DATASHEET - EASY-COM-SWD-C1

Communication module for connecting the easy control relay as SWD coordinator in SmartWire-DT applications, screw terminal

Part no.   **EASY-COM-SWD-C1**
199452

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General specifications

Product name		Eaton Moeller® series EASY Accessory Bus module
Part no.		EASY-COM-SWD-C1
EAN		4015081978434
Product Length/Depth		58 millimetre
Product height		90 millimetre
Product width		36 millimetre
Product weight		0.1 kilogram
Certifications		IEC/EN 61000-6-2 IEC 60068-2-6 EN 50178 IEC/EN 61000-6-3 EN 61010 CE IEC/EN 61131-2 IEC/EN 61000-4-2 IEC 60068-2-27 IEC 60068-2-30 UL Listed UL File No.: E205091 UL hazardous location group A (acetylene) UL hazardous location class I UL hazardous location group C (ethylene) UL hazardous location division 2 UL hazardous location group D (propane) UL hazardous location group B (hydrogen)
Product Tradename		EASY
Product Type		Accessory
Product Sub Type		Bus module
Catalog Notes		Current consumption at 24 V DC

Features & Functions

Features		Expansion device Expandable

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		Front build in 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 Rail mounting possible
Overvoltage category		II
Pollution degree		2
Product category		Control relays easyE4
Protocol		TCP/IP Other bus systems
Residual ripple		≤ 5 % ≤ 5 % (input voltage)
Type		Communication module
Voltage type		DC

Ambient conditions, mechanical

Drop and topple		50 mm Drop height, Drop to IEC/EN 60068-2-31
Height of fall (IEC/EN 60068-2-32) - max		0.3 m
Mounting position		Horizontal Vertical
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, SmartWire-DT cable, Signal cable, according to IEC/EN 61131-2, Level 3
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		1 kV, Supply cables, asymmetrical, power pulses (Surge), EMC According to IEC/EN 61000-4-5, power pulses (Surge), EMC 0.5 kV, Supply cables, symmetrical, power pulses (Surge), EMC
Voltage dips		According to EN 61131-2 ≤ 10 ms

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

Heat dissipation		1 W (at 24 V DC)
Inrush current		12.5 A (for 6 ms)
Power consumption		14.5 W
Rated control supply voltage		24 V DC (UAUX, -15 %/+20 %) 20.4 - 28.8 V DC
Rated operational voltage		24 V DC (-15 %/+ 20 % - power supply)
Supply current		0.7 A, Imax, SmartWire-DT supply 2 A (UL), Imax, Supply voltage UAux
Supply voltage at AC, 50 Hz - min		0 V AC
Supply voltage at AC, 50 Hz - max		0 V AC
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		No, Short-circuit rating, Supply voltage UAux Yes, SmartWire-DT supply voltage ≥ 3 A (T) (e.g. FAZ C3), Fuse, Power supply

Communication

Addressing		Address set automatically via Configuration button
Bus termination		Integrated in the device, SmartWire-DT With SWD4-RC8-10, SmartWire-DT line end
Connection		SmartWire-DT blade terminal SWD4-8MF2
Connection type		SWD: Plug, 8-pole Screw terminal
Data transfer rate		125 kBit/s, SmartWire-DT 250 kBit/s, SmartWire-DT
LED indicator		Status indication of SmartWire-DT master: Green and red LEDs
Station		SmartWire-DT master, SmartWire-DT network

Input/Output

Input current		500 mA (U#)
Number of inputs (analog)		0

Number of inputs (digital)		0
Number of outputs (analog)		0
Number of outputs (digital)		0
Output voltage		U# - 0.3 V (SWD-OUT, Supply voltage UAUX)

Safety

Explosion safety category for gas		None
Potential isolation		Between SmartWire-DT supply voltage and Power supply POW: no Between SmartWire-DT supply voltage and AUX: yes Between Supply voltage UAUX and SmartWire-DT: yes Between supply voltage UAUX and Power supply POW: yes Between SmartWire-DT supply voltage and COM Interface: yes
Protection against polarity reversal		Yes
Explosion safety category for dust		None

Design verification

Equipment heat dissipation, current-dependent Pvid		10.5 W
Static heat dissipation, non-current-dependent Pvs		4 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	14.5
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		No
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		Yes
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