Emerson A6220

01 Measurement architecture

Function

Two independent displacement channels evaluate shaft eccentricity, min/max and gap values.

Measurement location

The probe views a collar near the thrust bearing from a suitable bearing-case or internal mounting.

Operating context	Slow-roll bow assessment below 600 rpm
Compatible sensor families	6422 / 6423 / 6424 / 6425 with matching CON driver
Key reference	Separate key monitoring in the system

Technical basis: Emerson Protection Cards for AMS 6500 Classic Systems, A6220 specifications, November 2017. This is an Apter Power-authored technical reference, not an original manufacturer manual.

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02 Sensor and output interfaces

Input separation

The differential transducer inputs are galvanically separated from the power supply.

Two output roles

Raw buffered signals support analysis; proportional outputs report the selected characteristic value.

Input impedance	>100 kΩ
Sensor supply	-26.7 VDC nominal
Buffered rear bandwidth	0–16 kHz (-3 dB)
Gap output	0–10 VDC; ±1% of range

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03 Configuration and scaling

Select the measurement

Set the channel engineering units, range and sensor sensitivity together so the signal represents the intended movement.

Observe settling

A changed configuration requires the specified settling interval before alarm or output comparisons are meaningful.

Modes	Peak-to-peak; min/max; continuous gap
Signal ranges	0–400 mV peak to 0–8000 mV peak
Configuration access	RS-232 Mini DIN; password protected
Hot-configuration settling	60 seconds

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04 Alarm and supervision logic

Threshold behaviour

Alert and danger thresholds have independent configuration. Hysteresis and delay affect when indications reset and operate.

Diagnostic boundary

A valid displayed value does not prove every protection relay; verify both channel health and the configured shutdown response.

Alert / danger	5–100% full scale; 1% resolution
Decreasing-signal hysteresis	0–20% of full scale
Limit multiply	1.00–4.99 via remote input
Trip bypass	Remote relay input

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05 Environment and engineering references

Cabinet conditions

Keep the module within 0–65 °C and 5–95% non-condensing humidity. The exposed module and front plate have different protection classifications.

Power and preservation

Maximum consumption is 6 W, 250 mA at 24 VDC. Preserve the installed sensor calibration and machine-specific alarm logic.

Module protection	IP00
Front plate	IP21
Storage	-30 to +85 °C

Related product navigation

Epro PR6423/004-120-CN CON021

Epro PR6423/010-100-CN CON021

These are related references, not confirmed substitutes or an automatically approved assembly.