Emerson PR9268/601-000

Engineering Installation, Diagnostic and Acceptance Guide

Emerson PR9268/601-000 is the five-metre vertical high-temperature sensor in the PR9268 family. It retains an armored lead and Harting interface while changing the coil and dynamic range for service up to 200 deg C.

01 Job scope and identity

Complete model	PR9268/601-000
Product type	electrodynamic velocity sensor
Manufacturer	Emerson
Technical source	Emerson PR9268 Electrodynamic Velocity Sensor Specifications Sheet, December 2024

Field decisions

1 Decode the offered identity

Record PR9268/601-000 and reconcile the selected mechanical, electrical and environmental fields before removal.

2 Preserve the installed reference

Use PR9268/601-000 only where the installed drawing calls for its vertical, high-temperature element, selected cable length and stated cable termination.

3 Inspect the decisive interface

Vertical 60x sensing element documented to +200 deg C at the sensor.

4 Prove the product-specific function

Verify the vertical, high-temperature mounting angle, cable route and loaded sensitivity before releasing PR9268/601-000.

5 Retain traceable evidence

Full marking, armor and plug inspection, angle, wiring and operating response.

Installation relationships

Pin/load basis	Use 22.0 mV/(mm/s) only for pin 3 at the stated load; other pins use their own value.
High-temperature route	Keep the five-metre armor clear of hot edges and provide supports that permit thermal movement.
Angle compensation	Record the vertical offset and any configured sinking current rather than assuming zero correction.

Pre-work evidence

Verified field	Measurement orientation: Vertical, high-temperature
Verified field	Selected cable: 5 m armored cable
Verified field	Selected cable end: Harting plug
Verified field	Frequency range: 10 to 1000 Hz
Verified field	Sensitivity, pin 3: 22.0 mV/(mm/s) +/-5% at 100 kohm load
Verified field	Sensitivity, pin 1 or 4: 16.7 mV/(mm/s) +/-5% at stated load

02 Pre-installation readiness

Model-specific installation decisions

Exact identity

PR9268/601-000 and every delivered revision or approval marking must be recorded before removal.

Installed system

AMS PR9268 electrodynamic velocity sensor family companion components, channel assignment and approved machine reference must remain traceable.

Mechanical baseline

Record the as-found mounting datum, reach, lock position, target clearance, routing and connector support.

Electrical baseline

Record the applicable stopped-machine gap, bias, continuity or channel value together with test conditions.

As-left configuration

Document the final mechanical position, cable protection, connector condition and complete companion-component identities.

Functional release

Compare the final monitor indication and controlled operating response with the approved baseline before handover.

Installation precautions

Separate sensor and connector temperatures

The sensor family reaches 200 deg C, but the complete installation must also respect connector and cable limits.

Verify the chosen output pin

Record whether the channel uses pin 3, pin 1 or pin 4 and apply the matching sensitivity and load.

Keep the vertical nominal direction

Document any angular offset and the monitor configuration used to compensate within the permitted range.

Do not splice the fixed lead

A field splice changes the route and can compromise high-temperature and hazardous-area evidence.

Inspect stainless armor

Look for crushed convolutions, heat discoloration and loss of strain relief along the five-metre cable.

Prove the 10 Hz lower boundary

Compare channel filters and alarm logic with the high-temperature family response before release.

Pre-installation release gates

Release gate	Separate sensor and connector temperatures: The sensor family reaches 200 deg C, but the complete installation must also respect connector and cable limits.
Release gate	Verify the chosen output pin: Record whether the channel uses pin 3, pin 1 or pin 4 and apply the matching sensitivity and load.
Release gate	Keep the vertical nominal direction: Document any angular offset and the monitor configuration used to compensate within the permitted range.
Release gate	Do not splice the fixed lead: A field splice changes the route and can compromise high-temperature and hazardous-area evidence.
Release gate	Inspect stainless armor: Look for crushed convolutions, heat discoloration and loss of strain relief along the five-metre cable.
Release gate	Prove the 10 Hz lower boundary: Compare channel filters and alarm logic with the high-temperature family response before release.

03 Installation and commissioning

Controlled installation sequence

01 Hot vertical bearing case	Use where the approved measurement point requires the 60x high-temperature element and a five-metre armored path.
02 Steam-turbine casing	Keep the sensor vertical and verify that connector temperature remains within the installation boundary.
03 Compressor hot section	Apply the correct pin/load sensitivity rather than treating every PR9268 output conductor as equivalent.
04 Short local junction route	Select the 601 build when five metres reaches the Harting junction without leaving an unsupported cable coil.

Commissioning acceptance criteria

Acceptance point	Pin/load basis: Use 22.0 mV/(mm/s) only for pin 3 at the stated load; other pins use their own value.
Acceptance point	High-temperature route: Keep the five-metre armor clear of hot edges and provide supports that permit thermal movement.
Acceptance point	Angle compensation: Record the vertical offset and any configured sinking current rather than assuming zero correction.

04 Diagnostics and escalation

Why is the output pin important for PR9268/601-000?	Its high-temperature coil has different documented sensitivities for pin 3 and for pins 1 or 4 at their stated loads.
What cable length distinguishes PR9268/601-000?	Code 1 fixes the armored lead at 5 m, separating it from the otherwise similar 602 and 603 selections.
What frequency range belongs to PR9268/601-000?	The vertical 60x high-temperature family is documented from 10 to 1000 Hz.
Which temperature statement applies to PR9268/601-000?	The sensor family is specified from -20 to +200 deg C; cable, plug and installation limits still require review.

Additional diagnostic decisions

How should the vertical angle of PR9268/601-000 be checked?	Measure the installed axis and reconcile any permitted offset with the receiving-card configuration and maintenance baseline.

Can PR9268/601-000 be replaced by PR9268/201-000 without review?	No. The 201 build changes frequency floor, sensitivity, coil data, housing and maximum operating temperature.
What should be inspected on the Harting plug of PR9268/601-000?	Check shell, insert, pins, backshell and cable strain relief before the channel is energized.
Which records close an exchange of PR9268/601-000?	Retain the label, pin assignment, load, mounting angle, route photographs and returned machine-velocity trend.

05 Handover and evidence package

Model-specific handover evidence

Evidence source	Log the revision of Emerson PR9268 Electrodynamic Velocity Sensor Specifications Sheet, December 2024 used for the release review.
Applicability record	State how the delivered marking satisfies this boundary: The order matrix identifies the selected orientation, cable and termination where the exact suffix is listed; family performance remains conditional on mounting direction, load and temperature.
Installed-system record	Photograph and identify the interfaces needed to apply this decision: Use PR9268/601-000 only where the installed drawing calls for its vertical, high-temperature element, selected cable length and stated cable termination.
Functional acceptance	Attach measured results showing that the team completed this proof: Verify the vertical, high-temperature mounting angle, cable route and loaded sensitivity before releasing PR9268/601-000.

Model-specific application limits

Exact cable choice	5 m armored lead with Harting plug.
High-temperature data	10 to 1000 Hz; pin-dependent sensitivity; -20 to +200 deg C.
Electrical handover	Output pin, receiving load and configured angle compensation.
Handover evidence	Full marking, armor and plug inspection, angle, wiring and operating response.

Selected engineering values

Housing material	Stainless steel
Typical sensor weight	1050 g
Amplitude linearity	Less than 2%
Maximum acceleration	10 g continuous; 20 g intermittent
Coil resistance, pin 3	3270 ohm +/-10%
Inductance	160 mH maximum

Verified related product references

Related product	Bently Nevada 990-04-50-01-05
Related product	ABB CI858K01 3BSE018135R1
Related product	Emerson PR6423-10R-010
Related product	Emerson PR6424-006-131-CON041

Engineering contact

Discuss the exact marking and installed application with Apter Power.
sales13@apterpower.com | +86 18030235313