

PR9350-02-S2

Oil-Proof Displacement Transducer

Emerson PR9350-02-S2 is the oil-proof, fixed-cable version of the PR9350 linear displacement transducer with a centered ± 25 mm range. Its 10 m open-end cable supports direct field termination in the documented measurement circuit.

IDENTITY	VERIFIED VALUE
Manufacturer	Emerson
Complete model	PR9350-02-S2
Product role	Oil-Proof Displacement Transducer
System family	PR9350 Displacement Sensors
Country of origin	USA

DOCUMENT SCOPE

Exact identity, manufacturer-supported technical data, installation checks, applications, precautions and controlled verification records.

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PR9350-02-S2

Technical Specifications

PARAMETER	VERIFIED VALUE
Complete order code	PR9350-02-S2
Measuring range	-25 to 0 to +25 mm
Special version	Oil-proof fixed cable
Cable length	10 m
Cable end	Open conductors
Coil A conductor	Brown
Coil B conductor	White
Coil C conductor	Green
Shield conductor	Black; not connected to housing
Sensor supply	5 Vrms at 3–5 kHz

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Protect the integral 10 m cable from damage and identify every open-end conductor before landing PR9350-02-S2. Verify the oil-resistant installation, 5 Vrms carrier supply and centered mechanical travel before calibration.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Verify the full PR9350-02-S2 suffix; do not substitute the standard PR9350-02 cable version.
2	Secure all moving equipment before coupling or uncoupling the transducer.
3	Inspect the full 10 m cable for oil damage, crushing or cuts.
4	Identify brown, white, green and black conductors before termination.
5	Do not connect the black shield to the transducer housing.

System Role and Architecture

Emerson PR9350-02-S2 is the oil-proof, fixed-cable version of the PR9350 linear displacement transducer with a centered ± 25 mm range. Its 10 m open-end cable supports direct field termination in the documented measurement circuit.

FUNCTION 1
Combines ± 25 mm displacement measurement with an oil-proof build

FUNCTION 2
Uses an integral 10 m field cable

FUNCTION 3
Provides color-identified open conductors

FUNCTION 4
Keeps the black shield isolated from the sensor housing

Common Applications

APPLICATION	ENGINEERING CONTEXT
Oil-system actuator feedback	Measures linear travel where the approved installation requires an oil-proof fixed cable.
Hydraulic mechanism position	Provides centered displacement feedback around the defined mechanical zero.
Long field-cable installations	Reaches the termination point with the documented 10 m integral cable.
Replacement of an S2 transducer	Restores the exact cable construction and conductor assignment recorded for the loop.

CONTROLLED ACCEPTANCE DUTY
Confirm identity, physical interface, companion hardware, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
1	Verify the full PR9350-02-S2 suffix; do not substitute the standard PR9350-02 cable version.
2	Secure all moving equipment before coupling or uncoupling the transducer.
3	Inspect the full 10 m cable for oil damage, crushing or cuts.
4	Identify brown, white, green and black conductors before termination.
5	Do not connect the black shield to the transducer housing.
6	Apply only the documented 5 Vrms, 3–5 kHz excitation.
7	Center the mechanism before zero and span adjustment.
8	Prove oil sealing, cable routing and full bidirectional response before release.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
What makes Emerson PR9350-02-S2 different from PR9350-02?	The S2 suffix identifies the oil-proof version with a fixed 10 m cable and open conductor ends.
How long is the integral cable on Emerson PR9350-02-S2?	The official ordering table specifies a 10 m cable for the S2 version.
Which Emerson PR9350-02-S2 conductor is coil A?	Brown is assigned to coil A.
Which wire is the common coil connection on Emerson PR9350-02-S2?	White is coil B, the documented midpoint connection between the two winding sections.

Model-Specific FAQ - Part 2

QUESTION	ANSWER
How is the Emerson PR9350-02-S2 shield identified?	The shield conductor is black and Emerson states it is not connected to the sensor housing.
Does Emerson PR9350-02-S2 retain the same measuring span as PR9350-02?	Yes. The documented range is -25 to 0 to +25 mm.
What should be inspected before landing Emerson PR9350-02-S2?	Inspect the entire fixed cable, verify the four conductor identities and confirm the termination drawing for the installed conditioner.
What is the final acceptance test for Emerson PR9350-02-S2?	Prove stable carrier excitation, correct conductor polarity, mechanical centering and bidirectional displacement response while confirming the oil-proof cable installation remains intact.

Related Products on Apter Power

MODEL	APTER POWER PAGE
Bently Nevada 128240-01	View Bently Nevada 128240-01
Bently Nevada 128275-01	View Bently Nevada 128275-01
Bently Nevada 128275-01E	View Bently Nevada 128275-01E
Bently Nevada 128275-01F-C2-A0130944-01	View Bently Nevada 128275-01F-C2-A0130944-01
Bently Nevada 128276-01E-C2-A0131151-01	View Bently Nevada 128276-01E-C2-A0131151-01
Bently Nevada 128718-01	View Bently Nevada 128718-01
Bently Nevada 129478-01	View Bently Nevada 129478-01
Bently Nevada 129525-0050-02	View Bently Nevada 129525-0050-02

MANUFACTURER SOURCE RECORD

PR9350 / K20-315 Linear Displacement Transducer Installation Guide
Emerson MHM-97864, Rev. 1.6, March 2026; S2 ordering and wiring tables

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