

INDUSTRIAL AUTOMATION PRODUCT

A6120

AMS 6500 dual-channel case-seismic vibration monitor

Two differential electrodynamic velocity-sensor inputs with processed vibration, current, voltage and raw-signal outputs

IDENTITY	VERIFIED VALUE
Manufacturer	Emerson
System family	AMS 6500 machinery protection system
Part number	A6120
Country	USA
HS code	8537101190

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Technical Specifications

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

PARAMETER	VALUE
Monitor channels	2 independent
Input type	Electrodynamic differential
Compatible sensors	PR9266; PR9267; PR9268
Input resistance	>100 kOhm
Input voltage range	-5 to +15 V DC
Lower cutoff	1 Hz or 5 Hz
Upper cutoff	50 to 2000 Hz adjustable
Velocity RMS metric range	5 to 100 mm/s
Displacement metric range	+/-25 to +/-500 um
Velocity RMS English range	0.197 to 3.937 in/s
Displacement English range	+/-0.984 to +/-19.685 mils
Standard frequency range	10 to 1000 Hz

PARAMETER	VALUE
Selectable frequency bands	5-50; 10-50; 50-1000; 50-1600 Hz
Lifting-coil current	0 to 8 mA in 40 uA steps
Maximum load at 2 mA	3.4 kOhm
Dynamic input	311 to 9500 mV p-p
Current output	0/4 to 20 mA per channel
Current-output load	<500 Ohm
Voltage output	0 to 10 V DC
Buffered raw output	0 to 12 V p-p
Raw-output bandwidth	0.1 Hz to 15 kHz (-3 dB)
Module format	3U; one slot
Service feature	Hot swappable
Protection standard	API 670

VERIFIED PRODUCT RECORD

DATA GROUP	VERIFIED VALUE
Installed host / carrier	AMS 6500 system rack
Companion hardware	PR9266, PR9267 or PR9268 sensors
Field connection	A6500-UM universal measurement card platform
Primary system function	Processes two independent case-seismic channels
Controlled acceptance duty	Turbine case-vibration protection

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System Role and Architecture

Two differential electrodynamic velocity-sensor inputs with processed vibration, current, voltage and raw-signal outputs

FUNCTION 1

Processes two independent case-seismic channels

FUNCTION 2

Accepts PR9266/PR9267/PR9268 differential inputs

FUNCTION 3

Provides selectable filtering and vibration ranges

FUNCTION 4

Supports hot-swap service in an AMS 6500 rack

Matched system components

- AMS 6500 system rack
- PR9266, PR9267 or PR9268 sensors
- A6500-UM universal measurement card platform
- Relay, analog-output and CSI interface connections

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	AMS 6500 system rack
Companion hardware	PR9266, PR9267 or PR9268 sensors
Field connection	A6500-UM universal measurement card platform
Primary system function	Processes two independent case-seismic channels
Controlled acceptance duty	Turbine case-vibration protection

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Applications and Engineering Context

Turbine case-vibration protection

Processes two independent case-seismic channels

Compressor housing monitoring

Accepts PR9266/PR9267/PR9268 differential inputs

Motor and gearbox seismic channels

Provides selectable filtering and vibration ranges

Hydro-generator structural vibration

Supports hot-swap service in an AMS 6500 rack

TECHNICAL NOTE

Record both channel configurations, filters, ranges, sensor lifting currents and alarm logic; after insertion, verify raw signal, analog outputs, diagnostics and protection voting before service.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	A6120 / A6120 recorded
Physical interface	AMS 6500 system rack
Companion check	PR9266, PR9267 or PR9268 sensors
Functional proof	Processes two independent case-seismic channels
Application test	Turbine case-vibration protection

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Engineering Precautions

1

Confirm the complete A6120 identity and assigned AMS 6500 rack slot before work.

2

Place both monitored machines or channels in the approved maintenance and bypass state.

3

Record sensor type, filter band, measuring range, lifting current and alarm settings for both channels.

4

Use ESD controls and protect the 3U card edge and front-panel connectors during handling.

5

Confirm PR9266/PR9267/PR9268 wiring polarity and differential-input continuity before insertion.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
EN-204-EN-204-00-000	Related Emerson product	View EN-204-EN-204-00-000 page
1C31169G02	Related Emerson product	View 1C31169G02 page
FX-490	Related Emerson product	View FX-490 page
ES0350-M1A05L-27N0	Related Emerson product	View ES0350-M1A05L-27N0 page
960177-02	Related Emerson product	View 960177-02 page
KJ2003X1-BB1	Related Emerson product	View KJ2003X1-BB1 page
EC3-X33	Related Emerson product	View EC3-X33 page
FX-340	Related Emerson product	View FX-340 page

MANUFACTURER SOURCE RECORD

Emerson AMS 6500 Protection Cards Classic Reference Manual

A6120 section, November 2017

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