Specifications

Eaton 257907

Catalog Number: 257907

Eaton XIOC Counter module for XC100/200, 24 V DC, 2x100kHz, 4DO(T)

General specifications

Product Name
Eaton XIOC Counter module

Catalog Number
257907

EAN
4015082579074

Product Length/Depth
100 mm

Product Height
95 mm

Product Width
30 mm

Product Weight
0.155 kg

Certifications
IEC/EN 61131-2
UL
CSA File No.: 012528
UL508
EN 50178
UL File No.: E135462
CSA-C22.2 No. 142-M
UL Category Control No.: NRAQ
CSA-C22.2 No. 0-M
CSA
CE
CSA Class No.: 2252-01

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Features & Functions

Functions

Single-axis positioning possible

Single-axis controller possible

General

Admissible range

20.4 – 28.8 V (11.8 – 14.4 V), Power supply

Current consumption

200 mA (Ie), internal current consumption, Inputs

200 mA, Outputs

Degree of protection

IP20

Number of channels

4, 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

Climatic environmental conditions

Ambient operating temperature - min

0 °C

Ambient operating temperature - max

55 °C

Ambient storage temperature - min

10 - 57 Hz, ± 0.075 mm

57 - 150 Hz ± 1.0 mm

-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 VDC

Supply voltage at DC - max

5 VDC

Communication

Connection

30-pole plug: XIOC-TERM30-CNT4, Connection of external input (max. 30 m cable 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 µ s (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.

Resources

Brochures

Slice card modular I/O system for the machine building industry XN300 - brochure

eaton-xc300-modular-plc-brochure-br050008en-en-us.pdf

Declarations of conformity

DA-DC-00003843.pdf

DA-DC-00003409.pdf

Drawings

eaton-electronic-devices-dimensions-xioc-output-module-dimensions.eps

eaton-electronic-devices-local-inputoutput-xioc-output-module-3d-drawing.eps

eaton-electronic-devices-in-out-module-xioc-output-module-dimensions.eps

eCAD model

DA-CE-ETN.XIOC-2CNT-100KHZ

Manuals and user guides

MN05002002Z_EN

mCAD model

DA-CD-xioc

DA-CS-xioc

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