

Specifications



Eaton 174732

Eaton EU2E SmartWire-DT T-Connector for IP69K I/O modules, 24 V DC, four parameterizable inputs/outputs with power supply, two M12 I/O sockets EU2E-SWD-4DD

General specifications

PRODUCT NAME	Eaton EU2E Digital module
CATALOG NUMBER	174732
MODEL CODE	EU2E-SWD-4DD
EAN	4015081712182
PRODUCT LENGTH/DEPTH	98 mm
PRODUCT HEIGHT	20.1 mm
PRODUCT WIDTH	56.9 mm
PRODUCT WEIGHT	0.085 kg
CERTIFICATIONS	UL UL File No.: E170645 CSA IEC/EN 61131-2
CATALOG NOTES	Plug configuration (X1: 2 I/O, X2: 2 I/O)

Ambient conditions, mechanical

CONSTANT ACCELERATION	1 g, 8.4 - 150 Hz, according to IEC/EN 61131-2, Vibrations
CONSTANT AMPLITUDE	3,5 mm, 5 - 8.4 Hz, according to IEC/EN 61131-2, Vibrations
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	As required
SHOCK RESISTANCE	30 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 9 Impacts

Communication

CONNECTION TO SMARTWIRE-DT	Yes
CONNECTION TYPE	SWD-IN : M12 plug (A-keyed), 5 pole 5-pin M12 socket (A-keyed), Supply and I/O sensor SWD-OUT: M12 socket (A-keyed), 5 pole
DATA TRANSFER RATE	2 MBit/s, SmartWire-DT Setting automatically
LED INDICATOR	Status indication of input: Yellow LED Status indication of display outputs: Yellow LED Status indication of SmartWire-DT network: Green LED
PROTOCOL	Other bus systems
STATION	SmartWire-DT slave, SmartWire-DT network

Climatic environmental conditions

AIR PRESSURE	795 - 1080 hPa (operation)
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-3 Dry heat to IEC 60068-2-2
ENVIRONMENTAL CONDITIONS	Condensation: permissible
OPERATING TEMPERATURE - MAX	70 °C
OPERATING TEMPERATURE - MIN	-25 °C
RELATIVE HUMIDITY	5 - 95 % (non-condensing, IEC/EN 60068-2-30)

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	Meets the product standard's requirements.

BY INTERNAL ELECT. EFFECTS	
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.
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	0 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	1.8 W

Electrical rating

INPUT CURRENT	4 mA (at 24 V DC, Digital inputs)
INPUT CURRENT AT SIGNAL 1	4 mA
OUTPUT CURRENT	0.5 A
POWER LOSS	1.8 W
SHORT-CIRCUIT PROTECTION	Outputs are short-circuit proof
SHORT-CIRCUIT TRIPPING CURRENT	Max. 1.2 A over 3 ms, Digital semi-conductor outputs
SUPPLY VOLTAGE AT DC - MAX	28.8 VDC
SUPPLY VOLTAGE AT DC - MIN	0 VDC

Electro magnetic compatibility

AIR DISCHARGE	8 kV, according to IEC 61131-2, level 3, ESD
BURST IMPULSE	1 kV, SmartWire-DT cable, according to IEC/EN 61131-2, Level 3 1 kV, Signal cable, according to IEC/EN 61131-2, Level 3 2 kV, Supply cable, according to IEC/EN 61131-2, Level 3
CONTACT DISCHARGE	4 kV, according to IEC/EN 61131-2, Level 2, ESD
ELECTROMAGNETIC FIELDS	10 V/m at 80 - 1000 MHz (according to IEC/EN 61131-2:2008) 3 V/m at 1.4 - 2 GHz (according to IEC/EN 61131-2:2008) 1 V/m at 2.0 - 2.7 GHz (according to IEC/EN 61131-2:2008)
RADIATED RFI	10 V (IEC/EN 61131-2:2008, Level 3)
RADIO INTERFERENCE CLASS	Class A (EN 55011)
SURGE RATING	0.5 kV, Surge power cables, Surge (IEC/EN 61131-2:2008, Level 1), EMC 1 kV, Surge I/O cables, Surge (IEC/EN 61131-2:2008, Level 1), EMC

Features & functions

ELECTRIC CONNECTION TYPE	Screw connection
FEATURES	Fieldbus connection over separate bus coupler possible Digital inputs configurable Overload proof (with diagnostics) Digital outputs configurable Overload protection (sensor supply) Short-circuit protection (sensor supply) Fieldbus connection over separate bus coupler possible
FUNCTIONS	Short-circuit protection, outputs available For connection of digital I/O signals

Input/Output

INPUT	Max. 4 Freely configurable inputs/outputs
INPUT DELAY	< 0.2 ms
LAMP LOAD	≤ 3 W (at RLL)
LIMIT VALUE TYPE 1	High: > 15 V DC Low: < 5 V DC
NUMBER OF INPUTS (DIGITAL)	4
NUMBER OF OUTPUTS (DIGITAL)	4
OUTPUT	Max. 4 Freely configurable inputs/outputs Max. 4 Transistor Outputs
SWITCHING CAPACITY	IEC/EN 60947-5-1, utilization category DC-13, Digital outputs

General information

CURRENT CONSUMPTION	70 mA, Max. current consumption per M12 I/O plug, Sensor supply, SmartWire-DT network 75 mA, SmartWire-DT network, 24 V, without sensor and without I/O supply
DEGREE OF PROTECTION	IP69K
MOUNTING METHOD	Rail mounting possible Wall mounting/direct mounting DIN rail Mounting section (Clip M20) Screw fixing (M4)
OVERVOLTAGE CATEGORY	II
POLLUTION DEGREE	3
PRODUCT CATEGORY	SmartWire-DT slave
TYPE	Digital modules
VOLTAGE TYPE	DC

Safety

EXPLOSION SAFETY CATEGORY FOR DUST	None
EXPLOSION SAFETY CATEGORY FOR GAS	None
POTENTIAL ISOLATION	Inputs for SmartWire-DT: no Input to input: no Output to output: no Output to input: no Between Outputs to SmartWire-DT: no

Resources

BROCHURES	eaton-smartwire-dt-intelligent-wiring-brochure-br120001en-en-us.pdf
CATALOGUES	eaton-drives-soft-starter-catalog-ca04020001zen-us.pdf eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-digital-module-declaration-of-conformity-eu250876en.pdf
DRAWINGS	eaton-modular-plc-digital-module-dimensions-002.eps eaton-modular-plc-module-digital-module-3d-drawing.eps eaton-modular-plc-digital-module-3d-drawing-004.eps
ECAD MODEL	DA-CE-ETN.EU2E-SWD-4DD
INSTALLATION INSTRUCTIONS	IL120005ZU
INSTALLATION VIDEOS	SmartWire-DT in Application
MANUALS AND USER GUIDES	MN120006_EN MN05006002Z_EN
MCAD MODEL	eaton-modular-i-o-system-analog-mcad-drawings-eu2e-swd.dwg eaton-modular-system-digital-mcad-3d-models-eu2e-swd-4dd.stp
MULTIMEDIA	easyE4 SmartWire-DT module with Remote Touch Display and RMQ multi color indicator How to process SmartWire-DT modules using the EASY-COM-SWD-C1 module connected to an easyE4? SmartWire-DT Overview and how to use in easySoft Z

SALES NOTES

[eaton-rmq-chemical-
resistance-flyer-
fl047011en-en-us.pdf](#)

[eaton-electro-hydraulic-
module-eu1h-flyer-
fl120003en-en-us.pdf](#)

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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