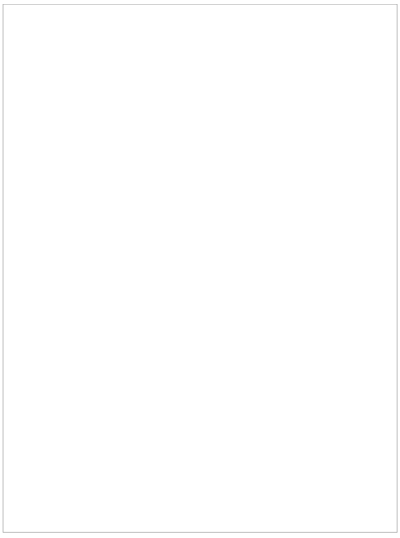
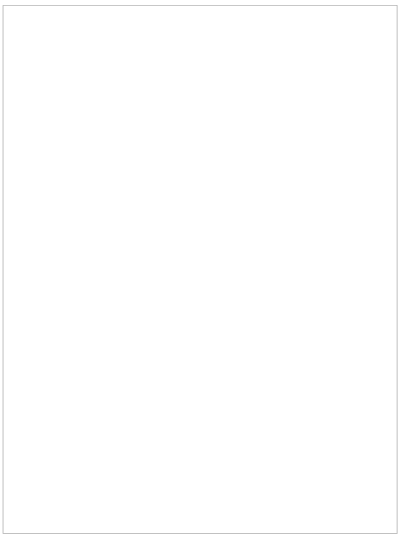
EASYE4 PROGRAMMABLE RELAYS
197220





197220

Eaton Moeller® series EASY I/O expansion, For us
Inputs expansion (number) digital: 8, screw termina

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197225

Eaton Moeller® series EASY 3 x Bus connector plug between base unit and expansion unit/bus module and 3 x end covers, For use with easyE4

061360

Eaton Moeller® series EASY Fixing bracket, for easy500, 700, 800, EC4P, ES4P, easy200, MFD-CP8/CP10

197211

Eaton Moeller® series EASY Control relays easyE4 with display (expandable, Ethernet), 12/24 V DC, 24 V AC, Inputs Digital: 8, of which can be used as analog: 4, screw terminal

197212

Eaton Moeller® series EASY Co relays, easyE4 (expandable, Ethe V DC, 24 V AC, Inputs Digital: can be used as analog: 4, screw t

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Product specifications >

GENERAL SPECIFICATIONS

PRODUCT NAME	Eaton Moeller® series EASY I/O expansion
CATALOG NUMBER	197220
MODEL CODE	EASY-E4-DC-16TE1
EAN	4015080892816
PRODUCT LENGTH/DEPTH	58 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	72 mm
PRODUCT WEIGHT	0.2 kg
CERTIFICATIONS	IEC/EN 61000-6-2 IEC/EN 61000-4-2 EN 61010 IEC 60068-2-27 IEC/EN 61000-6-3 IEC 60068-2-30 EN 50178 IEC 60068-2-6 IEC/EN 61131-2 CSA-C22.2 No. 61010 CULus per UL 61010 UL Listed UL Category Control No.: NRAQ, NRAQ7 UL File No.: E205091 DNV GL CE 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)

PRODUCT SPECIFICATIONS

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	0 A
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility.
RATED OPERATIONAL VOLTAGE	20.4 - 28.8 V DC 20.4 - 28.8 V DC (Transistor outputs) 24 V DC (transistor outputs) 24 V DC (digital inputs) 24 V DC (-15 %/+ 20 % - power supply)
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
	Top-hat rail fixing (according to IEC/EN 60715, 35 Rail mounting possible

MOUNTING METHOD	Screw fixing using fixing brackets ZB4-101-GF1 (ac Front build in possible Wall mounting/direct mounting
AIR PRESSURE	795 - 1080 hPa (operation)
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
SURGE RATING	0.5 kV, Supply cables, symmetrical, power pulses (According to IEC/EN 61000-4-5, power pulses (Sur 1 kV, Supply cables, asymmetrical, power pulses (S
VIBRATION RESISTANCE	According to IEC/EN 60068-2-6 10 - 57 Hz, 0.15 mm constant amplitude 57 - 150 Hz, 2 g constant acceleration
EXPLOSION SAFETY CATEGORY FOR GAS	None
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
SWITCHING CURRENT	0.5 A
FEATURES	Expansion device Parallel connection of transistor outputs with resistiv load with external suppressor circuit, combination w Group 1 Q1 to Q4 Expandable Parallel connection of transistor outputs with resistiv load with external suppressor circuit, combination w Group 2 Q5 to Q8
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
NUMBER OF HW-INTERFACES (SERIAL TTY)	0
SUPPLY VOLTAGE AT AC, 60 HZ - MAX	0 VAC
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Meets the product standard's requirements.
OPERATING FREQUENCY	Dependent on the cycle- and transmission-time of th Depending on the suppressor circuit (Inductive load With external suppressor circuit, Max. switching fre factor) Dependent on the cycle time of the basic device
VOLTAGE TYPE	DC
CATEGORY (EN 954-1)	None
PRODUCT CATEGORY	Control relays easyE4
POTENTIAL ISOLATION	Between Digital inputs 24 V DC and Outputs: no Between Transistor outputs and expansion devices: Between Transistor outputs and Inputs: no Between Digital inputs 24 V DC and expansion dev Between Digital inputs 24 V DC: no

	Between Digital inputs 24 V DC and Power supply Between Transistor outputs and Power supply: no
RADIO INTERFERENCE CLASS	Class B (EN 61000-6-3)
RESIDUAL RIPPLE	5 % (transistor outputs) ≤ 5 %
INDICATION	LCD-display base unit used as Output status indicat outputs LCD-display base unit used as status indication of I DC
TERMINAL CAPACITY	0.2 - 2.5 mm² (22 - 12 AWG), flexible with ferrule 0.2 - 4 mm² (AWG 22 - 12), solid
HEAT DISSIPATION CAPACITY PDISS	0 W
UTILIZATION FACTOR	1 (Inductive load to EN 60947-5-1, With external su 0.25 (Inductive load to EN 60947-5-1, Without exte circuit, T0.95 = 15 ms, R = 48 Ω, L = 0.24 H) 0.25 (Inductive load to EN 60947-5-1, Without exte circuit, DC-13, T0.95 = 72 ms, R = 48 Ω, L = 1.1
NUMBER OF HW-INTERFACES (RS-422)	0
SHORT-CIRCUIT CURRENT	13.6 A, Transistor outputs
INSULATION RESISTANCE	According to EN 50178, EN 61010-2-201, UL6101 NO. 61010-2-201
POWER LOSS	1 W
OUTPUT	8 Transistor Outputs 4 A, Max. total current, Outputs Parallel connection of max. 8 Transistor outputs Voltage Current
ELECTROMAGNETIC FIELDS	1 V/m at 2.0 - 2.7 GHz (according to IEC EN 6100 3 V/m at 1.4 - 2 GHz (according to IEC EN 61000- 10 V/m at 0.8 - 1.0 GHz (according to IEC EN 610
CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN)	0.5 A
INRUSH CURRENT	12.5 A (for 6 ms)
PROTOCOL	TCP/IP MODBUS
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
OVERVOLTAGE CATEGORY	III
DEGREE OF PROTECTION	IP20
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
INPUT VOLTAGE	Condition 1: ≥ 15 V DC (I1 - I8, Digital inputs, 24 Signal 0: ≤ 5 V DC (I1 - I8, Digital inputs, 24 V D
POLLUTION DEGREE	2

SIL (IEC 61508)	None
FUNCTIONS	Thermal cutout
TIGHTENING TORQUE	0.6 Nm, Screw terminals
TYPE	easyE4 extension
10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
ENVIRONMENTAL CONDITIONS	Clearance in air and creepage distances according to 61010-2-201, UL61010-2-201, CSA-C22.2 NO. 61 Condensation: prevent with appropriate measures
PROTECTION AGAINST POLARITY REVERSAL	Yes, for supply voltage (Siemens MPI optional) For transistor outputs (Caution: A short circuit will applied to the outputs in the event that the supply v the wrong poles)
SHOCK RESISTANCE	15 g, Mechanical, according to IEC/EN 60068-2-27 shock 11 ms, 18 Impacts
NUMBER OF INPUTS (ANALOG)	0
INPUT CURRENT	40 mA
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to
NUMBER OF HW-INTERFACES (RS-485)	0
NUMBER OF HW-INTERFACES (INDUSTRIAL ETHERNET)	0
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
IMMUNITY TO LINE-CONDUCTED INTERFERENCE	10 V (according to IEC/EN 61000-4-6)
CONTACT DISCHARGE	6 kV
SUPPLY VOLTAGE AT DC - MIN	20.4 VDC
NUMBER OF HW-INTERFACES (WIRELESS)	0
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	1 W
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
NUMBER OF HW-INTERFACES (RS-232)	0
NUMBER OF INPUTS (DIGITAL)	8
CABLE LENGTH	100 m, unscreened, Digital inputs 24 V DC
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to
VOLTAGE DIPS	20 ms

VOLTAGE DIPS	≤ 10 ms, Bridging voltage dips
SUPPLY VOLTAGE AT DC - MAX	28.8 VDC
MOUNTING POSITION	Horizontal Vertical
SOFTWARE	EASYSOFT-SWLIC/easySoft7
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the inf instruction leaflet (IL) is observed.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
SAFETY PERFORMANCE LEVEL (EN ISO 13849-1)	None
SHORT-CIRCUIT PROTECTION	≥ 1A (T), Fuse, Power supply Yes, electronic (Q1 - Q4, Q5 - Q8), Transistor outp
DROP AND TOPPLE	50 mm Drop height, Drop to IEC/EN 60068-2-31
SUPPLY VOLTAGE AT AC, 60 HZ - MIN	0 VAC
HEIGHT OF FALL (IEC/EN 60068-2-32) - MAX	0.3 m
RESIDUAL CURRENT	0.1 mA (on signal "1" per channel)
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
RATED OPERATIONAL CURRENT (IE)	Max. 0.5 A at signal „1" DC per channel
SHORT-CIRCUIT TRIPPING CURRENT	0.7 ≤ Ie ≤ 1.7 per output, For Ra ≤ 10 mΩ, Depend active channels and their load, Transistor outputs
NUMBER OF OUTPUTS (ANALOG)	0
LAMP LOAD	Max. 3 W (without Rv per channel)
AIR DISCHARGE	8 kV
OUTPUT VOLTAGE	Max. 2.5 V (at status 0 per channel, transistor outpu $U = U_e$ - 1 V (signal 1 at I_e = 0.5 A, transistor outp
NUMBER OF HW-INTERFACES (USB)	0
HEAT DISSIPATION	3.4 W (at 24 V DC)
DELAY TIME	0.2 ms typ., Digital inputs 24 V DC (I1 - I8), Dela Debounce OFF 20 ms, Digital Inputs 12 V DC, Delay time from 1 0.1 ms typ., Digital inputs 24 V DC (I1 - I8), Dela Debounce OFF 20 ms, Digital Inputs 12 V DC, Delay time from 0
NUMBER OF OUTPUTS (DIGITAL)	8
POWER CONSUMPTION	1 W
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.
CONNECTION TYPE	Screw terminal
NUMBER OF HW-INTERFACES (OTHER)	0
RELATIVE HUMIDITY	5 - 95 % (IEC 60068-2-30, IEC 60068-2-78)
SUPPLY VOLTAGE AT AC, 50 HZ - MIN	0 VAC
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
SUPPLY VOLTAGE AT AC, 50 HZ - MAX	0 VAC
10.10 TEMPERATURE RISE	The panel builder is responsible for the temperature Eaton will provide heat dissipation data for the devi
NUMBER OF HW-INTERFACES (PARALLEL)	0
EXPLOSION SAFETY CATEGORY FOR DUST	None
SCREWDRIVER SIZE	3.5 x 0.8 mm, Terminal screw
SUPPLY CURRENT	18/32 mA, Normally/max., On 0 signal, Transistor 24/44 mA, Normally/max., On 1 signal, Transistor
BURST IMPULSE	2 kV, Signal cable According to IEC/EN 61000-4-4 2 kV, Supply cable
DUTY FACTOR	100 % (Inductive load to EN 60947-5-1, With exter circuit) 100 % (Inductive load to EN 60947-5-1, Without e circuit, DC-13, T0.95 = 72 ms, R = 48 Ω, L = 1.1 100 % (Inductive load to EN 60947-5-1, Without e circuit, T0.95 = 15 ms, R = 48 Ω, L = 0.24 H)
BASE TYPE	No
NUMBER OF INTERFACES (PROFINET)	0

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