	CON041
Country	USA
HS code	8537101190

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Technical Specifications

Technical values below are limited to the named Emerson product record.

PARAMETER	TECHNICAL VALUE
Converter model	CON041
Alternative models	SNG-CON041; SNG-CON041-SF
Mounting	DIN rail
Compatible sensors	PR6422; PR6423; PR6424; PR6426
Standard PR6422 range	1 mm; linearity <=1.5%
Standard PR6423 range	2 mm; linearity <=1.0%
Standard PR6424 range	4 mm; linearity <=1.5%
Standard PR6426 range	8 mm; linearity <=1.5%
Voltage output	-4 to -20 V DC
Installation environment	Control cabinet

ENGINEERING DATA SUMMARY

DATA GROUP	VERIFIED ASSIGNMENT
Installed host / carrier	PR6422, PR6423, PR6424 or PR6426 probe
Companion hardware	DIN-rail cabinet position
Field connection	Negative DC supply and signal wiring
Primary system function	Mounts on a control-cabinet DIN rail
Controlled acceptance duty	Compact radial-vibration channels

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System Role and Architecture

Conditioned -4 to -20 V DC output proportional to PR642x probe displacement

FUNCTION 1

Mounts on a control-cabinet DIN rail

FUNCTION 2

Supports four documented PR642x probe families

FUNCTION 3

Provides family-specific standard measuring spans

FUNCTION 4

Outputs a proportional negative DC voltage

Matched system components

- PR6422, PR6423, PR6424 or PR6426 probe
- DIN-rail cabinet position
- Negative DC supply and signal wiring
- Compatible Emerson or third-party voltage input

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	PR6422, PR6423, PR6424 or PR6426 probe
Companion hardware	DIN-rail cabinet position
Field connection	Negative DC supply and signal wiring
Primary system function	Mounts on a control-cabinet DIN rail
Controlled acceptance duty	Compact radial-vibration channels

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Applications and Engineering Context

Compact radial-vibration channels

Mounts on a control-cabinet DIN rail

Axial displacement loops

Supports four documented PR642x probe families

Differential expansion monitoring

Provides family-specific standard measuring spans

Large-gap shaft-position measurement

Outputs a proportional negative DC voltage

TECHNICAL NOTE

Match the converter setup to the exact PR6422/3/4/6 probe, isolate cabinet power, preserve terminal identity and confirm gap voltage plus full-range response after DIN-rail installation.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	CON041 / CON041 recorded
Physical interface	PR6422, PR6423, PR6424 or PR6426 probe
Companion check	DIN-rail cabinet position
Functional proof	Mounts on a control-cabinet DIN rail
Application test	Compact radial-vibration channels

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Engineering Precautions

- 1 Confirm the complete CON041/SNG-CON041/SNG-CON041-SF identity and paired probe family before replacement.
- 2 Place the monitored machine and protection channel in the approved maintenance state.
- 3 Isolate cabinet power and record every supply, signal and shield terminal.
- 4 Release the DIN-rail latch without bending terminals or stressing adjacent converters.
- 5 Use ESD controls and keep the sensor connector plus terminal area clean and dry.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
8752-CA-NS-02	Related Emerson product	View 8752-CA-NS-02 page
KJ3241X1-BA1-12P2506X062	Related Emerson product	View KJ3241X1-BA1-12P2506X062 page
38B6041X082	Related Emerson product	View 38B6041X082 page
KJ3222X1-BA1-12P2532X092...	Related Emerson product	View KJ3222X1-BA1-12P2532X092... page
PR6424-013-140-CON021-91...	Related Emerson product	View PR6424-013-140-CON021-91... page
KJ4001X1-BE1-12P0818X072...	Related Emerson product	View KJ4001X1-BE1-12P0818X072... page
SP4401	Related Emerson product	View SP4401 page
SP3401	Related Emerson product	View SP3401 page

MANUFACTURER SOURCE RECORD

Emerson CON041 Converter for PR642x Eddy Current Sensors Installation Guide

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