

# NT4008

Série Réseau de Red Lion

## ▲ Switch Ethernet industriel Gigabit managé couche 2

LES SWITCHS ETHERNET INDUSTRIELS MANAGÉS NT4008 GIGABIT DE RED LION SONT CERTIFIÉS POUR CORRESPONDRE AUX STANDARDS PROFINET PNIO V2.34 CONFORMANCE B (CC-B), RT CLASSE 1. CETTE CERTIFICATION GARANTIE UNE INTÉGRATION TRANSPARENTE AUX RÉSEAUX PROFINET EN UTILISANT LES OUTILS DE CONFIGURATION ET DE GESTION DES PLC STANDARD. UN FICHIER GSDML EST FOURNI.

- ▲ PROFINET PNIO V2.34, Conformance classe B (CC-B), RT classe 1
- ▲ MRP (Media Redundancy Protocol) : Configurations client ou client/manager
- ▲ Ports RJ45 10/100/1000
- ▲ Ports SFP dual-mode prenant en charge les transmetteurs SFP 100Base et 1000Base



## ▲ Guide de commande

### UNITÉ PRINCIPALE

RÉFÉRENCES	DESCRIPTION
NT-4008-000-PN-C	Switch Ethernet industriel managé Gigabit 8 ports (8 ports RJ45 10/100/1000BaseT), PNIO CC-B, MRC
NT-4008-000-PN-M	Switch Ethernet industriel managé Gigabit 8 ports (8 ports RJ45 10/100/1000BaseT), PNIO CC-B, MRM
NT-4008-DM2-PN-C	Switch Ethernet industriel managé Gigabit 8 ports (6 ports RJ45 10/100/1000BaseT, 2 Dual Mode 100/1000Base SFP expansion slots), PNIO CC-B, MRC
NT-4008-DM2-PN-M	Switch Ethernet industriel managé Gigabit 8 ports (6 ports RJ45 10/100/1000BaseT, 2 Dual Mode 100/1000Base SFP expansion slots), PNIO CC-B, MRM

Le clip pour rail DIN, le montage panneau et le câble de console sont inclus. Les transmetteurs SFP sont vendus séparément.

### ACCESSOIRES

RÉFÉRENCES	DESCRIPTION
NTSFP-FX	Transmetteur SFP fibre multimode 100BaseFX (Connecteur de type LC, 2 km)
NTSFP-FXE-15	Transmetteur SFP fibre monomode 100BaseFX (Connecteur de type LC, 15 km)
NTSFP-FXE-40	Transmetteur SFP fibre monomode 100BaseFX (Connecteur de type LC, 40 km)
NTSFP-FXE-80	Transmetteur SFP fibre monomode 100BaseFX (Connecteur de type LC, 80 km)
NTSFP-LX-10	Transmetteur SFP fibre monomode 1000BaseLX (Connecteur de type LC, 10 km)
NTSFP-LX-40	Transmetteur SFP fibre monomode 1000BaseLX (Connecteur de type LC, 40 km)
NTSFP-LX-80	Transmetteur SFP fibre monomode 1000BaseLX (Connecteur de type LC, 80 km)
NTSFP-SX	Transmetteur SFP fibres multimodes 1000BaseSX (Connecteur de type LC, 550 m)
NTSFP-TX	Transmetteur SFP 1000BaseT cuivre (connecteurs RJ45)
NTPS-24-1-3	Alimentation électrique sur rail DIN, 1,3 Amp @ 24 VDC

## NT4008 Specifications

### Specifications

#### SWITCH PROPERTIES

Compact, space saving package  
Full IEEE 802.3 compliance  
Managed operation  
PROFINET PNIO v2.34, conformance Class B (CC-B), RT Class 1  
PROFINET redundancy: Media Redundancy Protocol (MRM & MRC - model dependent)  
Extended environmental specifications  
Supports full/half duplex operation  
Up to 16.0 Gb/s maximum throughput  
MDIX auto sensing cable  
Auto sensing speed and flow control  
Full wire speed communications  
Store-and-forward technology  
Redundant power inputs (12-58 VDC)  
Reverse polarity protection  
LED link/activity status indication  
Hardened metal IP30 DIN rail enclosure  
Supports up to 4k MAC addresses  
Latency (typical): < 2.1 µs  
Configurable alarm contact  
9k byte jumbo frame support  
Ethernet isolation: 1500 Vrms 1 minute  
MTBF: 300K hours; Telcordia SR-332

#### MANAGEMENT

Web-based management  
CLI: Console, Telnet  
RMON (monitors L1 to L2 traffic)  
sFlow  
Configuration backup/restore  
PROFINET GSDML file, PROFINET I/O parameters, I/O cyclic data  
MRP: Media redundancy (MRM & MRC - model dependent)  
DHCP Client  
DHCP Server  
DHCP Relay Agent  
DHCP Snooping  
IGMP v1/v2/v3  
SNMP v1/v2c/v3

#### DIAGNOSTIC

Port mirroring  
Syslog  
IEEE 802.1ab Link Layer Discovery Protocol (LLDP)

#### NETWORK REDUNDANCY

PROFINET MRP, MRC, MRM  
Ring Protocol: Proprietary Ring & Chain < 20 ms recovery  
IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s, 802.1Q MSTP  
Loop protection  
LAG/LACP: Static and Dynamic Link Aggregation  
Up to 4 groups per switch  
Up to 8 ports per group

#### MIBs

RFC 2674 VLAN MIB  
RFC 2819 RMON (Group 1, 2, 3 & 9)  
RFC 1213 MIB II  
RFC 1215 TRAPS MIB  
RFC 4188 Bridge MIB  
RFC 4292 IP Forwarding Table MIB  
RFC 4293 Management Information Base for the Internet Protocol (IP)  
RFC 5519 Multicast Group Membership Discovery MIB  
RFC 2863 Interface Group MIB using SMI v2  
RFC 4133 Entity MIB version 3  
RFC 3411 SNMP Management Frameworks  
RFC 3414 User-based Security Model for SNMPv3  
RFC 3415 View-based access Control Model for SNMP  
IEEE 802.1AB LLDP-MIB  
TIA 1057 LLDP-MED  
IEEE 802.1 MSTP MIB  
IEEE 802.3ad

#### TRAFFIC MANAGEMENT & QoS

Priority: IEEE 802.1p QoS  
Number of Queues Per Port: 8  
Policing, scheduling, and shaping  
QoS classification, remarking, and translation  
QoS assignment via Control Lists  
WRED congestion management

#### VLANs

Max VLANs: 1024  
VLAN Types: Port-based VLANs  
IEEE 802.1Q tag-based VLANs  
IEEE 802.1ad double tagging (Q in Q)

#### SECURITY

SSH, SSL, HTTPS  
Port Security: IP and MAC-based access control  
Storm Control: Multicast/Broadcast/Flooding  
Policy-based Access Control Engine: 128 ACL rules per system  
SNMP v3

#### COMMUNICATION

Supports full/half duplex operation

#### CERTIFICATION & COMPLIANCE

Safety:  
UL 61010 Ordinary Locations  
C22.2 No. 61010 Ordinary Locations  
UL 121201 and CSA C22.2 No. 213 Class I, Division 2 Hazardous Locations  
ATEX:  
⊕ II 3 G Ex nA nC IIC T4 Gc  
UL 20 ATEX 2433X  
EN 60079-0:2012+A11:2013, EN 60079-15:2010, IEC 60079-0 6th Edition, IEC 60079-15 4th Edition

## NT4008 Specifications Cont.

#### EMI/EMC:

CFR 47, Part 15, Subpart B  
Innovation, Science and Economic Development Canada ICES-003 Issue 6  
ANSI C63.4:2014  
EN 61000-6-2 Generic standards - Immunity Standard for Industrial Environments  
EN 61000-6-4 Generic standards - Emission Standard for Industrial Environments  
IEC 61000-4-2 (ESD)  
IEC 61000-4-3 (Radio-Frequency Electromagnetic Field)  
IEC 61000-4-4 (Fast Transient)  
IEC 61000-4-5 (Surge)  
IEC 61000-4-6 (Radio-Frequency Continuous Conducted)  
IEC 61000-4-8 (Power Frequency Magnetic Field)

#### Rail:

EN 50155, EN 50121 and EN 61373

#### Marine:

ABS Marine Type Approval  
Designed To Comply With:  
IEEE 1613 for Electric Utility Substations  
NEMA TS1/TS2 for Traffic Control  
IEC 61850-3

#### Other:

RoHS compliant

#### ENVIRONMENTAL

##### Shock and Vibration:

IEC 60068-2-6: 2 g @ 5-500 Hz 2 g Tri-Axle  
IEC 60068-2-27: 50 g @ 11 ms Tri-Axle  
IEC 60068-2-32: Test Ed: Free Fall  
Operating Temperature Range: -40 to 75 °C  
Storage Temperature Range: -40 to 85 °C  
Operating Humidity: 5% to 95% RH (non-condensing)  
Operating Altitude: Up to 6561 ft (2000 m)  
Operating Condition: OVC II and PD 2

#### MOUNTING

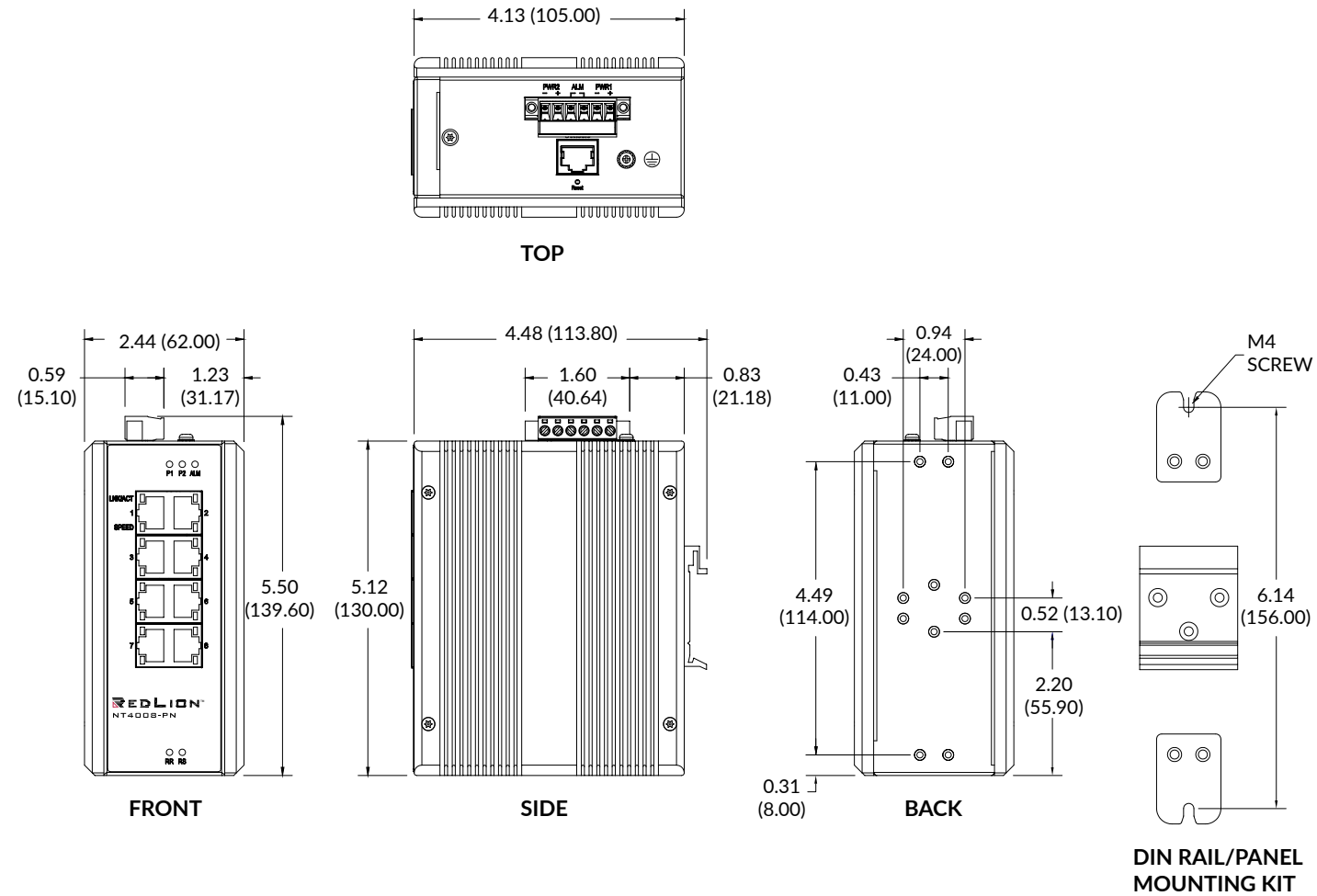
DIN Rail: Attaches to standard "T" profile DIN rail according to EN50022 - 35 x 7.5 and 35 x 15  
Panel Mount: Hardware included

#### WARRANTY

3 years on design and manufacturing defects.  
Specifications are subject to change.  
Visit [www.redlion.net](http://www.redlion.net) for more information.

## NT4008-PN Dimensions and Specifications

### Dimensions In inches (mm)



NT4008-PN SPECIFICATIONS	
Weight	1.55 lbs (0.70 kg)
Input Voltage	12-58 VDC, 0.95 A
Steady Input Current	280 mA @ 24 VDC
BTU/hr	22.93 @ 24 VDC

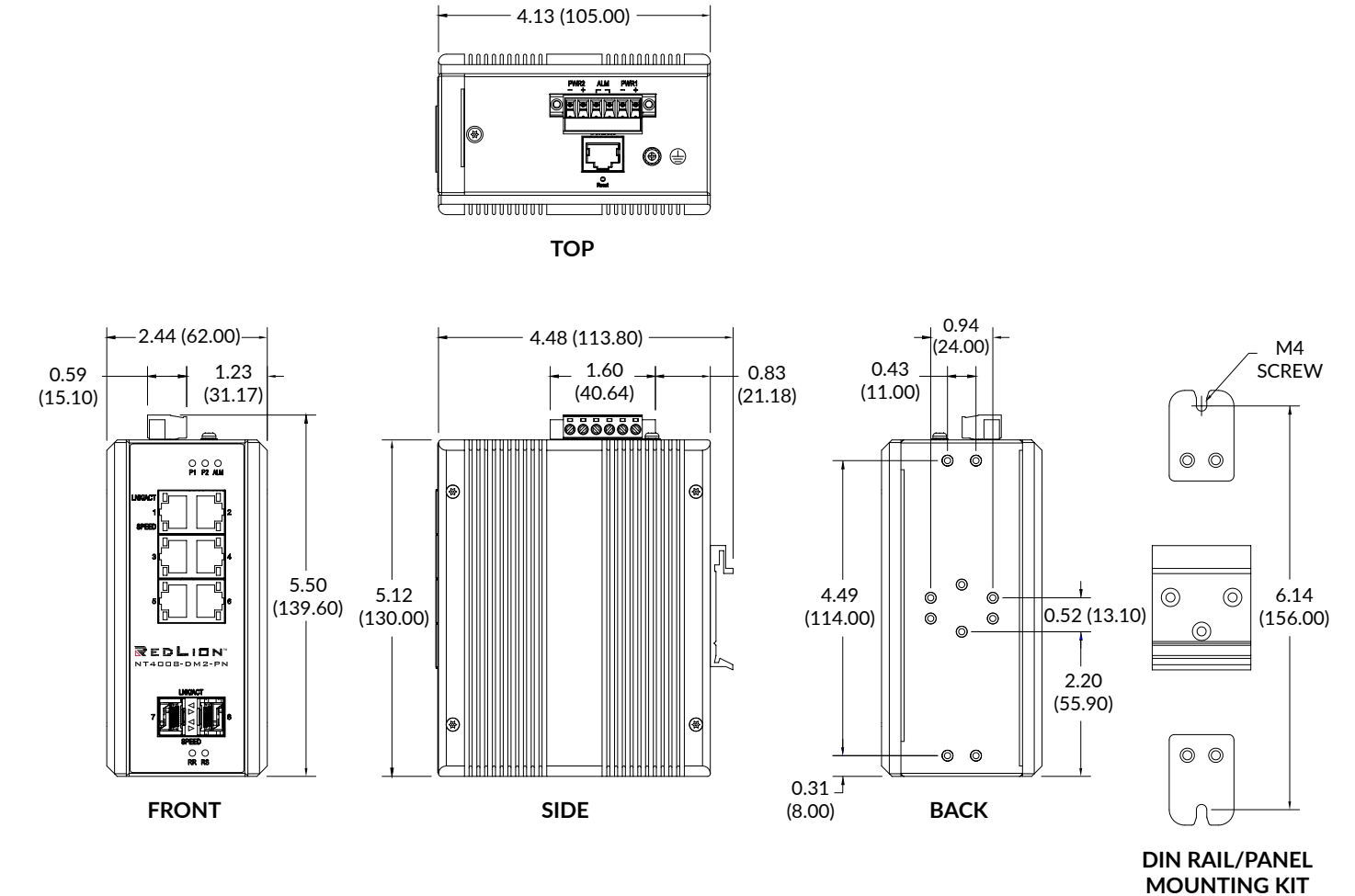
NETWORK MEDIA SPECIFICATIONS	
10BaseT	≥Cat3 Cable
100BaseTX	≥Cat5 Cable
1000BaseT	≥Cat5e Cable

CONNECTOR SPECIFICATIONS	
10/100/1000BaseT(X)	Eight (8) RJ45 TX copper ports

RECOMMENDED WIRING CLEARANCE	
Front	2" (50.8 mm)
Top	2" (50.8 mm)

## NT4008-DM2-PN Dimensions and Specifications

### Dimensions In inches (mm)



NT4008-DM2-PN SPECIFICATIONS	
Weight	1.58 lbs (0.72 kg)
Input Voltage	12-58 VDC, 0.8 A
Steady Input Current	290 mA @ 24 VDC
BTU/hr	23.75 @ 24 VDC

NETWORK MEDIA SPECIFICATIONS	
10BaseT	≥Cat3 Cable
100BaseTX	≥Cat5 Cable
1000BaseT	≥Cat5e Cable
100BaseFX, 1000BaseSX Multimode	50-62.5/125μm
100BaseFXE, 1000BaseLX Singlemode	7-10/125μm

CONNECTOR SPECIFICATIONS	
10/100/1000BaseT(X)	Six (6) RJ45 TX copper ports
100BaseFX SFP Port	Up to two (2) LC SFP fiber transceiver ports
1000BaseT SFP Port	Up to two (2) RJ45 SFP copper transceiver ports
1000BaseSX/LX SFP Port	Up to two (2) LC SFP fiber transceiver ports

RECOMMENDED WIRING CLEARANCE	
Front	4" (101.6 mm)
Top	2" (50.8 mm)

## NT4008-DM2-PN Specifications Cont.

SFP 100BASE FIBER TRANSCEIVER CHARACTERISTICS				
Fiber Mode	MM	SM	SM	SM
Fiber Length*	2 km	15 km	40 km	80 km
TX Power Min	-19 dBm	-15 dBm	-5 dBm	-5 dBm
RX Sensitivity Max	-31 dBm	-34 dBm	-34 dBm	-34 dBm
Wavelength	1310 nm	1310 nm	1310 nm	1550 nm
Laser Type	FP	FP	FP	DFB

SFP GIGABIT FIBER TRANSCEIVER CHARACTERISTICS				
Fiber Mode	MM	SM	SM	SM
Fiber Length*	550 m @ 50/125 $\mu$ m 275 m @ 62.5/125 $\mu$ m	10 km	40 km	80 km
TX Power Min	-9.5 dBm	-9.5 dBm	-2 dBm	0 dBm
RX Sensitivity Max	-17 dBm	-20 dBm	-22 dBm	-24 dBm
Wavelength	850 nm	1310 nm	1310 nm	1550 nm
Laser Type	VCSEL	FP	DFB	DFB

\* Fiber length distances represent typical performance.

Link budgets should be evaluated based on specific application conditions.



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