

### Features ▶▶▶

- EN50155-certified for harsh railway standards
- Automatic MDI/MDI-X crossover for plug-and-play
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- Each port supports both 10/100 Mbps speed auto negotiation
- Supports +12 V<sub>DC</sub> ~ +48 V<sub>DC</sub> power input
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail Mounting

### Introduction

NS-208R Ethernet switch is designed for industrial applications, such as rolling stock, vehicle, and railway applications. The NS-208R is an unmanaged Ethernet switch with 8 x 10/100 Base-T(X) ports which is compliant with EN50155 request.

NS-208R provides a wide +12 V<sub>DC</sub> ~ +48 V<sub>DC</sub> power range to fit all the common power standards found in industrial automation, without external power converters. The wide power input lowers installation and maintenance costs.

The flow control mechanism is also negotiated. There is link/data rate LEDs for each port to aid troubleshooting. Port connectors are shielded RJ-45.

### Comparison Table of 8-port 10/100 Mbps Ethernet Switch

Mode Name	NS-208	NSM-108	NS-208A	NSM-208A	NS-208R
Input Voltage Range	+10 V <sub>DC</sub> ~ +30 V <sub>DC</sub>		+12 V <sub>DC</sub> ~ +48 V <sub>DC</sub>		
Casing	Plastic	Metal	Plastic	Metal	Plastic
Installation	DIN-Rail Mounting	DIN-Rail Mounting or Wall Mounting		DIN-Rail Mounting	
Dimensions (W x L x H) (Unit: mm)	64 x 98 x 118	73 x 102 x 132	31 x 113 x 157	25 x 119 x 168	64 x 98 x 118
Remarks	-		Cost-effective		EN50155-certified

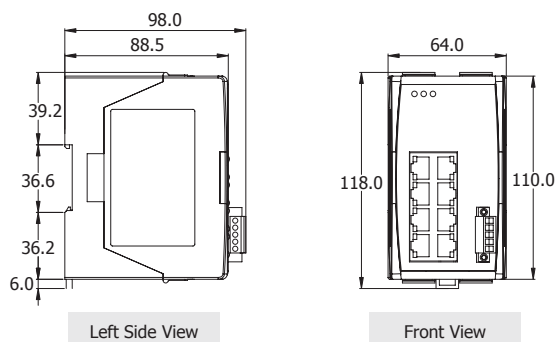
## Specifications

<b>Technology</b>	
<b>Standards</b>	IEEE 802.3, 802.3u, 802.3x
<b>Processing Type</b>	Store & forward; wire speed switching
<b>MAC Addresses</b>	2048
<b>Memory Bandwidth</b>	3.2 Gbps
<b>Frame Buffer Memory</b>	512 Kbit
<b>Flow Control</b>	IEEE 802.3x flow control, back pressure flow control
<b>Interface</b>	
<b>RJ-45 Ports</b>	10/100 Base-T(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
<b>LED Indicators</b>	Power, Link/Act, 10/100M
<b>Ethernet Isolation</b>	1500 V <sub>rms</sub> 1 minute
<b>EMS Protection</b>	Yes
<b>Power Input</b>	
<b>Input Voltage Range</b>	+12 V <sub>DC</sub> ~ +48 V <sub>DC</sub>
<b>Power Consumption</b>	0.15 A @ 24 V <sub>DC</sub>
<b>Protection</b>	Power reverse polarity protection
<b>EMS Protection</b>	Yes
<b>Connector</b>	5-Pin Removable Terminal Block
<b>Mechanical</b>	
<b>Casing</b>	Plastic (Flammability UL 94V-0)
<b>Dimensions (W x L x H)</b>	64 mm x 98 mm x 118 mm
<b>Installation</b>	DIN-Rail Mounting
<b>Environment</b>	
<b>Operating Temperature</b>	-40 °C ~ +75 °C
<b>Storage Temperature</b>	-40 °C ~ +85 °C
<b>Ambient Relative Humidity</b>	10% ~ 90% RH, non-condensing

## Applications



## Dimensions (Units: mm)



## Ordering Information

NS-208R CR	Unmanaged EN50155 8-port Industrial 10/100 Mbps Ethernet Switch (RoHS)
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## Accessories

MDR-60-48	48 V/1.25 A, 60 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48 V/0.52 A, 25 W Power Supply with DIN-Rail Mounting
KA52F-48	48 V/0.52 A, 25 W Power Supply