NAT-102 Series

2-port industrial Network Address Translation (NAT) devices

Features and Benefits

- User-friendly NAT functionality simplifies network integration

- Hands-free network access control through automatic whitelisting of locally connected devices

- Ultra-compact size and robust industrial design suitable for cabinet installation

- Integrated security features to ensure device and network safety

- Supports secure boot for checking system integrity

- -40 to 75°C operating temperature range (-T model)

Certifications

FC   ⟨Ex⟩   NEMA TS2   EN 50121-4

Introduction

The NAT-102 Series is an industrial NAT device that is designed to simplify the IP configuration of machines in existing network infrastructure in factory automation environments. The NAT-102 Series provides complete NAT functionality to adapt your machines to specific network scenarios without complicated, costly, and time-consuming configurations. These devices also protect the internal network from unauthorized access by outside hosts.

Quick and User-friendly Access Control

The NAT-102 Series' Auto Learning Lock feature automatically learns the IP and MAC address of locally connected devices and binds them to the access list. This feature not only helps you manage access control but also makes device replacements much more efficient.

Industrial-grade and Ultra-compact Design

The NAT-102 Series' rugged hardware makes these NAT devices ideal for deployment in harsh industrial environments, featuring wide-temperature models that are built to operate reliably in hazardous conditions and extreme temperatures of -40 up to 75°C. Moreover, the ultra-compact size allows the NAT-102 Series to be easily installed into cabinets.

Specifications

Input/Output Interface

Buttons	Reset button

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	2
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X)

Ethernet Software Features

Management	Web Console (HTTP/HTTPS), LLDP, Telnet, TFTP, HTTPS, SSH
Security	Secure Boot, Trust access control
Time Management	NTP Server/Client, SNTP
Unicast Routing	Static Route
Routing	Throughput: 15K packets per second (max. 100 Mbps)
Routing Table	Max. 32 routing rules

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Concurrent Connections	Max. 30K
Connections Per Second	Max. 4.5K

LED Interface

LED Indicators	POWER, STATE, LEARNING, LOCKDOWN

Firewall

Filter	IP address, MAC address, Ports
Port-based Auto Learning Lock	MAC address IP address
Throughput	Max. 15K packets per second (max. 100 Mbps)

NAT

Features	1-to-1, N-to-1, Port forwarding, NAT loopback
Throughput	Max. 15K packets per second (max. 100 Mbps)

Real-Time Firewall / VPN Event Log

Event Type	Policy enforcement
Media	Local storage, Syslog server

Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 3-pin (115200, n, 8, 1)
Connector	USB Type-C

Power Parameters

Connection	Removable terminal block
Input Voltage	12/24/48 VDC
Input Current	0.196 A @ 12 VDC 0.100 A @ 24 VDC 0.056 A @ 48 VDC
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
Dimensions	20 x 73 x 90 mm (0.79 x 2.87 x 3.54 in)
Weight	210 g (0.47 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

Environmental Limits

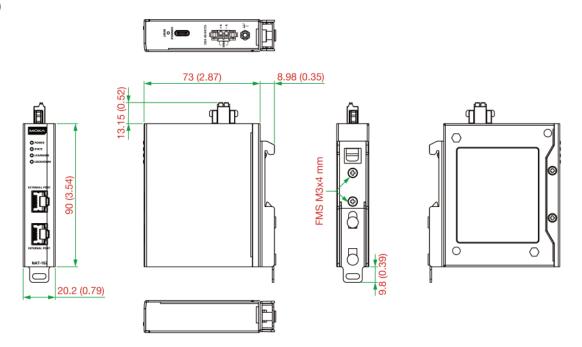|	
Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

Safety	UL 62368-1
EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Hazardous Locations	ATEX, Class I Division 2
Traffic Control	NEMA TS2
Railway	EN 50121-4
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

MTBF

Time	2,135,469 hrs
Standards	Telcordia (Bellcore), GB

Warranty

Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x NAT-102 Series NAT device
Cable	1 x DB9 female to USB Type-C
Installation Kit	2 x cap, plastic, for RJ45 port
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)

Ordering Information

Model Name	10/100BaseT(X) Ports (RJ45 Connector)	NAT	Operating Temp.
NAT-102	2	✓	-10 to 60°C
NAT-102-T	2	✓	-40 to 75°C

Accessories (sold separately)

Wall-Mounting Kits

WK-20-02	Wall-mounting kit, 3 screws, 20 x 140 x 2 mm

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