PHŒNIX CONTACT

Industrial Ethernet Switch - FL NAT SMN 8TX - 2989365

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

NAT switch

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.

Why buy this product

☑ Web-based management, SNMP

☑ Slim design

☑ VLANs

☑ SNMP

☑ 1:1 NAT

☑ Virtual NAT

☑ 7 LAN-Ports

☑ RSTP with fast switch-over

☑ Routing

RoHS

Ethernet

Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 456074

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GTIN	4046356456074

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

Dimensions

Width	57 mm
Height	133 mm
Depth	130 mm

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)
Air pressure (operation)	86 kPa ... 108 kPa (2000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)

Interfaces

Interface 1	Ethernet
No. of ports	8 (RJ45 ports)
Note on the connection method	Auto negotiation and autocrossing
Transmission physics	Copper
Transmission speed	10/100 Mbps
Transmission length	100 m (per segment)
Signal LEDs	Supply voltage, data transmission, error, link, activity
Interface 4	Serial (RS-232)
Connection method	RS-232-C, 6-pos. MINI-DIN socket (PS/2)

Function

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
Management	Web-based management (HTTP)
	SNMP v1/v2
Diagnostic functions	RMON History
	LLDP (Link Layer Discovery Protocol)
	SNMP-Traps
Filter functions	VLAN (up to 32 VLANs)
Supported browsers	Internet Explorer 5.5 or higher
Redundancy	RSTP (Rapid Spanning Tree Protocol)
	FRD (Fast Ring Detection)
	Large Tree Support

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Function

	STP (Spanning Tree Protocol)
	MRP (Media Redundancy Protocol)
PROFINET conformance class	Conformance-Class A
Additional functions	Routing (1:1 NAT, Virtual NAT, Routing)
	BootP
	DHCP-Client
Status and diagnostic indicators	LEDs: US1, US2 (power supply), Fail (alarm contact), 2 LEDs per Ethernet port (Link and switchable Activity/Speed/Duplex)
Signal contact control voltage	24 V DC (typical)
Signal contact control current	600 mA (maximum)

Network expansion parameters

Cascading depth	Network, linear, and star structure: any
Maximum conductor length (twisted pair)	100 m

Supply voltage

Supply voltage	24 V DC (redundant)
Residual ripple	3.6 V_{PP} (within the permitted voltage range)
Supply voltage range	18 V DC ... 32 V DC
Typical current consumption	600 mA (at U_S = 24 V DC)
Max. current consumption	600 mA

General

Mounting type	DIN rail
Type AX	Book type
Net weight	650 g
MTTF	349.06 Years (SN 29500 standard, temperature 25 °C, operating cycle 21 % (5 days a week, 8 hours a day))
	185.83 Years (SN 29500 standard, temperature 40 °C, operating cycle 34.25 % (5 days a week, 12 hours a day))
	46.86 Years (SN 29500 standard, temperature 70 °C, operating cycle 100 % (7 days a week, 24 hours a day))

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	Operation: 25g, 11 ms duration, semi-sinusoidal shock impulse
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	Storage/Transport: 50g, 11 ms duration, semi-sinusoidal shock impulse
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	Operation/Storage/Transport: 5g, 150 Hz, Criterion 3
Type of test	Free fall in acc. with IEC 60068-2-32
Test result	1 m
Noise emission	EN 61000-6-4:2007 + A1:2011

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Standards and Regulations

Noise immunity	EN 61000-6-2:2005
Vibration (storage/transport)	5g, 10 Hz ... 150 Hz, in accordance with IEC 60068-2-6
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / EAC / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

EAC		EAC-Zulassung

EAC		RU *-DE.A*30.B.01735

cULus Listed	

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