

STRIDE® SE3 SERIES INDUSTRIAL UNMANAGED POWER OVER ETHERNET INJECTORS



RoHS Compliant



NOTE: DOWNLOAD USER MANUAL SE3-USER-M FROM THE PRODUCT MANUALS AREA OF AUTOMATIONDIRECT.COM FOR ADDITIONAL DETAILS.

General Specifications	
Storage Temperature Range	-40 to +85 °C [-40 to +185 °F]
Humidity (Non-Condensing)	5 to 95% RH
Environmental Air	No corrosive gases permitted
Vibration, Shock & Freefall	IEC60068-2-6, -27, -32
EMI Emissions	FCC Part 15 Subpart B Class A, CE EN55032/EN61000-6-4 Class A
EMS	CE EN55035/EN61000-6-2: IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field)
RoHS	RoHS (Pb free) compliant
Packaging and Protection	Metal case, IP30
Agency Approvals	FCC, CE UL 61010-1, 61010-2-201

Front Panel LEDs			
LED	Color	State	Description
PWR	Green	On	Power inputs 1 and 2 are active
	Red	On	Power input 1 or 2 is inactive, alarm relay triggered
	-	Off	No voltage on either power input
PoE	Amber	On	The PoE output port is supplying power to the powered device over 2 pairs
	Green	On	The PoE output port is supplying power to the powered device over 4 pairs
	Amber	Flashing	The PoE output port is supplying power over 2 pairs after the Dual PD Check event happens (only occurs when Dual PD Check function is disabled)
	Green	Flashing	The PoE output port once supplied power over 2 pairs and now has recovered to supply power over 4 pairs
	-	Off	No powered device attached or failure in PoE power
P/L*	-	Off	Actual PoE power consumption is ≤ 30W
	Blue	On	30W < Actual PoE power consumption ≤ 60W
	Red	On	60W < Actual PoE power consumption ≤ 90W
	Red	Flashing	90W < Actual PoE power consumption ≤ 100W (This event only occurs when Enhanced mode is enabled)

* SE3-IJ2A2UG-T only

Stride SE3 Unmanaged PoE Injector Models				
Part Number	RJ45 GbE PoE+	RJ45 GbE	Maximum PoE Power Budget	Operating Temperature
SE3-IJ2A2UG-T	1	1	100W	-40 to +75°C [-40 to 167°F]
SE3-IJ2B2UG-T			90W	

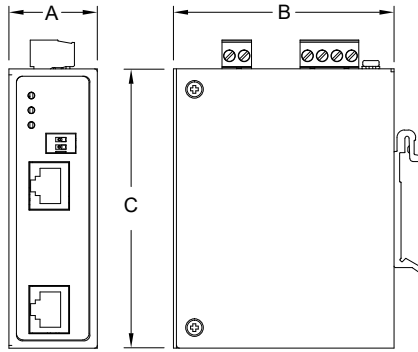
Power Details	
Power Input	Redundant input terminals, removable terminal block
Input Voltage (Class 2 Power Supply)	9-55 VDC
Maximum Current	8A (including PoE power budget)
Reverse Power Protection	Yes
System Power Consumption	1.6 W
Relay Contact	24VDC, 1A resistive, open on fault

PoE Details		
Max PoE Power Budget	SE3-IJ2A2UG-T	Standard PoE Mode: 60W@9VDC, 90W@12-55VDC Enhanced PoE Mode: 60W@9VDC, 90W@12VDC, 100W@24-55VDC
	SE3-IJ2B2UG-T	Standard PoE Mode: 60W@9VDC, 90W@12-55VDC
PoE Pinout	V-, V-, V+, V+, for pin 1, 2, 3, 6 Also V+, V+, V-, V-, for pin 4, 5, 7, 8	
PD (Powered Device) Detection	Yes - the switch port will detect the presence of a PoE enabled device before sending power. If a non-PoE device is detected, power will not be sourced on that port but Ethernet communications will be permitted.	
PoE Overload Protection	Yes	
Reverse Protection	Yes	
Redundancy Protection	Yes	

RJ45 Ports	
Ethernet Compliance	IEEE 802.3af/at/bt for PoE
Auto-Crossover	Yes, allows you to use straight-through or crossover wired cables
Auto-Sensing Operation	Yes, full and half duplex
Auto-Negotiating Speed	Yes
Cable Requirements	10BaseT: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100BaseTX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) 1000BaseTX: 4-pair UTP/STP Cat.5/6E cable; EIA/TIA-568 100-ohm (100m)
Max. Cable Distance	100m [328ft] (total cable length from device A through the injector to device B)

SE3-IJ2A2UG-T DIP Switch Settings			
DIP Switch	Description	ON	OFF
1	PoE Mode	Enhanced Mode PoE output over 2 pairs: 50W max PoE budget PoE output over 4 pairs: 100W max PoE budget	Standard Mode PoE output follows IEEE 802.3af/bt
2	Dual PD Check	Enabled Valid detection required on both channels for PoE classification and power	Disabled Valid detection required for operation of each channel independently

Dimensions:



Dimensions				
Part Number	Weight kg [lb]	Width (A)	Depth (B)	Height (C)
		mm [inches]		
SE3-IJ2A2UG-T	0.37 [0.82]	30 [1.2]	75 [3.0]	95 [3.7]
SE3-IJ2B2UG-T	0.36 [0.79]			

Installation:

These devices are open-type and are meant to be installed in an enclosure.

DIN Rail Mounting:

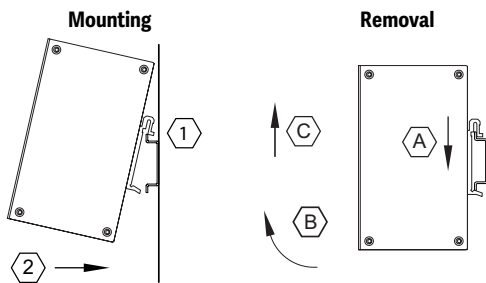
The switch can be mounted on a standard 35 x 7.5 mm height DIN rail (Standard: CENELEC EN50022) installed either vertically or horizontally.

DIN rail mounting steps:

1. Hook top back of unit over the DIN rail.
2. Push bottom back onto the DIN rail until it snaps into place.

DIN rail removal steps:

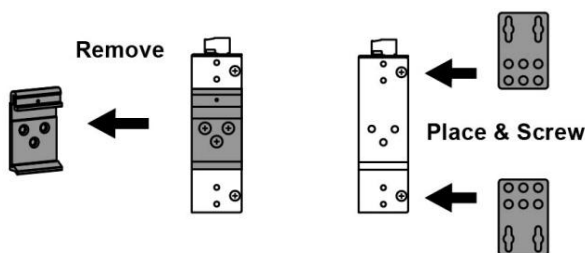
- A. Push the unit down to free the bottom of the DIN rail.
- B. Rotate the bottom of the unit away from the DIN rail.
- C. Unhook top of unit from DIN rail.



Wall Mounting:

Follow the steps below to mount the switch using the wall mounting bracket. Bracket details and hole patterns differ between models.

1. Remove the DIN rail bracket by loosening the screws.
2. Attach the wall mounting brackets on the top and bottom of the switch.
3. Locate screws in the wall based on the positions of the slotted screw holes on the mounting brackets and attach the switch to the wall.



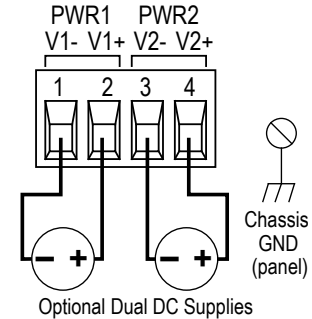
Power Wiring:

The injector can be powered from the same DC source that is used to power your other devices. To maintain the UL listing, this source must be a Class 2 power supply. A DC voltage in the appropriate voltage range needs to be applied between the V1+ terminal and the V1- terminal as shown below. The chassis screw terminal should be tied to panel or chassis ground. To reduce down time resulting from power loss, the switch can be powered redundantly with a second power supply as shown below.

Required terminal screw torque is 7 lb-in (0.79 N-m).

Wire Size Range 20 – 18 AWG
Wire Strip Length 7mm

Redundant DC Power



NOTE: IF ONLY ONE POWER SUPPLY IS USED, JUMPER V1+ TO V2+ AND V1- TO V2- TO ELIMINATE POWER FAULT ALARM.

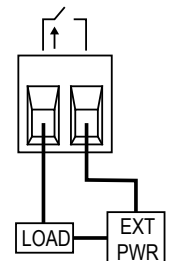
Relay Wiring:

The fault alarm contact is on the 2-pin terminal block connector. The contact opens on any of the following events:

1. Either PWR1 or PWR2 is inactive
2. PoE total loading exceeds 100% of power budget
3. PoE overcurrent on any channel
4. Short in RJ45 cable
5. Failure of one channel in Dual PD mode

For alarm conditions 2–5, the status will update every 30 seconds and will clear if the alarm condition is corrected. If the alarm condition is corrected by removing a cable or changing a DIP switch, the relay will recover immediately.

Fault Alarm



*Fault Contact opens when in a faulted state

Communication Ports Wiring:

The injector provides connections to standard Ethernet devices such as PLCs, Ethernet I/O, industrial computers and much more. Use data-quality (not voice-quality) twisted pair cable rated Cat5e (or better) with standard RJ45 connectors. Straight-through or crossover RJ45 cable can be used for all devices which are connected to the injector, as both ports are capable of auto-mdi/mdix-crossover detection.

The RJ45 Ethernet port connector bodies on the injector are metallic and connected to the Chassis GND terminal. Therefore, shielded cables may be used to provide further protection. Electrical isolation is also provided on the Ethernet ports for increased reliability.

Additional Help and Support

- For additional product support, specifications, and installation, download User Manual SE3-USER-M from the Product Manuals area of www.AutomationDirect.com.
- For additional technical support and questions, call our Technical Support team @ 770-844-4200.

