



### Features ▶▶▶

- Provides 16 10/100/1000 Mbps Ethernet ports
- Each port supports both 10/100/1000 Mbps speed auto negotiation
- Supports 4 kV Ethernet ESD protection and 1 kV EFT protection
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail Mounting, Wall Mounting
- Automatic MDI/MDI-X crossover for plug-and-play
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- Supports Dual +12 V<sub>DC</sub> ~ +48 V<sub>DC</sub> power input and 1 relay output
- DIP switch alarm setting for Port's break

### Introduction

The NSM-316G has 16 Ethernet ports that support 10/100/1000 Base-TX, with a 10/100/1000M auto negotiation feature and auto MDI/MDI-X function. It can connect 16 workstations and automatically switches the transmission speed (10 Mbps or 100 or 1000 Mbps) for corresponding connections.

All Ethernet ports have memory buffers that support the store-and-forward mechanism, which assures that data can be transmitted properly. The NSM-316G supports advanced network standards to optimize network performance, reduce maintenance costs, and secure network safety.

The flow control mechanism is also negotiated. There is link/Act LEDs for each port to aid troubleshooting. Port connectors are shielded RJ-45. DIP switch setting alarm for for each port loss link or break.

### Specifications

| Technology           |                                                      |
|----------------------|------------------------------------------------------|
| Standards            | IEEE802.3, 802.3u, 802.3x, 802.3az                   |
| Processing Type      | Store & forward, wire speed switching                |
| MAC Addresses        | 8K                                                   |
| Packet Buffer Memory | 512 KByte                                            |
| Jumbo Frame          | 9216 Byte                                            |
| Flow Control         | IEEE 802.3x flow control, back pressure flow control |

| Interface                        |                                                                                            |
|----------------------------------|--------------------------------------------------------------------------------------------|
| <b>RJ-45 Ports</b>               | 10/100/1000 Base-TX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection |
| <b>LED Indicators</b>            | PWR1, PWR2, Power fail, Link, Act                                                          |
| <b>Ethernet Isolation</b>        | 1500 V <sub>rms</sub> 1 minute                                                             |
| Power                            |                                                                                            |
| <b>Redundant Input Range</b>     | +12 V <sub>dc</sub> ~ +48 V <sub>dc</sub> (Non-isolated)                                   |
| <b>Power Consumption</b>         | 0.39 A @ 24 V <sub>dc</sub>                                                                |
| <b>Alarm Contact</b>             | One relay output with current carrying capacity of 1A @ 30 V <sub>dc</sub>                 |
| <b>Protection</b>                | Power reverse polarity protection                                                          |
| <b>Connector</b>                 | 6-Pin Removable Terminal Block (Power & Relay)                                             |
| Mechanical                       |                                                                                            |
| <b>Casing</b>                    | Metal (IP30 Protection)                                                                    |
| <b>Dimensions (W x L x H)</b>    | 51 mm x 164 mm x 128 mm                                                                    |
| <b>Installation</b>              | DIN-Rail Mounting or Wall Mounting                                                         |
| Environmental                    |                                                                                            |
| <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                                                                |

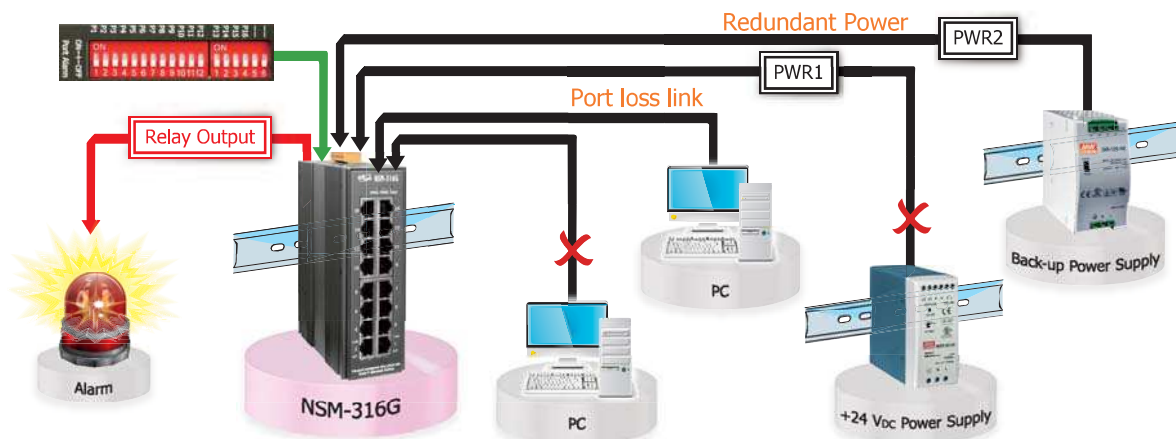
### Redundant Power Input & Port Alarm Setting

Both power inputs can be connected simultaneously to live DC power sources.

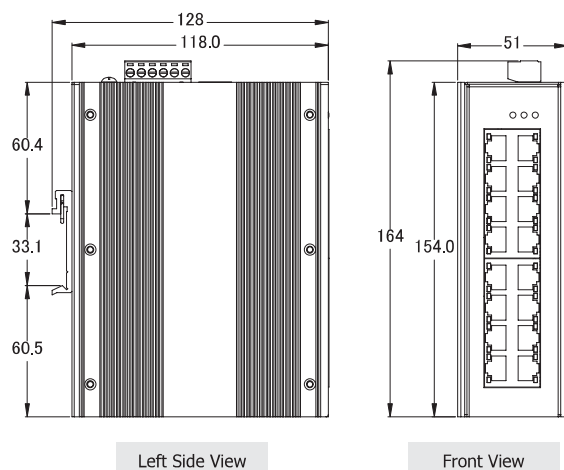
If one power source fails, the other live source will act as a backup, and automatically supplies all of NSM-316G series power needs.

If the port's DIP switch have been set, when it loss link or break connection, it will output alarm from the relay.

| DIP Switch                      | Setting | Description                                                                                                                                                 |
|---------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Port Alarm Function (P1 to P16) | ON      | Enables the PORT Alarm. When the port's loss link, the relay will forced an close circuit, and the fault LED will light up.                                 |
|                                 | OFF     | Disable the PORT Alarm. When the port's loss link, there will no action from the relay, and it remain in open circuit, and the fault LED will not light up. |



### Dimensions (Units: mm)



### Ordering Information

|             |                                              |
|-------------|----------------------------------------------|
| NSM-316G CR | 16-port GBE Ethernet Unmanaged Switch (RoHS) |
|-------------|----------------------------------------------|

### Accessories

|              |                                                                                   |
|--------------|-----------------------------------------------------------------------------------|
| DR-120-48    | 48 V/2.5 A, 120 W Single Output Industrial DIN Rail Power Supply                  |
| MDR-60-48    | 48 V/1.25 A, 60 W Single Output Industrial DIN Rail Power Supply                  |
| DR-120-24    | 24V/5 A, 120 W Single Output Industrial DIN Rail Power Supply                     |
| SDR-240-24   | 24 V/10 A, 240 W Single Output Industrial DIN Rail Power Supply with PFC Function |
| DIN-KA52F    | 24 V/1.04 A, 25 W Power Supply with DIN-Rail Mounting                             |
| DIN-KA52F-48 | 48 V/0.52 A, 25 W Power Supply with DIN-Rail Mounting                             |