SIEMENS

SIPLUS CMS4000

Industrial I/O-Node

ION BINARYINPUT T001

6AT8000-1BA00-2XA0

Operating Instructions (compact)

ION BINARYINPUT T001

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Scope of delivery

- ION BINARYINPUT T001
- Operating Instructions (compact)

Description

The ION BINARYINPUT T001 is used to acquire binary signals and to transmit the recorded data via the FireWire bus (IEEE1394-standard) with 400 Mbps to a higher level industrial PC. The use of an ION BINARYINPUT T001 allows recording 8 binary, separate electrically insulated signals within a range of 0 / 24 V.
The maximum sample frequency is 50 kHz per binary input.

Assembling

The device must be mounted on a DIN rail. To avoid overheating the minimum distances specified in the technical data must be adhered to. Protective equipment and a disconnection unit for the device must be provided.

Connecting

For clamping ranges: see technical data.

- Screw clamps: Screwdriver with a blade of 3 mm. Recommended fastening torque: 0.2 ... 0.4 Nm.
- Ground Connection: TX 15 Torx screwdriver. Recommended tightening torque: approx. 3 Nm.

Commissioning (hardware)

1. Connect the ION with a 24 V power supply. The green PWR LED of the ION starts to blink.
2. Connect the ION with the PC via an IEEE1394 cable.
3. If the ION is being connected to the PC for the first time, Windows will request a driver installation. To install the driver, follow the instructions of the hardware assistant. The directory for the drive installation is SIPLUS CMS\Drivers\IEEE1394.
4. After Windows has installed a driver for the ION, the ION can be used with X-Tools. The yellow LNK LED of the Repeater Node lights up and the hardware installation is complete when the ION is connected to the PC, the driver is installed and X-Tools is started.

Technical Data

Interfaces	
IEEE1394a P1…P 3	
Number	3
Design	6-pin connector
Transfer speed	400 Mbps
Power Supply 24 V, 0 V, PD (Power Down)	
Connector type	3-pin connector (Phoenix Contact)
Clamping range	0,2… 2,5 mm²
Input voltage	18...32 V DC
Typ. power loss at DC 24 V	24 W
Typ. current consumption at DC 24 V	1 A
Binary CH 01…CH 08	
Number	8
Connector type	16-pin connector (Phoenix Contact)
Clamping range	0,2… 2,5 mm²
Input voltage range	± 48 V
Input protection	± 60 V
Insulation	± 0,4 kV
Input current	10,2 mA with 24 V DC
Sample frequency	≤ 50 kHz / binary input
Resolution	1 bit
Response time	≥ 4 µs
Switching threshold logical “0”	+ 4 V > U > - 4 V
Switching threshold logical “1”	U > + 6 V or U < - 6 V
Hysteresis	< 200 mV

Ground Connection	
Connector type	M4 screw on the front plate: SHIELD
Clamping range	Cable socket for screw M4
Cables	
FireWire	According to IEEE1394a standard
Binary inputs	Maximum length: 3 m
Environmental Conditions / EMV	
Transport and storage temperature	- 25 ... + 85 °C
Ambient temperature during operation	0 ... + 55 °C
Humidity rating	5…95 %, non condensing
EMC interference emission	EN 55011:2007 (class A)
EMC interference immunity	EN 61000-6-2:2005
Degree of protection	IP20
Constructive Layout	
Dimensions (H x W x D) in mm	200 x 60,2 x 126,5
Minimum distances: Front Top Bottom	 80 mm 25 mm 25 mm
Design	Aluminum / stainless steel
Color	Silver
Weight	1 kg
Mounting	DIN rail EN 50022-35x15 Thickness 2,3 mm
Certificates	
CE	For use in industrial and office areas