

1794-IE8 and 1794-IE8XT Analog 8 Input Module

The 1794-IE8 is a voltage/current measurement module that works with a variety of input sensors to measure input voltage in $\pm 10V$ range or input current in the 0...20 mA range. Each channel is individually configurable for the desired input range. Use the 1794-IE8 with 2-, 3-, and 4-wire input sensor field devices.

The 1794-IE8XT module is the extended temperature version of the 1794-IE8 module. The module is conformal coated.

IMPORTANT Only connect either a voltage input or a current input per channel, not both.



Use caution to prevent ground loops when using a common ground, since the channels are not isolated.

Analog 8 Input Modules

Specification	1794-IE8 and 1794-IE8XT
Voltage, input, max overload	30V, single channel, continuous
Current, input, max overload	32 mA, single channel, continuous
Input impedance, nom	Current Input: 238 Ω Voltage Input: 100 k Ω
Input resolution	12 bits – unipolar 11 bits + sign – bipolar 5.13 $\mu A/cnt$ 2.56 mV/cnt – unipolar 5.13 mV/cnt – bipolar
Data format	16-bit 2's complement, left-justified
Input conversion type	Successive approximation
Input conversion rate	256 μs all channels
Normal mode rejection ratio	Current input: -3 dB @ 9 Hz; -20 dB/decade -15.3 dB @ 50 Hz -16.8 dB @ 60 Hz Voltage input: -3 dB @ 17 Hz; -20 dB/decade -10 dB @ 50 Hz -11.4 dB @ 60 Hz
Calibration	None required
Step response to 63% of FS, input	Current input: 18.2 ms Voltage input: 9.4 ms
Dimensions (HxWxD), approx	46 x 94 x 53 mm (1.8 x 3.7 x 2.1 in.) 94 x 94 x 69 mm (3.7 x 3.7 x 2.7 in.) installed
Accuracy	Current input: 0.20% Full Scale @ 25 $^{\circ}C$ (77 $^{\circ}F$) Voltage input: 0.20% Full Scale @ 25 $^{\circ}C$ (77 $^{\circ}F$) ⁽¹⁾
Temperature, operating	1794-IE8: 0...55 $^{\circ}C$ (32...131 $^{\circ}F$) 1794-IE8XT: -20...70 $^{\circ}C$ (-4...185 $^{\circ}F$)

(1) Includes offset, gain, non-linearity, and repeatability error terms