DATASHEET - EU2E-SWD-2PT



SmartWire-DT IP67 T-Connector analog module, two configurable Pt100/ Pt1000/Ni1000 temperature inputs, two M12 I/O sockets

Part no. EU2E-SWD-2PT
174733

EL Number (Norway) 4560911

General specifications

Product name	Eaton EU2E Analog module
Part no.	EU2E-SWD-2PT
EAN	4015081712199
Product Length/Depth	98 millimetre
Product height	20.1 millimetre
Product width	56.9 millimetre
Product weight	0.085 kilogram
Certifications	UL File No.: E170645 UL IEC/EN 61131-2 CSA
Product Tradename	EU2E
Product Type	Analog module
Product Sub Type	None

Features & Functions

Electric connection type	Screw connection
Features	Analog inputs configurable Input, resistance thermometer Fieldbus connection over separate bus coupler possible Input signal, configurable Analog outputs configurable
Fitted with:	Display mode for temperatures (°C, °F, raw value) Temperature sensors PT100, PT1000 and Ni1000
Functions	Adjustable parameter settings For connection of analog I/O signals

General information

Current consumption	37 mA, SmartWire-DT network
Degree of protection	NEMA 4X IP69K
Overvoltage category	II
Pollution degree	3
Product category	SmartWire-DT slave
Repetition accuracy	0.5 % (Temperature inputs)
Type	Analog modules
Voltage type	DC

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

Climatic environmental conditions

Air pressure	795 - 1080 hPa (operation)
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	70 °C
Ambient storage temperature - min	-40 °C
Ambient storage temperature - max	70 °C
Climatic proofing	Damp heat, constant, to IEC 60068-2-3

	Dry heat to IEC 60068-2-2
Environmental conditions	Condensation: permissible
Operating temperature - min	-100 °C
Operating temperature - max	70 °C
Relative humidity	5 - 95 % (non-condensing, IEC/EN 60068-2-30)
Electro magnetic compatibility	
Air discharge	8 kV, according to IEC 61131-2, level 3, ESD
Burst impulse	2 kV, Supply cable, according to IEC/EN 61131-2, Level 3 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
Contact discharge	4 kV, according to IEC/EN 61131-2, Level 2, ESD
Electromagnetic fields	1 V/m at 2.0 - 2.7 GHz (according to IEC/EN 61131-2:2008) 3 V/m at 1.4 - 2 GHz (according to IEC/EN 61131-2:2008) 10 V/m at 80 - 1000 MHz (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
Electrical rating	
Power loss	0.9 W
Supply voltage at AC, 50 Hz - min	0 V AC
Supply voltage at AC, 50 Hz - max	0 V AC
Supply voltage at DC - min	0 V DC
Supply voltage at DC - max	0 V DC
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	Setting automatically 2 MBit/s, SmartWire-DT
LED indicator	Status indication of SmartWire-DT network: Green LED
Protocol	Other bus systems
Station	SmartWire-DT slave, SmartWire-DT network
Input/Output	
Conversions	250 ms, Temperature inputs
Input	Inputs, configurable (PT100, PT1000, Ni1000)
Number of inputs (analog)	2
Number of outputs (analog)	0
Resolution	0.1 °C, Temperature inputs
Total error	± 1 %, Temperature Inputs
Safety	
Explosion safety category for dust	None
Explosion safety category for gas	None
Potential isolation	Input to input: no Inputs for SmartWire-DT: no
Design verification	
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	0.9 W
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.
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.
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.

Technical data ETIM 9.0

Programmable logic controllers PLC (EG000024) / Fieldbus, decentr. periphery - analogue I/O module (EC001596)

Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Field bus, decentralized peripheral / Field bus, decentralized peripheral - analogue I/O module (ecl@ss13-27-24-26-01 [BAA061019])

Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	0 - 0
Voltage type (supply voltage)		DC
Power consumption	W	0.9
Input, current		No
Input, voltage		No
Input, resistor		No
Input, resistance thermometer		Yes
Input, thermocouple		No
Input signal, configurable		Yes
Resolution of the analogue inputs	Bit	12
Output, current		No
Output, voltage		No
Output signal configurable		No
Resolution of the analogue outputs	Bit	0
Number of analogue inputs		2
Number of analogue outputs		0
Analogue inputs configurable		Yes
Analogue outputs configurable		Yes
Number of HW-interfaces industrial Ethernet		0
Number of interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		0
Number of HW-interfaces serial TTY		0
Number of HW-interfaces parallel		0
Number of HW-interfaces wireless		0
Number of HW-interfaces USB		0
Number of HW-interfaces other		0
Supporting protocol for EtherCAT		No
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No

Supporting protocol for INTERBUS		No
Supporting protocol for ASI		No
Supporting protocol for KNX		No
Supporting protocol for Modbus		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
Supporting protocol for INTERBUS-Safety		No
Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No
Supporting protocol for other bus systems		Yes
Radio standard Bluetooth		No
Radio standard WLAN 802.11		No
Radio standard GPRS		No
Radio standard GSM		No
Radio standard UMTS		No
IO link master		No
System accessory		Yes
Degree of protection (IP)		IP69K
Degree of protection (NEMA)		4X
Type of electric connection		Screw connection
Fieldbus connection over separate bus coupler possible		Yes
Rail mounting possible		Yes
Wall mounting/direct mounting		Yes
Front built-in possible		No
Rack-assembly possible		No
Suitable for safety functions		No
SIL according to IEC 61508		None
Performance level according to EN ISO 13849-1		None
Appendant operation agent (Ex ia)		No
Appendant operation agent (Ex ib)		No
Explosion safety category for gas		None
Explosion safety category for dust		None
Certified for UL hazardous location class I		No
Certified for UL hazardous location class II		No
Certified for UL hazardous location class III		No
Certified for UL hazardous location division 1		No
Certified for UL hazardous location division 2		No
Certified for UL hazardous location group A (acetylene)		No
Certified for UL hazardous location group B (hydrogen)		No
Certified for UL hazardous location group C (ethylene)		No
Certified for UL hazardous location group D (propane)		No
Certified for UL hazardous location group E (metal dusts)		No
Certified for UL hazardous location group F (carbonaceous dusts)		No
Certified for UL hazardous location group G (non-conductive dusts)		No
Width	mm	56.9
Height	mm	20.1

Depth		mm	98

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