N-Tron® Series NT5018-GX2

Gigabit Managed Ethernet Switch

The NT5018-GX2 Gigabit Industrial Switch sets a new standard for performance, reliability, and ease of use. The switch features a modern, graphical user interface with a quick start wizard to guide users through switch configuration. A logical view of the switch shows active ports, temperature, alarm and LED status, along with port traffic and event gauges in a single easy to read dashboard.

Features include:

- Sixteen 10/100/1000 RJ45 ports
- Two 1000Base fiber ports with SC connectors
- Redundant 10–49 VDC power inputs
- High shock and vibration tolerance
- N-Ring™ technology with ~30ms healing and RSTP/ MSTP network redundancy
- Password encryption, IEEE 802.1X, RADIUS, MAC filtering, syslog
- Advanced management and diagnostics features

Ordering Guide

Main Unit

Part Number	Description
NT-5018-GX2-SC00	18-Port Gigabit Managed Industrial Ethernet Switch (16 10/100/1000BaseT RJ45 Ports, 2 1000BaseSX, Multimode, 550m, SC Style Connector)
NT-5018-GX2-SC10	18-Port Gigabit Managed Industrial Ethernet Switch (16 10/100/1000BaseT RJ45 Ports, 2 1000BaseLX, Singlemode, 10km, SC Style Connector)
NT-5018-GX2-SC40	18-Port Gigabit Managed Industrial Ethernet Switch (16 10/100/1000BaseT RJ45 Ports, 2 1000BaseLX, Singlemode, 40km, SC Style Connector)
NT-5018-GX2-SC80	18-Port Gigabit Managed Industrial Ethernet Switch (16 10/100/1000BaseT RJ45 Ports, 2 1000BaseLX, Singlemode, 80km, SC Style Connector)

Model number may be followed by –CC indicating conformal coating.

Accessories

Part Number	Description
NT-CPMA-03-00000	NT5000 Panel Mount Kit, Type A (Wide)
NTPS-24-1-3	DIN Rail Power Supply, 1.3 Amp @ 24 VDC

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Specifications

Hardware

Compact, space saving, hardened industrial design
Wide operating temperature
High shock and vibration tolerance
    Shock: IEC 68-2-27: 200 g @ 10 ms Triaxial; non-operational;
       panel mounted
    Vibration: IEC 68-2-6: 15 g @ 5-200 Hz Triaxial; operational;
       panel mounted
Reverse polarity protection
ESD and surge protection
Fast boot (traffic passes <20 seconds)
Configurable alarm contact
Configurable bi-color fault status LED
LED port status indicators
Jumbo frame support
Redundant power inputs (10-49 VDC)
Hardened industrial design
IEEE 802.3 compliance
Full wire speed communication
MDIX auto-sensing cable
Auto-sensing speed and flow control
Up to 36.0 Gb/s maximum throughput)
Store-and-forward technology
Number of MAC addresses: Up to 8k
Latency (typical): < 1.8 µs
MTBF: 1.2M Hours

Management

Modern, intuitive Web Interface
    Configuration wizard
    Graphical dashboard and logical view of the switch
Command Line Interface
Port control
IGMP v1/v2/v3 auto-configuration
SNMP v1/v2/v3
NTP
802.1Q tag VLAN and port VLAN
IEEE 802.1p QoS and port QoS
Text-based configuration file
File transfer: HTTP/HTTPS, TFTP, SNMP
DHCP Server, Option 82 relay, Option 61, IP fallback

Security

SSH, SSL, HTTPS
MAC Filtering
IEEE 802.1X with RADIUS remote server authentication
Port/User lockout after failed authentication attempts
SNMPv3
Password encryption

Diagnostic

Port mirroring
Event log/Syslog
LLDP
Advanced cable diagnostics

Network Redundancy

RSTP/MSTP
Port trunking/LACP
N-Ring™ technology with ~30ms healing

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
IEEE 802.1 MSTP MIB

Software Tool To Manage/Schedule Firmware Updates

N-View™ 2

Certification & Compliance

Product Safety: UL 61010 and C22.2 No. 61010 OrdLoc, UL
    121201 and CSA C22.2 No. 213 Class I, Division 2 HazLoc,
    ATEX, IECEx and UKEx II 3 G Ex ec nC IIC T4 Gc, UL 20 ATEX
    2645X, UL 22.0038X IECEx and UL22UKEX2346X
EMI/EMC: CFR 47, Part 15, Subpart B, Canada ICES-003, ANSI
    C63.4, EN 61000-6-2 and 4, IEC 61000-4-2, 3, 4, 5, 6 and 8
Shock & Vibration (panel mounted) - IEC 68-2-27: 200 g @ 10 ms
    Triaxial; non-operational, IEC 68-2-6: 15 g @ 5-200 Hz Triaxial;
    operational
Railway/Rolling Stock - EN 50155, EN 50121 and EN 61373
Marine: ABS Type Approval for Shipboard Applications
Designed to Comply With - IEEE 1613 for Electric Utility
    Substations and NEMA TS1/TS2 for Traffic Control
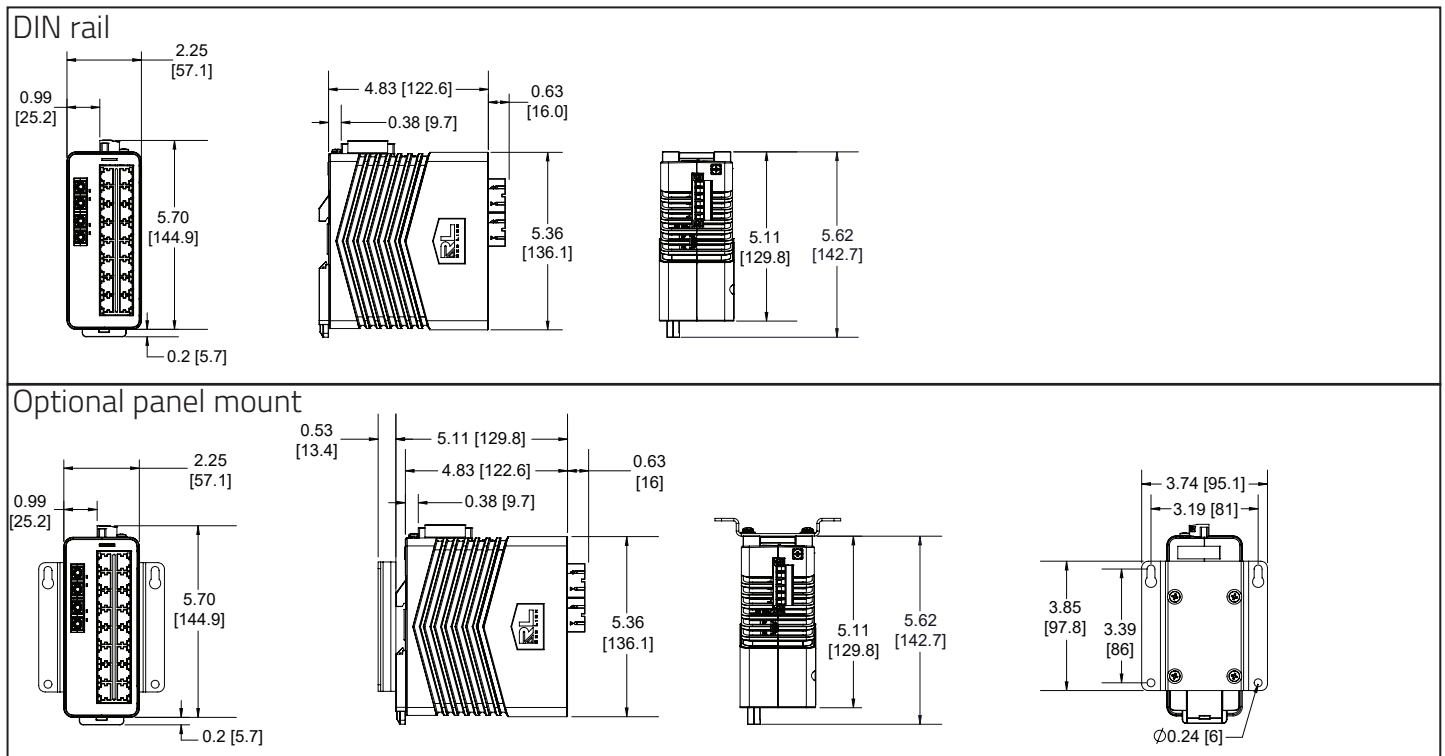Other – RoHS compliant

Warranty

3 years on design and manufacturing defects.

Specifications are subject to change.
Visit www.redlion.net for more information.

Dimensions In inches [mm]

DIN rail

Optional panel mount

NT5018-GX2 Specifications	
Weight	1.63 lbs. (0.74 kg)
Input Voltage Range	10-49 VDC
Steady Input Range	0.52 A @ 24 VDC
BTU/hr	42.58
Operating Temperature Range	-40 to 80 °C
Storage Temperature Range	-40 to 85 °C
Humidity (non-condensing)	10 to 95% RH
Operating Altitude	0 to 10,000 ft.

Network Media Specifications	
10BaseT	≥Cat3 Cable
100BaseTX	≥Cat5 Cable
1000BaseT	≥Cat5e Cable
1000BaseFX Multimode	50-62.5/125 µm
1000BaseFX Singlemode	7-10/125 µm

Connectors	
10/100/1000BaseT	Sixteen (16) RJ45 copper ports
1000BaseFX	Two (2) SC duplex fiber ports

Recommended Minimum Wiring Clearance	
Front	4" (101.6 mm)
Top	4" (101.6 mm)

Gigabit Fiber Transceiver Characteristics

Fiber Mode	MM	SM	SM	SM
Fiber Length*	550m @ 50/125 µm 300m @ 62.5/125 µm	10 km	40 km	80 km
TX Power Min.	-9.5 dBm	-9.5 dBm	-5 dBm	0 dBm
RX Sensitivity Max.	-17 dBm	-20 dBm	-23 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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