

Specifications

Eaton 199452

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

General specifications

PRODUCT NAME	Eaton Moeller® series EASY Accessory Bus module
CATALOG NUMBER	199452
MODEL CODE	EASY-COM-SWD-C1
EAN	4015081978434
PRODUCT LENGTH/DEPTH	58 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	36 mm
PRODUCT WEIGHT	0.1 kg
CERTIFICATIONS	IEC 60068-2-27 IEC 60068-2-6 IEC/EN 61131-2 IEC 60068-2-30 IEC/EN 61000-4-2 IEC/EN 61000-6-2 IEC/EN 61000-6-3 EN 61010 EN 50178 CE UL Listed UL File No.: E205091 UL hazardous location class I UL hazardous location division 2 UL hazardous location group A (acetylene) UL hazardous location group B (hydrogen) UL hazardous location group C (ethylene) UL hazardous location group D (propane)
CATALOG NOTES	Current consumption at

Features & Functions

FEATURES

Expansion device
Expandable

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

24 V DC

General

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

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

Electro magnetic compatibility

AIR DISCHARGE	8 kV
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BURST IMPULSE	1 kV, SmartWire-DT cable, Signal cable, according to IEC/EN 61131-2, Level 3
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CONTACT DISCHARGE	6 kV, Electrostatic discharge (ESD)
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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)
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IMMUNITY TO LINE-CONDUCTED INTERFERENCE	10 V (according to IEC/EN 61000-4-6)
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RADIO INTERFERENCE CLASS	Class B (EN 61000-6-3)
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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
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VOLTAGE DIPS	According to EN 61131-2 ≤ 10 ms
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measures

RELATIVE HUMIDITY

5 - 95 % (IEC 60068-2-30, IEC 60068-2-78)

Terminal capacities

TERMINAL CAPACITY	0.2 - 4 mm ² (AWG 22 - 12), solid
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	0.2 - 2.5 mm ² (22 - 12 AWG), flexible with ferrule
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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, I _{max} , SmartWire-DT supply 2 A (UL), I _{max} , Supply voltage UAUX
SUPPLY VOLTAGE AT AC, 50 HZ - MIN	0 VAC
SUPPLY VOLTAGE AT AC, 50 HZ - MAX	0 VAC
SUPPLY VOLTAGE AT DC - MIN	20.4 VDC
SUPPLY VOLTAGE AT DC - MAX	28.8 VDC
VOLTAGE RATING	24 Vdc

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

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
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Input/Output

INPUT CURRENT	500 mA (U _e)
NUMBER OF INPUTS (ANALOG)	0
NUMBER OF INPUTS (DIGITAL)	0
NUMBER OF OUTPUTS (ANALOG)	0
NUMBER OF OUTPUTS (DIGITAL)	0
OUTPUT VOLTAGE	U _e - 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.

Resources

APPLICATION NOTES	eaton-easye4-aws-ap050027-en-us.pdf
BROCHURES	easy E4 control relay-brochure
CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	DA-DC-00004562.pdf DA-DC-00004596.pdf
DRAWINGS	eaton-timers-time-delay-relays-sequence-timers-electrical-logic-relays-dimensions-2528dim-16.eps
INSTALLATION INSTRUCTIONS	IL050024ZU
INSTALLATION VIDEOS	Video easy E4 control relay Control relay easyE4: The new generation
MANUALS AND USER GUIDES	MN050009_EN
MCAD MODEL	easy_com.swd.dwg easy_com.swd.stp
MULTIMEDIA	How to connect the easyE4 to the touch panel XV-102 for easy? - 5 Steps How to process SmartWire-DT modules using the EASY-COM-SWD-C1 module connected to an easyE4? How to process ModbusRTU devices with the EASY-COM-RTU-M1 module on an easyE4? Handling of the data logger as a ring buffer with the easyE4 using the ST programming language. easyE4 SmartWire-DT module with Remote Touch Display and RMQ multi color indicator

	How to connect the Remote Touch Display EASY-RTD to the easyE4?
PRODUCT NOTIFICATIONS	MZ049014EN
SALES NOTES	eaton-control-relay-easye4-flyer-fl050007en-en-us.pdf eaton-rmq-chemical-resistance-flyer-fl047011en-en-us.pdf

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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