

A6220

Eccentricity Monitor

Emerson A6220 is a dual-channel eccentricity vibration monitor for slow-roll and rotor eccentricity measurements in the AMS 6500 Classic system. It processes compatible eddy-current sensor signals over a low-frequency measurement band.

IDENTITY	VERIFIED VALUE
Manufacturer	Emerson
Complete model	A6220
Product role	Eccentricity Monitor
System family	AMS 6500 Classic Protection System
Country of origin	USA

DOCUMENT SCOPE

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

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



Technical Specifications

PARAMETER	VERIFIED VALUE
Complete model	A6220
Channels	2
Measured variable	Eccentricity vibration
Compatible sensors	PR6422, PR6423, PR6424, PR6425
Input band	0.017–70 Hz
Measurement range	0–400 mV peak to 0–8000 mV peak
Sensor supply	-26.7 VDC nominal; 20 mA nominal, 35 mA max
Analog output	0/4–20 mA; load below 500 Ω
Analog accuracy	±1%
Functions	Peak-to-peak, minimum, maximum and continuous gap

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Retain the slow-roll reference, peak-to-peak scaling and continuous-gap setup when replacing A6220. Verify both sensor gaps and test the configured minimum, maximum and eccentricity outputs at a controlled shaft condition.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Verify A6220 and both eccentricity probe locations.
2	Place affected startup and protection functions in maintenance state.
3	Record slow-roll reference, probe gaps and shaft rotational condition.
4	Preserve peak-to-peak, minimum, maximum and continuous-gap settings.
5	Handle the monitor with ESD controls.

System Role and Architecture

Emerson A6220 is a dual-channel eccentricity vibration monitor for slow-roll and rotor eccentricity measurements in the AMS 6500 Classic system. It processes compatible eddy-current sensor signals over a low-frequency measurement band.

FUNCTION 1
Measures low-frequency rotor eccentricity on two channels

FUNCTION 2
Supports peak-to-peak, minimum and maximum processing

FUNCTION 3
Supplies compatible eddy-current sensor systems

FUNCTION 4
Provides continuous gap and 0/4–20 mA outputs

Common Applications

APPLICATION	ENGINEERING CONTEXT
Slow-roll eccentricity testing	Quantifies rotor bow during turning-gear operation.
Turbine startup monitoring	Tracks eccentricity as speed rises from slow roll.
Rotor storage checks	Compares minimum and maximum shaft position during controlled rotation.
Eccentricity channel replacement	Restores a two-channel A6220 without changing the recorded reference setup.

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 A6220 and both eccentricity probe locations.
2	Place affected startup and protection functions in maintenance state.
3	Record slow-roll reference, probe gaps and shaft rotational condition.
4	Preserve peak-to-peak, minimum, maximum and continuous-gap settings.
5	Handle the monitor with ESD controls.
6	Confirm -26.7 VDC nominal sensor supply before reconnecting probes.
7	Check the 0/4–20 mA load is below 500 Ω .
8	Perform a controlled slow-roll comparison and prove enabled alarms before release.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
What frequency band is processed by Emerson A6220?	The official card reference gives an input band of 0.017–70 Hz for eccentricity measurement.
Which values can Emerson A6220 calculate during slow roll?	A6220 provides peak-to-peak eccentricity, minimum position, maximum position and continuous gap.
What sensor supply is provided by Emerson A6220?	The nominal supply is -26.7 VDC at 20 mA, with 35 mA maximum.
Which probes are supported by Emerson A6220?	The card reference lists PR6422, PR6423, PR6424 and PR6425 systems.

Model-Specific FAQ - Part 2

QUESTION	ANSWER
What is the largest documented Emerson A6220 measurement span?	The largest stated range is 0–8000 mV peak; the smallest is 0–400 mV peak.
What load limit applies to the Emerson A6220 current output?	The 0/4–20 mA output requires a load below 500 Ω .
Why is slow-roll condition recorded for Emerson A6220?	Eccentricity depends on rotor condition and rotational reference, so a different turning state can change the minimum, maximum and peak-to-peak result.
How is Emerson A6220 accepted after replacement?	Confirm sensor supply and gaps, rotate under a controlled slow-roll condition, compare minimum/maximum/peak-to-peak values and prove outputs and enabled alarms.

Related Products on Apter Power

MODEL	APTER POWER PAGE
Bently Nevada 1900-65A-00-00-01-00-00	View Bently Nevada 1900-65A-00-00-01-00-00
Bently Nevada 1900-65A-00-01-01-00-00	View Bently Nevada 1900-65A-00-01-01-00-00
Bently Nevada 1900-65A-01-01-03-00-00	View Bently Nevada 1900-65A-01-01-03-00-00
Bently Nevada 1900-65A-01-01-03-00-01	View Bently Nevada 1900-65A-01-01-03-00-01
Bently Nevada 190501-00-00-04	View Bently Nevada 190501-00-00-04
Bently Nevada 190501-02-99-00-711480	View Bently Nevada 190501-02-99-00-711480
Bently Nevada 190501-04-00-00	View Bently Nevada 190501-04-00-00
Bently Nevada 190501-04-00-04	View Bently Nevada 190501-04-00-04

MANUFACTURER SOURCE RECORD

Protection Cards for AMS 6500 Classic Systems
Protection Cards for AMS 6500 Classic Systems; November 2017

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