



Eaton 153163

Eaton EU5C Gateway, SmartWire-DT, 99
SWD cards at EthernetIP/MODBUS

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PRODUCT NAME	Eaton EU5C Communication module
CATALOG NUMBER	153163
PRODUCT LENGTH/DEPTH	127 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	35 mm
PRODUCT WEIGHT	0.162 kg
COMPLIANCES	Eaton supports the product until its end of life
CERTIFICATIONS	CSA File No.: 2324643 UL File No.: E29184 CSA Class No.: 3211-07 IEC/EN 61131-2 UL Category Control No.: NKCR CSA EN 50178 UL

FEATURES	Overload proof Potential isolation (Fieldbus Interface)
AIR DISCHARGE	8 kV, according to IEC 61131-2, level 3, ESD
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 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	Does not apply, since the

DECLARATIONS OF CONFORMITY	eaton-communication-module-declaration-of-conformity-uk250996en.pdf
□□□□	eaton-smartwire-dt-intelligent-wiring-brochure-br120001en-en-us.pdf
□□□	eaton-electro-hydraulic-module-eu1h-flyer-fl120003en-en-us.pdf
□□	eaton-modular-plc-samrtwire-eu5c-communication-module-dimensions.eps
	eaton-modular-plc-eu5c-communication-module-dimensions.eps
	eaton-general-approval-easy-control-relays-standards.jpg
	2723DRW-70
	eaton-general-easy-control-relays-symbol-002.tif
	eaton-modular-plc-eu5c-communication-module-3d-drawing.eps
	eaton-general-eu5e-i-o-module-symbol.eps

AGAINST ELECTRIC SHOCK	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.
POLLUTION DEGREE	2
CONNECTION	The connection to an Ethernet IP or MODBUS-TCP is carried out via the integrated Ethernet switch (10/100 Mbit) as slave. SmartWire-DT blade terminal SWD4-8MF2 Used to connect the SmartWire-DT communication system to industrial field bus systems. Powers SmartWire-DT modules and switchgear SmartWire-DT gateway for connecting up to 99 SmartWire-DT modules to an Industrial Ethernet network and for powering the SmartWire-DT modules and switchgear.
BURST IMPULSE	1 kV 1 kV, SmartWire-DT cable, according to IEC/EN 61131-2, Level 3 2 kV, Supply cable, according to IEC/EN 61131-2, Level 3
ADDRESSING	Address set automatically
CLIMATIC PROOFING	In accordance with IEC 60068-2
OPERATING MODE	Address allocation via DIP switch/DHCP/BOOTP
AIR PRESSURE	795 - 1080 hPa (operation)
EXPLOSION SAFETY	None

CATEGORY FOR DUST	
EXPLOSION SAFETY CATEGORY FOR GAS	None
MOUNTING METHOD	Wall mounting/direct mounting Rail mounting possible Screw fixing using fixing brackets ZB4-101-GF1 (accessories) Top-hat rail fixing (according to IEC/EN 60715, 35 mm)
VOLTAGE TYPE	DC
MOUNTING POSITION	As required
CONTACT DISCHARGE	4 kV, according to IEC/EN 61131-2, Level 2, ESD
OVERVOLTAGE CATEGORY	II
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
SURGE RATING	0.5 kV, Supply cable, Surge (IEC/EN 61131-2:2008, Level 1), EMC
SAFETY PERFORMANCE LEVEL (EN ISO 13849-1)	None
SIL (IEC 61508)	None
AMBIENT OPERATING TEMPERATURE - MAX	55 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT STORAGE TEMPERATURE - MAX	70 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	3.8 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0 W
HEIGHT OF FALL (IEC/EN 60068-2-32) - MAX	0.3 m
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)
PRODUCT CATEGORY	SmartWire-DT coordinators
NUMBER OF HW-INTERFACES CAN	0
PROTECTION AGAINST POLARITY REVERSAL	Yes, for supply voltage (Siemens MPI optional) Yes
CONNECTION TYPE	2 x RJ45 (2-channel switch), Field bus interface Push in terminals, Supply voltage SWD: Plug, 8-pole
RADIATED RFI	10 V (IEC/EN 61131-2:2008, Level 3)
NUMBER OF MODULES	99 (SmartWire-DT)
DROP AND TOPPLE	50 mm Drop height, Drop to IEC/EN 60068-2-31
RADIO INTERFERENCE CLASS	Class A (EN 55011)
DATA TRANSFER RATE	125 kBit/s, SmartWire-DT 546 Byte, Fieldbus interface, Input data, max., Ethernet-IP 800 Byte, Fieldbus interface, Input data, max., MODBUS-TCP 250 kBit/s, SmartWire-DT 10/100 MBit/s, Fieldbus interface 496 Byte, Fieldbus interface, Output data, max., Ethernet-IP 800 Byte, Fieldbus interface, Output data, max., MODBUS-TCP
RELATIVE HUMIDITY	5 - 95 % (non-condensing, IEC/EN 60068-2-30)
DEGREE OF PROTECTION	IP20
PROTOCOL	Ethernet IP/MODBUS-TCP MODBUS
RESIDUAL RIPPLE	≤ 5 % (input voltage)
RATED CONTROL SUPPLY VOLTAGE	24 V DC (UPOW, -15 %/+20 %) 24 V DC (UAUX, -15 %/+20 %)
RATED OPERATIONAL CURRENT (IE)	0.7 A

INRUSH CURRENT	12.5 A (for 6 ms)
SUITABLE FOR	Safety functions
FUNCTIONS	For connection to the Ethernet-IP/MODBUS-TCP field bus
STATION	IP, Station address, Fieldbus interface SmartWire-DT master, SmartWire-DT network
SHOCK RESISTANCE	15 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 9 Impacts
LED INDICATOR	Status indication of Supply voltage: LED Status indication of SmartWire-DT network: Configurable green or red LED Status indication of SmartWire-DT master: Green and red LEDs
INTERFACES	Module type: Ethernet IP/MODBUS-TCP Slave Status display fieldbus interface for MS, Link status with Multi color LED
SYSTEM ACCESSORY	Yes
POTENTIAL ISOLATION	Between UPow and 15 V SmartWire-DT supply voltage: no Supply voltage UAUX: no
POWER LOSS	Normally 1 W
VOLTAGE DIPS	≤ 10 ms, Bridging voltage dips
NUMBER OF HW-INTERFACES (INDUSTRIAL ETHERNET)	2
NUMBER OF HW-INTERFACES (OTHER)	0
NUMBER OF HW-INTERFACES (PARALLEL)	0
NUMBER OF HW-INTERFACES (RS-232)	1
NUMBER OF HW-INTERFACES (RS-422)	0
NUMBER OF HW-INTERFACES (RS-485)	0
NUMBER OF HW-INTERFACES (SERIAL TTY)	0
NUMBER OF HW-	0

INTERFACES (USB)	
NUMBER OF HW-INTERFACES (WIRELESS)	0
NUMBER OF INTERFACES (PROFINET)	0
OPERATING TEMPERATURE - MAX	55 °C
OPERATING TEMPERATURE - MIN	-25 °C
RATED OPERATIONAL VOLTAGE	Typically UAUX -0.2 V (for 24 V DC slaves) 14.5 V (± 3 % - SmartWire-DT)
SHORT-CIRCUIT PROTECTION	No, external fuse FAZ Z3, Supply voltage UAux Yes, Short-circuit rating, SmartWire-DT supply voltage
TERMINAL CAPACITY	0.2 - 1.5 mm², solid 24 - 16 AWG, solid or stranded 0.25 - 1.5 mm², flexible with ferrule
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	0 A
REPETITION RATE	1 s
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	1 W
SUPPLY CURRENT - MAX	0.7 mA
SUPPLY VOLTAGE AT DC - MAX	28.8 V
SUPPLY VOLTAGE AT DC - MIN	20.4 V

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