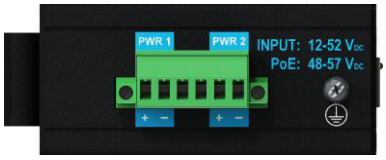
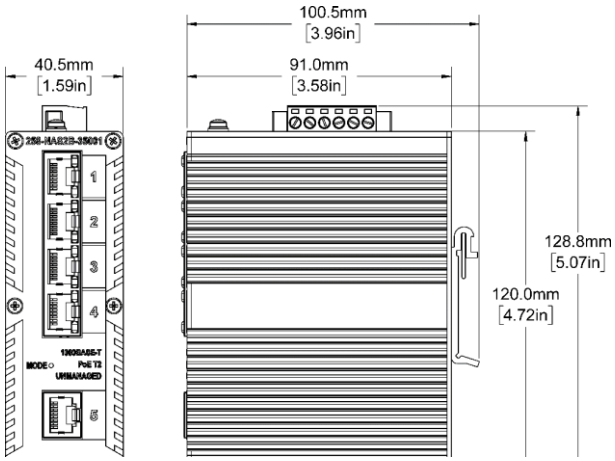
258-NAS2B-35001 | VC controls Industrial Ethernet Switch • 5 TP Ports • 1000 Mb/s • Unmanaged • PoE Type 2

CHARACTERISTICS

Configuration:	4 × 10/100/1000 Mb/s TP ports; 1 × 10/100/1000 Mb/s TP uplink port; unmanaged; PoE Type 2; redundant power input.
Supported protocols:	IEEE 802.3i (10BASE-T); IEEE 802.3u (100BASE-TX); IEEE 802.3ab (1000BASE-T); IEEE 802.3x.
PHY transmission media:	10BASE-T: TP, category 3 min (100-m channel max); 100BASE-TX: TP, category 5 min (100-m channel max); 1000BASE-T: TP, category 5 min (100-m channel max).
Performance:	bandwidth: 14 Gb/s; packet forwarding rate: 10.5 Mp/s; packet buffer memory: 1.2 Mb; MAC address table: 2 k; frame size: 9 kB max; negotiation: auto; crossover: auto-MDI/MDI-X; flow control: half-duplex: "back pressure"; full-duplex: "pause frames"; MTBF: 300000 h (34 yr) min.
Construction:	ruggedized aluminum alloy housing; integral metal DIN-rail clip; protection class: IP40.
Mounting:	35-mm DIN rail (see User Manual).
Operating mode display:	multicolor LEDs (see User Manual).
Mechanical:	impact: IEC 60068-2-27; free fall: IEC 60068-2-32; vibration: IEC 60068-2-6.
Environmental:	operating temperature: -40°C–85°C (-40°F–185°F); storage temperature: -40°C–85°C (-40°F–185°F); relative humidity: 5 %–95 % non-condensing.
EMC:	multimedia equipment — EN 55032: Class A; electrostatic discharge — IEC 61000-4-2: contact: ±8 kV; air: ±12 kV. radio-frequency EMF — IEC 61000-4-3: 10 V/m (80 Hz–1000 MHz); electrical fast transient — IEC 61000-4-4: power socket: ±4 kV; data ports: ±2 kV; disruptive surge — IEC 61000-4-5: power socket: ±2 kV DM; ±4 kV CM; data ports: ±2 kV; conducted disturbances, RF — IEC 61000-4-6: 3 V (10 kHz–150 kHz); 10 V (150 kHz–80 MHz); conducted CM disturbances, RF — IEC 61000-4-16: continuous: 30 V (0 kHz–150 kHz); peak, 1 s: 300 V (0 kHz–150 kHz).
Electrical:	power input: 12 V_{DC}–52 V_{DC}; connector type: screw terminal (Phoenix Contact); conductor size: 1.8-mm (13-AWG) max; power consumption: 5 W max (non-PoE mode); redundancy: two-source; input protection: reverse voltage protection; grounding: integral M3 grounding terminal.
Electrical, PoE:	technologies supported: IEEE802.3af (Type 1); IEEE802.3at (Type 2); PoE ports: 1–4; output voltage: 48 V_{DC} –57 V_{DC}; PoE Type detection: auto; output power: IEEE 802.3af: 15.4 W max; IEEE 802.3at: 30.0 W max; powering scheme: +V: p1 p2; –V: p3 p6 Alternative A source type: end-span.
Physical:	dimensions: width: 40.5 mm (1.6 in) [2.25 DU]; depth: 91 mm (3.6 in); height: 120 mm (4.7 in). weight: net: 0.55 kg (1.21 lb); packed: 0.65 kg (1.43 lb).
Code compliance:	FCC CFR47 Part 15; Directive 2011/65/EU (RoHS2).
Warranty:	lifetime, limited.



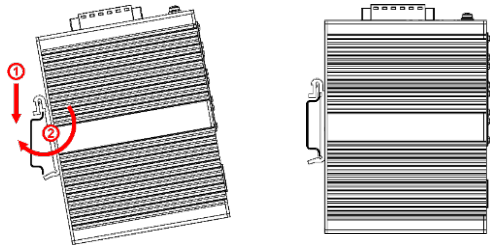


258-NAS2B–35001 USER MANUAL

Installation precautions

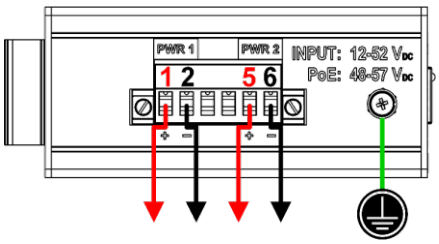
In order to avoid damage to equipment and personal injury caused by improper use, please follow the following precautions:
In order to avoid damage caused by falling equipment, secure it properly in the intended mounting position.
When supplying power, ensure the power supply characteristics match the operating voltage range of the equipment.
When connecting power leads, pay attention to the polarity of the power input terminal contacts.
In order to reduce the risk of electric shock, ensure the equipment is properly grounded.
Never open/disassemble the equipment housing in the field conditions.
When selecting mounting area for the equipment, avoid environments with high levels of dust.
When selecting mounting area for the equipment, avoid environments with electromagnetic fields with strength higher than 10 V/m.

Mounting on a DIN rail



Verify that the intended for mounting DIN rail is the 35-mm standard.
Hook the DIN-rail clip on the top edge of the DIN rail ①.
Pulling the unit down slightly turn it as shown in the diagram until it snaps on the DIN rail ②.
Correct operating position of the unit and its clip relative to the DIN rail is shown on the right.
In order to remove the unit from the DIN rail, follow the reversed procedure – pull the unit down, pull the unit's bottom part off the rail, then unhook the clip from the upper edge of the rail by moving the unit upward.

Powering and grounding



Connect an appropriate equipment bonding/grounding conductor to the grounding terminal denoted by the standard symbol ⏚.
Verify that the power source voltage is within the range specified for the unit (12 V_{DC}–52 V_{DC}).
For power redundancy two power sources can be connected as shown in the diagram.
Connect power source leads to the corresponding terminal contacts as shown in the diagram.

Network connection

Suitable equipment cables with minimum transmission performance characteristics for network connection should be four-pair category 3 twisted-pair for 10BASE-T and four-pair category 5 twisted-pair for 100BASE-T and 1000BASE-T, screened or unscreened, straight or crossover.

Equipment cables used for making network connections shall be terminated with standard 8P8C modular plugs meeting the specifications of the FCC Part 68 sub part F for miniature 8-position plug, unkeyed; use of any other plug constructions that do not meet the above specifications may void the product warranty.

PIN No.	10/100 Mb/s		1000 Mb/s	
1	R_X+	DC+	T_XR_X A+	DC+
2	R_X–	DC+	T_XR_X A–	DC+
3	T_X+	DC–	T_XR_X B+	DC–
4			T_XR_X C+	
5			T_XR_X C–	
6	T_X–	DC–	T_XR_X B–	DC–
7			T_XR_X D+	
8			T_XR_X D–	

System status indication