

RSTi-EP Slice I/O

Digital Input Modules

EP-1214, EP-1218, EP-1318, EP-125F, EP-1804 Digital Input Module with Time Stamp EP-12F4

GE provides a range of RSTi-EP digital input modules with 4, 8 or 16 inputs, which are primarily used to receive binary control signals from sensors, transmitters, switches or proximity switches. Their flexible design allows them to meet your demands with reserve potential.

All modules are fully compliant with IEC 61131-2. They can be switched on the input side with type-1 and type-3 sensors in accordance with IEC 61131-2.

The wiring connectors on each module are color coded for ease of wiring. Refer to the section, *Field Wiring* for additional information.

The time stamp module EP-12F4 can detect up to 4 binary control signals and provide them with a time stamp (resolution 1 μ s). Depending on the configuration of the module, up to 5 or 15 time stamp entries can be evaluated.

Each module features a type plate, which includes identification information, the key technical specifications, and a block diagram. In addition, a QR code allows for direct online access to the associated documentation. The software for reading the QR code must support inverted QR codes.

Markers are available as accessories for labelling equipment. Each I/O module can be labelled using the markers to ensure clear identification when replacing individual modules or electronic units.

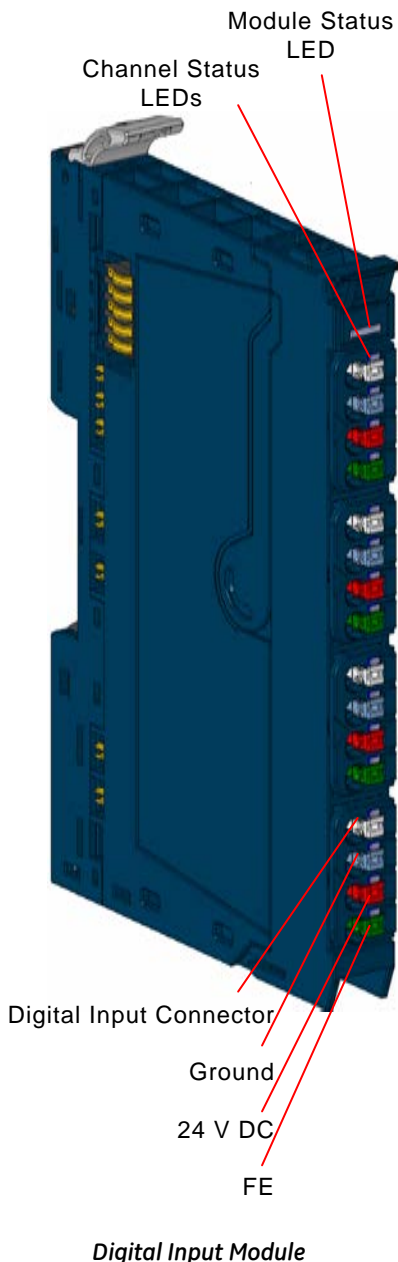
A green *Module Status* LED indicates there is communication on the system bus. Additionally, there are Yellow LEDs for each input to indicate when it is active. Refer to the section, *LEDs* for additional information.

The RSTi-EP station is usually installed on a horizontally positioned DIN rail. Installation on vertically positioned DIN rails is also possible.

Modules should to be allowed to de-energize for a minimum 10 seconds after power down, prior to starting any maintenance activity.

Refer to the *RSTi-EP Slice I/O Module User Manual* (GFK-2958) for additional information.

Refer to the *RSTi-EP Power Supply Reference Guide*, a software utility available on PME V9.00, for detailed power-feed requirements.



Module Features

- Positive Logic
- *Spring style* technology for ease of wiring
- DIN rail mounted
- Double-click installation for positive indication of correct installation
- Up to 16 sensor inputs
- Compatible with type-1 and type-3 sensor inputs per IEC 61131-2
- Time stamping available
- Supports hot insertion and extraction

Ordering Information

Module	Description
EP-1214	Digital Input, 4 Points, Positive Logic 24VDC, 2,3, or 4-Wire
EP-1218	Digital Input, 8 Points, Positive Logic, 24VDC 2-Wire
EP-1318	Digital Input, 8 Points, Positive Logic, 24VDC 3-Wire
EP-125F	Digital Input, 16 Points, Positive Logic, 24VDC, 1-Wire
EP-1804	Digital Input, 4 Points, 110/230 VAC (65 – 277 VAC), 2 Wire, Isolated
EP-12F4	Digital Input, 4 Points, Positive Logic 24VDC, 2,3, or 4-Wire, Time stamp

Specifications

Item	EP-1214	EP-1218	EP-1318	EP-125F	EP-12F4	EP-1804
System Data						
Data	-	-	Process, parameter and diagnostic data depend on the network adapter used.			
Interface	-	-	RSTi-EP system bus			
System bus transfer rate	-	-	48 Mbps			
Inputs						
Channels	4	8	8	16	4	4
Sensor types	Type 1 and Type 3 sensors as per IEC 61131-2					P-switching, for Type 3 sensors as per IEC 61131-2
Input filter	Input delay adjustable from 0 to 40 ms [†]			Input delay 3 ms	Input delay adjustable from 0 to 40 ms [†]	Input delay 10 ms
Off voltage	-	-	< 5 V			< 65 V
On voltage	-	-	> 11 V			≥ 80 V
Max. input current per channel	-	-	-	-	3 mA	-
Sensor supply	max. 2 A per plug, total max. 8 A	max. 15 mA per channel	max. 2 A per plug, total max. 8 A	No	Yes	No
Sensor connection	2-wire, 3-wire, 3-wire + FE	2-wire	2-wire, 3-wire	1-wire	2-wire, 3-wire, 3-wire + FE	2-wire
Reverse polarity protection	-	-	Yes			
Module diagnostics	-	-	Yes			
Individual channel diagnosis	-	-	No			
Supply						
Supply voltage	-	-	20.4V – 28.8V			
Current consumption from system current path I_{sys}	-	-	8 mA			
Current consumption from input current path I_{IN}	18 mA	30 mA	30 mA	52 mA	18 mA	No
General Data						
Operating temperature	-	-	-20°C to +60°C (-4 °F to +140 °F)			
Storage temperature	-	-	-40°C to +85°C (-40 °F to +185 °F)			

Air humidity (operation/transport)	-	-	5% to 95%, noncondensing as per IEC 61131-2			
Width	-	-	11.5 mm (0.45 in)			
Depth	-	-	76 mm (2.99 in)			
Height	-	-	120 mm (4.72 in)			
Weight	87 g (3.07 oz)	85 g (2.99 oz)	83 g (2.93 oz)	87 g (3.07 oz)	89 g (3.07 oz)	87 g (3.07 oz)
† When used with PROFIBUS-DP network adapter it is limited to 20 ms						

Current Demand for Digital Input Modules

Product	I _{sys}	I _{IN}	I _{OUT}	I _S	I _L
EP-1214	8 mA	18 mA	--	x	--
EP-1218	8 mA	30 mA	--	x	--
EP-1318	8 mA	30 mA	--	x	--
EP-125F	8 mA	52 mA	--	--	--
EP-1804	8 mA	No	--	--	--
EP-12F4	8 mA	18 mA	--	x	--
I _{sys}	Current consumption from the system current path				
I _{IN}	Power consumption from input current path				
I _{OUT}	Power consumption from output current path				
I _S	Current demand of the connected sensors				
I _L	Current demand of the connected actuators				
x	Must be included when calculating the power supply				