

# ES3300 Switch Series

Managed Switch for Road and Rail Vehicles

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Product Information ES3300  
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## Key Features

<b>Ethernet</b>	2x Gigabit Ethernet, M12 8x Fast Ethernet, optional with PoE+, M12
<b>Power</b>	24 VDC to 48 VDC 12 VDC to 48 VDC without PoE
<b>Layer 2 Features</b>	Jumbo Frames Switching VLAN 802.1Q Port mirroring STP, RSTP
<b>Temperature</b>	-40 °C to +70 °C
<b>Compliance</b>	CE (RED), Vehicle (UNECE-R10, UNECE-R118), Railway (EN 50155, EN 45545), ITxPT

## Product Description

The ES3300 is an Ethernet Switch that is developed for transportation applications. It has 10 Ethernet ports, two of them are Gigabit and 8 are Fast Ethernet ports. The optionally integrated PoE power supply provides up to 62W on 8 Fast Ethernet ports.

The layer 2 Switch has management functionality to realize network segmentation and redundant ring topology networks. It also can be used for automatic IP address configuration. Additionally the switch can be configured via an USB flash drive.

Designed in a metal housing the Switch reaches the protection class of IP54 and is robust for most applications. Further the M12 connectors provide secure connection and are able to endure high vibration and mechanical shocks.

The switch is preferred used in the combination with NB3800 Railway Routers or NB2810 Vehicle Routers to establish an Internet enabled and redundant Gigabit IP backbone with ring topology. The combination allows over-the-air configuration of all system components. We're currently working on a seamless management (configuration, firmware update) solution of Router, Switch and Connectivity Suite.

## Applications

- Passenger WiFi
- Passenger Infotainment
- CCTV
- Ticketing
- eMobility

## Specifications

### Ethernet

#### 2x Gigabit Ethernet

10/100/1000 Mbps

#### Connectors

2x M12 X-coded female

#### 8x Fast Ethernet (optional with PoE+)

10/100 Mbps

#### PoE Standard

Max. 30 W per port, 60 W in total  
PoE classes 0, 1, 2, 3, 4

#### Connectors

8x M12 D-coded female

### USB

1x USB host port for configuration

#### Connector

1x M12 A-coded female

### Power

#### Non PoE Operation

##### Nominal Input Voltages

12 VDC to 48 VDC (-12 % / +20 %)

##### Power Consumption

5 W

#### PoE Operation (only PoE version)

##### Nominal Input Voltages

24 VDC to 48 VDC (-33 % / +8 %)

##### Power Consumption

70 W

#### Connector

1x M12 A-coded male

### LED Display

#### System

PWR, ERR, MOD, CFG

#### Gigabit ports

Link/activity, speed

#### Fast Ethernet ports

Link/activity, PoE

### Software

#### General

Configuration via web WebGUI or USB

#### Layer 2 Features

Jumbo Frames Switching

VLAN 802.1Q

32 VLAN Groups (VLAN IDs: 4096)

Port mirroring

IGMP snooping

Storm protection

STP, MSTP, RSTP

#### Networking Services

DHCP Server (pool, port based, static leases, client)

SNMP v1/v2/v3

#### Security

1:N NAT, PAT

L3 stateless firewall

#### Diagnose

##### Ethernet Ports

Link up/down, Traffic

##### Logging

Link, System, PoE

##### PoE

On/off, allocated power budget

#### ITxPT Services

Module Inventory

### Other

#### Mounting

Brackets (wall mounting)

#### Dimensions

Width 175 mm x height 52 mm x depth

121 mm

#### Weight

ca. 780 g

#### Environment

##### Operating Temperature

-40 °C to +70 °C

##### Storage Temperature

-40 °C to +85 °C

##### Ingress Protection Level

IP54

##### Ambient humidity

10 % to 90 % non condensing

### Certifications

#### Compliance (pending)

CE (RED)

Vehicle according to UNECE-R10,

UNECE-R118

Railway according to EN 50155, EN

45545-2

ITxPT

#### Order code

ES3300-2Eg8Eq (PoE Version)

ES3300-2Eg8Ef (non PoE Version)