

# Eaton 257901

Catalog Number: 257901

Eaton XIOC Analog input card for XC100/200, 24 V DC, 4AI(Pt100/1000)



### General specifications

Product Name	Catalog Number
Eaton XIOC Accessory Input card	257901
EAN	Product Length/Depth
4015082579012	100 mm
Product Height	Product Width
95 mm	30 mm
Product Weight	Certifications
0.135 kg	CSA-C22.2 No. 0-M
	EN 50178
	UL
	CSA
	CSA Class No.: 2252-01
	CSA File No.: 012528
	CE
	CSA-C22.2 No. 142-M
	IEC/EN 61131-2
	UL File No.: E135462
	UL Category Control No.: NRAQ
	UL508

### Catalog Notes

In these cases, the resistance value is  
7FFFhex

## Features & Functions

### Electric connection type

Screw-/spring clamp connection

### Features

Analog outputs configurable

Input, resistance thermometer

Analog inputs configurable

### Functions

Linearization

## General

### Admissible range

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

### Current consumption

200 mA max., internal (5 V DC), Inputs

### Degree of protection

IP20

### Number of channels

4, Input

### Overvoltage category

II

### Pollution degree

2

### Protection class

1

### Repetition rate

1 s

### Residual ripple

≤ 5 %

### Resistance

Pt100 - IEC 751, Pt1000 (Platinum temperature resistance)

Max 0.4 k Ω (4 channels, impedance)

### Resolution

15 Bit (signed, digital)

### Type

Analog 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

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

10 - 57 Hz,  $\pm 0.075$  mm

Ambient storage temperature - max

70 °C

Operating temperature - min

-20 °C

Operating temperature - max

400 °C

## Electro magnetic compatibility

### Emitted interference

Class A (according to DIN/EN 55011/22)

### Voltage dips

10 ms

## Electrical rating

### Power loss

Max. 4.8 W

### Power supply

24 V DC (-15/+20 %), 100 mA

### Rated operational voltage

24 (12) V DC

## Terminal capacities

### Terminals

Optionally, screw terminals  
or spring-loaded terminals  
for digital/analog modules  
Plug-in terminal block

## Communication

### Connection type

Screened cable

## Input/Output

### Accuracy

3 %, -50 to 400 °C (Pt100)

0.5 %, -20 to 40 °C (Pt100)

6 %, -50 to 400 °C (Pt100)

### Input

4 Inputs for temperature monitoring (Pt100/1000)

### Number of inputs (analog)

4

### Number of outputs (analog)

0

### Temperature error

$\leq -25$  °C or  $\geq +45$  °C = resistance value

7FFFhex, Error detection -20 °C to 40 °C,  
Inputs

$\leq -60$  °C or  $\geq +410$  °C = resistance value

7FFFhex, Error detection -50 °C to 400 °C,  
Inputs

## Safety

Explosion safety category for dust

None

Explosion safety category for gas

None

Potential isolation

Analog inputs: Opto-isolated

Analog outputs: no

## Design verification

Equipment heat dissipation, current-dependent  $P_{vid}$

0 W

Heat dissipation capacity  $P_{diss}$

0 W

Heat dissipation per pole, current-dependent  $P_{vid}$

0 W

Rated operational current for specified heat dissipation ( $I_n$ )

0 A

Static heat dissipation, non-current-dependent  $P_{vs}$

4.8 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

[eaton-xc300-modular-plc-brochure-br050008en-en-us.pdf](#)

[Slice card modular I/O system for the machine building industry XN300 - brochure](#)

### Declarations of conformity

[DA-DC-00003397.pdf](#)

[DA-DC-00003821.pdf](#)

### Drawings

[eaton-electronic-devices-dimensions-xioc-output-module-dimensions.eps](#)

[eaton-electronic-devices-in-out-module-xioc-output-module-dimensions.eps](#)

[eaton-electronic-devices-local-inputoutput-xioc-output-module-3d-drawing.eps](#)

### eCAD model

[ETN.XIOC-4T-PT](#)

### Manuals and user guides

[MN05002002Z\\_EN](#)

### mCAD model

[DA-CD-xioc](#)

[DA-CS-xioc](#)