

SWD input card, 24 V DC, 4 digital inputs with 24 V power supply, 0.5A, 3 conductor connection



Part no. EU5E-SWD-4DX  
144060  
EL Number 4519610  
(Norway)

General specifications		
Product name		Eaton EU5E I/O module
Part no.		EU5E-SWD-4DX
EAN		4015081405909
Product Length/Depth		102 millimetre
Product height		90 millimetre
Product width		35 millimetre
Product weight		0.09 kilogram
Certifications		CSA File No.: 2324643 UL UL File No.: E29184 UL Category Control No.: NKCR CSA IEC/EN 61131-2 CSA Class No.: 3211-07
Product Tradename		EU5E
Product Type		I/O module
Product Sub Type		None
Catalog Notes		Inputs with supply for sensor system.
Features & Functions		
Electric connection type		Flat plug-in connection
Features		Fieldbus connection over separate bus coupler possible
Functions		For connection of digital I/O signals
General information		
Current consumption		33 mA, SmartWire-DT network
Degree of protection		IP20
Overvoltage category		II
Pollution degree		2
Product category		SmartWire-DT slave
Residual ripple		≤ 5 % (input voltage)
Terminal capacity		0.25 - 1.5 mm <sup>2</sup> (24 - 16 AWG), flexible with ferrule, Terminal for I/O sensor 0.2 - 1.5 mm <sup>2</sup> (AWG 24 - 16), solid, Terminal for I/O sensor
Type		Digital 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		15 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		55 °C
Ambient storage temperature - min		-40 °C
Ambient storage temperature - max		70 °C
Climatic proofing		Dry heat to IEC 60068-2-2 Damp heat, constant, to IEC 60068-2-3

Environmental conditions		Condensation: prevent with appropriate measures
Operating temperature - min		-25 °C
Operating temperature - max		55 °C
Relative humidity		5 - 95 % (non-condensing, IEC/EN 60068-2-30)
<b>Electro magnetic compatibility</b>		
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) 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)
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
<b>Electrical rating</b>		
Input current at signal 1		4 mA
Output current		0 A
Power loss		1.1 W
Rated operational voltage		24 V DC (-15 %/+ 20 % - power supply)
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		28.8 V DC
<b>Communication</b>		
Connection to SmartWire-DT		Yes
Connection type		Plug, 8-pole, SmartWire-DT Connection plug: external device plug SWD4-8SF2-5, SmartWire-DT Push in terminals, Supply and I/O sensor
Data transfer rate		Setting automatically 250 kBit/s, SmartWire-DT
LED indicator		Status indication of SmartWire-DT network: Green LED
Protocol		Other bus systems
Station		SmartWire-DT slave, SmartWire-DT network
<b>Input/Output</b>		
Number of inputs (digital)		4
Number of outputs (digital)		0
<b>Safety</b>		
Explosion safety category for dust		None
Explosion safety category for gas		None
Potential isolation		Outputs to SmartWire-DT: yes Inputs for SmartWire-DT: yes
Protection against polarity reversal		Yes Yes, for supply voltage (Siemens MPI optional)
<b>Design verification</b>		
Equipment heat dissipation, current-dependent Pvid		0 W
Heat dissipation capacity Pdis		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		1.1 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 - digital I/O module (EC001599)			
Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Field bus, decentralized peripheral / Field bus, decentralized peripheral - digital I/O module (ecl@ss13-27-24-26-04 [BAA055019])			
Supply voltage AC 50 Hz	V		0 - 0
Supply voltage AC 60 Hz	V		0 - 0
Supply voltage DC	V		0 - 28.8
Voltage type (supply voltage)			DC
Number of digital inputs			4
Number of digital outputs			0
Digital inputs configurable			No
Digital outputs configurable			No
Input current at signal 1	mA		4
Permitted voltage at input	V		20.4 - 28.8
Type of voltage (input voltage)			DC
Type of digital output			None
Output current	A		0
Permitted voltage at output	V		0 - 0
Type of output voltage			DC
Short-circuit protection, outputs available			No
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
With optical interface			No
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)		IP20
Type of electric connection		Flat plug-in connection
Time delay at signal change	ms	0 - 0
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	35
Height	mm	90
Depth	mm	102