Analog Input Modules

GE provides a range of RSTi-EP analog input modules with 4 or 8 inputs and up to 16-bit resolution. The measurement range is defined by parameterization with an accuracy of 0.1% FSR with the exception of EP3124, which 0.25% FSR. The parameters for the measurement range can be individually set for each channel.

	EP-3124	EP-3164	EP-3264	EP-3368	EP-3468
Product Name	**Analog Input, 4 Channels Voltage/Current 12 Bits 2, 3, or 4 Wire**	**Analog Input, 4 Channels Voltage/Current 16 Bits 2, 3, or 4 Wire**	**Analog Input, 4 Channels Voltage/Current 16 Bits with Diagnostics 2, 3, or 4 Wire**	**Analog Input, 8 Channels Current 16 Bits 2, 3, or 4 Wire**	**Analog Input, 8 Channels Current 16 Bits 2, 3, or 4 Wire, Channel Diagnostic**
Lifecycle Status	Active	Active	Active	Active	Active
Module Type	Analog Input	Analog Input	Analog Input	Analog Input	Analog Input
System Bus Transfer Rate	48 Mbps	48 Mbps	48 Mbps	48 Mbps	48 Mbps
Potential Isolation	Test voltage: max. 28.8 V within one channel, 500 V DC field/system Pollution severity level: 2 Overvoltage category: II	Test voltage: max. 28.8 V within one channel, 500 V DC field/system Pollution severity level: 2 Overvoltage category: II	Test voltage: max. 28.8 V within one channel, 500 V DC field/system Pollution severity level: 2 Overvoltage category: II	Test voltage: max. 28.8 V within one channel, 500 V DC field/system Pollution severity level: 2 Overvoltage category: II	Test voltage: max. 28.8 V within one channel, 500 V DC field/system Pollution severity level: 2 Overvoltage category: II
Common Mode Voltage	Against: 0V - ±50V Channel-Channel: ±3V	Against: 0V - ±50V Channel-Channel: ±3V	Against: 0V - ±50V Channel-Channel: ±3V	Against: 0V - ±50V Channel-Channel: ±3V	Against: 0V - ±50V Channel-Channel: ±3V
Number of Inputs	4	4	4	8	8
Input Values	Voltage (0 to 5 V, ±5 V, 0 to 10 V, ±10 V, 1 to 5 V, 2 to 10 V) Current (0 to 20 mA, 4 to 20 mA)	Voltage (0 to 5 V, ±5 V, 0 to 10 V, ±10 V, 1 to 5 V, 2 to 10 V) Current (0 to 20 mA, 4 to 20 mA)	Voltage (0 to 5 V, ±5 V, 0 to 10 V, ±10 V, 1 to 5 V, 2 to 10 V) Current (0 to 20 mA, 4 to 20 mA)	Current input (0 to 20 mA, 4 to 20 mA)	Current input (0 to 20 mA, 4 to 20 mA)
Resolution	12 bits	16 bits	16 bits	16 bits	16 bits
Frequency Suppression	Options: disabled (0) / 50 Hz (1) / 60 Hz (2) / Average over 16 values (3) Default: disabled	Options: disabled (0) / 50 Hz (1) / 60 Hz (2) / Average over 16 values (3) Default: disabled	Options: disabled (0) / 50 Hz (1) / 60 Hz (2) / Average over 16 values (3) Default: disabled	Options: disabled (0) / 50 Hz (1) / 60 Hz (2) / Average over 16 values (3) Default: disabled	Options: disabled (0) / 50 Hz (1) / 60 Hz (2) / Average over 16 values (3) Default: disabled
Accuracy	0.25 % max. at 25 °C (77 °F) 50 ppm/K max. Temperature coefficient max. −10 mV/A additional inaccuracy in the voltage mode due to sensor power supply current	0.1 % max. at 25 °C (77 °F) 50 ppm/K max. Temperature coefficient max. −10 mV/A additional inaccuracy in the voltage mode due to sensor power supply current	0.1 % max. at 25 °C (77 °F) 50 ppm/K max. Temperature coefficient max. −10 mV/A additional inaccuracy in the voltage mode due to sensor power supply current	0.1 % max. at 25 °C (77 °F) 50 ppm/K max. Temperature coefficient	0.1 % max. at 25 °C (77 °F) 50 ppm/K max. Temperature coefficient
Sensor Supply	max. 2 A per plug, total max. 8 A	max. 2 A per plug, total max. 8 A	max. 0.5 A per plug	max. 125 mA per channel; channel 0 to 3 and 4 to 7 respectively are fused in combination	max. 125 mA per channel; channel 0 to 3 and 4 to 7 respectively are fused in combination
Sensor Connection	2-wire, 3-wire, 3-wire + FE	2-wire, 3-wire, 3-wire + FE	2-wire, 3-wire, 3-wire + FE	2-wire, 3-wire, 3-wire + FE	2-wire, 3-wire, 3-wire + FE
Conversion time	1 ms	1 ms	1 ms	1 ms	1 ms
Reverse Polarity Protection	Yes	Yes	Yes	Yes	Yes
Short-Circuit Proof	Yes	Yes	Yes	Yes	Yes
Response Time of Protective Circuit	< 0.1 s with short-circuit to +24 V	< 50 ms	< 50 ms	< 0.1 s with short-circuit to +24 V	< 0.1 s with short-circuit to +24 V
Reset Time	N/A	N/A	N/A	Temperature-dependent (< 30 s at 20°C)	Temperature-dependent (< 30 s at 20°C)
Module Diagnostics	Yes	Yes	Yes	Yes	Yes
Individual Channel Diagnostics	No	No	Yes	No	Yes
Supply Voltage	20.4V – 28.8V via system bus	20.4V – 28.8V via system bus	20.4V – 28.8V via system bus	20.4V – 28.8V via system bus	20.4V – 28.8V via system bus
Current consumption from system current path I_{SYS}	8 mA	8 mA	8 mA	8 mA	8 mA
Current consumption from input current path I_{IN}	25 mA + sensor supply current	25 mA + sensor supply current	25 mA + sensor supply current	20 mA + load	20 mA + load
Operating Temperature	-20°C to +60°C (-4 °F to +140 °F)	-20°C to +60°C (-4 °F to +140 °F)	-20°C to +60°C (-4 °F to +140 °F)	-20°C to +60°C (-4 °F to +140 °F)	-20°C to +60°C (-4 °F to +140 °F)
Storage Temperature	-40°C to +85°C (-40 °F to +185 °F)	-40°C to +85°C (-40 °F to +185 °F)	-40°C to +85°C (-40 °F to +185 °F)	-40°C to +85°C (-40 °F to +185 °F)	-40°C to +85°C (-40 °F to +185 °F)
Humidity	5% to 95%, noncondensing	5% to 95%, noncondensing	5% to 95%, noncondensing	5% to 95%, noncondensing	5% to 95%, noncondensing
Dimensions (H x W x D) in (mm)	4.72 x 0.45 x 2.99 (120 x 11.5 x 76)	4.72 x 0.45 x 2.99 (120 x 11.5 x 76)	4.72 x 0.45 x 2.99 (120 x 11.5 x 76)	4.72 x 0.45 x 2.99 (120 x 11.5 x 76)	4.72 x 0.45 x 2.99 (120 x 11.5 x 76)
Weight oz (g)	3.07 (87)	3.14 (89)	3.14 (89)	3.17 (90)	3.17 (90)