

PR9268-301-100

PR9268 electrodynamic velocity sensor

Self-generated electrodynamic voltage proportional to horizontal vibration velocity

PRODUCT SNAPSHOT

BRAND

Emerson

FAMILY

PR9268 horizontal case-seismic measurement

PART

PR9268-301-100

ORIGIN / HS

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PRODUCT OVERVIEW

Self-generated electrodynamic voltage proportional to horizontal vibration velocity

1

Designed for horizontal measuring axes

2

Includes a five-metre armored open-ended lead

3

Operates without an external transducer supply

4

Supports absolute vibration velocity measurement

SYSTEM COMPONENTS

AMS 6500 A6120 or compatible monitor

Horizontal machine-case mounting point

Field terminal and shield arrangement

Velocity alarm and trend configuration

TECHNICAL NOTE

Align the sensing axis horizontally, maintain full base contact, support the five-metre cable and verify polarity plus channel scaling before automatic protection is restored.

TECHNICAL DATA

PARAMETER	VALUE
Measuring orientation	Horizontal; up to 100 degC
Cable construction	Armored
Cable length	5 m
Cable termination	Open ends
Frequency range	4 to 1000 Hz
Natural frequency	4.5 +/-0.75 Hz at 20 degC
Sensitivity	28.5 mV/(mm/s) +/-5%
Damping	0.56 at 20 degC; 0.42 at 100 degC

PARAMETER	VALUE
Measuring-circuit resistance	1875 Ohm +/-10%
Insulation resistance	>1 MOhm at 500 V AC
Inductance	<90 mH
Capacitance to housing	<1.2 nF including cable
Maximum lifting/sinking current	1.8 mA
Operating temperature	-20 to +100 degC
Ingress protection	IP55
Minimum cable bend radius	35 mm

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
KJ4006X1-BD1	Related Emerson product	View KJ4006X1-BD1 page
KC4011X1-BZ1	Related Emerson product	View KC4011X1-BZ1 page
KC4011X1-BW1	Related Emerson product	View KC4011X1-BW1 page
KJ2201X1-BA1	Related Emerson product	View KJ2201X1-BA1 page
3900-02-10	Related Emerson product	View 3900-02-10 page
396P-02-12-55	Related Emerson product	View 396P-02-12-55 page
396P-08-10-55	Related Emerson product	View 396P-08-10-55 page
KJ3002X1-BG2-12P1731X062	Related Emerson product	View KJ3002X1-BG2-12P1731X062 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Horizontal turbine casing vibration

Designed for horizontal measuring axes

Compressor bearing-housing monitoring

Includes a five-metre armored open-ended lead

Motor and gearbox case motion

Operates without an external transducer supply

Balance-of-plant protection

Supports absolute vibration velocity measurement

PRODUCT PRECAUTIONS

- 1 Confirm the full PR9268-301-100 marking, horizontal measuring orientation and assigned machine location before removal.
- 2 Place the monitored machine and protection logic in the approved maintenance state before sensor work.
- 3 Use the three M6 through bores or M4 blind-hole threads without exceeding the documented 10 mm blind-thread depth.
- 4 Support the 5 m armored cable and maintain at least the documented 35 mm bending radius.
- 5 Preserve the measuring axis and housing contact surface; do not introduce tilt, rocking or loose mounting.
- 6 Identify both open-ended cable conductors and preserve shield and polarity continuity to the monitor channel.
- 7 Measure the sensor circuit and insulation condition before reconnecting it to the monitoring input.
- 8 Run the machine under controlled conditions and verify velocity response, phase behavior and alarm logic.

ENGINEER FAQ

Q1 Does PR9268-301-100 match AMS 6500 A6120 or compatible monitor in a Horizontal turbine casing vibration installation?

Verify the complete PR9268-301-100 marking, the documented PR9268 horizontal case-seismic measurement position and the installed AMS 6500 A6120 or compatible monitor before fitting the assembly.

Q2 How should PR9268-301-100 be wired when it must be designed for horizontal measuring axes?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for PR9268-301-100; then continuity-test the affected path.

Q3 Which PR9268 horizontal case-seismic measurement records should be captured before removing PR9268-301-100?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with PR9268-301-100 before disconnection.

Q4 What controlled test confirms that PR9268-301-100 can include a five-metre armored open-ended lead?

Apply the approved field or simulated stimulus, observe the PR9268 horizontal case-seismic measurement indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which Horizontal machine-case mounting point condition should be checked when PR9268-301-100 reports an abnormal state?

Check the Horizontal machine-case mounting point supply, seating and connection first, then compare channel diagnostics with the recorded PR9268-301-100 baseline.

Q6 Can PR9268-301-100 be moved directly into Compressor bearing-housing monitoring without validating Velocity alarm and trend configuration?

No. Confirm the Velocity alarm and trend configuration, revision, connection scheme and PR9268 horizontal case-seismic measurement configuration before transferring PR9268-301-100 to that duty.

Q7 What maintenance evidence is required after PR9268-301-100 is used for Motor and gearbox case motion?

Retain the nameplate record, corrective action, final diagnostics and a controlled motor and gearbox case motion functional-test result for PR9268-301-100.

Q8 How should PR9268-301-100 be returned to service in Balance-of-plant protection?

Restore power under control, verify operates without an external transducer supply, exercise the intended signal path and release PR9268-301-100 only after the PR9268 horizontal case-seismic measurement remains in its approved operating state.

SOURCE Emerson PR9268 Electrodynamic Velocity Sensor Installation Guide and Product Data Sheet | MHM-97479
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