Specifications





Eaton 197223

Eaton Moeller® series EASY I/O expansion, For use with easyE4, 24 V DC, Inputs expansion (number) analog: 4, screw terminal EASY-E4-DC-6AE1

General specifications	
PRODUCT NAME	Eaton Moeller® series EASY I/O expansion
CATALOG NUMBER	197223
MODEL CODE	EASY-E4-DC-6AE1
EAN	4015080892847
PRODUCT LENGTH/DEPTH	58 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	36 mm
PRODUCT WEIGHT	0.1 kg
CERTIFICATIONS	UL File No.: E205091 CE UL hazardous location group B (hydrogen) UL hazardous location division 2 UL hazardous location group C (ethylene) UL hazardous location group A (acetylene) UL hazardous location group D (propane) UL hazardous location class I cULus Ordinary Location DNV TAA00002HT cULus Hazard Location UL File No.: E523283 EN 61131-2 IEC 61131-2 EN IEC 61000-6-3 IEC 61000-6-3 EN IEC 61010-2-201 IEC 61010-2-201 UL 61010-1 UL 61010-2-201 CSA C22.2 No. 61010-1 CSA C22.2 No. 61010-2-201

Powering Business Worldwide

	UL 121201 CSA C22.2 No. 213

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, acc. to IEC/EN61131-2, Half-sinusoidal shock 11 ms, 18 Impacts
VIBRATION RESISTANCE	8.4 - 150 Hz, 1 g constant acceleration 5 - 8.4 Hz, 3.5 mm constant amplitude According to IEC/EN 61131-2

Cable

CABLE LENGTH	Analog inputs: ≤ 10 m (shielded) Analog outputs: ≤ 10 m (shielded)

Climatic environmental conditions

AIR PRESSURE	795 - 1080 hPa (operation)
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °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)

Communication

CONNECTION TYPE	Screw terminal
LED INDICATOR	Status indication of Power/RUN

Design verification

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.
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.

Electrical rating

POWER CONSUMPTION	2.5 W
RATED OPERATIONAL VOLTAGE	Power supply: 24 V DC (-15 %/+ 20 %)
SUPPLY VOLTAGE AT DC - MAX	28.8 VDC
SUPPLY VOLTAGE AT DC - MIN	20.4 VDC

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.
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	2.5 W

Electro magnetic compatibility

AIR DISCHARGE	8 kV
BURST IMPULSE	2 kV, I/O port 2 kV, Power supply port According to IEC/EN 61131-2
CONTACT DISCHARGE	6 kV
ELECTROMAGNETIC FIELDS	10 V/m at 0.08 - 1.0 GHz (according to IEC/EN 61131-2) 3 V/m at 1.0 - 6 GHz (according to IEC/EN 61131-2)
IMMUNITY TO LINE-CONDUCTED INTERFERENCE	10 V (according to IEC/EN 61131-2)
RADIO INTERFERENCE CLASS	Class B (EN 61000-6-3)
SURGE RATING	0.5 kV, Line-to-Line, Power supply port 1 kV, Line-to-Earth, Power supply port According to IEC/EN 61131-2
VOLTAGE DIPS	10 ms

Features & functions

FEATURES	Expandable Expansion device
FITTED WITH:	Analog output

General information

DEGREE OF PROTECTION	IP20
INSULATION RESISTANCE	According to EN IEC 61010-2-201, UL61010-2-201, CSA-C22.2 NO. 61010-2-223
MOUNTING METHOD	Front build in possible Rail mounting possible Wall mounting/direct mounting Top-hat rail fixing (according to IEC/EN 60715, 35 mm) Screw fixing using fixing brackets ZB4-101-GF1 (accessories)
OVERVOLTAGE CATEGORY	Power supply + Inputs + Outputs + Right extension interface: II Left extension interface: III
POLLUTION DEGREE	2
PRODUCT CATEGORY	Control relays easyE4
RESIDUAL RIPPLE	Power supply: ≤ 5 %
RESOLUTION	• 12 Bit (value 0 - 4095, Analog inputs) • 12 Bit (value 0 - 4095, Analog outputs)
SOFTWARE	EASYSOFT-SWLIC/easySoft
TYPE	easyE4 extension
USED WITH	easyE4
VOLTAGE TYPE	DC

Input/Output

ACCURACY	1 %, Analog inputs at -25 °C - 55 °C
INPUT	Voltage Current
INPUT IMPEDANCE	Analog as voltage: 12.12 kΩ Analog as current: 250 Ω
NUMBER OF INPUTS (ANALOG)	4
NUMBER OF INPUTS (DIGITAL)	0
NUMBER OF OUTPUTS (ANALOG)	2
NUMBER OF OUTPUTS (DIGITAL)	0
OUTPUT	Current Voltage
SIGNAL RANGE	4 - 20 mA, Analog outputs 0 - 20 mA, Analog inputs 0 - 10 V DC, Analog inputs 0 - 10 V DC, Analog outputs 4 - 20 mA, Analog inputs 0 - 20 mA, Analog outputs

Safety

EXPLOSION SAFETY CATEGORY FOR DUST	None
EXPLOSION SAFETY CATEGORY FOR GAS	None
POTENTIAL ISOLATION	POW+Inputs+Outputs+right Extension interface vs. left Extension interface: yes
PROTECTION AGAINST POLARITY REVERSAL	Yes

Short-circuit rating

SHORT-CIRCUIT PROTECTION	≥ 1A (T), Fuse, Power supply

Terminal capacities

SCREWDRIVER SIZE	3.5 x 0.6 mm, Terminal screw
TERMINAL CAPACITY	0.2 - 4 mm² (AWG 22 - 12), solid 0.2 - 2.5 mm², flexible with ferrule 0.2 - 2.5 mm², flexible without ferrule
TIGHTENING TORQUE	0.6 Nm, Screw terminals

Resources

APPLICATION NOTES	eaton-easye4-aws-ap050027-en-us.pdf
CATALOGUES	eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-i-o-expansion-declaration-of-conformity-uk251130en.pdf eaton-i-o-expansion-declaration-of-conformity-eu251486en.pdf
DRAWINGS	eaton-modular-plc-easy-i-o-expansion-dimensions-002.eps eaton-modular-plc-easy-i-o-expansion-3d-drawing-002.eps
ECAD MODEL	ETN.EASY-E4-DC-6AE1.edz
INSTALLATION INSTRUCTIONS	eaton-easye4-base-programmable-control-relays-il050020zu.pdf eaton-easye4-i-o-expansions-control-relays-il050021zu.pdf
INSTALLATION VIDEOS	Control relay easyE4: The new generation Video easy E4 control relay
MANUALS AND USER GUIDES	MN049001EN
MCAD MODEL	eaton-logic-modules-mcad-drawings-dc-6ae1.dwg DA-CS-dc_6ae1
MULTIMEDIA	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 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?

	How to process SmartWire-DT modules using the EASY-COM-SWD-C1 module connected to an easyE4? How to connect the easyE4 to the touch panel XV-102 for easy? - 5 Steps
PRODUCT NOTIFICATIONS	MZ049014EN
SALES NOTES	eaton-easy-remote-touch-display-flyer-fl048004en-en-us.pdf eaton-control-relay-easye4-flyer-fl050007en-en-us.pdf

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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