Emerson A6312

01 Preserve the target reference

1 Capture both channels

Record which channel measures speed or key, the trigger marks per wheel, zero-speed time and any combined or redundant mode.

2 Match the hardware

Confirm the offered A6312 belongs in the IMR 6000/10 or /30 installation; inspect its interfaces before removal.

Version	A6312, distinct from A6312-8
Independent inputs	Two
Trigger count	1–255

02 Check the signal path

1 Verify probe drivers

Match the installed eddy-current chain and input polarity. Check gap voltage and the signal transition before changing thresholds.

2 Identify each output

Separate raw buffered signal, processed pulse and current-loop wiring; the signals have different loading and scaling.

Input frequency	0–20 kHz
Input impedance	>100 kΩ
Pulse receiver	Load >10 kΩ
Current loop	Load <500 Ω

03 Restore timing configuration

1 Set the trigger relationship

Enter the actual tooth or mark count and verify the resulting speed scaling with controlled rotation.

2 Set the slow-speed boundary

Choose zero-speed timing that corresponds to the required slowest pulse interval, not an arbitrary short delay.

Zero-speed timing	1–1700 s
Speed range	Up to 65,535 rpm
Key reference	One mark per revolution for stable phase

04 Exercise combined modes

1 Test phase and direction

Verify the phase-shifted trigger arrangement and compare indicated direction with known shaft motion.

2 Test redundant transfer

When redundancy is used, check primary and backup sensors in the same axial plane and exercise the configured transfer condition.

Direction	Two phase-shifted trigger inputs
Redundant supervision	Gap voltage and pulse comparison
Speed difference	Combined-channel rpm comparison

A6312

05 Confirm release evidence

1 Verify downstream signals

Compare current indication, pulse train and alarm outputs with the restored configuration. Investigate disagreement rather than adjusting one display alone.

2 Record the final reference

Retain target geometry, channel settings, measured speed and tested failover response. Remove temporary protection bypass through the responsible personnel.

Technical basis: Emerson Protection Cards for AMS 6500 Classic Systems, A6312 specifications, November 2017.

Related product navigation

Emerson PR6423-010-000

Emerson PR6423-10R-010

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