

Installation Identity and Scope

Emerson A6312 is a dual-channel speed and key monitor for IMR6000/10 and IMR6000/30 machinery monitoring systems. It processes eddy-current or differential sensor inputs for speed, zero-speed, key and direction-related functions.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	A6312
Manufacturer	Emerson
Hardware type	Speed Key Monitor
System family	AMS 6500 Classic Protection System
Official source	Protection Cards for AMS 6500 Classic Systems; November 2017

CONTROLLED ENGINEERING COPY

Record tooth count, trigger thresholds, zero-speed time and channel combination logic before replacing A6312. Verify each sensor input independently, then prove calculated speed, key reference and any direction or speed-difference function.

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A6312

Pre-Installation Plan

NO.	REQUIRED ACTION
1	Verify the exact A6312 model; do not substitute the different A6312-8 record.
2	Record both sensor locations and trigger targets.
3	Capture tooth count, trigger thresholds and channel polarity.
4	Preserve zero-speed mark count and timeout.
5	Place any speed-dependent trip function in maintenance state.

Matched Hardware

CONTROL ITEM	REQUIRED RECORD
Identity	A6312
Physical interface	Two documented speed or key sensors
Companion check	IMR6000/10 or IMR6000/30 host
Configuration	Tooth count, threshold and zero-speed configuration
Functional proof	Dual-frequency and direction proof test

RELEASE HOLD POINT

Do not disturb the installed device until the exact marking, connections, companion hardware and configured function are documented.

Wiring and Interface Checks

CHECK	MODEL-SPECIFIC REQUIREMENT
Model	Confirm A6312, not A6312-8.
Inputs	Record both sensors and target features.
Scaling	Capture pulses per revolution and RPM range.
Thresholds	Save trigger levels and polarity.
Zero speed	Record marks and timeout.
Direction	Preserve channel phase assignment.
Frequency test	Inject a known signal into each input.
Combined logic	Prove direction and speed difference where used.

CONFIGURATION BOUNDARY

Record tooth count, trigger thresholds, zero-speed time and channel combination logic before replacing A6312. Verify each sensor input independently, then prove calculated speed, key reference and any direction or speed-difference function.

Expected Technical Values

PARAMETER	VALUE
Complete model	A6312
Channels	2
Systems	IMR6000/10 and IMR6000/30
Input types	Eddy-current or differential sensor

Commissioning and Acceptance

TEST	ACCEPTANCE CONDITION
Identity	A6312 and host system are confirmed.
Individual channels	Both frequency inputs scale correctly.
Zero speed	Mark count and timeout operate as configured.
Combined functions	Key, direction and speed-difference logic are verified.

Technical Questions to Resolve

QUESTION	ENGINEERING ANSWER
How does Emerson A6312 differ from A6312-8?	A6312 is the dual-channel speed and key monitor described for IMR6000/10 and IMR6000/30; the suffix version is a different catalog record and must not be treated as the same model.
What is the maximum input frequency of Emerson A6312?	The documented frequency range extends to 20 kHz.
What is the maximum displayed speed for Emerson A6312?	The card reference lists a maximum of 65,535 RPM.
Which sensor signals can Emerson A6312 accept?	It supports eddy-current or differential sensor inputs over 0 to ± 27.3 VDC.

Source, Related Products and Release

MODEL	APTER POWER PAGE
Bently Nevada 200350-12-00-CN	View Bently Nevada 200350-12-00-CN
Bently Nevada 200355-00-00-00	View Bently Nevada 200355-00-00-00
Bently Nevada 21000-00-00-00-000-00-02	View Bently Nevada 21000-00-00-00-000-00-02
Bently Nevada 21000-00-00-00-039-03-02	View Bently Nevada 21000-00-00-00-039-03-02
Bently Nevada 21000-16-05-00-080-04-02	View Bently Nevada 21000-16-05-00-080-04-02
Bently Nevada 21000-00-00-00-019-03-02	View Bently Nevada 21000-00-00-00-019-03-02
Bently Nevada 21000-00-00-00-064-01-02	View Bently Nevada 21000-00-00-00-064-01-02
Bently Nevada 21000-00-00-00-087-03-02	View Bently Nevada 21000-00-00-00-087-03-02

MANUFACTURER SOURCE RECORD

Protection Cards for AMS 6500 Classic Systems
Protection Cards for AMS 6500 Classic Systems; November 2017

Controlled Release Summary

RELEASE ITEM	REQUIRED EVIDENCE
Identity	A6312 recorded
Interface	Connections and companion hardware verified
Configuration	Installed values agree with approved record
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