

Emerson - AMS 3311**A3311/022-000**

Speed and Key Monitor with Internal Eddy-Current Converters

Verified model data

Manufacturer	Emerson
Part number	A3311/022-000
User-supplied punctuation variant	A3311-022-000
Product family	AMS 3311
Product type	Speed and key monitor with internal eddy-current converters
Converter arrangement	Internal converter; LEMO sensor socket
Frequency range	0 to 20 kHz; up to 65,535 rpm subject to frequency
Signal processing	Automatic trigger; software configurable
Buffered outputs	2 outputs, 2 to 10 V
Current outputs	2 isolated 0/4 to 20 mA; 500 Ω maximum
Relay outputs	5 make-contact relays; 48 VDC, 1 A, 50 W maximum

Selection summary

Emerson A3311/022-000 is a compact speed and key monitor with internal eddy-current converters for small rotating-machinery installations.

It provides software-configurable speed or phase processing, buffered and isolated analog outputs, and five relay outputs in a wall-mounted IP65 aluminum housing.

Before replacement, confirm the exact /022-000 internal-converter code, sensor and target geometry, trigger behavior, output scaling, relay logic, supply, wiring and saved configuration.

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Additional verified data

Supply	24 VDC nominal; 18 to 31.2 VDC; 6 W maximum
Operating temperature	-20 to 65°C
Protection	IP65
Housing	Corrosion-resistant aluminum; wall mounting
Net weight	Approximately 1.3 kg
Official front drawing	12.75 × 12.55 cm (W × H); complete depth not published in extracted official data

Sensor Selection

- Use the documented eddy-current sensor and LEMO interface
- Verify target material, key geometry and probe gap
- Check signal amplitude over the complete speed range

Output Mapping

- Retain speed and key channel assignments
- Verify 0/4 to 20 mA scaling and buffered-output polarity
- Match all five relay functions and delays to the approved logic

Troubleshooting

- Inspect trigger stability when readings fail only at low speed
- Check sensor gap and target runout before changing configuration
- Verify power, grounding and relay suppression when resets occur during switching

Application checkpoints

- Speed monitoring on small turbines and compressors
- Key/phase-reference output for vibration analysis
- Local speed and relay protection on pumps and fans

Evidence boundary: Official weight is available for the complete module. Only front width and height were verified in the official drawing, so the backend Dimensions field remains blank rather than inventing a full W × H × D value.

Source basis: Emerson AMS 3311 Speed & Key Monitor specification.