

# Eaton 197517

Eaton Moeller® series EASY I/O expansion  
for easyE4 with temperature detection  
Pt100, Pt1000 or Ni1000, 24 VDC, analog  
inputs: 4, push-in

PRODUCT NAME	Eaton Moeller® series EASY I/O expansion
CATALOG NUMBER	197517
PRODUCT LENGTH/DEPTH	58 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	36 mm
PRODUCT WEIGHT	0.1 kg
CERTIFICATIONS	UL Listed UL Category Control No.: NRAQ, NRAQ7 IEC/EN 61000-4-2 IEC/EN 61131-2 IEC 60068-2-6 IEC 60068-2-30 IEC 60068-2-27 EN 61010 IEC/EN 61000-6-3 IEC/EN 61000-6-2 EN 50178 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) UL hazardous location class I UL hazardous location

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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)

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<b>USED WITH</b>	easyE4
<b>TYPE</b>	easyE4 extension
<b>AIR DISCHARGE</b>	8 kV
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Meets the product standard's requirements.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.

<b>INSTALLATION VIDEOS</b>	<a href="#">Video easy E4 control relay</a>
	<a href="#">eaton-modular-plc-easy-i-o-expansion-dimensions-002.eps</a>
	<a href="#">eaton-modular-plc-easy-i-o-expansion-3d-drawing-002.eps</a>

<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>POLLUTION DEGREE</b>	2
<b>BURST IMPULSE</b>	2 kV, Signal cable 2 kV, Supply cable According to IEC/EN 61000-4-4
<b>AIR PRESSURE</b>	795 - 1080 hPa (operation)
<b>EXPLOSION SAFETY CATEGORY FOR DUST</b>	None
<b>ENVIRONMENTAL CONDITIONS</b>	Condensation: prevent with appropriate measures Clearance in air and creepage distances according to EN 50178, EN 61010-2-201, UL61010-2-201, CSA-C22.2 NO. 61010-2-201
<b>INPUT</b>	Input type resistance sensor: Platinum sensor Pt100 (according to DIN EN 60751, IEC 751) Input type resistance sensor: Nickel sensor Ni1000 (according to DIN 43760)
<b>EXPLOSION SAFETY CATEGORY FOR GAS</b>	None
<b>MOUNTING METHOD</b>	Rail mounting possible
<b>VOLTAGE TYPE</b>	DC
<b>MOUNTING POSITION</b>	Horizontal Vertical

<b>CONTACT DISCHARGE</b>	6 kV
<b>BASE TYPE</b>	No
<b>SAFETY PERFORMANCE LEVEL (EN ISO 13849-1)</b>	None
<b>SIL (IEC 61508)</b>	None
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	55 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>AMBIENT STORAGE TEMPERATURE - MAX</b>	70 °C
<b>AMBIENT STORAGE TEMPERATURE - MIN</b>	-40 °C
<b>HEIGHT OF FALL (IEC/EN 60068-2-32) - MAX</b>	0.3 m
<b>NUMBER OF HW-INTERFACES (INDUSTRIAL ETHERNET)</b>	0
<b>NUMBER OF HW-INTERFACES (OTHER)</b>	0
<b>NUMBER OF HW-INTERFACES (PARALLEL)</b>	0
<b>NUMBER OF HW-INTERFACES (RS-232)</b>	0
<b>NUMBER OF HW-INTERFACES (RS-422)</b>	0
<b>NUMBER OF HW-INTERFACES (RS-485)</b>	0
<b>NUMBER OF HW-INTERFACES (SERIAL TTY)</b>	0
<b>NUMBER OF HW-INTERFACES (USB)</b>	0
<b>NUMBER OF HW-INTERFACES (WIRELESS)</b>	0
<b>OVERVOLTAGE CATEGORY</b>	III
<b>SOFTWARE</b>	EASYSOFT-SWLIC/easySoft
	0.5 kV, Supply cables, symmetrical, EASY...DC, power pulses (Surge), EMC
<b>SURGE RATING</b>	1 kV, Supply cables, asymmetrical, power pulses (Surge), EMC According to IEC/EN 61000-4-5 Level 4
<b>CABLE LENGTH</b>	≤ 30 m, unscreened, Analog inputs

	temperature resistance Pt100 or Ni1000 sensors
<b>ELECTROMAGNETIC FIELDS</b>	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)
<b>PROTECTION AGAINST POLARITY REVERSAL</b>	Yes
<b>NUMBER OF INPUTS (ANALOG)</b>	4
<b>CONNECTION TYPE</b>	Push in terminals
<b>DROP AND TOPPLE</b>	50 mm Drop height, Drop to IEC/EN 60068-2-31
<b>IMMUNITY TO LINE-CONDUCTED INTERFERENCE</b>	10 V (according to IEC/EN 61000-4-6)
<b>RADIO INTERFERENCE CLASS</b>	Class B (EN 61000-6-3)
<b>NUMBER OF OUTPUTS (DIGITAL)</b>	0
<b>RELATIVE HUMIDITY</b>	5 - 95 % (IEC 60068-2-30, IEC 60068-2-78)
<b>DEGREE OF PROTECTION</b>	IP20
<b>PROTOCOL</b>	MODBUS
<b>RESIDUAL RIPPLE</b>	5 % (transistor outputs) ≤ 5 %
<b>INSULATION RESISTANCE</b>	According to EN 50178, EN 61010-2-201, UL61010-2-201, CSA-C22.2 NO. 61010-2-201
<b>FUNCTIONS</b>	Card diagnostic Diagnostics below lower measurement range
<b>VIBRATION RESISTANCE</b>	57 - 150 Hz, 2 g constant acceleration 10 - 57 Hz, 0.15 mm constant amplitude According to IEC/EN 60068-2-6
<b>INPUT CURRENT</b>	40 mA
<b>SHOCK RESISTANCE</b>	15 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 18 Impacts

<b>POTENTIAL ISOLATION</b>	Between Analog inputs PT100 or Ni1000 and Power supply: no Between Analog inputs and Power supply: no
<b>NUMBER OF INPUTS (DIGITAL)</b>	0
<b>POWER LOSS</b>	1 W
<b>VOLTAGE DIPS</b>	≤ 10 ms, Bridging voltage dips
<b>NUMBER OF INTERFACES (PROFINET)</b>	0
<b>NUMBER OF OUTPUTS (ANALOG)</b>	0
<b>STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT PVS</b>	1 W
<b>SUPPLY VOLTAGE AT AC, 50 HZ - MAX</b>	0 VAC
<b>SUPPLY VOLTAGE AT AC, 50 HZ - MIN</b>	0 VAC
<b>SUPPLY VOLTAGE AT AC, 60 HZ - MAX</b>	0 VAC
<b>SUPPLY VOLTAGE AT AC, 60 HZ - MIN</b>	0 VAC
<b>SUPPLY VOLTAGE AT DC - MAX</b>	28.8 VDC
<b>SUPPLY VOLTAGE AT DC - MIN</b>	20.4 VDC
<b>SWITCHING CURRENT</b>	0 A
<b>PRODUCT CATEGORY</b>	Control relays easyE4
<b>RESOLUTION</b>	12 Bit (0- 4095, digital, scaling per sensor)
<b>POWER CONSUMPTION</b>	1 W
<b>RATED OPERATIONAL VOLTAGE</b>	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)
<b>SHORT-CIRCUIT PROTECTION</b>	≥ 1A (T), Fuse, Power supply
<b>TERMINAL CAPACITY</b>	0.2 - 2.5 mm <sup>2</sup> (22 - 12 AWG), flexible with ferrule

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
:



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