140036
XNE-8DO-24VDC-0.5A-P

Overview
Specifications
Resources

DELIVERY PROGRAM

Function
XI/ON I/O modules

Function
XNE Slice module

Short Description
8 Digital output, 24 V DC/0.5 A
Positive switching

TECHNICAL DATA

General

Standards
EN 61000-6-2
EN 61000-6-4
EN 61131-2

Potential isolation
Yes, through optocoupler

Ambient temperature
Ambient temperature, operation
0 - +55 °C

Ambient temperature
Storage, transport [ϑ]
-25 - +85 °C

Relative humidity
Relative humidity
5 - 95 % (indoor), Level RH-2, no condensation
(for storage at 45°C)

Ambient conditions, mechanical
Degree of Protection
IP20

Ambient conditions, mechanical
Harmful gases
SO_2: 10 (rel. humidity < 75%, no condensation)
H_2S: 1.0 (rel. humidity < 75 %,no condensation)
ppm

Vibration resistance, operating conditions
according to IEC/EN 60068-2-6

Mechanical shock resistance
according to IEC 60068-2-27 g

Continuous shock resistance (IEC/EN 60068-2-29)
According to IEC 60068-2-29

Drop and topple
According to IEC 60068-2-31, free fall according to
IEC 60068-2-32

Electromagnetic compatibility (EMC)
ESD [Air/contact discharge]
EN 61000-4-2 kV

Electromagnetic compatibility (EMC)
Electromagnetic fields [(0.08…1) / (1,4…2) / (2…
2,7) GHz]
EN 61100-4-2 V/m

Electromagnetic compatibility (EMC)
Burst
EN 61100-4-4

Electromagnetic compatibility (EMC)
Surge
EN 61100-4-5

Electromagnetic compatibility (EMC)
Radiated RFI
EN 61100-4-6 V

Electromagnetic compatibility (EMC)
Emitted interference (radiated, high frequency)
[(30...230 MHz) / (230...1000 MHz)]
EN 55016-2-3 dB

Electromagnetic compatibility (EMC)
Voltage fluctuations/voltage dips
EN 61131-2

Electromagnetic compatibility (EMC)
Type test
to EN 61131-2

Approvals
CE, cULus
EAC

Other technical data (sheet catalogue)
Technical Data

Terminations

Rated data
according to VDE 0611 Part 1/8.92 /

IEC/EN 60947-7-1

Connection design in TOP direction
Push-In spring-cage terminals

Stripping length
8 mm

Clamping range

max. 0.14 - 1.5 mm²

Connectable conductors
Outputs to EN 61131-2
0.25 - 1.5 mm²

Connectable conductors
Reset after short-circuit rectified
0.25 - 1.5 mm²

Connectable conductors
Vibration resistance, operating conditions
0.25 - 1.5 mm²

Connectable conductors
"f" with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)
0.25 - 0.75 mm²

Connectable conductors
"e" solid H07V-U
0.25 - 1.5 mm²

Connectable conductors
"f" flexible H07V-K
0.25 - 1.5 mm²

Connectable conductors
"f" with ferrules without plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)
0.25 - 1.5 mm²

Connectable conductors
"f" with ferrules with plastic collar according to DIN 46228-1 (ferrules crimped gas-tight)
0.25 - 0.75 mm²

Gauge pin IEC/EN 60947-1
A1

Analog input modules

Channels
8 Number

Rated voltage through supply terminal [U_L]
24 V DC

Rated current consumption from supply terminal [I_L]
3 mA

Rated current consumption from module bus [I_{MB}]
□ 15 mA

Connectable sensors
Resistive loads
Inductive loads
Lamp loads

Analog output modules

Channels
8 Number

Rated voltage through supply terminal [U_L]
24 V DC

Rated current consumption from supply terminal [I_L]
3 mA

Rated current consumption from module bus [I_{MB}]
□ 15 mA

Load resistance
Resistive load
□ 48 Ω

Load resistance
Inductive load
As per DC13 to IEC 60947-5-1 h

Digital outputs

Channels
8 Number

Rated voltage through supply terminal [U_L]
24 V DC

Rated current consumption from the supply
terminal (at load current = 0 mA) [I_L]
3 mA

Rated current consumption from module bus [I_{MB}]
□ 15 mA

Power loss [P]
Normally 1.5 W

Output voltage
High level [U_H/U_A]
> U_L - 1 V DC

Output current
High level (rated value) [I_H]
0.5 A

Output current
High level (permissible range) [I_H]
< 1.0 A

Delay on signal change and resistive load
from Low to High level
300 µs

Delay on signal change and resistive load
From High to Low signal
300 µs

Utilization factor [%]
100 g

Can be connected
Resistive loads
Inductive loads
Lamp loads

Resistive load
□ 48 Ω

Inductive load
As per DC13 to IEC 60947-5-1 h

Lamp load [R_{LL}]
□ 6 W

Switching frequency
With resistive load [f]
100 Hz

Switching frequency
with inductive load
As per DC13 to IEC 60947-5-1

Switching frequency
Switching frequency with lamp load [f]
10 Hz

Outputs to EN 61131-2
short-circuit proof

Reset after short-circuit rectified [I_i]
Automatic

Digital inputs

Channels
8 Number

Rated voltage through supply terminal [U_L]
24 V DC

Rated current consumption from supply terminal [I_L]
3 mA

Rated current consumption from module bus [I_{MB}]
□ 15 mA

Relay modules

Rated voltage through supply terminal [U_L]
24 V DC

Rated current consumption from supply terminal [I_L]
3 mA

Rated current consumption from module bus [I_{MB}]

□ 15 mA

Power loss [P]
Normally 1.5 W

Can be connected
Resistive loads
Inductive loads
Lamp loads

Utilization factor [g]
100 %

Power supply module

Rated voltage through supply terminal [U_L]
24 V DC

Rated current consumption from supply terminal [I_L]
3 mA

Rated current consumption from module bus [I_{MB}]
□ 15 mA

Power loss [P]
1.5 W

Counter module

Channels
8 Number

Rated voltage through supply terminal [U_L]
24 V DC

Rated current consumption from supply terminal [I_L]
3 mA

Rated current consumption from module bus [I_{MB}]
□ 15 mA

Digital outputs

Output current
High level (permissible range) [I_H]
< 1.0 A

Output current
High level (rated value) [I_H]
0.5 A

Switching frequency
Switching frequency with lamp load [f]
10 Hz

Lamp load [R_{LL}]
□ 6 W

Short-circuit rating
short-circuit proof

Interfaces

Rated voltage through supply terminal [U_L]
24 V DC

Rated current consumption from supply terminal [I_L]
3 mA

Rated current consumption from module bus [I_{MB}]
□ 15 mA

Power loss [P]
Normally 1.5 W

Notes

The supply terminal (U_L) provides power for the module electronics and for the consumers at the outputs. The total current required for each module consists of the sum of all partial currents.

Part of the XI/ON module's electronics is supplied with module bus voltage (5 V DC), the other part through the supply terminal (U_L).

To increase the maximum output current to up to 1 A, two outputs can be connected in parallel.

Note for table header
The rated current from supply terminal data apply at zero load current.

Applies for resistive load: RLO < 1kΩ

DESIGN VERIFICATION AS PER IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat dissipation [I_n]
0 A

Heat dissipation per pole, current-dependent [P_{vid}]
0 W

Equipment heat dissipation, current-dependent [P_{vid}]
0 W

Static heat dissipation, non-current-dependent [P_{vs}]
1.5 W

Heat dissipation capacity [P_{diss}]
0 W

Operating ambient temperature min.
0 °C

Operating ambient temperature max.
+55 °C

Degree of Protection
IP20

IEC/EN 61439 design verification

10.2 Strength of materials and parts
10.2.2 Corrosion resistance
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.3.1 Verification of thermal stability of enclosures
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.3.2 Verification of resistance of insulating materials to normal heat
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.4 Resistance to ultra-violet (UV) radiation
Meets the product standard's requirements.

10.2 Strength of materials and parts
10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts
10.2.6 Mechanical impact
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts
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 Insulation properties
10.9.2 Power-frequency electric strength
Is the panel builder's responsibility.

10.9 Insulation properties
10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.

10.9 Insulation properties
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 7.0

PLC's (EG000024) / Fieldbus, decentr. periphery - digital I/O module (EC001599)

Electric engineering, automation, process control engineering / Control / Field bus, decentralized peripheral / Field bus, decentralized peripheral - digital I/O module (ecl@ss10.0.1-27-24-26-04 [BAA055014])

Supply voltage AC 50 Hz

0 - 0 V

Supply voltage AC 60 Hz
0 - 0 V

Supply voltage DC
18 - 30 V

Voltage type of supply voltage
DC

Number of digital inputs
0

Number of digital outputs
8

Digital inputs configurable
No

Digital outputs configurable
No

Input current at signal 1
0 mA

Permitted voltage at input
0 - 0 V

Type of voltage (input voltage)
DC

Type of digital output
Other

Output current
0.5 A

Permitted voltage at output
0 - 29 V

Type of output voltage
DC

Short-circuit protection, outputs available
Yes

Number of HW-interfaces industrial Ethernet
0

Number of interfaces PROFINET
0

Number of HW-interfaces RS-232
0

Number of HW-interfaces RS-422
0

Number of HW-interfaces RS-485
0

Number of HW-interfaces serial TTY
0

Number of HW-interfaces parallel
0

Number of HW-interfaces Wireless
0

Number of HW-interfaces USB
0

Number of HW-interfaces other
1

With optical interface
No

Supporting protocol for TCP/IP
No

Supporting protocol for PROFIBUS
Yes

Supporting protocol for CAN

Yes

Supporting protocol for INTERBUS
No

Supporting protocol for ASI
No

Supporting protocol for KNX
No

Supporting protocol for MODBUS
No

Supporting protocol for Data-Highway
No

Supporting protocol for DeviceNet
No

Supporting protocol for SUCONET
No

Supporting protocol for LON
No

Supporting protocol for PROFINET IO
No

Supporting protocol for PROFINET CBA
No

Supporting protocol for SERCOS
No

Supporting protocol for Foundation Fieldbus
No

Supporting protocol for EtherNet/IP
No

Supporting protocol for AS-Interface Safety at Work
No

Supporting protocol for DeviceNet Safety
No

Supporting protocol for INTERBUS-Safety
No

Supporting protocol for PROFIsafe
No

Supporting protocol for SafetyBUS p
No

Supporting protocol for other bus systems
Yes

Radio standard Bluetooth
No

Radio standard WLAN 802.11
No

Radio standard GPRS
No

Radio standard GSM
No

Radio standard UMTS
No

IO link master
No

System accessory
Yes

Degree of protection (IP)
IP20

Type of electric connection
Screw-/spring clamp connection

Time delay at signal exchange
0 - 0.3 ms

Fieldbus connection over separate bus coupler possible
Yes

Rail mounting possible
Yes

Wall mounting/direct mounting
No

Front build in possible
No

Rack-assembly possible
No

Suitable for safety functions
No

Category according to EN 954-1
None

SIL according to IEC 61508
None

Performance level acc. 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
13 mm

Height
129.5 mm

Depth
74.5 mm

APPROVALS

Product Standards
UL 508; CSA-C22.2 No. 142; IEC/EN 6113-2; CE marking

UL File No.
E205091

UL Category Control No.
NRAQ, NRAQ7

CSA File No.
UL report applies to both US and Canada

CSA Class No.
2252-01, 2252-81

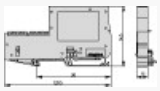
North America Certification
UL recognized, certified by UL for use in Canada

Specially designed for North America
No

Current Limiting Circuit-Breaker
No

Degree of Protection
IEC: IP20, UL/CSA Type: -

DIMENSIONS



Link to sheet catalogue
Dimensions