Specifications

Eaton 199452

Catalog Number: 199452

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



General specifications

Product Name	**Catalog Number**
Eaton Moeller® series EASY Accessory Bus module	199452
	EAN
	4015081978434
Product Length/Depth	**Product Height**
58 mm	90 mm
Product Width	**Product Weight**
36 mm	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

Catalog Notes

Current consumption at 24 V DC

Powering Business Worldwide

Features & Functions

Features

Expansion device

Expandable

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

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

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

Shock resistance

15 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 18 Impacts

-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 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

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_e)

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

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

Output voltage

U_e - 0.3 V (SWD-OUT, Supply voltage UAUX)

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

Catalogs

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

Control relay easyE4: The new generation

Video easy E4 control relay

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?

How to connect the Remote Touch Display EASY-RTD to the easyE4?

easyE4 SmartWire-DT module with Remote Touch Display and RMQ multi color indicator

Handling of the data logger as a ring buffer with the easyE4 using the ST programming language.

Product notifications

MZ049014EN

Sales notes

eaton-control-relay-easye4-flyer-fl050007en-en-us.pdf

eaton-rmq-chemical-resistance-flyer-fl047011en-en-us.pdf

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