DATASHEET - EASY-COM-RTU-M1

Communication module for connecting the easy control relay via Modbus RTU Server, screw terminal

Part no.	**EASY-COM-RTU-M1**	
	199453	
EL Number (Norway)	**4500803**	

General specifications

Product name			Eaton Moeller® series EASY Accessory Bus module
Part no.			EASY-COM-RTU-M1
EAN			4015081978441
Product Length/Depth			58 millimetre
Product height			90 millimetre
Product width			36 millimetre
Product weight			0.1 kilogram
Certifications			IEC/EN 61000-6-3 EN 61010 IEC/EN 61000-6-2 IEC 60068-2-6 IEC/EN 61000-4-2 IEC/EN 61131-2 IEC 60068-2-27 EN 50178 IEC 60068-2-30 CE UL File No.: E205091 UL Listed UL hazardous location division 2 UL hazardous location class I UL hazardous location group C (ethylene) UL hazardous location group D (propane) UL hazardous location group B (hydrogen) UL hazardous location group A (acetylene)
Product Tradename			EASY
Product Type			Accessory
Product Sub Type			Bus module

Features & Functions

Features			Expandable Expansion device

General information

Degree of protection			IP20
Insulation resistance			According to EN 50178, EN 61010-2-201, UL61010-2-201, CSA-C22.2 NO. 61010-2-201
Mounting method			Rail mounting possible Screw fixing using fixing brackets ZB4-101-GF1 (accessories) Top-hat rail fixing (according to IEC/EN 60715, 35 mm) Wall mounting/direct mounting Front build in possible
Overvoltage category			II
Pollution degree			2
Protocol			MODBUS TCP/IP
Type			Communication module
Voltage type			DC

Ambient conditions, mechanical

Drop and topple			50 mm Drop height, Drop to IEC/EN 60068-2-31
Mounting position			Vertical Horizontal
Shock resistance			15 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 18 Impacts

Climatic environmental conditions

Air pressure			795 - 1080 hPa (operation)
Ambient operating temperature - min			-25 °C
Ambient operating temperature - max			55 °C
Ambient storage temperature - min			-40 °C

Ambient storage temperature - max		70 °C
Environmental conditions		Clearance in air and creepage distances according to EN 50178, EN 61010-2-201, UL61010-2-201, CSA-C22.2 NO. 61010-2-201 Condensation: prevent with appropriate measures
Relative humidity		5 - 95 % (IEC 60068-2-30, IEC 60068-2-78)

Electro magnetic compatibility

Air discharge		8 kV
Burst impulse		1 kV, Signal cable
Contact discharge		6 kV, Electrostatic discharge (ESD)
Electromagnetic fields		1 V/m at 2 - 2.7 GHz (according to IEC EN 61000-4-3) 10 V/m at 0.08 - 1.0 GHz (according to IEC EN 61000-4-3) 3 V/m at 1.4 - 2 GHz (according to IEC EN 61000-4-3)
Immunity to line-conducted interference		10 V (according to IEC/EN 61000-4-6)
Radio interference class		Class B (EN 61000-6-3)
Surge rating		According to IEC/EN 61000-4-5, power pulses (Surge), EMC 1 kV, Supply cables, asymmetrical, power pulses (Surge), EMC 0.5 kV, Supply cables, symmetrical, power pulses (Surge), EMC
Voltage dips		≤ 10 ms According to EN 61131-2

Terminal capacities

Terminal capacity		0.2 - 4 mm² (AWG 22 - 12), solid 0.2 - 2.5 mm² (22 - 12 AWG), flexible with ferrule
Screwdriver size		3.5 x 0.8 mm, Terminal screw
Tightening torque		0.6 Nm, Screw terminals

Electrical rating

Power consumption		1 W
Rated operational voltage		24 V DC (-15 %/+ 20 % - power supply)
Supply voltage at AC, 50 Hz - min		0 V
Supply voltage at AC, 50 Hz - max		0 V
Supply voltage at DC - min		20.4 V DC
Supply voltage at DC - max		28.8 V DC
Voltage rating		24 Vdc

Short-circuit rating

Short-circuit protection		≥ 1A (T), Fuse, Power supply

Communication

Bus termination		Switchable
Connection type		Screw terminal

Input/Output

Number of inputs (analog)		0
Number of inputs (digital)		0
Number of outputs (analog)		0
Number of outputs (digital)		0

Safety

Explosion safety category for gas		None
Explosion safety category for dust		None

Design verification

Static heat dissipation, non-current-dependent Pvs		1 W
10.2.2 Corrosion resistance		Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures		Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat		Meets the product standard's requirements.
10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects		Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation		Meets the product standard's requirements.
10.2.5 Lifting		Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact		Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions		Meets the product standard's requirements.
10.3 Degree of protection of assemblies		Meets the product standard's requirements.
10.4 Clearances and creepage distances		Meets the product standard's requirements.

10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 9.0

Programmable logic controllers PLC (EG000024) / Logic module (EC001417)

Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Programmable logic control (SPS) / Logic module (ecl@ss13-27-24-22-16 [AKE539019])

Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	20.4 - 28.8
Voltage type (supply voltage)		DC
Switching current	A	0
Power consumption	W	1
Number of analogue inputs		0
Number of analogue outputs		0
Number of digital inputs		0
Number of digital outputs		0
With relay output		No
Number of HW-interfaces industrial Ethernet		0
Number of interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		0
Number of HW-interfaces parallel		0
Number of HW-interfaces wireless		0
Number of HW-interfaces other		1
With optical interface		No
Supporting protocol for EtherCAT		No
Supporting protocol for TCP/IP		Yes
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for Modbus		Yes
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No

Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		No
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
Redundancy		No
With display		No
Degree of protection (IP)		IP20
Basic device		No
Expandable		Yes
Expansion device		Yes
With time switch clock		No
Rail mounting possible		Yes
Wall mounting/direct mounting		Yes
Front built-in possible		Yes
Rack-assembly possible		No
Suitable for safety functions		No
SIL according to IEC 61508		None
Performance level according to EN ISO 13849-1		None
Appendant operation agent (Ex ia)		No
Appendant operation agent (Ex ib)		No
Explosion safety category for gas		None
Explosion safety category for dust		None
Certified for UL hazardous location class I		Yes
Certified for UL hazardous location class II		No
Certified for UL hazardous location class III		No
Certified for UL hazardous location division 1		No
Certified for UL hazardous location division 2		Yes
Certified for UL hazardous location group A (acetylene)		Yes
Certified for UL hazardous location group B (hydrogen)		No
Certified for UL hazardous location group C (ethylene)		Yes
Certified for UL hazardous location group D (propane)		Yes
Certified for UL hazardous location group E (metal dusts)		No
Certified for UL hazardous location group F (carbonaceous dusts)		No
Certified for UL hazardous location group G (non-conductive dusts)		No
Width	mm	36
Height	mm	90
Depth	mm	58