

Emerson - AMS 6300 SIS**A6370D**

Single-Channel Digital Overspeed Protection Monitor with Display

Verified model data

Manufacturer	Emerson
Part number	A6370D
Official product family	AMS 6300 SIS
Product type	Single-channel digital overspeed protection monitor with display
System architecture	Three A6370 monitors with one A6371 backplane
Supported sensors	Eddy-current, Hall-element and magnetic/VR sensors
Signal frequency range	0 to 20 kHz
Eddy/Hall signal range	0 to ± 26 VDC
Magnetic/VR input	1 Vpp minimum to 30 Vrms maximum
Digital inputs	4 backplane inputs
Current outputs	2 isolated 0/4 to 20 mA outputs; load below 500 Ω

Selection summary

Emerson A6370D is a single-channel speed monitor with display used in the AMS 6300 SIS digital overspeed protection system.

Three monitors operate with an A6371 backplane to implement the approved voted or non-voted trip architecture while accepting eddy-current, Hall or magnetic speed sensors.

Before replacement, save the complete monitor configuration, bus address, trigger levels, sensor type, voting/backplane setting, trip limits, relay logic, bypass state and proof-test records.

APTER POWER

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Additional verified data

Digital outputs	7 relay/digital outputs plus pulse outputs
Configuration interface	Front USB Type B
Serial network	RS485, maximum 32 devices
PROFIBUS boundary	Only A6370D/DP provides PROFIBUS
Module format	42HP width, 3RU height
Dimensions	21.1 x 13.0 x 4.3 cm (W x H x D)
Net weight	Approximately 0.49 kg, excluding packaging
Operating temperature	-20 to 65°C
Protection	IP20 in rack; IP00 otherwise

Sensor Input

- Select eddy-current, Hall or magnetic/VR mode correctly
- Place trigger thresholds within the measured signal limits
- Verify reference, shield and ground paths for the floating input

Trip Architecture

- Match the saved configuration to A6371/00 or A6371/10
- Preserve relay latching, direction and voting assignments
- Confirm each monitor position against the approved safety design

Proof Test

- Use documented test values and controlled bypass authorization
- Verify every trip relay and reset path
- Record configuration checksum, results and return-to-service status

Application checkpoints

- SIL-rated turbine overspeed protection
- Direction and speed protection on critical rotating machinery
- Three-channel voted or non-voted shutdown systems using AMS 6300 SIS

Evidence boundary: The official A6370 specifications give the complete monitor dimensions as 211 x 130 x 43 mm (W x H x D) and the weight as approximately 490 g, excluding packaging.

Source basis: Emerson A6370 Overspeed Protection Monitor Specifications, December 2023.