## Counter module for XC100/200, 24 V DC, 2x100kHz, 4D0(T)



Part no. XIOC-2CNT-100KHZ

257907 4519681

EL Number

(Norway)

(Norway)	
General specifications	Fatar VIDO Co.
Product name	Eaton XIOC Counter module
Part no.	XIOC-2CNT-100KHZ
EAN	4015082579074
Product Length/Depth	100 millimetre
Product height	95 millimetre
Product width	30 millimetre
Product weight	0.155 kilogram
Certifications	UL508 CSA-C22.2 No. 142-M CE EN 50178 UL UL Category Control No.: NRAQ CSA Class No.: 2252-01 UL File No.: E135462 CSA-C22.2 No. 0-M IEC/EN 61131-2 CSA File No.: 012528 CSA
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 positioning possible Single-axis controller possible
General information	
Admissible range	20.4 – 28.8 V (11.8 – 14.4 V), Power supply
Current consumption	200 mA (le), internal current consumption, Inputs 200 mA, Outputs
Degree of protection	IP20
Number of channels	4, Output
Overvoltage category	II 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
Туре	Counter module
Used with	XC100/200 (expandable with up to 15 XI/OC modules)
Ambient conditions, mechanical	
Impact resistance	500 g/Ø 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 module
Electrical rating	
Leakage current	0.5 A
Power loss	1.2 W
Rated control voltage (Uc)	-5 - 8 V DC
Rated operational current (le)	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
Guinection	length), Inputs Of external output: 30-pole plug XIOC-TERM30-CNT4 30 pole connector required for counter module Screened, twisted pair cable, Output termination Screened, twisted pair cable, Inputs
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	2 inputs (up to 100 kHz, 24 V DC or 5 V diff) 2 Analog inputs
Input current	4 mA (high signal) Input B1-C: max. 35 A
Input voltage	12 - 24 V DC ± 5 V DC (differential)
Load current	Max. 20 mA (Ie) Min. 1 mA
Output	Transistor (open collector) 4 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	Outputs: Opto-isolated Opto-isolated (Inputs)
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	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**

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$Programmable\ logic\ controllers\ PLC\ (EG000024)\ /\ PLC\ function/technology\ module\ (EC001024)\ /\ PLC\ function/technology\ module\ module\ module\ module\ module\ module\ modul$	422)			
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		2		
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		