FL NAT SMN 8TX - Industrial Ethernet Switch

2989365

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Smart Managed Narrow NAT switch with eight 10/100 Mbps RJ45 ports and 1:1 NAT router function

Product description

Description

The FL NAT SMN 8TX is the first product in the range of Phoenix Contact to combine the functions of a NAT router (NAT = Network Address Translation) and a switch in one device. The NAT switch is suitable for all applications in automation applications with a control cabinet friendly, slim housing, the "manual factor".
Port 1 is the port via which the NAT implementation takes place in the higher-level network. Ports 2 to 8 of the managed switch are used for the higher-level network. The FL NAT SMN 8TX can be configured via a web server as well as via SMNP (Simple Network Management Protocol).
The FL NAT SMN 8TX is the first combination device that combines switch mechanism (at layer2 level) and routing (at layer3 level). If two devices were needed in the past and thus double installation width for installation and double price for the procurement, FL NAT SMN 8TX is a highly functional device at a highly attractive price.
The switch functions including port mirroring, LLDP or redundancy mechanisms ensure the standard, powerful data communication on seven 100 Mbps LAN ports.

Machine manufacturers always have the problem of fitting their machines with an IP address area which can be integrated back into the IT network of their customers. With the FL NAT SMN 8TX individual machines or systems can be equipped with always identical IP addresses and then these IP addresses in the application are implemented in the required IP address areas of the higher-level company network. This function block is usually known as Network Address Translation - NAT.

Your advantages

- Virtual NAT
- 1:1 NAT
- VLANs
- Routing
- RSTP with fast switch-over
- SNMP
- Web-based management, SNMP
- 7 LAN-Ports
- Slim design

Commercial data

Item number	2989365
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN17
Product key	DNN131

Catalog page	Page 420 (C-6-2017)
GTIN	4046356456074
Weight per piece (including packing)	846 g
Weight per piece (excluding packing)	650 g
Customs tariff number	85176200
Country of origin	DE

Technical data

Dimensions

Width	57 mm
Height	133 mm
Depth	130 mm

Material specifications

Color	gray aluminum

Mounting

Mounting type	DIN rail mounting

Interfaces

Ethernet

Connection method	RJ45
Note on the connection method	Auto negotiation and autocrossing
Transmission speed	10/100 Mbps
Transmission physics	Copper
Transmission length	100 m (per segment)
Signal LEDs	Supply voltage, data transmission, error, link, activity
No. of channels	8 (RJ45 ports)

Serial (RS-232)

Connection method	RS-232-C, 6-pos. MINI-DIN socket (PS/2)

Product properties

Product type	Switch
Product family	Managed NAT Switch SMN
Type	Book type
MTTF	349.06 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	185.83 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	46.86 Years (SN 29500 standard, temperature 70°C, operating cycle 100%)

Switch functions

Diagnostic functions	RMON History
	LLDP (Link Layer Discovery Protocol)
	SNMP-Traps
Basic functions	Store and forward switch, complies with IEEE 802.3 2, priority classes in acc. with IEEE 802.1 P TCP/IP protocol, BootP-capable, integrated web server function, Rapid Spanning Tree (RSTP), router, 1:1 NAT router
Signal contact control voltage	24 V DC (typical)

Signal contact control current	600 mA (maximum)
PROFINET conformance class	Conformance-Class A
Filter functions	VLAN (up to 32 VLANs)
Management	Web-based management (HTTP)
	SNMP v1/v2
Redundancy	RSTP (Rapid Spanning Tree Protocol)
	FRD (Fast Ring Detection)
	Large Tree Support
	STP (Spanning Tree Protocol)
	MRP (Media Redundancy Protocol)
Status and diagnostic indicators	LEDs: US1, US2 (power supply), Fail (alarm contact), 2 LEDs per Ethernet port (Link and switchable Activity/Speed/Duplex)
Supported browsers	Internet Explorer 5.5 or higher
Additional functions	Routing (1:1 NAT, Virtual NAT, Routing)
	BootP
	DHCP-Client

Security functions

Dynamic Host Configuration Protocol (DHCP) support	Client/ Relay Agent
Basic functions	Store and forward switch, complies with IEEE 802.3 2, priority classes in acc. with IEEE 802.1 P TCP/IP protocol, BootP-capable, integrated web server function, Rapid Spanning Tree (RSTP), router, 1:1 NAT router
Link Layer Discovery Protocol (LLDP)	As per protocol 802.2
Network Time Protocol (NTP) client	Client
Routing	NAT, 1:1-NAT, Virtual NAT

Electrical properties

Power consumption	14.5 W
Local diagnostics	US1, US2 Supply voltage US1, US2 Green LED
	FAIL Div. LED red
	LINK Link status Green LED
	ACT/MODE Receiving/sending telegrams Green LED
	SPD/MODE Data transmission speed Green LED
	FD/MODE Duplex mode Green LED
Maximum power dissipation for nominal condition	14.4 W
Test section	500 V DC 1 min
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC (redundant)
Supply voltage range	18 V DC ... 32 V DC
Power supply connection	Via COMBICON, max. conductor cross section 2.5 mm²
Residual ripple	3.6 V_{PP} (within the permitted voltage range)
Max. current consumption	600 mA
Typical current consumption	600 mA (at U_S = 24 V DC)

Function

Signal contact control voltage	24 V DC (typical)
Signal contact control current	600 mA (maximum)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	0 °C ... 55 °C (non-condensing)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz
Air pressure (operation)	86 kPa ... 108 kPa (2000 m above mean sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Conformance with EMC directives	IEC 61000-4-2 (ESD) Criterion A
	IEC 61000-4-3 (electromagnetic fields) Criterion A
	IEC 61000-4-4 (burst) Criterion A
	IEC 61000-4-5 (surge) Criterion A
	IEC 61000-4-6 (immunity to conducted interference) Criterion A
Noise immunity	EN 61000-6-2:2005
Noise emission	EN 61000-6-4:2007 + A1:2011

System properties

Functionality

Basic functions	Store and forward switch, complies with IEEE 802.3 2, priority classes in acc. with IEEE 802.1 P TCP/IP protocol, BootP-capable, integrated web server function, Rapid Spanning Tree (RSTP), router, 1:1 NAT router

System requirements

Supported browsers	Internet Explorer 5.5 or higher

Signaling

Status display	LEDs: US1, US2 (power supply), Fail (alarm contact), 2 LEDs per Ethernet port (Link and switchable Activity/Speed/Duplex)

Classifications

UNSPSC

UNSPSC 21.0	43222612

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(a)-I, 6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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