Emerson IC695ALG608

01 Range configuration

Current and voltage modes use different electrical interfaces. Store mode, scaling, offset and alarms for each enabled channel; all of those settings contribute to the engineering value presented to the program.

Differential and single-ended configurations organize the available terminals differently. Define the signal source and its reference arrangement before assigning channels; the channel count alone is not a complete wiring specification.

Input channels	8 single-ended or 4 differential
Current ranges	0–20 mA; 4–20 mA; ±20 mA

Technical basis: Emerson PACSystems RX3i System Manual, GFK-2314AG. This Apter Power technical reference organizes applicable manufacturer data.

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02 Filter-dependent rejection

The strongest line-frequency rejection occurs at the lower filter settings. Faster acquisition reduces that rejection, so a selected scan rate must be evaluated with the installed noise environment.

Input rejection and response speed form a configuration trade-off. Record the filter choice with the process time requirement so a low-noise result is not accepted at the expense of missing the required change.

Voltage ranges	±10 V; 0–10 V; ±5 V; 0–5 V; 1–5 V
Input impedance	>100 kΩ in voltage mode

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03 Power by execution

Hardware revision affects backplane current and dissipation. Use the supplied revision when preparing the rack power budget rather than applying one current value to every ALG608 execution.

Alarm interpretation depends on both the selected range and the application conversion. Preserve raw-data meaning when changing engineering units, and review alarm limits after any range or representation change.

Current input resistance	249 Ω ±1%
Input filters	8, 12, 16, 40, 200 or 500 Hz

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04 Terminal-block supervision

Terminal presence has its own indication. A missing or incompletely seated block can create a field condition even though the backplane continues to power the module electronics.

Terminal and channel diagnostics support different troubleshooting decisions. Maintain separate indications in the application where required so a connection problem is not represented solely as a process-value excursion.

Open-circuit detection	1 s maximum
Continuous input limits	±60 V DC or ±28 mA maximum

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05 Alarm processing

Threshold and rate alarms are configured independently. Positive and negative changes can require different limits, and a rate limit is interpreted together with its sampling interval.

Acceptance should cover conversion, status and the receiving program as one path. Retain injected reference values and their mapped results to make a later replacement comparison meaningful.

Data representation	32-bit IEEE float or 16-bit integer in a 32-bit field

Related product navigation

- Emerson IC695ALG728
- Emerson IC695CPE400

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