

Emerson - AMS 6500**A6110**

Dual-Channel Shaft Relative Vibration Monitor

Verified model data

Manufacturer	Emerson
Part number	A6110
Product family	AMS 6500 Machinery Health Monitor
Product type	Dual-channel shaft relative vibration monitor
Channels	2, independent or combined monitoring modes
Input type	Eddy current, differential
Compatible sensor families	PR6422, PR6423, PR6424 and PR6425
Compatible drivers	CON011/91, CON021/91 and CON041/91
Input voltage range	0 to -22 VDC
Input resistance	>100 k Ω
Frequency range	Lower cutoff 1 or 5 Hz; upper cutoff 50 to 2000 Hz adjustable

Selection summary

Emerson A6110 is a two-channel AMS 6500 protection monitor for shaft vibration measured relative to the bearing housing.

It accepts supported PR642x eddy current measuring chains, processes channels independently or in combined modes, and provides alarm, buffered and proportional outputs in one 3U rack slot.

Before replacement or commissioning, preserve the channel mode, sensor and converter types, gap and scale, filter settings, alarm and trip logic, relay assignments, bypass state and rack configuration.

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Additional verified data

Sensor supply	Nominal -26.7 VDC, 20 mA; 35 mA maximum
Analog outputs	0/4 to 20 mA and 0 to 10 V
Buffered outputs	Front and rear raw-signal outputs
Power consumption	6 W maximum; 250 mA at 24 VDC
Format	3U, 1 slot, hot-swappable
Dimensions	16.0 × 3.0 × 12.84 cm (L × W × H)
Net weight	Approximately 0.32 kg
Rack capacity	Up to 14 modules in a 19-inch rack
Standard	API 670 compliant

Transducer Chain

- Match each PR642x probe to its documented CON converter
- Verify sensor gap and bias before comparing vibration
- Confirm channel polarity and units from the saved configuration

Protection Logic

- Retain Alert and Danger setpoints and delay behavior
- Preserve relay voting, limit multiply and trip-bypass assignments
- Document every active bypass before and after maintenance

Commissioning

- Check front and rear buffered signals
- Verify 0/4 to 20 mA and 0 to 10 V assignments
- Perform controlled alarm-path checks before returning protection to service

Application checkpoints

- Relative shaft vibration protection on steam, gas and hydro turbines
- Sleeve-bearing compressor shaft-vibration monitoring
- Critical rotating-machine protection integrated into an AMS 6500 rack

Evidence boundary: Official dimensions and net weight are published for the A6110 card itself. Rack, terminal, relay and transducer-chain components are separate and are not included in those values.

Source basis: Emerson Protection Cards for AMS 6500 Classic Systems, November 2017.