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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

197507

Eaton Moeller® series EASY Control relays, easyE4 (expandable, Ethernet), 24 V DC, Inputs Digital: 8, of which can be used as analog: 4, push-in terminal

197505

Eaton Moeller® series EASY Control relays, easyE4 (expandable, Ethernet), 24 V DC, 24 V AC, Inputs Digital: 8, of which can be used as analog: 4, push-in terminal

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GENERAL SPECIFICATIONS

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|------------------------|---|-----------------------------|--|
| General specifications | > | PRODUCT NAME | Eaton Moeller® series EASY I/O expansion |
| | | CATALOG NUMBER | 197219 |
| Product specifications | > | MODEL CODE | EASY-E4-DC-8TE1 |
| | | EAN | 4015080892809 |
| | | PRODUCT LENGTH/DEPTH | 58 mm |
| | | PRODUCT HEIGHT | 90 mm |
| | | PRODUCT WIDTH | 36 mm |
| | | PRODUCT WEIGHT | 0.1 kg |

CERTIFICATIONS

CSA-C22.2 No. 61010
IEC/EN 61000-6-3
IEC 60068-2-27
IEC 60068-2-30
IEC 60068-2-6
EN 50178
IEC/EN 61000-4-2
IEC/EN 61000-6-2
IEC/EN 61131-2
CULus per UL 61010
EN 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

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| 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 (-15 %/+ 20 % - power supply) 24 V DC (transistor outputs) 24 V DC (digital inputs) |
| 10.4 CLEARANCES AND CREEPAGE DISTANCES | Meets the product standard's requirements. |

Rail mounting possible
Top-hat rail fixing (according to IEC/EN 60715, 35)

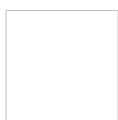
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| MOUNTING METHOD | Wall mounting/direct mounting Screw fixing using fixing brackets ZB4-101-GF1 (ac) Front build in possible |
| AIR PRESSURE | 795 - 1080 hPa (operation) |
| 10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES | Meets the product standard's requirements. |
| AMBIENT STORAGE TEMPERATURE - MIN | -40 °C |
| SURGERATING | 1 kV, Supply cables, asymmetrical, power pulses (S) 0.5 kV, Supply cables, symmetrical, power pulses (S) According to IEC/EN 61000-4-5, power pulses (Sur) |
| VIBRATION RESISTANCE | 57 - 150 Hz, 2 g constant acceleration According to IEC/EN 60068-2-6 10 - 57 Hz, 0.15 mm constant amplitude |
| EXPLOSION SAFETY CATEGORY FOR GAS | None |
| AMBIENT OPERATING TEMPERATURE - MAX | 55 °C |
| SWITCHING CURRENT | 0.5 A |
| FEATURES | Expandable Expansion device Parallel connection of transistor outputs with resistive load with external suppressor circuit, combination with Group 1: Q1 to Q4 |
| 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 the Depending on the suppressor circuit (Inductive load With external suppressor circuit, Max. switching frequency 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 expansion devices: no Between Transistor outputs: no Between Digital inputs 24 V DC: no Between Digital inputs 24 V DC and Power supply: no Between Digital inputs 24 V DC and Outputs: no Between Transistor outputs and expansion devices: no Between Transistor outputs and Power supply: no |

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| RADIO INTERFERENCE CLASS | Class B (EN 61000-6-3) |
| RESIDUAL RIPPLE | ≤ 5 % 5 % (transistor outputs) |
| INDICATION | LCD-display base unit used as Output status indication outputs LCD-display base unit used as status indication of DC DC |
| TERMINAL CAPACITY | 0.2 - 4 mm ² (AWG 22 - 12), solid 0.2 - 2.5 mm ² (22 - 12 AWG), flexible with ferrule |
| HEAT DISSIPATION CAPACITY PDISS | 0 W |
| UTILIZATION FACTOR | 0.25 (Inductive load to EN 60947-5-1, Without external circuit, T0.95 = 15 ms, R = 48 Ω, L = 0.24 H) 1 (Inductive load to EN 60947-5-1, With external circuit, DC-13, T0.95 = 72 ms, R = 48 Ω, L = 1.1 H) 0.25 (Inductive load to EN 60947-5-1, Without external circuit, DC-13, T0.95 = 72 ms, R = 48 Ω, L = 1.1 H) |
| NUMBER OF HW-INTERFACES (RS-422) | 0 |
| SHORT-CIRCUIT CURRENT | 6.8 A, Transistor outputs |
| INSULATION RESISTANCE | According to EN 50178, EN 61010-2-201, UL61010-2 NO. 61010-2-201 |
| OUTPUT | 2 A, Max. total current, Outputs 4 Transistor Outputs Parallel connection of max. 4 Transistor outputs Voltage Current |
| ELECTROMAGNETIC FIELDS | 10 V/m at 0.8 - 1.0 GHz (according to IEC EN 61010-2-201) 3 V/m at 1.4 - 2 GHz (according to IEC EN 61000-6-3) 1 V/m at 2.0 - 2.7 GHz (according to IEC EN 61000-6-3) |
| CONVENTIONAL THERMAL CURRENT ITH OF AUXILIARY CONTACTS (1-POLE, OPEN) | 0.5 A |
| INRUSH CURRENT | 12.5 A (for 6 ms) |
| PROTOCOL | MODBUS TCP/IP |
| 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 | Signal 0: ≤ 5 V DC (I1 - I4, Digital inputs, 24 V DC) Signal 1: ≥ 15 V DC (I1 - I4, Digital inputs, 24 V DC) |
| POLLUTION DEGREE | 2 |
| SIL (IEC 61508) | None |
| FUNCTIONS | Thermal cutout |
| TIGHTENING TORQUE | 0.6 Nm, Screw terminals |

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| 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 be applied to the outputs in the event that the supply voltage is applied to 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 be lifted |
| NUMBER OF HW-INTERFACES (RS-485) | 0 |
| NUMBER OF HW-INTERFACES (INDUSTRIAL ETHERNET) | 0 |
| FREQUENCY RATING | 6.5 Hz |
| 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) | 4 |
| CABLE LENGTH | 100 m, unshielded, Digital inputs 24 V DC |
| 10.5 PROTECTION AGAINST ELECTRIC SHOCK | Does not apply, since the entire switchgear needs to be lifted |
| VOLTAGE DIPS | 20 ms ≤ 10 ms, Bridging voltage dips |
| SUPPLY VOLTAGE AT DC - MAX | 28.8 VDC |

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| MOUNTING POSITION | Horizontal Vertical |
| SOFTWARE | EASYSOFT-SWLIC/easySof7 |
| 10.13 MECHANICAL FUNCTION | The device meets the requirements, provided the 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 | Yes, electronic (Q1 - Q4), Transistor outputs $\geq 1A$ (T), Fuse, Power supply |
| 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 | $0.7 \leq I_e \leq 1.7$ per output, For $R_a \leq 10 \Omega$, Depend on active channels and their load, Transistor outputs |
| NUMBER OF OUTPUTS (ANALOG) | 0 |
| LAMP LOAD | Max. 3 W (without R_v per channel) |
| AIR DISCHARGE | 8 kV |
| OUTPUT VOLTAGE | $U = U_e - 1$ V (signal 1 at $I_e = 0.5$ A, transistor output) Max. 2.5 V (at status 0 per channel, transistor output) |
| 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 - I4), Delay time from 0 V to 24 V, Debounce OFF 0.015 ms typ., Digital inputs 12 V DC (I1 - I8), Delay time from 0 V to 12 V, Debounce OFF 0.015 ms typ., Digital inputs 12 V DC (I1 - I8), Delay time from 12 V to 0 V, Debounce OFF 20 ms, Digital Inputs 12 V DC, Delay time from 0 V to 12 V, Debounce OFF 20 ms, Digital Inputs 12 V DC, Delay time from 12 V to 0 V, Debounce OFF 0.1 ms typ., Digital inputs 24 V DC (I1 - I4), Delay time from 0 V to 24 V, Debounce OFF |
| NUMBER OF OUTPUTS (DIGITAL) | 4 |
| POWER CONSUMPTION | 1 W |

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| 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 device |
| 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 2 kV, Supply cable According to IEC/EN 61000-4-4 |
| DUTY FACTOR | 100 % (Inductive load to EN 60947-5-1, Without external circuit, DC-13, T0.95 = 72 ms, R = 48 Ω, L = 1.1 H) 100 % (Inductive load to EN 60947-5-1, With external circuit) 100 % (Inductive load to EN 60947-5-1, Without external circuit, T0.95 = 15 ms, R = 48 Ω, L = 0.24 H) |
| BASE TYPE | No |
| NUMBER OF INTERFACES (PROFIBNET) | 0 |



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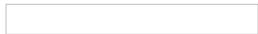
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mCAD model

197219



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