NSGate

www.nsgate.com

Safety and communication equipment

About NSGate

2019 - 2020

NSGate is a manufacturer and supplier of high quality Ethernet Access Equipment. Since founded in 2003 we‘re offering to customer only reliable equipment for Telecom and security industries, including solutions for outdoor applications.

Our solutions are based on real applications in corporate, municipal and federal projects. For example, the largest furniture retailer IKEA uses our equipment and solutions for the security of IKEA‘s stores all over Russia. Hundreds of different companies in Russia & CIS do the same.

The priority segment of the field of our activity are outdoor Video Surveillance Systems. Standard products like video cameras, storage and display devices, widely represented on the market, are not included in this segment. We are interested in providing reliable operation of outdoor video cameras, a key element in any security system.

We devise and offer network solutions for Industrial applications and some vital products for outdoor Video Surveillance Systems.

The product of the company NSGate:

- Outdoor access Nodes NSBox to provide reliable power supply, reliable data transmission channel and a surge protection to the block of video cameras connected to this node;
- NSBox family Products: NSBox-UPS, NSBox-ICE, NSBox-NVR, NSBox-SUN, NSBox-LTE;
- Unique microclimate components for equipping enclosures in outdoor video surveillance systems: Heating, Cooling, Venting, Lighting, Lightning;
- Industrial network components like PoE Switches, PoE Injectors, Ethernet Extenders, surge protection units for power circuits and Ethernet ports.

NSBox Heating

NSBox Cooling

NSBox-LTE series

Highlights

access Nodes Solar Powered

NSBox + video cameras

Contents

Outdoor Video Surveillance systems
NSGate Products

Outdoor access Nodes, NSBox family

Outdoor access Nodes
NSBox

Uninterruptible Outdoor Power Supplies
NSBox-UPS

Cabinets with installed Thermoelectric Cooler
NSBox-ICE

Cabinets and NSBox with installed NVR
NSBox-NVR

Solar Powered Cabinets and access Nodes
NSBox-SUN

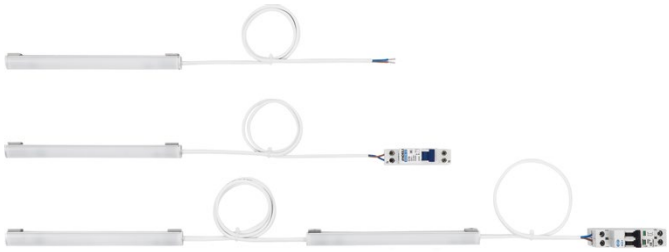
NSBox with embedded 4G LTE Router
NSBox-LTE

Outdoor Video Surveillance systems
NSGate Products

Climate controlled enclosures, NSBox family

Compact Fan Heater for enclosure
NSBox Heating

Thermoelectric Coolers
NSBox Cooling



Lighting kit for enclosure
NSBox Lighting

Thermoelectric Coolers
Series SandStorm

Industrial network components

Managed/ Unmanaged Industrial Switches
NIS-3500, NIS-3200

Industrial PoE Extenders and Injectors
NRP and NIP series

Surge protection for Ethernet ports
NSBox Lightning

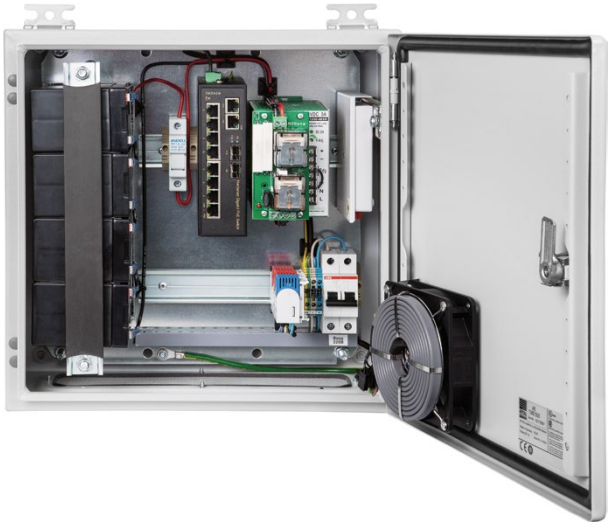
Industrial SFP modules

Outdoor Video Surveillance systems

Outdoor access Nodes NSBox

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections.

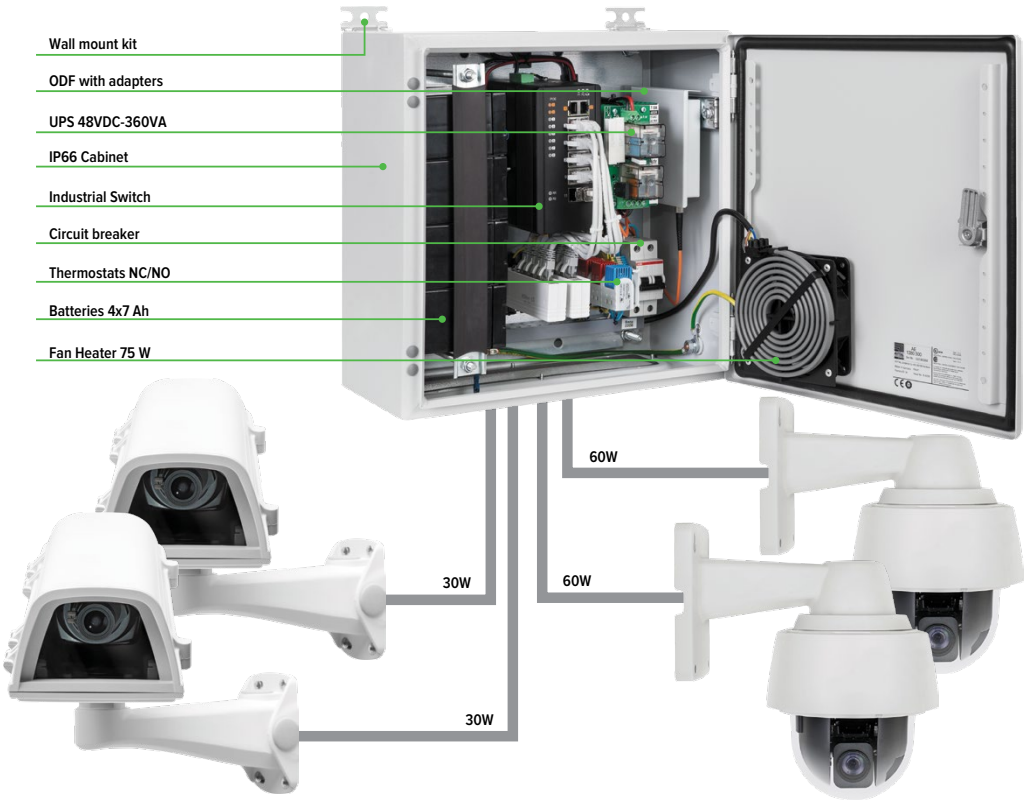
There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area. Examples of such applications are: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.



The NSBox is a completed product for installation and operation in any climates. Depending on the field of application and operating conditions, various series of electrical enclosures with protection category IP66 / NEMA4 are offered: Powder-coated sheet Steel; Stainless Steel; Glass Reinforced Polyester; Coated Aluminum alloy (explosion-proof design).

The device has one 110-220VAC external power line, up to 16 Ethernet ports for connecting IP video cameras, wireless access points or other PoE equipment and up to 4 Uplink Ethernet for communication with another access nodes or an aggregation center. In the absence or irregular operation of external power supply 220V, you can use solutions with alternative energy sources from Solar panel or Wind Turbine. With the absence or failure of fiber-optic channels, alternative 4G / LTE wireless communication channels can be used.

The basic equipment includes: wall mounting brackets, a mounting plate with DIN rails, terminal blocks, a circuit breaker, an electrical grounding bar, a fan with a thermostat, set of sealed cable glands for electrical and optical cables.



In addition to this, additional modules can be included in the assembly of access Nodes:

- Industrial grade communication equipment: Industrial PoE Switches with 4-16 ports or Converters;
- Uninterruptible Power Supply: 12/ 24/ 48VDC or 220VAC, 150-500VA, with batteries 2.2/ 7/ 12/ 50Ah;
- Climatic control system inside cabinet: thermostats, heating element with fans, thermoelectric Coolers;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and power circuits (220VAC);
- Various detectors and sensors with a controller for system monitoring;
- Power Supply 24VAC for PTZ, Socket for mounting on DIN Rails, Indoor lighting kit for enclosure;
- Mechanical accessories: Wall or pole Mount Kit, Rain Roof, Lock on the door, etc.
- 4G/LTE Router (NSBox-LTE), NVR (NSBox-NVR), PoE/Solar Controller (NSBox-SUN), Cooling (NSBox-ICE)

Basic kits of Outdoor access Nodes NSBox-xxxx

NSBox with Unmanaged PoE Switches		**1 - 2 ports PoE**
NSBox-121	NSB-3030 enclosure with Fan, without Heater, without ODF; 24VDC-100W Power supply; Unmanaged switch NIS-3200-231PSGB with VDC Booster: Uplink 2 TP/1G, 1 port TP/1G PoE 30W for IP cameras	
NSBox-122	NSB-3030 enclosure with Fan, without Heater, without ODF; 24VDC-100W Power supply; Unmanaged switch NIS-3200-132PSGB with VDC Booster: Uplink 1 TP/1G, 2 ports TP/1G PoE 30W for IP cameras	
NSBox-221	NSB-3030F1 enclosure with Fan, without Heater; 24VDC-100W Power supply; Unmanaged switch NIS-3200-331PSGB with VDC Booster: Uplink 1 SFP/1G + 2 TP/1G, 1 port TP/1G PoE 30W for IP cameras	
NSBox-222	NSB-3030F1 enclosure with Fan, without Heater; 24VDC-100W Power supply; Unmanaged switch NIS-3200-232PSGB with VDC Booster: Uplink 1 SFP/1G + 1 TP/1G, 2 ports TP/1G PoE 30W for IP cameras	
NSBox-223	NSB-3030F1 enclosure with Fan, without Heater; 48VDC-100W Power supply; Unmanaged switch NIS-3200-361PSG: Uplink 1 SFP/1G + 2 TP/1G, 1 port TP/1G High-Power PoE 60W for IP cameras	
		4 ports PoE
NSBox-245	Access Node: NSB-3040F1 enclosure with Fan, without Heater; 48VDC-150W Power supply; Unmanaged switch NIS-3200-205PSG: Uplink 1 SFP/1G + TP/SFP combo, 4 ports TP/1G PoE 30W for IP cameras	
NSBox-245R	NSB-3838F1 enclosure with Fan, without Heater; 48VDC-155VA UPS (4x 2.2Ah); Unmanaged switch NIS-3200-205PSG: Uplink 1 SFP/1G + TP/SFP combo, 4 ports TP/1G PoE 30W for IP cameras	
NSBox-442	NSB-3838F1 enclosure with Fan, without Heater; 55VDC-360W Power supply; Unmanaged switch NIS-3200-464PSG: Uplink 2 SFP/1G + 2 TP/1G, 4 ports TP/1G High PoE 60W or 2x 30W + 2x 95W Ultra PoE	
		8 ports PoE
NSBox-285	NSB-3040F1 enclosure with Fan, without Heater; 48VDC-360W Power supply; Unmanaged switch NIS-3200-208PSG: Uplink 2 Gigabit TP/SFP combo, 8 ports TP/1G PoE 30W for IP cameras	
NSBox-286	NSB-3860F1 enclosure with Fan, without Heater; 48VDC-360W Power supply; Unmanaged switch NIS-3200-208PSG: Uplink 2 Gigabit TP/SFP combo, 8 ports TP/1G PoE 30W for IP cameras	
NSBox with Managed PoE Switches L2/L2+		**4 ports PoE**
NSBox-2040	Access Node: NSB-3030F1 enclosure with Fan, without Heater; 48VDC-150W Power supply; Managed switch NIS-3500-2204PGE: Uplink 2 SFP/1G, 4 ports TP/1G PoE 36W for IP cameras; Reboot PDs	
NSBox-2041	NSB-3040F1 enclosure with Fan, without Heater; 55VDC-360W Power supply; Managed switch NIS-3500-3204PGE: Uplink 2 SFP/1G + 1 TP/1G, 4 ports TP/1G PoE 802.3bt (95W) for IP cameras; Reboot PDs	
NSBox-4042	NSB-3040F1 enclosure with Fan, without Heater; 48VDC-150W Power supply; Managed switch NIS-3500-3224PGE: Uplink 2 SFP/1G + 2 TP/1G, 4 ports TP/1G PoE 30W for IP cameras; Reboot PDs	
		8 ports PoE
NSBox-2080	Access Node: NSB-3040F1 enclosure with Fan, without Heater; 48VDC-360W Power supply; Managed switch NIS-3500-3208PC: Uplink 2 SFP/1G, 8 ports 10/100T PoE 30W for IP cameras; Reboot PDs	
NSBox-4080	NSB-3838F1 enclosure with Fan, without Heater; 48VDC-360W Power supply; Managed switch NIS-3500-3408PGE: Uplink 4 SFP/1G, 8 ports TP/1G PoE 30W for IP cameras; Reboot PDs	
NSBox-4082	NSB-3838F1 enclosure with Fan, without Heater; 55VDC-360W Power supply; Managed switch NIS-3500-3226PGE: Uplink 2 SFP/1G + 2 TP/1G, 8 ports TP/1G PoE (2x 60W + 6x 30W) for IP cameras; Reboot PDs	
NSBox-4082R	NSB-3838F1 enclosure with Fan, without Heater; 48VDC-360VA UPS (4x 7Ah); Managed switch NIS-3500-3226PGE: Uplink 2 SFP/1G + 2 TP/1G, 8 ports TP/1G PoE (2x 60W + 6x 30W) for IP cameras; Reboot PDs	
NSBox-4083	NSB-3860F1 enclosure with Fan, without Heater; 55VDC-360W Power supply; Managed switch NIS-3500-3226PGE: Uplink 2 SFP/1G + 2 TP/1G, 8 ports TP/1G PoE (2x 60W + 6x 30W) for IP cameras; Reboot PDs	
		16 ports PoE
NSBox-4161	NSB-3860H2F1 enclosure with Fan, without Heater; 55VDC-500W Power supply; Managed switch NIS-3500-3426PGE: Uplink 2 SFP/1G + 2 TP/1G, 16 ports TP/1G PoE 30W for IP cameras; Reboot PDs	
NSBox-4161HR	NSB-3860H3F1 enclosure with Heater; 48VDC-500VA UPS (4x 7Ah); Managed switch NIS-3500-3426PGE: Uplink 2 SFP/1G + 2 TP/1G, 16 ports TP/1G PoE 30W for IP cameras; Reboot PDs	
NSBox-xxxx H C R L N	H - installed Heater R - installed UPS	C - installed Thermoelectric Cooler L - installed 4G LTE Router N - installed NVR

Outdoor Video Surveillance systems

Basic kits of electrical Enclosures

NSGate electrical enclosures are designed to install outdoor video surveillance systems and full protection communication equipment against both harsh environments and acts of vandalism. Inside the enclosures are mounting plate with DIN rails for installation industrial equipment, power supplies or uninterruptible power supply. Depending on the field of application and operating conditions, various series of enclosures are offered:

- NSB-xx: Powder-coated sheet Steel, protection category IP66 / NEMA4;
- NSV-xx: Stainless Steel (AISI 304), protection category IP66 / NEMA4;
- NSP-xx: Glass Reinforced Polyester, protection category IP66 / NEMA4;
- NSE-xx: Coated Aluminum alloy, protection category IP67;

NSE-xx series enclosures are made in explosion-proof design. The NSBox access Nodes assembled in such enclosures can be used for outdoor and indoor installation in hazardous areas.

All mounting enclosures of any series have preset kits of options (Sets): [1], [1, 2], [1, 3], [1, 2, 3], [1, 4, 5], where the digits denote the subsystems that were installed in the enclosure during assembling:

[1] BASIC: DIN Rails; Cable glands PG-7/9/...; Circuit breaker 10A; Terminal blocks; Fan with thermostat

[2] HEATING: Fan Heater 75W 220 or 115VAC; Thermostats NC/NO; H1= Heating

[3] FIBER: ODF with 4 FC, 8 FC or 16 LC adapters, pigtails, patch cords. F1= 4 FC / F2= 8 FC / F4=16 LC

[4] IZOLUX: Thermal insulation of foamed polyethylene. H2= thermal insulation; H3= H1 + H2

[5] COOLING: Thermoelectric Cooler. C1= TC-100-DC, C2= TC-100-AC, C3= FR-208-C, C4= FR-208-AC

In the name of any enclosure model there is an indication of the size and the presence of these subsystems:

H1 - with the preset Fan Heater [2]; H2 - with the preset Thermal insulation [4];

H3 - with the preset Fan Heater [2] and Thermal insulation [4];

F1 - with the preset ODF 4x FC [3]; F2 - with the preset ODF 8x FC [3];

C1-C4 - with the preset Cooling system [5];

Basic Kits of NSB-xxxx | Sheet steel Enclosure | IP66	
NSB-3030	Cabinet 300x300x210, set [1], without Heating, without ODF, with Fan
NSB-3030F1	Cabinet 300x300x210, set [1, 3], without Heating, with ODF, with Fan
NSB-3030H1	Cabinet 300x300x210, set [1, 2], with Heating, without ODF
NSB-3030H1F1	Cabinet 300x300x210, set [1, 2, 3], with Heating, with ODF
NSB-3040	Cabinet 300x400x210, set [1], without Heating, without ODF, with Fan
NSB-3040F1	Cabinet 300x400x210, set [1, 3], without Heating, with ODF, with Fan
NSB-3040H1	Cabinet 300x400x210, set [1, 2], with Heating, without ODF
NSB-3040H1F1	Cabinet 300x400x210, set [1, 2, 3], with Heating, with ODF
NSB-3838	Cabinet 380x380x210, set [1], without Heating, without ODF, with Fan
NSB-3838F1	Cabinet 380x380x210, set [1, 3], without Heating, with ODF, with Fan
NSB-3838H1	Cabinet 380x380x210, set [1, 2], with Heating, without ODF
NSB-3838H1F1	Cabinet 380x380x210, set [1, 2, 3], with Heating, with ODF
NSB-3860	Cabinet 380x600x210, set [1], without Heating, without ODF, with Fan
NSB-3860F1	Cabinet 380x600x210, set [1, 3], without Heating, with Fan, with ODF/ 4FC
NSB-3860F2	Cabinet 380x600x210, set [1, 3], without Heating, with Fan, with ODF/ 8FC
NSB-3860H1	Cabinet 380x600x210, set [1, 2], with Heating, without ODF
NSB-3860H1F1	Cabinet 380x600x210, set [1, 2, 3], with Heating, with ODF
NSB-3860H3F1	Cabinet 380x600x210, set [1, 2, 3, 4], with Heating, with ODF
NSB-6060	Cabinet 600x600x210, set [1], without Heating, without ODF, with Fan
NSB-6060F1	Cabinet 600x600x210, set [1, 3], without Heating, with ODF, with Fan
NSB-6060H1	Cabinet 600x600x210, set [1, 2], with Heating, without ODF
NSB-6060H1F1	Cabinet 600x600x210, set [1, 2, 3], with Heating, with ODF
Basic Kits of NSP-xxxx | Glass Reinforced Polyester Enclosure | IP66	
NSP-4060	Cabinet 400x600x230, set [1], without Heating, without ODF, with Fan
NSP-4060F1	Cabinet 400x600x230, set [1, 3], without Heating, with Fan, with ODF/ 4FC
NSP-4060H1	Cabinet 400x600x230, set [1, 2], with Heating, without ODF
NSP-4060H1F1	Cabinet 400x600x230, set [1, 2, 3], with Heating, with ODF
NSP-4040	Cabinet 400x400x200, set [1], without Heating, without ODF, with Fan
NSP-4040F1	Cabinet 400x400x200, set [1, 3], without Heating, with Fan, with ODF
NSP-4040H1	Cabinet 400x400x200, set [1, 2], with Heating, without ODF
NSP-4040H1F1	Cabinet 400x400x200, set [1, 2, 3], with Heating, with ODF
Basic Kits of NSB-xxxx with installed Thermoelectric Cooler	
NSB-3838C1	Cabinet 380x380x210, set [1, 4, 5], with Cooler TC-100-DC: Cover_DC_S0_100W
NSB-3838C2	Cabinet 380x380x210, set [1, 4, 5], with Cooler TC-100-AC: Cover_AC_S0_100W
NSB-3860C3	Cabinet 380x600x210, set [1, 4, 5], with Cooler FR-208-C: Standard_DC_S2_200W
NSB-3860C4	Cabinet 380x600x210, set [1, 4, 5], with Cooler FR-208-AC: Standard_AC_S2_200W

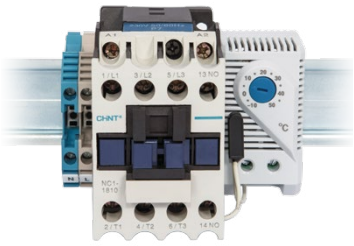
Outdoor Video Surveillance systems
Optional Accessories NSBon-xx

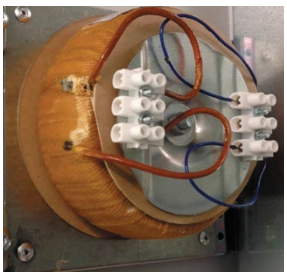
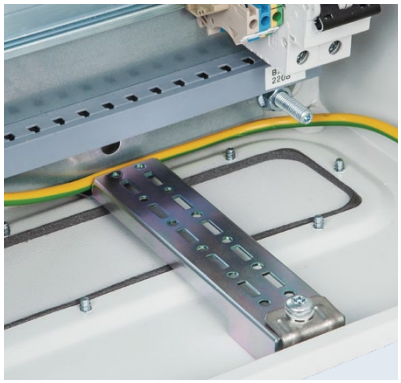
Outdoor Access nodes NSBox can be equipped with additional modules that significantly expand the field of application of devices:

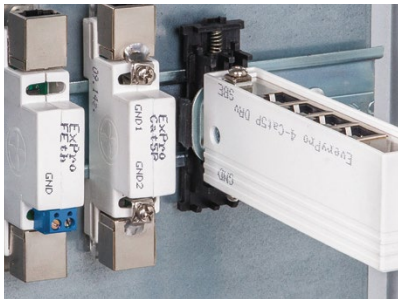
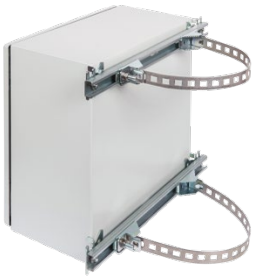
- Industrial grade communication equipment: Industrial PoE Switches with 4-16 ports or Converters;
- Uninterruptible Power Supply: 12/ 24/ 48VDC or 220VAC, 150-500VA, with batteries 2.2/ 7/ 12/ 50Ah;
- Climatic control system inside cabinet: thermostats, heating element with fans, thermoelectric Coolers;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and power circuits (220VAC);
- Various detectors and sensors with a controller for system monitoring;
- Power Supply 24VAC for PTZ, Socket for mounting on DIN Rails, Indoor lighting kit for enclosure;
- Mechanical accessories: Wall or pole Mount Kit, Rain Roof, Lock on the door, etc.
- 4G/LTE Router (NSBox-LTE), NVR (NSBox-NVR), PoE/Solar Controller (NSBox-SUN), Cooling (NSBox-ICE)

Optional accessories NSBon-xx (Separate order)

	Mechanical Devices
NSBon-00	Rails for interior installation. MH-210 x 1
NSBon-01	Pole Mount Kit for wall-mounted enclosures.
NSBon-02 // NSBon-03	Rain canopies, stainless steel, 300x210mm // 380x210mm.
NSBon-04	Plastic handle with lock cylinder insert, Lock no. 3524 E.
	Electrical Devices
NSBon-05	Door-operated switch, with accessory for interior installation.
NSBon-08	Socket for mounting on DIN Rails.
NSBon-16	Sensor and supply voltage controller, Ethernet
NSBon-36	Cold start system 240VAC/18A
NSBon-49	Power converter. Input 48VDC - Output 12 VDC, terminal blocks 4 pcs.
	Surge protection for power circuits and Ethernet ports
NSBon-09 // NSBon-10 // NSBon-11	Surge protection for high-voltage power circuits, 220VAC.
NSBon-12 // NSBon-13	Surge protection for Ethernet ports, 10/100M + PoE, 1 port // 4 ports. NSBox Lightning
NSBon-14 // NSBon-15	Surge protection for Ethernet ports, 10/100/1000M + PoE, 1 port // 4 ports. NSBox Lightning
NSBon-17	Surge protection for low-voltage power circuits. OVP 40x2
	Built-in 24VAC Power Systems for PTZ Network Cameras
NSBon-31 // NSBon-32 // NSBon-33	Toroidal transformer OCM T 220/24 -0.xx, 0.10kVA // 0.16kVA // 0.25kVA
	Uninterruptible Power Supplies | Battery Charger
	UPS DR-24VDC-240VA with Mounting kit 'Battery/15Ah', w/o Batteries
	UPS DR-24VDC-240VA with Mounting kit 'Battery/45Ah', w/o Batteries
	UPS CR-48VDC-155VA with Mounting kit 'Battery/ 7Ah', w/o Batteries
	UPS NR-48VDC-240VA | 360VA | 500VA, with Mounting kit 'Battery/ 7Ah', w/o Batteries
	UPS NR-48VDC-500VA/220VAC-300VA with Mounting kit 'Battery/ 7Ah', w/o Batteries
NSBon-51	Solar charge controller 20A | 24v | PWM
	Original Author's Products
NSBon-06 // -06-1 // -06-1	Indoor lighting kit for enclosure. NSBox Lighting
NSBon-18	Compact Fan Heater for enclosure. DIN Rail mounting. NSBox Heating
NSBon-18-1	Compact Fan Heater for enclosure. Wall mounting. NSBox Heating
NSBon-19	Vandal-proof Filter Fan for enclosure. NSBox Venting.
NSBon-37 // NSBon-38	Thermoelectric Coolers. Series Standard. DC, 24/48VDC // AC, 220VAC. NSBox Cooling
NSBon-39 // NSBon-40	Thermoelectric Coolers. Series Cover. DC, 24/48VDC // AC, 220VAC. NSBox Cooling
NSBon-42	Thermoelectric Coolers. Series SandStorm_DC, 24VDC. NSBox Cooling
	NVR
NSBon-44	Mini NVR: 1 10/100/1000T, 4 10/100T PoE, 2 USB, HDMI, 9-Ch Input, 10Tb, 48VDC
NSBon-45	Mini NVR: 1 10/100/1000T, 2 USB, HDMI, 9-Ch Input, 2 2Tb, 12VDC
	4G LTE Cellular Routers | GSM controllers
NSBon-61	Industrial 4G LTE Cellular Router: 1 WAN, 1 LAN, 1 RS232, DI/DO, 1 micro SIM Slot
NSBon-62	Industrial 4G LTE Cellular Router: 1 WAN, 1 LAN, 2 RS232, DI/DO, 2 SIM Card Slots
NSBon-63	Industrial 4G LTE Cellular Router: 1 WAN, 3 LAN, 2 RS232, DI/DO, 2 SIM Card Slots
NSBon-59	Antenna with bracket: GSM 900/1800 | 4G LTE/ 3G/ WiMax | Wi-Fi, 3m cable
NSBon-66	Controller of AC fails, temperature and sensor alarm. GSM, DIN Rail mounting

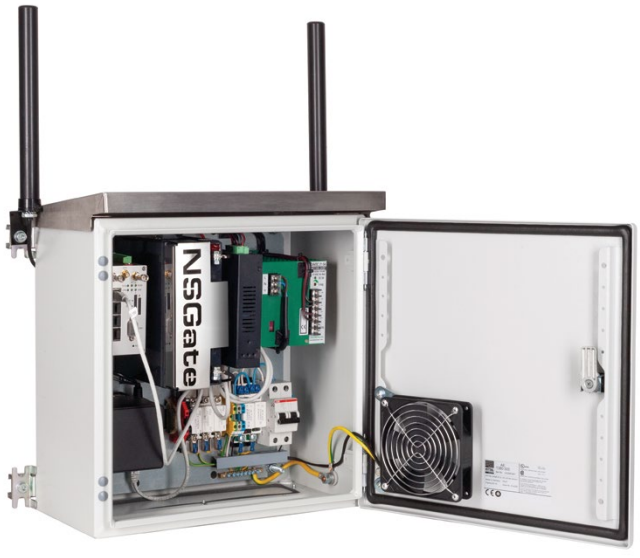










NSGate

Uninterruptible Outdoor Power Supplies (UPS)

NSBox-UPS-xxx

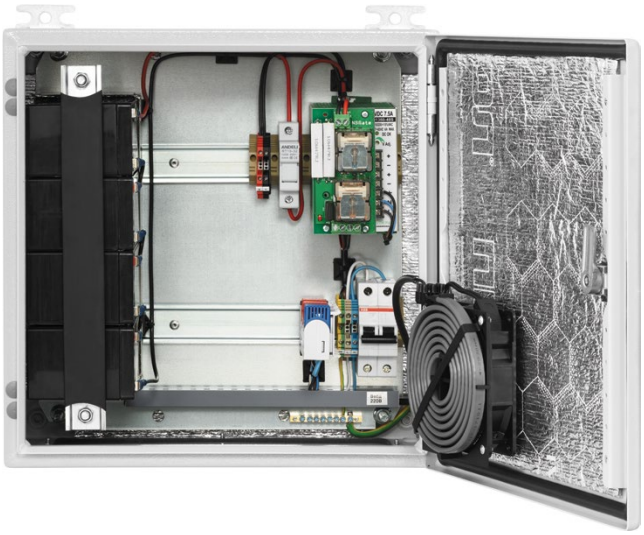
Weatherproof UPS

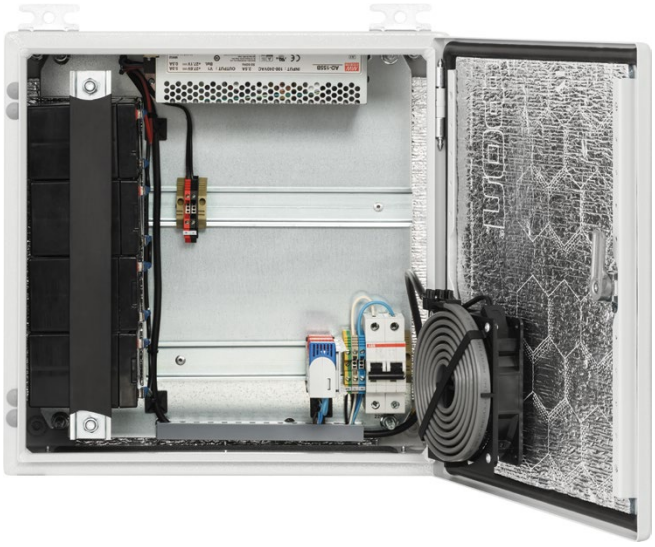
✓ **The compact Design**
✓ **Microclimate System**
✓ **Output 12, 24, 48VDC; 24VAC, 220VAC**
✓ **Ready for installing user's equipment**

NSBox-UPS-xx uninterruptible power supplies are devised to provide a reliable operation of outdoor video surveillance and access control systems, wireless networks and other monitoring and control systems. The unit is mounted in electrical enclosures with protection category IP66 / NEMA4 and ideally suited for video cameras and access points located outdoors. The basic kit includes the original UPS with the Mounting kit for batteries 7Ah | 15Ah | 45Ah, a mounting plate with DIN rails, terminal blocks, a circuit breaker, an electrical grounding bar, a fan with a thermostat, set of sealed cable glands. NSBox-UPS-xx is a completed product for installation and operation in harsh environments with wall or pillar mount. The unit provides running of the load during AC power failure, provides battery charge and battery protection from deep discharge, protects the load from a short circuit and excess output voltage. The main distinguishing feature of these units is the possibility of installing any additional equipment inside the cabinet, which already has the microclimate system. These can be PoE switches, PoE injectors, cellular Gateway, any registration or monitoring systems.

Technical Data

Input voltage: 100 ~ 240VAC	Output voltage: 12, 24, 48VDC (24, 48V PoE); 24VAC, 220VAC
Protection type: IP66	Battery protection from deep discharge and short circuit
Operating Temp.: -40 to +50°C	Output 48VDC: Nominal output voltage 55VDC, Rated load current 5.0A,
Mounting: wall or pillar mount	Battery charge current 0.7A, isolation voltage 42VDC
Microclimate System	Dimensions | weight (without batteries): 380x380x210 mm | 12 kg





Ordering Information

NSBox-UPS-1473	Outdoor UPS 24VDC-155VA: NSB-3838H2 enclosure with Fan, w/o Heater; Mounting kit for Battery 7Ah x4
	Outdoor UPS 24VDC-155VA: NSB-3838H3 enclosure with Fan Heater; Mounting kit for Battery 7Ah x4
NSBox-UPS-2453	Outdoor UPS 24VDC-240VA: NSB-3838H2 enclosure with Fan, w/o Heater; Mounting kit for Battery 15Ah x2
	Outdoor UPS 24VDC-240VA: NSB-3838H3 enclosure with Fan Heater; Mounting kit for Battery 15Ah x2
NSBox-UPS-1873	Outdoor UPS 48VDC-155VA: NSB-3838H2 enclosure with Fan, w/o Heater; Mounting kit for Battery 7Ah x4
NSBox-UPS-2873	Outdoor UPS 48VDC-240VA: NSB-3838H2 enclosure with Fan, w/o Heater; Mounting kit for Battery 7Ah x4
NSBox-UPS-3873	Outdoor UPS 48VDC-360VA: NSB-3838H2 enclosure with Fan, w/o Heater; Mounting kit for Battery 7Ah x4
NSBox-UPS-5873	Outdoor UPS 48VDC-500VA: NSB-3838H2 enclosure with Fan, w/o Heater; Mounting kit for Battery 7Ah x4
NSBox-UPS-4876	Outdoor UPS 48VDC-500VA + 220VAC-300VA: NSB-3860H2 enclosure with Fan, w/o Heater; Mounting kit for Battery 7Ah x4

Cabinets with installed Thermoelectric Cooler

✓ **Compact Design**
✓ **Ecological cleanliness**
✓ **24/48VDC or 220VAC Power supply**
✓ **Installation in any position**

Electronic equipment mounted inside a cabinet generate heat that raises the temperature inside the enclosure. Over time, the ever increasing heat can cause sensitive devices to malfunctions. Thermoelectric Cooling Systems are devised to divert an excess heat from electronic equipment installed inside an electrical enclosures with protection category IP66 / NEMA4.

Thermoelectric Cooler must be used in regions with hot climates, to extend the service life of UPS batteries, when specific customer equipment is installed inside the cabinet.

In larger cabinets, 200W coolers of the Standard series are installed: FR-208-C with 24/48VDC and FR-208-AC with 220VAC. In smaller cabinets, 100W coolers of the Cover series are installed: TC-100-DC with 24VDC and TC-100-AC with 220VAC.

For devices with 220VAC power, no additional power supply located inside the cabinet is required. This is the main advantage of this series, since the power supply takes up a lot of space and emits heat, which must eventually be compensated by the thermoelectric cooler itself.

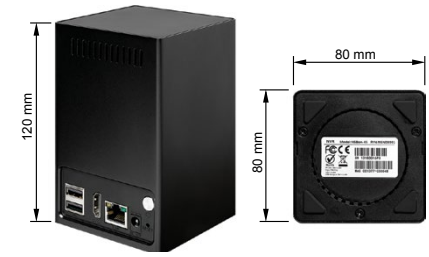



Ordering Information

NSB-3838C1	B383C1F0	Sheet steel cabinet 380x380x210 set [1, 4, 5], with Cooler TC-100-DC: Cover_DC_S0_100W
NSB-3838C2	B383C2F0	Sheet steel cabinet 380x380x210 set [1, 4, 5], with Cooler TC-100-AC: Cover_AC_S0_100W
NSB-3860C3	B386C3F0	Sheet steel cabinet 380x600x210 set [1, 4, 5], with Cooler FR-208-C: Standard_DC_S2_200W
NSB-3860C4	B386C4F0	Sheet steel cabinet 380x600x210 set [1, 4, 5], with Cooler FR-208-AC: Standard_AC_S2_200W
NSB-4040C4	B404C4F0	Sheet steel cabinet 400x400x230 set [1, 4, 5], with Cooler FR-208-AC: Standard_AC_S2_200W
NSP-4060C4	P406C4F0	Polyester cabinet 400x600x230 set [1, 4, 5], with Cooler FR-208-AC: Standard_AC_S2_200W

NSBox with installed NVR

✓ **The most compact Design**
✓ **DIN Rail mounting**
✓ **Ready for installing user's equipment**
✓ **Extended temperature range and IP66 protection**



NSBox-NVR is devised to provide a reliable operation of outdoor video surveillance system with quick deployment on unprepared or temporary sites that do not have high-speed fiber optical communication channels. The unit is mounted in enclosure with IP66 protection and ideally suited for video cameras located outdoors. The NSBox-NVR has an installed NVR, which serves as an intermediate memory device. NVR can be used for offline recording or as a required element for LTE/4G Router connecting. It supports recording by manual, by timing and by motion detection. The total hard disk storage up to 10TB or 4TB. 1*SATA HDD(3.5") or 2*SATA HDD(2.5") are supported. 9-Ch NVR can work with all ONVIF-compliant IP cameras, supporting dual stream, and up to 4K definition. It supports and intelligently switches between H.264 and H.265 compressions. Compact device design allows DIN rail mounting. The aluminum casing serves as a heat sink. General features of both NVR:

- Network Video Input: 9 (5MP); Maximum Resolution: 8MP;
- Video Compression: H.265/H.264; Audio Compression: G.711/AAC;
- ONVIF Compatibility; Bandwidth Incoming/Outgoing 90/90Mbps;
- Recording: Manual, Timing, Motion Detection Recording;
- Housing: aluminum, IP20 protection, DIN Rail mounting;
- Network Protocols: IPv4/IPv6, TCP, UDP, RTP, RTSP, RTCP, HTTP, HTTPS, DNS, DDNS, DHCP, NTP, SNTP, SMTP, SNMP, UPnP.

Technical Data

NSBox-NVR	NSBon-45
Input voltage: 100 ~ 240VAC	Interfaces: 1 10/100/1000T, 2 USB, HDMI, 2 SATA HDD 2.5" (4TB)
Protection category: IP66 / NEMA4	Dimensions 80x80x120mm; Weight 0.85Kg; Power supply 12VDC 1,5A
Operating Temp.: -40 to +60°C	NSBon-44
Enclosure Mounts: Wall or pole mount	Interfaces: 1 10/100/1000T, 2 USB, HDMI, 1 SATA HDD 3.5" (10TB)
Microclimate System	Dimensions 115x115x180mm; Weight 1.1Kg; Power supply 48VDC; PoE budget 40W

NSBon-45	Mini NVR with DIN Rail mounting: 1 10/100/1000T, 2 USB, HDMI, 9-Ch Input, 2 2Tb, 12VDC
NSBon-44	Mini NVR with PoE: 1 10/100/1000T, 4 10/100T PoE, 2 USB, HDMI, 9-Ch Input, 10Tb, 48VDC

Outdoor Video Surveillance systems
NSBox-SUN

Cabinets and access Nodes Solar Powered

- ✓ Autonomous/semi-autonomous applications
- ✓ Extended temperature range and IP66 protection
- ✓ Renewable energy powered
- ✓ Different PoE types supported

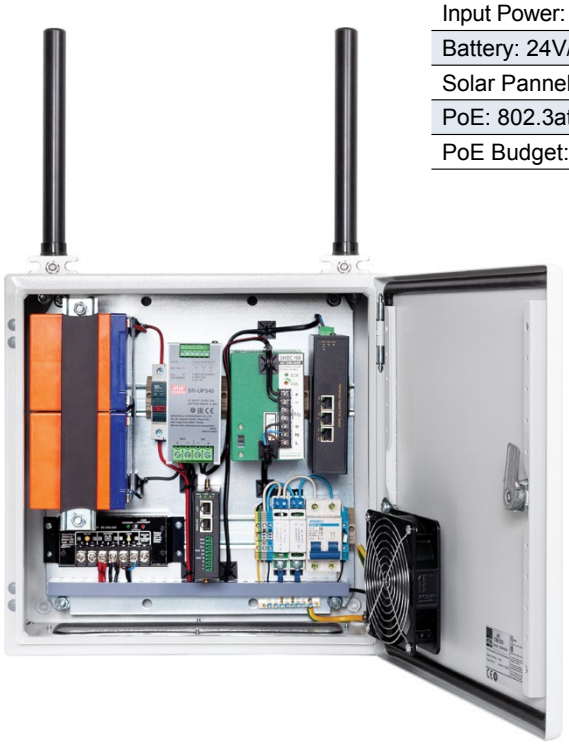
Renewable energy sources like solar and wind are ideal for powering equipment in remote locations. These types of off-grid systems are commonly used to power equipment for a variety of different industrial applications. Common applications include lighting, wireless surveillance cameras, sensors, environmental monitors, traffic signals, oil/gas pipes network, pump stations, telecommunication equipment, and anything else that requires reliable power in a remote location. NSBox-SUN Outdoor Access Node is used to deploy protected autonomous or semi-autonomous outdoor applications in the area with no 24/7 electricity available and solar panels can be installed. Typical application for NSBox-SUN is wireless surveillance system that is powered from street lighting where AC power is available only at the night time. NSBox-SUN can be even used if there is no AC power at all if PDs connected to it have low power consumption that can be filled up with energy the sun provides during the day time.

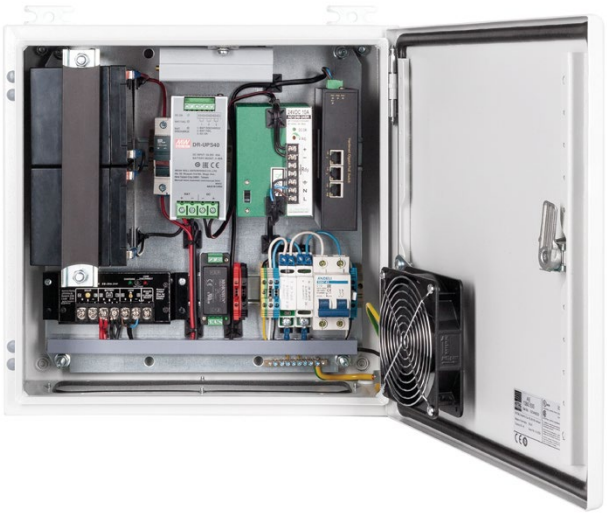
Off-grid Solar Systems work by generating electricity from solar panels and using it to charge a solar battery via a charger controller. NSBox-SUN contains a charger controller that supports 18-40V panels up to 350W and embedded batteries controller that maintains the proper charge of the battery to prevent overcharging and deep discharge. It can be equipped with 24V battery up to 200 Ah and can use 220 VAC power or a solar panel as a power source. NSBox-SUN consists of the Industrial switch with embedded battery and charger controller and a 24VDC-500W power supply installed into electrical enclosures with protection category IP66 / NEMA4. Depending on the field of application and operating conditions, various series of electrical enclosures are offered: powder-coated sheet steel, stainless steel, glass reinforced polyester, coated aluminum alloy (explosion-proof design).

NSBox-SUN provides connection IP video cameras or other PoE PD devices using wireless uplink 4G | LTE | Wi-Fi and can provide PoE to different types of PDs including 60W Hi-Power PoE, 30W PoE and passive 24V PoE.

Technical Data

Input Power: 18V Solar Pannel | 100-240VAC	Uplink: 4G | LTE | Wi-Fi | fiber optic
Battery: 24V/50-200Ah (Lead Acid/Lithium)	Operating Temp.: -40 ~ +60°C
Solar Pannel: 18-40V Up to 350W	Dimensions: depends on the model
PoE: 802.3at | 802.3bt | Passive 24V	Weight: Up to 20 kg
PoE Budget: up to 240 W	Protection category: IP66 / NEMA4





Outdoor Video Surveillance systems

NSBox with embedded 4G LTE Router

NSBox-LTE

✓ Harsh environments and protection category IP66 ✓ 4G | LTE | Wi-Fi Uplink

Access Nodes of the NSBox-LTE series use 4G / LTE cellular uplink. In video surveillance networks, guaranteed bandwidth is required to transmit traffic from cameras in real time. The amount of information transmitted is very large. This is not a barrier to fiber optic data transmission lines, but can be a problem when using communication channels provided by cellular operators. To avoid the difficulties associated with transferring large amounts of data in real time, a compact NVR should be added to NSBox-LTE access Nodes, which acts as intermediate storage or buffer for video recordings.

Accordingly, there is no need for round-the-clock video transmission in real time. Video recordings can be transferred from the NVR upon request. Naturally, the ability to access video cameras in real time remains, and the operator can obtain an image from any video camera connected to the access node.

As models for the NSBox-LTE application, you can use any standard or customized NSBox access Node models by adding a wireless 4G LTE router and NVR to the configuration, if necessary. The optimal choice can be compact special models NSBox-121 | NSBox-122 without ODF (Fiber Optic distribution Frame), in which there are 3-port switches with support for two or one PoE port with a capacity of 30W or 60W.

- NSBox-121: NSB-3030 enclosure; 24VDC-100W Power supply; switch NIS-3200-231PSGB: Uplink 2 TP/1G, 1 port TP/1G PoE 30W
- NSBox-122: NSB-3030 enclosure; 24VDC-100W Power supply; switch NIS-3200-132PSGB: Uplink 2 TP/1G, 1 port TP/1G PoE 30W

There are a choice of three models of 4G LTE routers. Each has one or two SIM Card slots with FDD LTE / TDD LTE / WCDMA / GSM / LTE Cat4 support.

LTE Cellular Routers

NSBon-61: Industrial 4G LTE Router: 1 WAN, 1 LAN, 1 RS232, DI/DO, 1 micro SIM Slot
NSBon-62: Industrial 4G LTE Router: 1 WAN, 1 LAN, 2 RS232, DI/DO, 2 SIM Card Slots
NSBon-63: Industrial 4G LTE Router: 1 WAN, 3 LAN, 2 RS232, DI/DO, 2 SIM Card Slots
NSBon-59: Antenna with bracket: GSM 900/1800 | 4G LTE/ 3G/ WiMax | Wi-Fi, 3m cable

There are a choice of two models of compact NVR. As a result, are obtained NSBox-LTE models for various applications. For extended NSBox-LTE applications, access Nodes can be used with a large number of PoE ports, with microclimate support inside the cabinet, using Uninterruptible Power Supplies with back up time up to 20 hours.

NSBox-121LN	Access Node with embedded 4G LTE router NSBon-61/62/63 and NVR NSBon-45/44
NSBox-122L	Access Node with embedded 4G LTE router NSBon-61/62/63, without NVR

Industrial 4G LTE Cellular Router

NSBon-61

✓ FDD LTE/ TDD LTE/ WCDMA/ GSM ✓ Compact Design ✓ DIN Rail mounting

NSBon-61, compact, lightweight and cost-effective Industrial 4G LTE Cellular Routers, are built in 2-port fast Ethernet connection as well as support 2G/3G/4G mobile networks for wired and wireless communication in harsh environments. Equipped with RS232 serial port and digital input/output interfaces, the NSBon-61 are simple to configure and collect real-time data transmission quickly for Industrial IoT, outdoor video surveillance systems and M2M applications. The router is also compliant with IEEE 802.11b/g/n Wi-Fi connectivity.

Featuring VPN Tunnels, Firewall, TR069, and SNMP Trap, NSBon-61 enhance highly secure authentication, encryption and management to protect your data efficiently between public and private networking. Supporting -40~+75°C wide-temperature operation and flexible input voltage range of 8-48VDC for diverse environments and various applications.

Features :

- Compact and lightweight design with 2-port Ethernet interfaces
- Multi-band connectivity with FDD LTE/ TDD LTE/ WCDMA/ GSM/ LTE Cat 4
- Provide IEEE 802.11b/g/n Wi-Fi standards
- Built-in micro SIM connector, RS232 serial port, and DI/DO interfaces
- Integrated detachable antenna against radio interference
- LED indicators for connection and data transmission status
- Industrial rated from -40 to +75°C for use in harsh environments
- IPv6/IPv4 dual stack and all applications are IPv6 ready
- Enhance security and encryption for authentication and transmission

Cellular Standards and Interfaces	Management Interface
FDD LTE/ TDD LTE/ WCDMA/ GSM	Console/CLI, Web GUI, Telnet, SSH v2, SNMP, TR069, HTTP/HTTPS
LTE Cat4: 150Mbps (DL), 50Mbps (UL)	
1 Micro SIM card slot	**LED status indicators**
2 SMA connectors for LTE antenna	Power / Ethernet / RSSI LTE / Function
Hardware Interfaces	**General Features**
1 10/100Base-TX RJ45 LAN port	Housing: IP30, DIN Rail / Wall mounting
1 10/100Base-TX RJ45 WAN port	Dimensions : 91 x 74 x 28 mm
2 RP-SMA connectors for Wi-Fi antenna	Weight: 250 g
1 SMA connector for GPS antenna	Power Input : 8 ~ 48VDC
1 RS232 (TXD/RXD/GND)	Power Consumption : 7W
1 DI / 1 DO (Non-Isolated)	Operating Temp.: -40 ~ +75°C
WPS / Reset Button	Humidity: 0 ~ 95% (non-condensing)
Network Protocols	**Routing/Firewall**
IPv4, IPv6, IPv4/IPv6 dual stack, DHCP server and client, PPPoE, Static IP, SNTP, GPS sync time, DNS Proxy, VRRP, OSPF, MQTT Broker, BGP, DDNS, QoS, UPnP	NAT, Virtual Server, DMZ, VLAN, MAC Filter, URL Filter, IP Filter, Static Routing, RIP-1, RIP-2
Alarm: VPN/WAN Disconnect, SNMP Trap, DI/DO, SMS, E-mail, TR069	VPN: OpenVPN, GRE, PPTP, L2TP, IPSec (3DES, AES128, AES196, AES256, MD5, SHA-1, SHA256)

NSBon-61	LTP0M330	Industrial 4G LTE Cellular Router: 1 WAN, 1 LAN, 1 RS232, DI/DO, 1 micro SIM Slot

Optional Accessories NSBon-xx

Industrial 4G LTE Cellular Router

NSBon-63

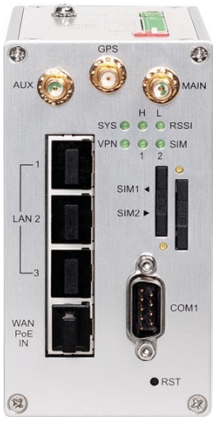
✓ FDD LTE/ TDD LTE/ WCDMA/ GSM ✓ Compact Design ✓ DIN Rail mounting

NSBon-63 4G LTE Cellular Router is highly reliable and secure wireless communications gateway designed for industrial networking. It supports multi-band connectivity including FDD/TDD LTE, WCDMA and GSM for a wide range of applications, such as Industrial IoT, outdoor video surveillance systems and vertical M2M markets. To enhance reliability, NSBon-63 is equipped with dual SIM that supports failover and roaming over to ensure uninterrupted connectivity for mission-critical communications.

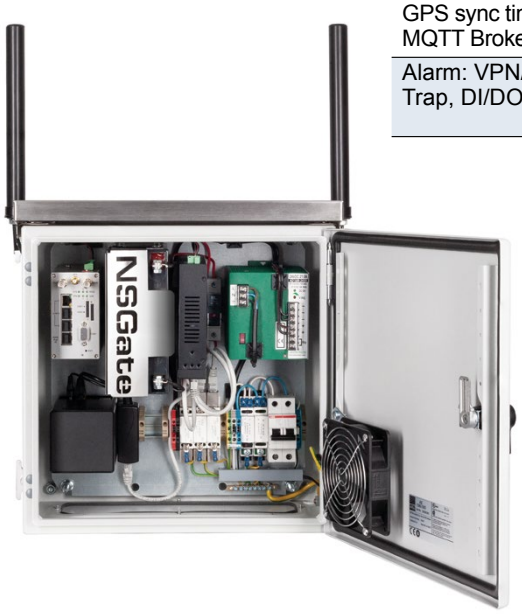
With flexible LAN/WAN Ethernet options, NSBon-63 allow you to customize your professional applications in diverse environments. It also provides enterprise-grade software features, such as QoS, DMZ, VLAN, OSPF, BGP, RIP-1/2, DDNS, and etc. Featuring VPN Tunnels, Firewall, TR069, and SNMP Trap, NSBon-63 enhance highly secure authentication, encryption and management to protect your data efficiently between public and private networking. The device are administrated via web GUI, Telnet, SSH v2 and HTTP/HTTPS.

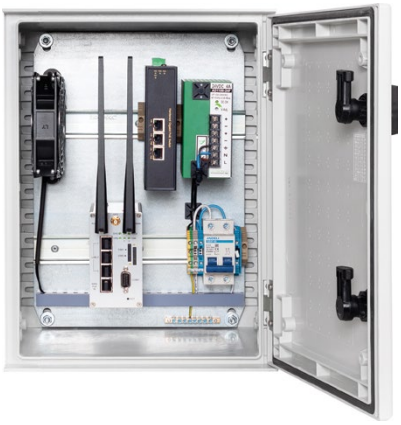
Features:

- Highly reliable and secure for mission-critical cellular communications
- Multi-band connectivity with FDD LTE/ TDD LTE/ WCDMA/ GSM/ LTE Cat 4
- Built-in dual SIM for network redundancy and DI/DO interfaces
- Integrated dual detachable antenna against radio interference
- LED indicators for connection and data transmission status
- IPv6/IPv4 dual stack and all applications are IPv6 ready
- Enhance security and encryption for authentication and transmission



Cellular Standards and Interfaces	Management Interface
FDD LTE/ TDD LTE/ WCDMA/ GSM	Console/CLI, Web GUI, Telnet, SSH v2, SNMP, TR069, HTTP/HTTPS
LTE Cat4: 150Mbps (DL), 50Mbps (UL)	
2 SIM card slots	**LED status indicators**
2 SMA connectors for LTE antenna	SYS/ VPN/ SIM1/ SIM2/ Ethernet/ RSSI LTE
Hardware Interfaces	**General Features**
3 10/100Base-TX RJ45 LAN port	Housing: IP40, DIN Rail / Wall mounting
1 10/100Base-TX RJ45 WAN port	Dimensions (HxWxD): 110x60x106 mm
1 RS232 Console (9-pin Sub-D)	Weight: 450 g
1 RS232 (TXD/RXD/GND)	Power Input : 10 ~ 32VDC
1 RS485 (D+/D-)	Power Consumption : 7W
2 DI / 1 DO (Non-Isolated)	Operating Temp.: -20 ~ +70°C
1 SMA connector for GPS antenna (opt)	Humidity: 0 ~ 95% (non-condensing)
Reset Button	EMC: CE, FCC, EAC
Network Protocols	**Routing/Firewall**
IPv4, IPv6, IPv4/IPv6 dual stack, DHCP server and client, PPPoE, Static IP, SNTP, GPS sync time, DNS Proxy, VRRP, OSPF, MQTT Broker, BGP, DDNS, QoS, UPnP	NAT, Virtual Server, DMZ, VLAN, MAC Filter, URL Filter, IP Filter, Static Routing, RIP-1, RIP-2
Alarm: VPN/WAN Disconnect, SNMP Trap, DI/DO, SMS, E-mail, TR069	VPN: OpenVPN, GRE, PPTP, L2TP, IPSec (3DES, AES128, AES196, AES256, MD5, SHA-1, SHA256)





NSBon-63	LTP0M301	Industrial 4G LTE Cellular Router: 1 WAN, 3 LAN, 2 RS232, DI/DO, 2 SIM Card Slots

Outdoor access Nodes NSBox

Unmanaged Industrial switch

NSBox-122

✓ 2 ports PoE 30W ✓ 1 TP/1G Uplink ✓ Built-in Voltage Booster 24-56VDC

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.

The NSBox is a completed product for installation and operation in any climates. The name of each model and its part number contain information about basic configuration of the NSBox - predefined electrical enclosure with preset industrial switch and optional accessories. NSBox-xxxx H C R L N :

H - installed Heater; C - installed Thermoelectric Cooler; R - installed UPS; L - installed 4G LTE Router; N - installed NVR.

The basic equipment of the NSBox-122 includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. These modules can be included in assembly:

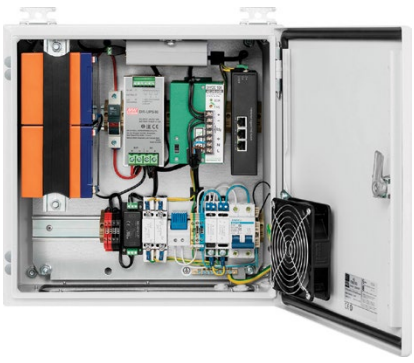
- Unmanaged Industrial 2 ports PoE switch with Power Supply 24VDC-100W or UPS (2x 15Ah Batteries);
- Climatic control system inside enclosure: thermostats, heating element with fans, thermoelectric cooler;
- Surge protection elements for Ethernet ports with PoE and 220VAC power circuits.

The basic NSBox-122 models are: NSBox-122 | NSBox-122R | NSBox-122L

NSBox-122	Access Node: NSB-3030 enclosure with Fan, without Heater, without ODF; 24VDC-100W Power supply; Unmanaged switch NIS-3200-132PSGB: Uplink 1 TP/1G, 2 ports TP/1G PoE 30W for IP cameras
NSBox-122R	Access Node: NSB-3838 enclosure with Fan, w/o Heater, w/o ODF; UPS DR-24VDC-240VA with Mounting kit for Battery/15Ah x2, without Batteries; Switch NIS-3200-132PSGB: Uplink 1 TP/1G, 2 ports TP/1G PoE 30W
NSBox-122L	Access Node: NSB-3030 enclosure with Fan, w/o Heater, w/o ODF; 24VDC-100W Power supply; Unmanaged switch NIS-3200-132PSGB: Uplink 1 TP/1G, 2 ports TP/1G PoE 30W; embedded 4G LTE router NSBon-61/62/63

Technical Data

Input Voltage | Power Consumption	220 - 240VAC | 300 W (no more)
Enclosure material (cabinet, door)	Sheet steel, powder-coated, primed
Protection category IP/NEMA | IK Code	IP66 / NEMA4 | IK08
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	300x300x210 or 380x380x210mm for R models
Shipping weight (approx.)	8 kg or 15 kg for R models (with batteries)
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Uninterruptible power supply (for R models)	DR-24VDC-240VA with Mounting kit 'Battery/ 15Ah'
Hardware specification	**Unmanaged Industrial switch NIS-3200-132PSGB**
2x 10/100/1000Base-T RJ45 PoE 30W	Total PoE Budget 65W, PSE 30W/port, max 30W
1x 10/100/1000Base-T RJ45	Switch Fabric 6Gbps, 8K MAC, 1Mbit buffer
802.3at / 802.3af (PoE auto detection)	Redundant Power Input: 24-56 VDC; Built-in VDC Booster



Outdoor access Nodes NSBox

Unmanaged Industrial switch

NSBox-245

✓ 4 ports PoE 30W ✓ 1 SFP/1G + TP/SFP combo ✓ Built-in Voltage Booster 24-56VDC

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.

The name of each model and its part number contain information about basic configuration of the NSBox - predefined electrical enclosure with preset industrial switch and optional accessories. NSBox-xxxx H C R L N:

H - installed Heater; C - installed Thermoelectric Cooler; R - installed UPS; L - installed 4G LTE Router; N - installed NVR.

The basic equipment of the NSBox-245 includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. The following modules can be included in assembly:

- Unmanaged Industrial 4 ports PoE switch with Power Supply 48VDC-150W or UPS (4x 2.2Ah Batteries);
- Climatic control system inside enclosure: thermostats, heating element with fans, thermoelectric cooler;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and 220VAC power circuits.

The basic NSBox-245 models are: NSBox-245 | NSBox-245H | NSBox-245R | NSBox-245HR

NSBox-245	Access Node: NSB-3040F1 enclosure with Fan, without Heater; 48VDC-150W Power supply; Unmanaged switch NIS-3200-205PSG: Uplink 1 SFP/1G + TP/SFP combo, 4 ports TP/1G PoE 30W for IP cameras
NSBox-245H	Access Node: NSB-3040H1F1 enclosure with Fan Heater; 48VDC-150W Power supply; Unmanaged switch NIS-3200-205PSG: Uplink 1 SFP/1G + TP/SFP combo, 4 ports TP/1G PoE 30W for IP cameras
NSBox-245R	Access Node: NSB-3838F1 enclosure with Fan, without Heater; 48VDC-155VA UPS (4x 2.2Ah); Unmanaged switch NIS-3200-205PSG: Uplink 1 SFP/1G + TP/SFP combo, 4 ports TP/1G PoE 30W for IP cameras
NSBox-245HR	Access Node: NSB-3838H1F1 enclosure with Fan Heater; 48VDC-155VA UPS (4x 2.2Ah); Unmanaged switch NIS-3200-205PSG: Uplink 1 SFP/1G + TP/SFP combo, 4 ports TP/1G PoE 30W for IP cameras

Technical Data

Input Voltage | Power Consumption	220 - 240VAC | 300 W (no more)
Enclosure material (cabinet, door)	Sheet steel, powder-coated, primed
Protection category IP/NEMA | IK Code	IP66 / NEMA4 | IK08
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	300x400x210 or 380x380x210mm for R models
Shipping weight (approx.)	12 kg or 17 kg for R models (with batteries)
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Uninterruptible power supply (for R models)	CR-48VDC-155VA with Mounting kit 'Battery/ 2.2Ah'
Hardware specification	**Unmanaged Industrial switch NIS-3200-205PSG**
4x 10/100/1000Base-T RJ45 PoE 30W	Total PoE Budget 120W, PSE 30W/port, max 36W
1x 100/1000M RJ45/SFP Combo	Switch Fabric 12Gbps, 8K MAC, 1Mbit buffer
1x 100/1000M SFP slot	NIS-3200-205PSG: Power Supply 48-56VDC
802.3at / 802.3af (PoE auto detection)	NIS-3200-205PSGB: 24-56VDC; Built-in VDC Booster

Outdoor access Nodes NSBox

Unmanaged Industrial switch

NSBox-442

✓ 4 ports Ultra PoE ✓ 2 SFP/1G + 2 TP/1G ✓ 4x 60W or 2x 95W + 2x 30W

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.

The name of each model and its part number contain information about basic configuration of the NSBox - predefined electrical enclosure with preset industrial switch and optional accessories. NSBox-xxxx H C R L N:

H - installed Heater; C - installed Thermoelectric Cooler; R - installed UPS; L - installed 4G LTE Router; N - installed NVR.

The basic equipment of the NSBox-442 includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. The following modules can be included in assembly:

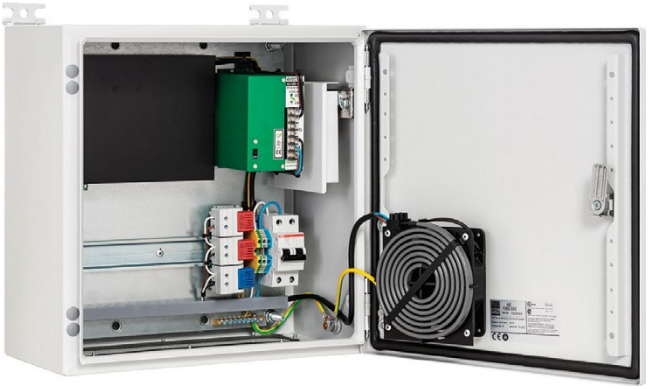
- Unmanaged Industrial 4 ports PoE switch with Power Supply 55VDC-360W or UPS (4x 7Ah Batteries);
- Climatic control system inside enclosure: thermostats, heating element with fans, thermoelectric cooler;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and 220VAC power circuits.

The basic NSBox-442 models are: NSBox-442 | NSBox-442H | NSBox-442R | NSBox-442HR

NSBox-442	Access Node: NSB-3838F1 enclosure with Fan, without Heater; 55VDC-360W Power supply; Unmanaged switch NIS-3200-464PSG: Uplink 2 SFP/1G + 2 TP/1G, 4 ports TP/1G High PoE 60W or 2x 30W + 2x 95W Ultra PoE
NSBox-442H	Access Node: NSB-3838H1F1 enclosure with Fan Heater; 55VDC-360W Power supply; Unmanaged switch NIS-3200-464PSG: Uplink 2 SFP/1G + 2 TP/1G, 4 ports TP/1G High PoE 60W or 2x 30W + 2x 95W Ultra PoE
NSBox-442R	Access Node: NSB-3838F1 enclosure with Fan, without Heater; 48VDC-360VA UPS (4x 7Ah); Unmanaged switch NIS-3200-464PSG: Uplink 2 SFP/1G + 2 TP/1G, 4 ports TP/1G High PoE 60W or 2x 30W + 2x 95W Ultra PoE
NSBox-442HR	Access Node: NSB-3838H1F1 enclosure with Fan Heater; 48VDC-360VA UPS (4x 7Ah); Unmanaged switch NIS-3200-464PSG: Uplink 2 SFP/1G + 2 TP/1G, 4 ports TP/1G High PoE 60W or 2x 30W + 2x 95W Ultra PoE

Technical Data

Input Voltage | Power Consumption	220 - 240VAC | 500 W (no more)
Enclosure material (cabinet, door)	Sheet steel, powder-coated, primed
Protection category IP/NEMA | IK Code	IP66 / NEMA4 | IK08
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	380 x 380 x 210 mm
Shipping weight (approx.)	12 kg or 20 kg for R models (with batteries)
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Uninterruptible power supply (for R models)	NR-48VDC-360VA with Mounting kit 'Battery/ 7Ah'
Hardware specification	**Unmanaged Industrial switch NIS-3200-464PSG**
4x 10/100/1000Base-T RJ45 PoE 30-95W	Total PoE Budget 240W, Power Input 54-56VDC
2x 10/100/1000Base-T RJ45	Switch Fabric 16Gbps, 8K MAC, Jumbo Frame 9Kb
2x 100/1000M SFP slots	Maximum wattage of PoE ports : 95W
802.3at / 802.3bt (PoE auto detection)	PoE (4x 60W or 2x 95W + 2x 30W)



Outdoor access Nodes NSBox

Unmanaged Industrial switch

NSBox-285

✓ 8 ports PoE 30W ✓ 2 Giga TP/SFP combo ✓ 380 x 380 x 210 mm

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.

The name of each model and its part number contain information about basic configuration of the NSBox - predefined electrical enclosure with preset industrial switch and optional accessories. NSBox-xxxx H C R L N:

H - installed Heater; C - installed Thermoelectric Cooler; R - installed UPS; L - installed 4G LTE Router; N - installed NVR.

The basic equipment of the NSBox-285 includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. The following modules can be included in assembly:

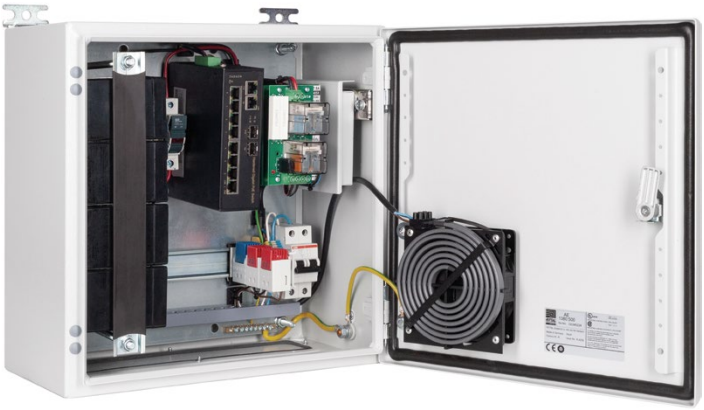
- Unmanaged Industrial 8 ports PoE switch with Power Supply 48VDC-360W or UPS (4x 7Ah Batteries);
- Climatic control system inside enclosure: thermostats, heating element with fans, thermoelectric cooler;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and 220VAC power circuits.

The basic NSBox-285 models are: NSBox-285 | NSBox-285H | NSBox-285R | NSBox-285HR

NSBox-285	Access Node: NSB-3040F1 enclosure with Fan, without Heater; 48VDC-360W Power supply; Unmanaged switch NIS-3200-208PSG: Uplink 2 Gigabit TP/SFP combo, 8 ports TP/1G PoE 30W for IP cameras
NSBox-285H	Access Node: NSB-3040H1F1 enclosure with Fan Heater; 48VDC-360W Power supply; Unmanaged switch NIS-3200-208PSG: Uplink 2 Gigabit TP/SFP combo, 8 ports TP/1G PoE 30W for IP cameras
NSBox-285R	Access Node: NSB-3838F1 enclosure with Fan, without Heater; 48VDC-360VA UPS (4x 7Ah); Unmanaged switch NIS-3200-208PSG: Uplink 2 Gigabit TP/SFP combo, 8 ports TP/1G PoE 30W for IP cameras
NSBox-285HR	Access Node: NSB-3838H1F1 enclosure with Fan Heater; 48VDC-360VA UPS (4x 7Ah); Unmanaged switch NIS-3200-208PSG: Uplink 2 Gigabit TP/SFP combo, 8 ports TP/1G PoE 30W for IP cameras

Technical Data

Input Voltage | Power Consumption	220 - 240VAC | 500 W (no more)
Enclosure material (cabinet, door)	Sheet steel, powder-coated, primed
Protection category IP/NEMA | IK Code	IP66 / NEMA4 | IK08
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	300x400x210 or 380x380x210mm for R models
Shipping weight (approx.)	12 kg or 20 kg for R models (with batteries)
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Uninterruptible power supply (for R models)	NR-48VDC-360VA with Mounting kit 'Battery/ 7Ah'
Hardware specification	**Unmanaged Industrial switch NIS-3200-208PSG**
8x 10/100/1000Base-T RJ45 PoE 30W	Total PoE Budget 240W, PSE 30W/port, max 36W
2x 100/1000M RJ45/SFP Combo	Switch Fabric 21Gbps, 16K MAC, 2Mbit buffer
802.3at / 802.3af (PoE auto detection)	Redundant Power Input 48-56VDC



Outdoor access Nodes NSBox

Managed Industrial switch

NSBox-4161

✓ 16 ports PoE 30W ✓ 2 SFP/1G + 2 TP/1G ✓ G.8032 ERPSv2 Ring protection; 2 DI | 2 DO

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.

The basic equipment of the NSBox-4161 includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. These modules can be included in assembly:

- Managed Industrial 16 ports PoE switch with Power Supply 48VDC-500W or UPS (4x 7Ah Batteries);
- Climatic control system inside enclosure: thermostats, heating element with fans, thermoelectric cooler;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and 220VAC power circuits.

The basic NSBox-4161 models are: NSBox-4161 | NSBox-4161H | NSBox-4161R | NSBox-4161HR

NSBox-4161	Access Node: NSB-3860H2F1 enclosure with Fan, without Heater; 55VDC-500W Power supply; Managed switch NIS-3500-3426PGE: Uplink 2 SFP/1G + 2 TP/1G, 16 ports TP/1G PoE 30W for IP cameras; Reboot PDs
NSBox-4161H	Access Node: NSB-3860H3F1 enclosure with Heater; 55VDC-500W Power supply; Managed switch NIS-3500-3426PGE: Uplink 2 SFP/1G + 2 TP/1G, 16 ports TP/1G PoE 30W for IP cameras; Reboot PDs
NSBox-4161R	Access Node: NSB-3860H2F1 enclosure with Fan, without Heater; 48VDC-500VA UPS (4x 7Ah); Managed switch NIS-3500-3426PGE: Uplink 2 SFP/1G + 2 TP/1G, 16 ports TP/1G PoE 30W for IP cameras; Reboot PDs
NSBox-4161HR	Access Node: NSB-3860H3F1 enclosure with Heater; 48VDC-500VA UPS (4x 7Ah); Managed switch NIS-3500-3426PGE: Uplink 2 SFP/1G + 2 TP/1G, 16 ports TP/1G PoE 30W for IP cameras; Reboot PDs

Technical Data

Input Voltage | Power Consumption	220 - 240VAC | 500 W (no more)
Enclosure material (cabinet, door)	Sheet steel, powder-coated, primed
Protection category IP/NEMA | IK Code	IP66 / NEMA4 | IK08
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	380 x 600 x 210 mm
Shipping weight (approx.)	16 kg or 26 kg for R models (with batteries)
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Uninterruptible power supply (for R models)	NR-48VDC-500VA with Mounting kit 'Battery/ 7Ah'
Hardware specification	**Managed Industrial switch NIS-3500-3426PGE**
16x 10/100/1000Base-T RJ45 PoE 30W	IEEE 802.3at / 802.3af (PD Alive Check)
2x 10/100/1000Base-T RJ45	Total PoE Budget 320W, PSE 30W/port, max 30W
2x 100/1000M SFP slots (with DDM)	G.8032 ERPSv2 Ring protection; 2 DI | 2 DO
Management Interface | Diagnostic	
Console/CLI, Web GUI, Telnet, SNMP | Syslog, VLAN mirroring, RMON, SNMP Trap	
Network Protocols :	
Spanning Tree: STP, RSTP, MSTP, G.8032 ERPSv2; Ring Topology: Chain, Dual Homing, Couple Ring; VLAN: Port-based, 802.1q tag-based, 802.1ad Q in Q; IGMP Snooping v1/v2/v3 & Querier; QoS: 802.1p, 8 queues per port, WRR/SPQ; DHCP Client, Server, Relay, Snooping, Option 82; 802.1ab LLDP; Multicast/ Broadcast/Flooding Storm Control; Access Control: IP/ MAC-based/ 802.1x authentication; Security: HTTPs, SSH, Radius Client; NTP/SNTP;	

Outdoor access Nodes NSBox

Managed Industrial switch

NSBox-4082

✓ 8 ports PoE 30/60W ✓ 2 SFP/1G + 2 TP/1G ✓ PoE ports: 2x 60W + 6x 30W

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.

The basic equipment of the NSBox-4082 includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. These modules can be included in assembly:

- Managed Industrial 8 ports PoE switch with Power Supply 55VDC-360W or UPS (4x 7Ah Batteries);
- Climatic control system inside enclosure: thermostats, heating element with fans, thermoelectric cooler;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and 220VAC power circuits.

The basic NSBox-4082 models are: NSBox-4082 | NSBox-4082H | NSBox-4082R | NSBox-4082HR

NSBox-4082	Access Node: NSB-3838F1 enclosure with Fan, without Heater; 55VDC-360W Power supply; Managed switch NIS-3500-3226PGE: Uplink 2 SFP/1G + 2 TP/1G, 8 ports TP/1G PoE (2x60W + 6x30W) for IP cameras; Reboot PD
NSBox-4082H	Access Node: NSB-3838H1F1 enclosure with Heater; 55VDC-360W Power supply; Managed switch NIS-3500-3226PGE: Uplink 2 SFP/1G + 2 TP/1G, 8 ports TP/1G PoE (2x 60W + 6x 30W) for IP cameras; Reboot PDs
NSBox-4082R	Access Node: NSB-3838F1 enclosure with Fan, without Heater; 48VDC-360VA UPS (4x 7Ah); Managed switch NIS-3500-3226PGE: Uplink 2 SFP/1G + 2 TP/1G, 8 ports TP/1G PoE (2x60W + 6x30W) for IP cameras; Reboot PD
NSBox-4082HR	Access Node: NSB-3838H1F1 enclosure with Heater; 48VDC-360VA UPS (4x 7Ah); Managed switch NIS-3500-3226PGE: Uplink 2 SFP/1G + 2 TP/1G, 8 ports TP/1G PoE (2x 60W + 6x 30W) for IP cameras; Reboot PDs

Technical Data

Input Voltage | Power Consumption	220 - 240VAC | 500 W (no more)
Enclosure material (cabinet, door)	Sheet steel, powder-coated, primed
Protection category IP/NEMA | IK Code	IP66 / NEMA4 | IK08
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	380 x 380 x 210 mm
Shipping weight (approx.)	12 kg or 20 kg for R models (with batteries)
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Uninterruptible power supply (for R models)	NR-48VDC-360VA with Mounting kit 'Battery/ 7Ah'
Hardware specification	**Managed Industrial switch NIS-3500-3226PGE**
8x 10/100/1000Base-T RJ45 PoE (2x 60W + 6x 30W)	IEEE 802.3at / 802.3af (PD Alive Check)
2x 10/100/1000Base-T RJ45	Total PoE Budget 240W, PSE 30W/port, max 60W
2x 100/1000M SFP slots (with DDM)	Switch Fabric 24Gbps, 8K MAC, Jumbo Frame 9Kb
Management Interface | Diagnostic	
Console/CLI, Web GUI, Telnet, SNMP | Syslog, VLAN mirroring, RMON, SNMP Trap	
Network Protocols :	
Spanning Tree: STP, RSTP, MSTP; Ring Topology: Chain, Dual Homing, Couple Ring; VLAN: Port-based, 802.1q tag-based, 802.1ad Q in Q; IGMP Snooping v1/v2/v3 & Querier; QoS: 802.1p, 8 queues per port, WRR/SPQ; DHCP Client, Server, Relay, Snooping, Option 82; 802.1ab LLDP; Multicast/Broadcast/Flooding Storm Control; Access Control: IP/ MAC-based/ 802.1x authentication; Security: HTTPs, SSH, Radius Client; NTP/SNTP;	

Outdoor access Nodes NSBox

Managed Industrial switch

NSBox-2041

✓ 4 ports 802.3bt PoE ✓ 2 SFP/1G + 1 TP/1G ✓ G.8032 ERPSv2 Ring protection; 2 DI | 2 DO

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.

The basic equipment of the NSBox-2041 includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. These modules can be included in assembly:

- Managed Industrial 4 ports 802.3bt PoE switch with Power Supply 48VDC-360W or UPS (4x 7Ah Batteries);
- Climatic control system inside enclosure: thermostats, heating element with fans, thermoelectric cooler;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and 220VAC power circuits.

The basic NSBox-2041 models are: NSBox-2041 | NSBox-2041H | NSBox-2041R | NSBox-2041HR

NSBox-2041	Access Node: NSB-3040F1 enclosure with Fan, without Heater; 55VDC-360W Power supply; Managed switch NIS-3500-3204PGE: Uplink 2 SFP/1G + 1 TP/1G, 4 ports TP/1G PoE 802.3bt (95W) for IP cameras; Reboot PDs
NSBox-2041H	Access Node: NSB-3040H1F1 enclosure with Fan Heater; 55VDC-360W Power supply; Managed switch NIS-3500-3204PGE: Uplink 2 SFP/1G + 1 TP/1G, 4 ports TP/1G PoE 802.3bt (95W) for IP cameras; Reboot PDs
NSBox-2041R	Access Node: NSB-3838F1 enclosure with Fan, without Heater; 48VDC-360VA UPS (4x 7Ah); Managed switch NIS-3500-3204PGE: Uplink 2 SFP/1G + 1 TP/1G, 4 ports TP/1G PoE 802.3bt (95W); Reboot PDs
NSBox-2041HR	Access Node: NSB-3838H1F1 enclosure with Fan Heater; 48VDC-360VA UPS (4x 7Ah); Managed switch NIS-3500-3204PGE: Uplink 2 SFP/1G + 1 TP/1G, 4 ports TP/1G PoE 802.3bt (95W) for IP cameras; Reboot PDs

Technical Data

Input Voltage | Power Consumption	220 - 240VAC | 500 W (no more)
Enclosure material (cabinet, door)	Sheet steel, powder-coated, primed
Protection category IP/NEMA | IK Code	IP66 / NEMA4 | IK08
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	300x400x210 or 380x380x210mm for R models
Shipping weight (approx.)	12 kg or 20 kg for R models (with batteries)
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Uninterruptible power supply (for R models)	NR-48VDC-360VA with Mounting kit 'Battery/ 7Ah'
Hardware specification	**Managed Industrial switch NIS-3500-3204PGE**
4x 10/100/1000Base-T RJ45 802.3bt PoE 30W-95W	IEEE 802.3af / 802.3at / 802.3bt (PD Alive Check)
1x 10/100/1000Base-T RJ45	802.3bt PoE 90W | UPoE 95W | 802.3at 36W | Force 60W
2x 100/1000M SFP slots (with DDM)	G.8032 ERPSv2 Ring protection; 2 DI | 2 DO
Management Interface | Diagnostic	
Console/CLI, Web GUI, Telnet, SNMP | Syslog, VLAN mirroring, RMON, SNMP Trap	
Network Protocols :	
Spanning Tree: STP, RSTP, MSTP, G.8032 ERPSv2; Ring Topology: Chain, Dual Homing, Couple Ring; VLAN: Port-based, 802.1q tag-based, 802.1ad Q in Q; IGMP Snooping v1/v2/v3 & Querier; QoS: 802.1p, 8 queues per port, WRR/SPQ; DHCP Client, Server, Relay, Snooping, Option 82; 802.1ab LLDP; Multicast/ Broadcast/Flooding Storm Control; Access Control: IP/ MAC-based/ 802.1x authentication; Security: HTTPs, SSH, Radius Client; NTP/SNTP;	

Outdoor access Nodes NSBox

Managed Industrial switch

NSBox-2040

✓ 4 ports PoE 36W ✓ 2 SFP/1G ✓ G.8032 ERPSv2 Ring protection

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. There is ideal technological solution for time and money saving in any outdoor Video Surveillance projects for a large area: highways, bridges, traffic light poles, parking lots, police departments, airports, seaports, railways, sports facilities, hotels, parks, shopping malls, construction sites, etc.

The basic equipment of the NSBox-2040 includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. These modules can be included in assembly:

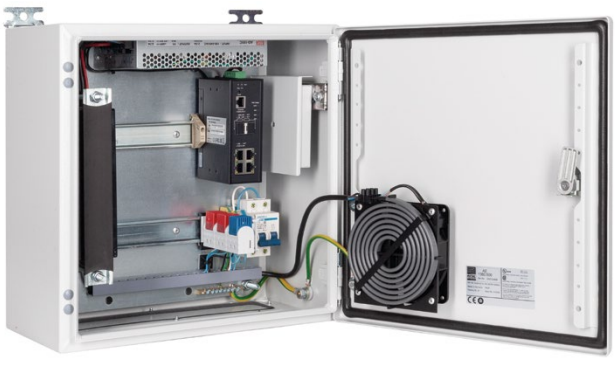
- Managed Industrial 4 ports PoE switch with Power Supply 48VDC-155W or UPS (4x 2.2Ah Batteries);
- Climatic control system inside enclosure: thermostats, heating element with fans, thermoelectric cooler;
- Fiber Optic Distribution Frame (ODF) for connecting optical fibers with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and 220VAC power circuits.

The basic NSBox-2040 models are: NSBox-2040 | NSBox-2040H | NSBox-2040R | NSBox-2040HR

NSBox-2040	Access Node: NSB-3030F1 enclosure with Fan, without Heater; 48VDC-150W Power supply; Managed switch NIS-3500-2204PGE: Uplink 2 SFP/1G, 4 ports TP/1G PoE 36W for IP cameras; Reboot PDs
NSBox-2040H	Access Node: NSB-3030H1F1 enclosure with Fan Heater; 48VDC-150W Power supply; Managed switch NIS-3500-2204PGE: Uplink 2 SFP/1G, 4 ports TP/1G PoE 36W for IP cameras; Reboot PDs
NSBox-2040R	Access Node: NSB-3838F1 enclosure with Fan, without Heater; 48VDC-155VA UPS (4x 2.2Ah); Managed switch NIS-3500-2204PGE: Uplink 2 SFP/1G, 4 ports TP/1G PoE 36W for IP cameras; Reboot PDs
NSBox-2040HR	Access Node: NSB-3838H1F1 enclosure with Fan Heater; 48VDC-155VA UPS (4x 2.2Ah); Managed switch NIS-3500-2204PGE: Uplink 2 SFP/1G, 4 ports TP/1G PoE 36W for IP cameras; Reboot PDs

Technical Data

Input Voltage | Power Consumption	220 - 240VAC | 300 W (no more)
Enclosure material (cabinet, door)	Sheet steel, powder-coated, primed
Protection category IP/NEMA | IK Code	IP66 / NEMA4 | IK08
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	300x300x210 or 380x380x210mm for R models
Shipping weight (approx.)	10 kg or 15 kg for R models (with batteries)
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Uninterruptible power supply (for R models)	CR-48VDC-155VA with Mounting kit 'Battery/ 2.2Ah'
Hardware specification	**Managed Industrial switch NIS-3500-2204PGE**
4x 10/100/1000Base-T RJ45 PoE 30W	IEEE 802.3at / 802.3af (PD Alive Check)
2x 100/1000M SFP slots (with DDM)	Total PoE Budget 144W, PSE 30W/port, max 36W
	G.8032 ERPSv2 Ring protection;
Management Interface | Diagnostic	
Console/CLI, Web GUI, Telnet, SNMP | Syslog, VLAN mirroring, RMON, SNMP Trap	
Network Protocols :	
Spanning Tree: STP, RSTP, MSTP, G.8032 ERPSv2; Ring Topology: Chain, Dual Homing, Couple Ring; VLAN: Port-based, 802.1q tag-based, 802.1ad Q in Q; IGMP Snooping v1/v2/v3 & Querier; QoS: 802.1p, 8 queues per port, WRR/SPQ; DHCP Client, Server, Relay, Snooping, Option 82; 802.1ab LLDP; Multicast/ Broadcast/Flooding Storm Control; Access Control: IP/ MAC-based/ 802.1x authentication; Security: HTTPs, SSH, Radius Client; NTP/SNTP;	



Outdoor access Nodes NSBox
NSBox-4042E

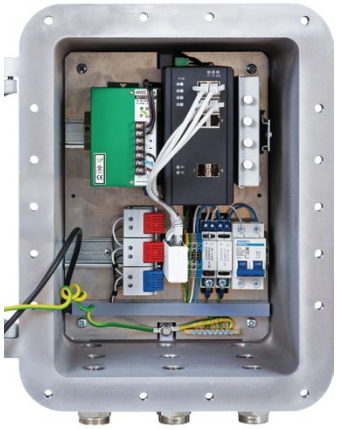
✓ Explosion-proof enclosures ✓ For harsh environments

The NSBox access Nodes are devised for deployment of protected outdoor video surveillance systems. The nodes provide troubleproof and correct operation of a group of video cameras connected to a node: reliable power, a reliable data transmission channel, a surge protection of any wired connections. The NSBox is a completed product for installation and operation in any climates.

Depending on the field of application and operating conditions, the NSBox access Nodes are mounted in a series of enclosures:

- NSB-xxx: Powder-coated sheet Steel, protection category IP66 / NEMA4;
- NSV-xxx: Stainless Steel (AISI 304), protection category IP66 / NEMA4;
- NSP-xxx: Glass Reinforced Polyester, protection category IP66 / NEMA4;
- NSE-xxx: Coated Aluminum alloy, protection category IP67;

NSE-xxx series enclosures are made in explosion-proof design. The NSBox access Nodes assembled in such enclosures can be used for outdoor and indoor installation in hazardous areas.



The basic equipment of the NSBox-4042E includes: Wall mounting brackets, Mounting plate with DIN rails, terminal blocks, a two-pole circuit breaker, an electrical grounding bar, a fan with a thermostat, a set of cable glands. The following modules are also included in the package:

- Managed Industrial 4 ports PoE Switch with the Power Supply 48VDC-150W;
- Climatic control system inside cabinet: thermostats, heating element with fans;
- Fiber Optic Distribution Frame (ODF) with FC adapters, pigtails, patch cords;
- Surge protection elements for Ethernet ports with PoE and power circuits;

Input Voltage | Power Consumption	220 - 240VAC | 300 W (no more)
Enclosure material (cabinet, door)	Coated aluminum alloy
Protection category | Explosion protection	IP67 | 1Ex d IIC T5 Gb X IP67
Enclosure Mounts	Wall or pole mount with NSBon-01 kit
Operating Temp. | with thermal insulation	-40 ~ +60°C | -50 ~ +60°C
Dimensions (without cable glands)	425 x 325 x 297 mm
Shipping weight (approx.)	35 kg
Fiber Optic Distribution Frame (ODF)	mounted with 4 FC adapters, pigtails, patch cords
Heater with thermostats (for H models)	NSBon-18, Fan Heater for enclosure
Hardware specification	**Industrial switch NIS-3500-3224PGE**
4x 10/100/1000Base-T RJ45 PoE 30W	802.3at/802.3af (PoE auto detection)
2x 10/100/1000Base-T RJ45	Total PoE Budget 120W; Reboot PDs
2x 100/1000M SFP slots (with DDM)	Switch Fabric 24Gbps, Jumbo Frame 9Kb
Management Interface | Diagnostic	
Console/CLI, Web GUI, Telnet, SNMP | Syslog, VLAN mirroring, RMON, SNMP Trap	
Network Protocols :	
Spanning Tree: STP, RSTP, MSTP; Ring Topology: Chain, Dual Homing, Couple Ring; VLAN: Port-based, 802.1q tag-based, 802.1ad Q in Q; IGMP Snooping v1/v2/v3 & Querier; QoS: 802.1p, 8 queues per port, WRR/SPQ; DHCP Client, Server, Relay, Snooping, Option 82; 802.1ab LLDP; Multicast/Broadcast/Flooding Storm Control; Access Control: IP/ MAC-based/ 802.1x authentication; Security: HTTPs, SSH, Radius Client; NTP/SNTP;	

NSBox-4042E	Access Node: NSE-4232H1F1 enclosure with Heating; 48VDC-150W Power supply; Managed switch NIS-3500-3224PGE: Uplink 2 SFP/1G + 2 TP/1G, 4 ports TP/1G PoE 30W for IP cameras; Reboot PDs

compact FAN HEATER

- ✓ Compact Design
- ✓ High air through-flow
- ✓ Low surface temperature
- ✓ Long service life
- ✓ DIN Rail mounting
- ✓ Energy Efficiency

The compact Fan Heater prevents the formation of condensation and provides an evenly distributed interior air temperature in electrical enclosures. It has clip for DIN Rail or Door mounting.

The heating element is made on the basis of a self-regulating heating cable. The temperature of the heating element does not exceed 65°C, which ensures maximum safety and energy efficiency. The original design of the cable fastening does not allow its individual turns to touch each other, which allows maintaining the maximum heat transfer.

The heater and fan are connected to the electrical circuit using two screw terminals. It is possible to separate the power circuits of the heater and the fan and use the fan together with the heater or separately in the cooling / ventilation modes of the enclosure.

The NSBon-18 is suitable for all types of panels and electrical enclosures.

Technical Data

Operating voltage:	220 - 240VAC	Surface temperature:	max. 65°C
Heating element:	Self-regulating Heating Cable	Heating Capacity:	60-80W
Service life:	50,000 h at 25°C	Fitting position:	Variable
Axial fan:	Ball bearing	Connection:	2-pole clamp
Air flow:	46 CFM	Operating Temp.:	-40 to +70°C
Mounting:	clip for 35mm DIN Rail	Protection category:	IP20
Dimensions:	50x120x150mm	Weight:	0.53kg

NSBox Heating‘ modes of operation			Control module
H1V1	Heater and Fan contacts combined	Heater and Fan are switched on together when the temperature inside the cabinet is below 5°C.	Thermostat NC / 5°C x1
H1V2	Heater and Fan contacts are not combined	Heater and Fan are switched on together when the temperature inside the cabinet is below 5°C. Only Fan is switched on when the temperature inside the cabinet is above 50°C.	Thermostat NC / 5°C x2 + Thermostat NO / 50°C x1

Ordering Information

NSBon-18	FH75AC22	Compact Fan Heater for electrical enclosure. NSBox Heating. DIN Rail mounting
NSBon-18-1	FH75AW22	Compact Fan Heater for electrical enclosure. NSBox Heating. Wall/Door mounting

THERMOELECTRIC COOLERS

✓ **Installation in any position** ✓ **High reliability**
✓ **24/48VDC or 220VAC Power supply** ✓ **Ecological cleanliness**

Thermoelectric Coolers or Thermoelectric Assemblies are designed to remove heat around critical components within an electrical enclosure with IP66 / NEMA4 protection category. These is a thermoelectric module (thermoelectric air conditioner) using the Peltier effect. The thermoelectric modules create a temperature difference between the internal and ambient heat sinks. It makes internal air colder while heat is dissipating into the external environment. Fans help the transfer of heating from the heat sinks.

The main advantages of Thermoelectric Coolers over conventional compressor are:

- it can be controlled electronically;
- it is easily reversible when the current is reversed;
- it can work in harsh environments:
  - in high ambient temperatures or heavily polluted ambient air;
  - in application with vibrations or strong accelerations.

Thermoelectric Coolers must be used in regions with hot climates, to extend the service life of UPS batteries, when specific customer equipment is installed inside the cabinet.

Technical Data

Operating voltage:	24/ 48VDC; 220VAC	Protection category:	IP67
Cooling Capacity:	50-900W	Fitting position:	Variable
Operating Temp.:	-40 to +70°C	Connection:	Terminal
Dimensions:	depends on the model	Axial Fan:	Ball bearing
Weight:	depends on the model	Fan Air flow:	110 CFM

Ordering Information

NSBon-37	Thermoelectric Coolers. Series Standard_DC, 24/48VDC. NSBox Cooling
NSBon-38	Thermoelectric Coolers. Series Standard_AC, 220VAC. NSBox Cooling
NSBon-39	Thermoelectric Coolers. Series Cover_DC, 24/48VDC. NSBox Cooling
NSBon-40	Thermoelectric Coolers. Series Cover_AC, 220VAC. NSBox Cooling
NSBon-42	Thermoelectric Coolers. Series SandStorm_DC, 24VDC. NSBox Cooling

Thermoelectric Coolers, Standard_DC Series, NSBon-37

- Power supply 24/48 VDC, Cooling/Heating Function;
- IP67 protection category, Operating Temp. -40 … +70°C

Model	Part No./ vendor code	Size	Weight	Nominal Power	Supply voltage	Height H mm	Width W mm	Depth D mm
NSBon-37-1	FR-104-C	1	2,5 kg	100 W	24(48) VDC	195	132	155
NSBon-37-2	FR-208-C	2	5 kg	200 W	24(48) VDC	268	195	155
NSBon-37-3	FR-316-C	3	10 kg	400 W	24(48) VDC	390	269	155

Thermoelectric Coolers, Standard_AC Series, NSBon-38

- Power supply 90… 305 VAC, Cooling/Heating Function;
- IP67 protection category, Operating Temp. -40 … +70°C

For Standard_AC Series, no additional power supply located inside the cabinet is required.

This is one of the main advantages of this series, since the power supply takes up a lot of space and emits heat, which must eventually be compensated by the thermoelectric cooler itself.

Model	Part No./ vendor code	Size	Weight	Nominal Power	Supply voltage	Height H mm	Width W mm	Depth D mm
NSBon-38-2	FR-208-AC	2	6 kg	200W	90…305 VAC	268	195	155
NSBon-38-4	FR-416-AC	4	14,5 kg	400W	90…305 VAC	480	264	159
NSBon-38-5	FR-536-AC	5	25 kg	900W	90…305 VAC	550	394	159

Thermoelectric Coolers, Series Cover

NSBon-39

NSBon-40

Model	Part No./ vendor code	Size	Weight	Nominal Power	Supply voltage	Height H mm	Width W mm	Depth D mm
NSBon-39	TC-100-DC	0	2,5 kg	100W	24(48) VDC	210	125	142
NSBon-40	TC-100-AC	0	3,5 kg	100W	90…305 VAC	210	135	142

THERMOELECTRIC COOLERS for harsh environments

✓ Sandstorm protection
✓ For harsh environments
✓ 24VDC | 220VAC Power supply
✓ Ecological cleanliness

Thermoelectric Coolers or Thermoelectric Assemblies are designed to remove heat around critical components within an enclosure with IP66 protection category. These is a thermoelectric air conditioner using the Peltier effect. The main advantages of Thermoelectric Coolers over conventional compressor are:

- it can be controlled electronically;
- it is easily reversible when the current is reversed;
- it can work in harsh environments;

Thermoelectric Assembly NSBon-42 is fundamentally different from standard air-to-air coolers. Based on the calculations, a special design of ambient heat sink was created, which made it possible to remove ambient (external) fans.

External fans are the weakest link in any air-to-air cooler. They are constantly exposed to extreme ambient conditions and often fail for this reason, after that the cooling process of the internal heat sink stops.

The NSBon-42 design is 100% protected against sand, dust and water. Even a sandstorm will not disable the NSBon-42 cooler itself and equipment that it cools.

Technical Data

Operating voltage: 24 VDC; 220 VAC	Sand, dust and water protection is 100%
Cooling Capacity: 200 W	Without external fans outside
Operating Temp.: -40 to +70°C	Connection: Terminal
Dimensions: 500x214x208 mm	Fitting position: Variable
Weight: depends on the model	Protection category: IP66 / NEMA4

Ordering Information

NSBon-42	Thermoelectric Coolers. Series SandStorm_DC, 24VDC. NSBox Cooling

compact LIGHTING KIT

✓ The most compact Design
✓ On/Off by circuit breaker
✓ One or two LED lamps
✓ Magnetic mounting

The indoor lighting kit NSBon-06 is suitable for all types of panels and enclosures. The kit allows to execute repair electrical works (replacement of an Ethernet switch, power supply, batteries) on the installed facility at any time of the day.

The system is equipped with a separate circuit breaker. For safe work, you should turn off the main power of the enclosure and all equipment.

By default, the lamps are installed in the niches of the top and bottom walls of the cabinet. If necessary, it can be moved to another location.

The kit consists of the following components:

- One or two LED lamps in metal frame with a reflector
- Magnets for mounting the lamp to a metal surface
- Circuit breaker and set of wires

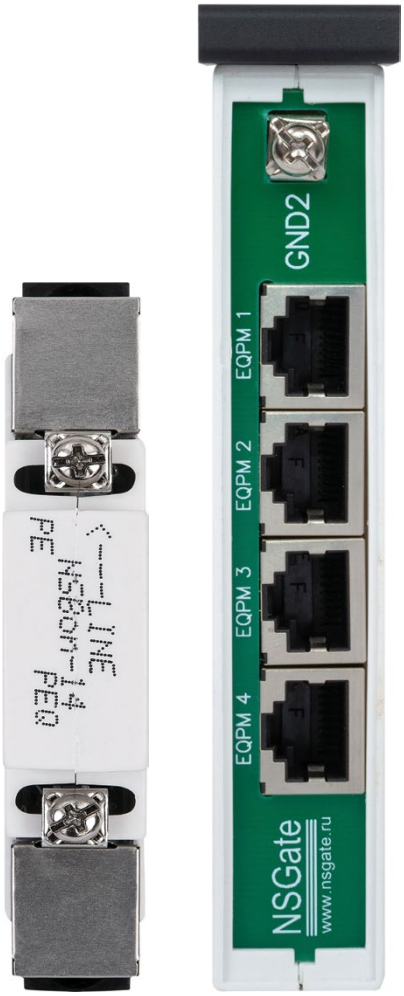
Technical Data

Operating voltage:	180 - 260VAC	Lamp type:	LED
Power consumption:	2x 5W	Luminosity:	2x 430Lm
Light color:	daylight	Fitting position:	Variable
Color temperature:	6,500K	Connection:	2-pole clamp
Service life:	50,000 h at 25°C	Length of wires:	430mm + 780mm
Circuit breaker mounting:	DIN Rail 35mm	Protection category:	IP20
Lamp Mounting:	Magnet fixing	Operating Temp.:	-40 to +70°C
Lamp Dimensions:	230 x 18 x 15 mm	Weight:	0.23kg

Ordering Information

NSBon-06	LBM2AC22	Indoor lighting kit for enclosure. Two LED lamps with circuit breaker. NSBox Lighting
NSBon-06-1	LBM1AC22	Indoor lighting kit for enclosure. One LED lamp with circuit breaker. NSBox Lighting
NSBon-06-2	LBM0AC22	Indoor lighting kit for enclosure. One LED lamp w/o circuit breaker. NSBox Lighting

Lightning and Surge protection for Ethernet ports



✓ Up to 4 ports 10/100/1000Base-T
✓ PoE 802.3af/3at /3bt/ 60W/ 95W
✓ DIN Rail mounting
✓ Compact Design

NSBon-14 and NSBon-15 are surge protectors keeping any IP devices with Ethernet 10/100/1000Base-T interface safe from lightning strike and other forms of electrical interference such as power surges and spikes over networking cables. The devices support PoE transmission in accordance with IEEE 802.3af / 3at recommendations, regardless of the transmission method, as well as passive PoE.

The NSBon-15 has eight shielded RJ45 Jacks for connecting four equipment ports. The NSBon-14 has two shielded RJ45 Jack for connecting one equipment port. These protectors utilize Gas Discharge Tubes (GDT) for each wire in RJ45 connector in order to protect all eight wires of networking cable including PoE. The “Line” sockets and the “Equipment” sockets of each port are located on different sides of the case opposite each other. There are also two contacts on the case, GND1 for connection directly to the potential equalization bus (PE) and GND2 for connection to a ground point inside the enclosure.

The GND1 contact is electrically connected to the shields of sockets “Line”. The GND2 contact is electrically connected to the shields of sockets “Equipment”. Contacts GND1 and GND2 are galvanically isolated from each other.

NSBox Lightning are designed for DIN rail mounting and are deployed beside PoE switches, inside junction boxes or climatic cabinets.

Technical Data

Maximum Operation DC Voltage: 60VDC	Up to 4 ports 10/100/1000Base-T + PoE
Impulse Discharge Current (8/20us) line-ground: 5 kA	Input/ Output Connections: RJ45 shielded jacks
Impulse Discharge Current (8/20us) line-line: 1 kA	Mounting: clip for 35mm DIN Rail
DC Breakdown Voltage line-ground: 90 V	Operating Temp.: -40 to +70°C
DC Breakdown Voltage line-line: 75 V	Dimensions: 115x56x25mm (NSBon-15)

Ordering Information

NSBon-14	Surge protection for Ethernet ports, 10/100/1000Base-T + PoE, 1 port. NSBox Lightning
NSBon-15	Surge protection for Ethernet ports, 10/100/1000Base-T + PoE, 4 port. NSBox Lightning

Lightning and Surge protection for Ethernet ports

- ✓ **Compact Design**
- ✓ **Waterproof RJ45 connectors**
- ✓ **Gigabit Ethernet 10/100/1000-BaseT**
- ✓ **PoE 802.3af/3at /3bt/ 60W/ 95W**

NSP-121PGi is a surge protector keeping any IP devices with Ethernet 10/100/1000Base-T interface safe from lightning strike and other forms of electrical interference such as power surges and spikes over networking cables. The devices support PoE transmission in accordance with 802.3at/3af and 60W/ 95W UPoE recommendations, regardless of the transmission method, as well as passive PoE. It protect all eight wires of networking cable including PoE.

NSP-121PGi is classified as harden-graded surge protector operating between -40°C and 85°C under harsh weather conditions and plug-and-play surge protector defending the surge up to 16KV. It has IP67/IK10 rated metal enclosure to protect outdoor IP devices such as IP cameras and wireless APs. The device should be installed immediately adjacent to outdoor IP cameras.

Technical Data

Maximum Operation DC Voltage: 60VDC	1 port 10/100/1000Base-T + PoE (802.3at/3af // 60W/ 95W UPoE)
Impulse Discharge Current (8/20us) line-ground: 8 kA	Mounting: Wall and pole-mounted options
Impulse Discharge Current (8/20us) line-line: 1 kA	Operating Humidity: 5% ~ 95% non-condensing
Common Mode Protection Level (10/700us): 20KV	Operating Temperature: -40 to +85°C
Differential Mode Protection Level (10/700us): 4KV	Weatherproof Housing IP67/IK10, Waterproof RJ45 connectors
Response Time: 5ns	Dimensions: 32x50x186 mm; Weight: 0.27 kg

Ordering Information

NSP-121PGi	Weatherproof Surge Protector for Ethernet 10/100/1000Base-T + PoE 802.3af/3at /3bt/ 60W/ 95W

Managed Industrial Switches Series NIS-3500

IGMP, STP, RSTP, MSTP, DHCP 82, LACP, QoS, VLAN, G.8032 ERPSv2
Telnet, CLI, Web, SNMP, RMON, Syslog, SSH, Radius
- ✓ **10 Gbps Uplink ports | DI / DO**
- ✓ **802.3at Standard 36W | Force 60W**
- ✓ **802.3bt PoE 90W | UPoE(PoH) 95W**

NIS-3500 Series with PoE	
NIS-3500-3426PGE	16 10/100/1000T PoE 30W + 2 SFP/1G + 2 TP/1G, G.8032 ERPSv2
NIS-3500-3416PGX/ PGX8	16 10/100/1000T PoE 30W /(8x PoE 30W) + 4 1G/10G SFP
NIS-3500-2408PGX/ PGX2	8 10/100/1000T PoE 30W + 4 1G/10G SFP / + 2 TP/1G + 2 1G/10G SFP
NIS-3500-3226PGE	8 10/100/1000T PoE (2x60W + 6x30W) + 2 SFP/1G + 2 TP/1G
NIS-3500-3408PGE	8 10/100/1000T PoE 30W + 4 SFP/1G
NIS-3500-3208PC	8 10/100Base-TX PoE 30W + 2 SFP/1G
NIS-3500-3204PGE	4 10/100/1000T 802.3bt PoE + 2 SFP/1G + 1 TP/1G, G.8032 ERPSv2
NIS-3500-2204PGE	4 10/100/1000T PoE 36W + 2 SFP/1G, G.8032 ERPSv2
NIS-3500-3224PGE	4 10/100/1000T PoE 30W + 2 SFP/1G + 2 TP/1G
NIS-3500 Series without PoE	
NIS-3500-2412GE	8 10/100/1000T + 12 SFP (8 100M/1G SFP + 4 SFP/1G)
NIS-3500-2408GE	8 10/100/1000T + 4 SFP/1G
NIS-3500-2206GE	6 10/100/1000T + 2 SFP/1G

Unmanaged Industrial Switches Series NIS-3200

- ✓ **Ultra PoE 95W**
- ✓ **Voltage Booster 24-56VDC**

NIS-3200 Series with PoE	
NIS-3200-208PSG	8 10/100/1000T PoE 30W + 2 TP/SFP Combo
NIS-3200-464PSG	4 10/100/1000T PoE (4x60W or 2x95W + 2x30W) + 2 SFP/1G + 2 TP/1G
NIS-3200-205PSG (B)	4 10/100/1000T PoE 30W + 1 SFP/1G + 1 TP/SFP Combo, (24-56VDC Booster)
NIS-3200-132PSGB	2 10/100/1000T PoE 30W + 1 TP/1G, 24-56VDC Booster
NIS-3200-231PSGB	1 10/100/1000T PoE 30W + 2 TP/1G, 24-56VDC Booster
NIS-3200-261PSGB	1 10/100/1000T PoE 60W + 2 TP/1G, 24-56VDC Booster
NIS-3200-232PSGB	2 10/100/1000T PoE 30W + 1 SFP/1G + 1 TP/1G, 24-56VDC Booster
NIS-3200-331PSGB	1 10/100/1000T PoE 30W + 1 SFP/1G + 2 TP/1G, 24-56VDC Booster
NIS-3200-361PSGB	1 10/100/1000T PoE 60W + 1 SFP/1G + 2 TP/1G, 24-56VDC Booster
NIS-3200 Series without PoE	
NIS-3200-005T / 008T / 008G	5 10/100Base-TX / 8 10/100Base-TX / 8 10/100/1000Base-T
NIS-3200-205GS	4 10/100/1000T + 1 SFP/1G + 1 TP/SFP Combo
NIS-3200-206GS	6 10/100/1000T + 2 SFP/1G

Industrial Media Converters Series NIC-3200

- ✓ **High-Power PoE 60W**
- ✓ **Voltage Booster 24-56VDC**

NIC-3200 Series with PoE	
NIC-3200-161PCG	1 SFP/1G + 1 TP/1G High-Power PoE 60W
NIC-3200-101PCG	1 SFP/1G + 1 TP/1G PoE 30W
NIC-3200 Series without PoE	
NIC-3200-101C	1 10/100Base-TX + 1 SFP/100M
NIC-3200-101CG	1 10/100/1000Base-T + 1 SFP/1G

Managed PoE Switches

Operating Temp.: -40 to +75°C; DIN Rail or Wall mounting

NIS-3500-3426PGE

16 10/100/1000T PoE 30W + 2 SFP/1G + 2 TP/1G, G.8032 ERPSv2

- 20-port Gigabit switch; IEEE 802.3at/3af (PD Alive Check), 16 ports PoE 30W
- IGMP snooping; STP, RSTP, MSTP, G.8032 ERPSv2, BPDU Guard; LACP
- QoS, CoS, DSCP, VLAN (MAC/Protocol-based, PVE, 802.1Q tag, QinQ)
- Telnet, CLI, Web, SNMP, RADIUS, TACACS+, ACL, DHCP option 82
- 2 DI / 2 DO; Total PoE Budget: 320W; Dimensions: 152x107x84mm

✓ 16 ports PoE ✓ G.8032 ERPSv2 ✓ 2 DI / 2 DO

NIS-3500-3416PGX | NIS-3500-3416PGX8

16 10/100/1000T PoE 30W + 4 1G/10G SFP

16 10/100/1000T (8x PoE 30W) + 4 1G/10G SFP

- 20-port Gigabit switch; IEEE 802.3at/3af (PD Alive Check), 16 ports PoE 30W
- IGMP snooping; STP, RSTP, MSTP, G.8032 ERPS, DHCP option 82; LACP
- QoS, CoS, DSCP, VLAN (Port-based, 802.1Q tag, QinQ), Syslog
- Telnet, CLI, Web, SNMP, RMON, RADIUS, TACACS+, SSL, SSH
- Total PoE Budget: 240W; Dimensions: 145x118x93 mm

✓ 8/16 ports PoE ✓ 10 Gbps Uplink ports ✓ Reboot PDs

NIS-3500-2408PGX | NIS-3500-2408PGX2

8 10/100/1000T PoE 30W + 4 1G/10G SFP

8 10/100/1000T PoE 30W + 2 TP/1G + 2 1G/10G SFP

- 12-port Gigabit switch; IEEE 802.3at/3af (PD Alive Check), 8 ports PoE 30W
- IGMP snooping; STP, RSTP, MSTP, G.8032 ERPS, DHCP option 82; LACP
- QoS, CoS, DSCP, VLAN (Port-based, 802.1Q tag, QinQ), Syslog
- Telnet, CLI, Web, SNMP, RMON, RADIUS, TACACS+, SSL, SSH
- Total PoE Budget: 240W; Dimensions: 145x118x72 mm

✓ 8 ports PoE ✓ 10 Gbps Uplink ports ✓ Reboot PDs

NIS-3500-3408PGE | NIS-3500-3226PGE

8 10/100/1000T PoE 30W + 4 SFP/1G

8 10/100/1000T PoE (2x60W + 6x30W) + 2 SFP/1G + 2 TP/1G

- 12-port Gigabit switch; IEEE 802.3at/3af (PD Alive Check), 8 ports PoE 30/60W
- IGMP snooping; STP, RSTP, MSTP, MRP, DHCP option 82; LACP
- QoS, VLAN (Port-based, 802.1Q tag, QinQ), Syslog, Radius
- Telnet, CLI, Web, SNMP, RMON, Syslog, SSH
- Total PoE Budget: 240W; Dimensions: 154x126x72 mm

✓ 8 ports PoE ✓ High-Power PoE 60W ✓ Reboot PDs

NIS-3500-3208PC

8 10/100Base-TX PoE 30W + 2 SFP/1G

- 10-port switch; IEEE 802.3at/3af (PD Alive Check), 8 ports PoE 30W
- IGMP, STP, RSTP, MSTP, DHCP 82, LACP, QoS, VLAN
- Telnet, CLI, Web, SNMP, RMON, Syslog,
- Total PoE Budget: 200W; Dimensions: 150x125x48 mm

✓ 8 ports PoE ✓ Reboot PDs

NIS-3500-3204PGE

4 10/100/1000T 802.3bt PoE + 2 SFP/1G + 1 TP/1G, G.8032 ERPSv2

- IEEE 802.3af/802.3at/802.3bt (PD Alive Check), 4 ports PoE up to 95W
- 802.3bt PoE 90W | UPoE(PoH) 95W | 802.3at Standard 36W | Force 60W
- IGMP snooping; STP, RSTP, MSTP, G.8032 ERPSv2, BPDU Guard; LACP
- QoS, CoS, DSCP, VLAN (MAC/Protocol-based, PVE, 802.1Q tag, QinQ)
- Telnet, CLI, Web, SNMP, SSHv1/v2, TLS, SSL, ACL, DHCP option 82
- 2 DI / 2 DO; Total PoE Budget: 240W; Dimensions: 152x107x72 mm

✓ 4 ports 802.3bt PoE ✓ G.8032 ERPSv2 ✓ 2 DI / 2 DO

NIS-3500-2204PGE

4 10/100/1000T PoE 36W + 2 SFP/1G, G.8032 ERPSv2

- 6-port Gigabit switch; IEEE 802.3at/3af (PD Alive Check), 4 ports PoE 30W
- IGMP snooping; STP, RSTP, MSTP, G.8032 ERPSv2, BPDU Guard; LACP
- QoS, CoS, DSCP, VLAN (MAC/Protocol-based, PVE, 802.1Q tag, QinQ)
- Telnet, CLI, Web, SNMP, RADIUS, TACACS+, ACL, DHCP option 82
- Total PoE Budget: 144W; Dimensions: 135x88x50 mm

✓ 4 ports PoE ✓ G.8032 ERPSv2 ✓ Reboot PDs

NIS-3500-3224PGE
4 10/100/1000T PoE 30W + 2 SFP/1G + 2 TP/1G

- 8-port Gigabit switch; IEEE 802.3at/3af (PD Alive Check), 4 ports PoE 30W
- IGMP snooping; STP, RSTP, MSTP, MRP, DHCP option 82; LACP
- QoS, VLAN (Port-based, 802.1Q tag, QinQ), Syslog, Radius
- Telnet, CLI, Web, SNMP, RMON, Syslog, SSH
- Total PoE Budget: 120W; Dimensions: 154x126x72 mm

✓ 4 ports PoE ✓ Reboot PDs

Unmanaged PoE Switches

Operating Temp.: -40 to +75°C; DIN Rail or Wall mounting

NIS-3200-208PSG
8 10/100/1000T PoE 30W + 2 TP/SFP Combo

- 10-port Gigabit switch; IEEE 802.3at/3af, 8 ports PoE 30W
- 16K MAC, 2Mbit buffer, Switch fabric 21 Gbps
- POE Pin Assignment: 1/2(+), 3/6(-). Mode A EndSpan PoE
- Total PoE Budget: 240W; Dimensions: 156x120x48 mm

✓ 8 ports PoE

NIS-3200-464PSG
4 10/100/1000T PoE (4x60W or 2x95W + 2x30W) + 2 SFP/1G + 2 TP/1G

- 8-port Gigabit switch; IEEE 802.3at/3af, 4 ports PoE 30/60/95W
- 4K MAC address, Jumbo Frame 9Kb, Switch fabric 16Gbps
- POE Pin Assignment: 1/2(+), 3/6(-); 4/5(+), 7/8(-).
- Total PoE Budget: 240W; Dimensions: 170x132x40 mm

✓ 4 ports PoE ✓ Ultra PoE 95W

NIS-3200-205PSG
4 10/100/1000T PoE 30W + 1 SFP/1G + 1 TP/SFP Combo

NIS-3200-205PSGB **24-56VDC Booster**
4 10/100/1000T PoE 30W + 1 SFP/1G + 1 TP/SFP Combo

- 6-port Gigabit switch; IEEE 802.3at/3af, 4 ports PoE 30W
- Total PoE Budget: 120W; Dimensions: 142x105x43 mm

✓ 4 ports PoE ✓ Built-in Voltage Booster 24-56VDC

NIS-3200-132PSGB
2 10/100/1000T PoE 30W + 1 TP/1G, 24-56VDC Booster

NIS-3200-231PSGB
1 10/100/1000T PoE 30W + 2 TP/1G, 24-56VDC Booster

NIS-3200-261PSGB
1 10/100/1000T PoE 60W + 2 TP/1G, 24-56VDC Booster

- 4-port Gigabit switch; IEEE 802.3at/3af, 1/2 ports PoE 30/60W
- Total PoE Budget: 65W; Dimensions: 142x105x37 mm

✓ 1/2 ports PoE ✓ Built-in Voltage Booster 24-56VDC

NIS-3200-232PSGB
2 10/100/1000T PoE 30W + 1 SFP/1G + 1 TP/1G, 24-56VDC Booster

NIS-3200-331PSGB
1 10/100/1000T PoE 30W + 1 SFP/1G + 2 TP/1G, 24-56VDC Booster

NIS-3200-361PSGB
1 10/100/1000T PoE 60W + 1 SFP/1G + 2 TP/1G, 24-56VDC Booster

- 4-port Gigabit switch; IEEE 802.3at/3af, 1/2 ports PoE 30/60W
- Total PoE Budget: 65W; Dimensions: 142x105x37 mm

✓ 1/2 ports PoE ✓ Built-in Voltage Booster 24-56VDC

PoE Media Converter

Operating Temp.: -40 to +75°C; DIN Rail or Wall mounting

NIC-3200-161PCG
1 SFP/1G + 1 TP/1G High-Power PoE 60W

NIC-3200-101PCG
1 SFP/1G + 1 TP/1G PoE 30W

- Total PoE Budget: 60W or 30W; Dimensions: 104x82x32 mm

✓ High-Power PoE 60W

Industrial network components

Industrial PoE EXTENDERS and INJECTORS

PoE Extenders

NRP-192PRi — **Ultra PoE Extender**

3 Ethernet TP/1G + Ultra PoE 95W/60W/30W, Booster, 1 PD/2 PSE

- It is possible to cascade 4 devices into a chain up to 500 m
- Compensation of voltage drop in the chain (built-in Booster)
- 1 port PD IN up to 95W + 2 ports PSE OUT 75W/60W/30W/15W
- Housing: IP65/IK10, Wall mounting, Waterproof RJ45 connectors
- Operating Temperature: -40 to +75°C; Dimensions: 190x85x65mm

✓ Gigabit Ethernet ✓ Built-in Voltage Booster
✓ Waterproof RJ45 connectors ✓ 95W_60W_30W_15W PoE

NRP-172PRi — **High-Power PoE Extender**

3 Ethernet TP/1G + PoE 72W/60W/30W, Booster, 1 PD/2 PSE

- It is possible to cascade 4 devices into a chain up to 500 m
- Compensation of voltage drop in the chain (built-in Booster)
- 1 port PD IN up to 72W + 2 ports PSE OUT 60W/30W (54VDC or 24VDC)
- Housing: IP67/IK10, Wall mounting, Waterproof RJ45 connectors
- Operating Temperature: -40 to +65°C; Dimensions: 167x73x40mm

✓ Gigabit Ethernet ✓ Built-in Voltage Booster
✓ Waterproof RJ45 connectors ✓ 60W_30W 54 or 24VDC PoE

NRP-161PRi / NRP-162PRi — **High-Power PoE Extender**

2-3 Ethernet 10/100Base-TX + PoE 72W/60W/30W, 1 PD/ 1-2 PSE

- NRP-161PRi: 1 PD IN up to 72W + 1 PSE OUT 70W/60W/30W
- NRP-162PRi: 1 PD IN up to 72W + 2 PSE OUT 70W/60W/30W
- Housing IP67/IK10, Wall mounting, Waterproof RJ45 connectors
- Dimensions NRP-161PRi: 157x56x40mm, Weight: 0.3kg
- Dimensions NRP-162PRi: 167x73x40mm, Weight: 0.36kg
- Operating Temperature: -40 to +65°C

✓ Waterproof RJ45 connectors ✓ Weatherproof Housing

NRP-111PR / NRP-111PRi — **PoE Extender**

2 Ethernet 10/100/1000T + PoE 30W, 1 PD/ 1 PSE

NRP-101PR / NRP-101PRi — **PoE Extender**

2 Ethernet 10/100Base-TX + PoE 30W, 1 PD/ 1 PSE

- 1 port PD IN up to 30W + 1 port PSE OUT 30W/15W
- Operating Temp.: NRP-1x1PR 0 to +50°C; NRP-1x1PRi -40 to +50°C
- Dimensions: NRP-1x1PR 95x72x27mm; NRP-1x1PRi 140x120x70mm

PoE Injectors

NIP-191PG — **Ultra PoE Injector 90-95W**

1 10/100/1000T Ultra PoE Injector 95W, External 48-56VDC

- 95 watts of maximum power with an input voltage of 56VDC
- POE Pin Assignment: 1/2(+), 3/6(-) & 4/5(+), 7/8(-)
- Reverse polarity / Over voltage / Overload protections
- Housing: IP30 Protection, DIN Rail or Wall mounting
- Operating Temp.: -40 to +75°C; Dimensions: 104x82x32 mm

✓ Gigabit Ethernet ✓ 95W_60W_30W PoE

NIP-171PG / NIP-171PGB — **High-Power PoE Injector 72W**

1 10/100/1000Base-T, External PS 48-56VDC / 24-56VDC Booster

NIP-111PG / NIP-111PGB — **PoE Injector 30W**

1 10/100/1000Base-T, External PS 48-56VDC / 24-56VDC Booster

- POE Pin Assignment: 1/2(+), 3/6(-) & 4/5(+), 7/8(-)
- Housing: IP30 Protection, DIN Rail or Wall mounting
- Operating Temp.: -40 to +75°C; Dimensions: 104x82x32 mm

✓ Gigabit Ethernet ✓ 72W_30W PoE

NIP-404PG — **4 ports PoE Injector 30W**

4 10/100/1000Base-T, External PS 48-56VDC

- 4x 30 watts of maximum power with an input voltage of 56VDC
- POE Pin Assignment: 1/2(+), 3/6(-)
- Operating Temp.: 0 to +50°C; Dimensions: 94x62x20 mm

✓ Gigabit Ethernet ✓ 4 ports 30W PoE

Industrial SFP modules

SFP module is a replaceable, compact transceiver, installed in various telecommunication equipment. Industrial SFP modules are designed to operate in a wide range of operating temperatures from -40 to + 85°C and are used in conjunction with industrial switches and media converters. Modules can work either one or two fibers.

- Single-fiber SFP (Bi-Di, WDM) modules can have an optical connector type SC or LC.
- Dual Fiber SFP modules typically have an LC type optical connector.
- SFP modules can be ordered with DMI (Diagnostic monitoring interface) support.
- In this case, the index name D is added to the name of the model (SFG-L04-DI).

Models	Vendor code	Wavelength (nm)	TX Power (dBm)	RX Sens. (dBm)	MM or SM LC or SC	Distance (km)	DMI
155 Mbps [dual fiber] LC							
SF-MM2-I	NM3115-02-I	1310	-12 to -19	-30	MM, LC	2	–
SF-S01-I	NI3115-10-I	1310	-8 to -15	-31	SM, LC	10	–
155 Mbps [single fiber/ Bi-Di/ WDM] LC / SC							
SF-W0M/A-I SF-W0M/B-I	NC3115-M2-I NC5515-M2-I	Tx-1310/ Rx-1550 Tx-1550/ Rx-1310	-8 to -15	-30	MM, SC (50/125µm)	2	–
SF-W02/A-I SF-W02/B-I	NC3115-20-I NC5515-20-I	Tx-1310/ Rx-1550 Tx-1550/ Rx-1310	-8 to -14	-34	SM, SC	20	–
SF-W02/AL-I SF-W02/BL-I	NK3115-20-I NK5515-20-I	Tx-1310/ Rx-1550 Tx-1550/ Rx-1310	-8 to -14	-34	SM, LC	20	–
1.25 Gbps [dual fiber] LC							
SFG-MM2-I	NM3112-02-I	1310	-10 to -14	-22	MM, LC	2	–
SFG-SXMM-DI	NM8512-M5-DI	850	-10 to -14	-22	MM, LC	0,5	+
SFG-L01-I	NI3112-10-I	1310	-3 to -9	-20	SM, LC	10	–
SFG-L01-DI	NI3112-10-DI	1310	-3 to -9	-20	SM, LC	10	+
SFG-L04-DI	NI3112-40-DI	1310	3 to -1	-22	SM, LC	40	+
1.25 Gbps [single fiber/ Bi-Di/ WDM] LC / SC							
SFG-W0M/A-I SFG-W0M/B-I	NC3112-M5-I NC5512-M5-I	Tx-1310/ Rx-1550 Tx-1550/ Rx-1310	-4 to -10	-17	MM, SC (50/125µm)	0,5	–
SFG-WL3/A-DI SFG-WL3/B-DI	NC3112-03-DI NC5512-03-DI	Tx-1310/ Rx-1550 Tx-1550/ Rx-1310	-3 to -10	-17	SM, SC	3	+
SFG-W01/U-DI SFG-W01/D-DI	NK3112-10-DI NK4912-10-DI	Tx-1310/ Rx-1490 Tx-1490/ Rx-1310	-3 to -9	-22	SM, LC	10	+
SFG-W02/A-DI SFG-W02/B-DI	NC3112-20-DI NC5512-20-DI	Tx-1310/ Rx-1550 Tx-1550/ Rx-1310	-3 to -8	-22	SM, SC	20	+
SFG-W04/A-DI SFG-W04/B-DI	NC3112-40-DI NC5512-40-DI	Tx-1310/ Rx-1550 Tx-1550/ Rx-1310	3 to -2	-23	SM, SC	40	+
10 Gbps SFP+ [dual fiber] and [single fiber/ Bi-Di/ WDM] LC							
SFG10-L01-I	NS3110-10-I	1310	0.5 to -8	-14.4	SM, LC	10	+
SFG10-W01/A-I SFG10-W01/B-I	NK2710-10-I NK3310-10-I	Tx-1270/ Rx-1330 Tx-1330/ Rx-1270	0 to -5	-14	SM, LC	10	+
SFP modules RJ45 / Copper SFP							
SFT-C11-I	NT1112-X1-I	SFP 10/100/1000Base-T RJ45 100m (-40°C ~ +85°C) Industrial					

NSBox comparison table

How many PoE video cameras can be connected to NSBox				Added option	Dimensions of the cabinet	Power supply / UPS	Pmax. on PoE ports	Total PoE Budget	Uplink
1–2 PoE	4 PoE	8 PoE	16 PoE						
NSBox with Unmanaged PoE Switches									
NSBox-121					300x300x210	24VDC-100W	30 W	60 W	2 TP/1G 4G | LTE
NSBox-121L				4G | LTE	300x300x210	24VDC-100W			
NSBox-122					300x300x210	24VDC-100W	30 W	60 W	1 TP/1G 4G | LTE
NSBox-122R				UPS	380x380x210	UPS 24VDC-240VA 2x 15Ah			
NSBox-122L				4G | LTE	300x300x210	24VDC-100W			
NSBox-223					300x300x210	24VDC-100W	60 W	60 W	SFP + 2 TP
	NSBox-245				300x400x210	48VDC-150W	36 W	120 W	2 Gigabit SFP + SFP/TP Combo
	NSBox-245H			Heater	300x400x210	48VDC-150W			
	NSBox-245R			UPS	380x380x210	UPS 48VDC-155VA 4x 2.2Ah			
	NSBox-442				380x380x210	55VDC-360W	60 W 95 W	240 W	4 Gigabit 2 SFP + 2 TP
	NSBox-442R			UPS	380x380x210	UPS 48VDC-360VA 4x 7Ah			
		NSBox-285			300x400x210	48VDC-360W	30 W	240 W	2 Gigabit SFP/TP Combo
		NSBox-285R		UPS	380x380x210	UPS 48VDC-360VA 4x 7Ah			
		NSBox-286			380x600x210	48VDC-360W			
		NSBox-286R		UPS	380x600x210	UPS 48VDC-360VA 4x 7Ah			
NSBox with Managed PoE Switches L2/ L2+									
	NSBox-2040				300x400x210	48VDC-150W	36 W	144 W	2 Gigabit SFP
	NSBox-2040R			UPS	380x380x210	UPS 48VDC-155VA 4x 2.2Ah			
	NSBox-2041				300x400x210	55VDC-360W	95 W 802.3bt	240 W	3 Gigabit 2 SFP + 1 TP
	NSBox-2041R			UPS	380x380x210	UPS 48VDC-360VA 4x 7Ah			
	NSBox-4042				300x400x210	48VDC-150W	30 W	120 W	4 Gigabit 2 SFP + 2 TP
	NSBox-4042R			UPS	380x380x210	UPS 48VDC-155VA 4x 7Ah			
		NSBox-2080			300x400x210	48VDC-360W	30 W	240 W	2 Gigabit SFP
		NSBox-2080R		UPS	380x380x210	UPS 48VDC-240VA 4x 7Ah			
		NSBox-4080			380x380x210	48VDC-360W	30 W	240 W	4 Gigabit SFP
		NSBox-4080R		UPS	380x380x210	UPS 48VDC-360VA 4x 7Ah			
		NSBox-4081			380x600x210	48VDC-360W			
		NSBox-4081R		UPS	380x600x210	UPS 48VDC-360VA 4x 7Ah			
		NSBox-4082			380x380x210	55VDC-360W	60 W	240 W	4 Gigabit 2 SFP + 2 TP
		NSBox-4082R		UPS	380x380x210	UPS 48VDC-360VA 4x 7Ah			
			NSBox-4160		380x380x210	55VDC-500W	30 W	320 W	4 Gigabit 2 SFP + 2 TP
			NSBox-4160R	UPS	380x380x210	UPS 48VDC-500VA 4x 7Ah			
			NSBox-4161		380x600x210	55VDC-500W			
			NSBox-4161R	UPS	380x600x210	UPS 48VDC-500VA 4x 7Ah			

*

BASIC: DIN Rails; Cable glands; Circuit breaker; Terminal blocks

HEATING: Fan Heater 75W 220 or 115VAC; Thermostats NC/NO

FIBER: ODF with 4/8 FC adapters, pigtails, patch cords

IZOLUX: Thermal insulation of foamed polyethylene

Additional features:

IP66 protection; ODF with adapters: FIBER*

Operating Temp.: -40 to +60°C, -50 to +60°C with IZOLUX*

Surge protection for power circuits 110-220VAC: NSBon-09/10/11

Surge protection for Ethernet ports: NSBon-12/13/14/15

NSBox-xxxx C E H L N R

R - installed UPS
N - installed NVR
L - installed 4G LTE Router
C - installed Thermoelectric Cooler
H - installed Heater
E - explosion proof enclosure

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