

Counter module for XC100/200, 24 V DC, 1x100kHz, 2DO(T)



Part no. XIOC-1CNT-100KHZ
257906
EL Number 4519680
(Norway)

General specifications		
Product name		Eaton XIOC Counter module
Part no.		XIOC-1CNT-100KHZ
EAN		4015082579067
Product Length/Depth		100 millimetre
Product height		95 millimetre
Product width		30 millimetre
Product weight		0.155 kilogram
Certifications		CSA File No.: 012528 EN 50178 IEC/EN 61131-2 CE UL Category Control No.: NRAQ UL508 CSA CSA-C22.2 No. 142-M CSA Class No.: 2252-01 UL File No.: E135462 CSA-C22.2 No. 0-M UL
Product Tradename		XIOC
Product Type		Counter module
Product Sub Type		None
Catalog Notes		4 VA/W, Voltage for Off optocoupled, 24 V DC
Features & Functions		
Functions		Single-axis controller possible Single-axis positioning possible
General information		
Admissible range		20.4 – 28.8 V (11.8 – 14.4 V), Power supply
Current consumption		200 mA, Outputs 200 mA (Ie), internal current consumption, Inputs
Degree of protection		IP20
Number of channels		2, Output
Overvoltage category		II
Pollution degree		2
Protection class		1
Rated frequency		100 (25 with four-fold resolution)
Repetition rate		1 s
Residual ripple		≤ 5 %
Suitable for		Counting Incremental data detection
Type		Counter module
Used with		XC100/200 (expandable with up to 15 XI/OC modules)
Ambient conditions, mechanical		
Impact resistance		500 g/∅ 50 mm ±25 g
Shock resistance		15 g, Mechanical, Shock duration 11 ms
Vibration resistance		10 - 57 Hz, ± 0.075 mm 57 - 150 Hz ± 1.0 mm
Climatic environmental conditions		
Ambient operating temperature - min		0 °C
Ambient operating temperature - max		55 °C
Ambient storage temperature - min		-25 °C
Ambient storage temperature - max		70 °C

Electro magnetic compatibility		
Emitted interference		Class A (according to DIN/EN 55011/22)
Voltage dips		10 ms
Terminal capacities		
Terminals		Optionally, screw terminals or spring-loaded terminals for digital/analog modules
Electrical rating		
Leakage current		0.5 A
Power loss		1.2 W
Rated control voltage (Uc)		-5 - 8 V DC
Rated operational current (Ie)		10 A
Rated operational voltage		24 (12) V DC
Supply voltage at DC - min		2 V DC
Supply voltage at DC - max		5 V DC
Communication		
Connection		30-pole plug: XIOC-TERM30-CNT4, Connection of external input (max. 30 m cable length), Inputs Screened, twisted pair cable, Inputs 30 pole connector required for counter module Screened, twisted pair cable, Output termination Of external output: 30-pole plug XIOC-TERM30-CNT4
Input/Output		
Counter limits		0 - 4294967295 (32 bit)
Delay time		1 ms, Outputs, Delay time from 0 to 1, Debounce OFF 1 ms, Outputs, Delay time from 1 to 0, Debounce OFF
Input		1 Input (up to 100 kHz, 24 V DC, 5 V DC) 1 Analog input
Input current		4 mA (high signal) Input B1-C: max. 35 A
Input voltage		± 5 V DC (differential) 12 - 24 V DC
Load current		Min. 1 mA Max. 20 mA (Ie)
Output		Transistor (open collector) 2 Digital Transistor Outputs
Pulse characteristics		On ≥ 4 µs (minimum pulse width)
Voltage drop (Ud)		1.5 V
Safety		
Explosion safety category for dust		None
Explosion safety category for gas		None
Potential isolation		Opto-isolated (Inputs) Outputs: Opto-isolated
Design verification		
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		1.2 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) / PLC function/technology module (EC001422)

Electric engineering, automation, process control engineering / Control, Process Control System (PCS) / Programmable logic control (SPS) / SPS functional/technological module (ecl@ss13-27-24-22-05 [AKE528019])

Number of functions			1
Redundancy			No
Suitable for counting			Yes
Suitable for weighing			No
Suitable for temperature control			No
Suitable for welding control			No
Suitable for pressure control			No
Suitable for NC			No
Suitable for electronic positioning			No
Suitable for CNC			No
Suitable for SSI			No
Suitable for incremental data detection			Yes
Suitable for detection absolute value			No
Suitable for flux controller			No
Suitable for flux measurement			No
Suitable for path controller			No
Suitable for cam controller			No
Suitable for flying saw			No
Suitable for multi-axis control			No
Suitable for single-axis controller			Yes
Suitable for multi-axis positioning			No
Suitable for single-axis positioning			Yes
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
Width		mm	30
Height		mm	95
Depth		mm	100