

Emerson - MMS 6000**MMS6140**

Absolute Shaft Vibration Monitor

Verified model data

Manufacturer	epro / Emerson
Part number	MMS6140
Product type	Absolute shaft vibration monitor
Channel 1	Eddy-current relative shaft vibration
Channel 2	Seismic or piezoelectric absolute bearing vibration
Combined function	Phase-compensated difference for absolute shaft vibration
Frequency ranges	1 to 250 Hz and 5 to 2000 Hz, configuration-dependent
Power consumption	Maximum 8 W; 300 mA at 24 VDC
Product family	MMS 6000 Machine Monitoring System
Supply voltage	18 to 31.2 VDC; nominal 24 VDC
Configuration interface	RS232 on module front

Selection summary

EPRO MMS6140 measures absolute shaft vibration by combining relative shaft motion with absolute bearing motion from two different sensor principles.

Channel 1 uses an eddy-current chain and channel 2 uses a seismic or piezoelectric sensor; phase compensation and subtraction produce the combined absolute shaft signal.

Before replacement, document both sensor chains, phase and polarity conventions, filters, sensitivities, combination mode, alarms, outputs, relay logic, bypasses and rack configuration.

Emerson - MMS 6000**MMS6140****Additional verified data**

System interface	RS485; up to 31 modules / 62 channels per bus
Module protection	IP00; front plate IP21
Operating temperature	0 to 65°C
Storage and transport temperature	-30 to 85°C
Relative humidity	5 to 95%, non-condensing
Dimensions	3.0 × 12.84 × 16.0 cm (W × H × D)
Net weight	Approximately 0.32 kg

Channel Assignment

- Connect the eddy-current chain to the shaft channel
- Connect the seismic or piezoelectric sensor to the bearing channel
- Match both sensors to the same machine axis and location

Signal Combination

- Preserve phase compensation and polarity
- Use compatible filter ranges and engineering units
- Check individual channels before evaluating the difference

Protection Checks

- Prove each individual alarm path
- Validate the combined absolute-shaft output
- Restore relays and bypasses under controlled conditions

Application checkpoints

- Absolute shaft vibration protection on large turbines
- Combined rotor and bearing-motion monitoring on compressors
- Machinery diagnostics requiring relative-to-absolute vibration conversion

Evidence boundary: Dimensions and net weight are taken from the exact-model original epro datasheet; gross packed weight is excluded.

Source basis: Original epro MMS 6140 data sheet.