Emerson IC694ALG223

01 Range representation

Normal current ranges map their selected endpoints into the analog word. Enhanced live-zero operation extends the representation below the usual zero point so under-range can be distinguished in logic.

The selected current range defines how raw values represent the process signal. Keep that range and the engineering conversion together in the application record so a replacement does not inherit an incompatible scale.

Input channels	16 single-ended
Input ranges	0–20 mA; 4–20 mA; enhanced 4–20 mA

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

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02 Input burden

The input resistance contributes to the transmitter loop burden. Include wiring and any series equipment when checking the source’s ability to drive the complete current loop.

Enabled channels form a configured contiguous allocation. Record both the channel count and starting application mapping to avoid treating a software array index as a freely selectable physical input.

Resolution	4 µA/count at 4–20 mA; 5 µA/count at 0–20 mA
Module update	6 ms

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03 Channel allocation

The scanned inputs form a configured contiguous set. The program and field terminal assignment must agree with that set; connected but unscanned inputs do not establish valid process measurements.

Common-referenced measurements require coordinated transmitter returns. Review the actual source grounding before interpreting offset or unstable readings as a failure of the analog conversion.

Input resistance	250 Ω
Input filter	19 Hz low-pass

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04 Reference status

Alarm-status allocation is separate from analog input allocation. A configuration with no status-reference length can remove useful indications while leaving numerical values available.

Enhanced under-range representation and alarm status serve different application needs. Define how the program handles each result so a low-current condition cannot be mistaken for a valid minimum process value.

Accuracy	±0.25% full scale at 25 °C
External supply	20–30 V DC

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05 Response and interference

Filtering, conversion and program timing form the complete response. Evaluate the installed electromagnetic environment before applying the best-case accuracy statement to a noisy operating installation.

Filtering affects the response observed by the application. Specify the required process response with the measurement range and retain acceptance data from a controlled changing input.

Input data	16-bit value per configured channel

Related product navigation

General Electric IC695NIU001-ADAD

General Electric IC693PWR330

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