GFK-2966B

September 2016



Door for Micro USB Port

Modbus Network Adapter

Modbus® Network Adapter Module EPXMBE001

The EPXMBE001 network adapter is a Modbus TCP participant developed according to IEC 61158. The network adapter is the head module for the RSTi-EP communication bus, to which up to 64 active RSTi-EP modules can be connected. The Modbus TCP network adapter has two Ethernet ports and an integrated switch.

The network adapter can be accessed with a system-independent web server application via the USB service interface or the Ethernet. Thus, all information, such as diagnostics, status values and parameters, can be read and all connected modules can be simulated or forced.

The station's main power supply is integrated in the network adapter. Power is supplied via two 4-pole connectors, separated into the input and output current paths.

Caution, the RSTi-EP station is usually installed on a horizontally positioned DIN rail. Installation on vertically positioned DIN rails is also possible. However, the heat dissipation is reduced such that the derating values change (refer to the section, <u>Thermal Derating</u>.

Modules should to be allowed to de-energize for a minimum 10 seconds after power down, prior to starting any maintenance activity. The network adapter cannot be hot-swapped.

Refer to the *RSTi-EP Slice I/O 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

- Supports up to 64 active RSTi-EP modules
- Spring-style technology for ease of wiring
- DIN rail mounted
 - Double-click installation for positive indication of correct installation
- Built-in Web Server for diagnostic information and firmware update through Ethernet and micro USB port
- Option of fixed or DHCP IP address configuration
- Support for daisy-chain/line, star topologies

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Ordering Information

Module	Description
EPXMBS001	RSTi-EP Slice I/O Modbus TCP Network Adapter

Specifications

	EPXMBE001				
System data					
Connection	2 x RJ-45				
Fieldbus protocol	Modbus TCP				
	Input data width max. 8 kBytes				
Process image	Parameter data	max. 1024 kBytes			
	Diagnostic data	max. 1024 kBytes			
Number of modules	max. 64 active				
Configuration interface	Micro USB 2.0				
Transfer rate	Fieldbus	10 Mbps/100 Mbps			
	RTSi-EP system bus	Max. 48 Mbps			
Supply					
Supply voltage for system and inputs	20.4V – 28.8V				
Supply voltage for outputs	20.4V – 28.8V				
Max. feed-in current for input modules	10 A				
Max. feed-in current for output modules	10 A				
Current consumption from system	112 mA				
current path Isys	112 IIIA				
Connection data					
Type of connection	Spring style				
Conductor cross-section	Single-wired, fine-wired	0.14 – 1.5 mm² (AWG 26 – 16)			
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)	umidity (operation/transport) 5% to 95%, noncondensing as per IEC 61				
Width 52 mm (2		nm (2.05 in)			
Depth	76 mm (2.99 in)				
Height	120 mm (4.72 in)				
Weight	223 g (7.87 oz)				

LEDs

LED Status Indicators

LED	Indication	LED State/Description	
PWR	Power LED	Green: Supply voltage connected	
SF	System Fault	Red: Configuration error, or error in the network adapter, or error in a module, or there is a new diagnostic report Red flashing: Station in Force mode	
BF	Bus fault	Red: No connection to the fieldbus Red flashing: Configuration error, no connection to the control unit, or error in the parameter set	
МТ	Maintenance Required	Yellow: Error on the system bus or fieldbus	
L/A X1	Connection/Active	Green / Yellow [†] : Connection established between port 1 of the network adapter and another field device Green flashing / Yellow flashing [†] : Data being exchanged on port 1	
L/A X2	Connection/Active	Green: Connection established between port 2 of the network adapter and another field device Green flashing: Data being exchanged on port 2	
[†] Green:⊺ Yellow: [−]	ransfer rate 100 MBit/s Fransfer rate 10 MBit/s		

LED Indicators

			LED	EPXMBE001
			Power	Green: Supply voltage > 18 V DC
X 1		MBE001	Supply	Red: At least one current path < 18 V
	PWR	(CER		
	🛑 BF	00		
	= MI			
	= L/A X1			
X 2	L/A X2			
		\square		
			3.1	Green: Input current path supply voltage > 18 V DC
			3.2	Red: Input current path supply voltage < 18 V DC
			3.3	
EPXMBE001			3.4	Red: Internal fuse defective
MAC-Address:	Service		4.1	Green: Output current path supply voltage > 18 V DC
00:15:7E:11:72:14	Х 3		4.2	Red: Output current path supply voltage < 18 V DC
			4.3	
			4.4	Red: Internal fuse defective
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