

Quick Installation Guide

Industrial Gigabit PoE+ Splitter - ETH-SPL-24-1

QS-014 2024A

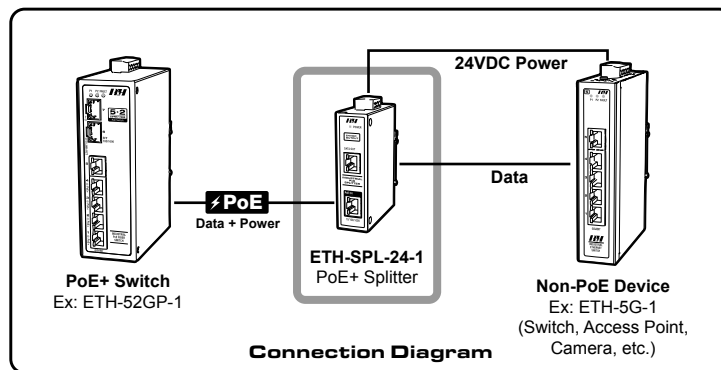
Introduction

The RLH ETH-SPL-24-1 is a high power PoE+ Splitter for use in Power over Ethernet systems. With an Ethernet Input (data + power) port and Output (data only) port, the ETH-SPL-24-1 can split power from an existing PoE connection and output it for power hungry devices such as Wireless APs, Security Cameras and IP Phones. Internal current limit, short-circuit and overload protection are implemented for use as a DC power supply.

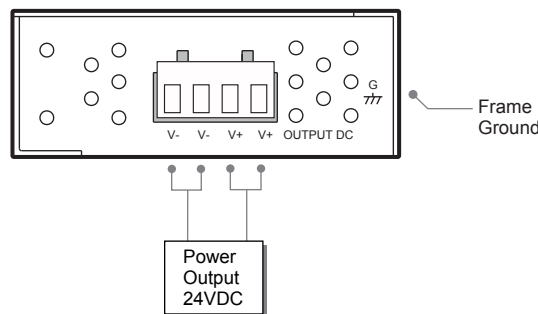
Features

- ▶ Fully compliant with IEEE802.3af/at standards
- ▶ Supports 10/100/1000Base-T(X) for PoE In and Data Out
- ▶ Auto protection for Over Voltage Power Input
- ▶ Supports Power Outputs up to 27 Watts
- ▶ IP-30 Rugged Case Design
- ▶ DIN Rail and wall-mountable

Application Diagram



Power Connections

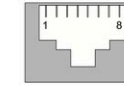


Specifications

Physical Ports	
RJ-45 Ethernet Port with P.S.E. Input	1 ("PoE IN")
RJ-45 Ethernet Port Output	1 ("PoE OUT")
Power Output Connector	4-pin terminal block
Operating Voltage	
Input Voltage	36 ~ 57 VDC on PoE in RJ45 connector
Output Power	24VDC @ 1.125A max. (27 Watts)
LED indicators	
Power Indicator ("Power")	Off: Splitter is not powered on Blue: Splitter is powered on and functioning normally
Protection	
Short Circuit Protection	Present
Over Load Protection	Present
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	1.03" (W) x 2.76" (D) x 3.74" (H) (26.1mm x 70mm x 95mm)
Weight (g)	250 g
Environmental	
Storage Temperature	-40° to 85°C (-40° to 185°F)
Operating Temperature	-20° to 70°C (-4° to 158°F)
Operating Humidity	5% to 90% Non-condensing
Regulatory Approvals	
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15 B class A
EMS	EN 55035 IEC/EN 61000-4-2(ESD), IEC/EN 61000-4-3(RS), IEC/EN 61000-4-4(EFT), IEC/EN 61000-4-5(Surge), IEC/EN 61000-4-6(CS), IEC/EN 61000-4-8(PFMF), IEC/EN 61000-4-11
Safety	EN 62368-1
Warranty	5 years

Connector and Pin Definition

• PoE Definition 1 - Mode A ("Endspan")



■ 1000Base-T

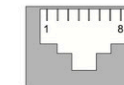
RJ-45 Input (Data and Power)		RJ-45 Output (Data Only)	
Symbol	Description	Symbol	Description
1 BI_DA+ (Vdc+)	Data BI_DA+ and Feeding power(+)	BI_DA+	Data BI_DA+
2 BI_DA- (Vdc-)	Data BI_DA- and Feeding power(+)	BI_DA-	Data BI_DA-
3 BI_DB+ (Vdc-)	Data BI_DB+ and Feeding power(-)	BI_DB+	Data BI_DB+
4 BI_DC+	Data BI_DC+	BI_DC+	Data BI_DC+
5 BI_DC-	Data BI_DC-	BI_DC-	Data BI_DC-
6 BI_DB- (Vdc-)	Data BI_DB- and Feeding power(-)	BI_DB-	Data BI_DB-
7 BI_DD+	Data BI_DD+	BI_DD+	Data BI_DD+
8 BI_DD-	Data BI_DD-	BI_DD-	Data BI_DD-

■ 10/100 Base-T(X)

RJ-45 Input (Data and Power)		RJ-45 Output (Data Only)	
Symbol	Description	Symbol	Description
1 Rx+ (Vdc+)	Data Receive and Feeding power(+)	Rx+	Data Receive
2 Rx- (Vdc-)	Data Receive and Feeding power(+)	Rx-	Data Receive
3 Tx+ (Vdc-)	Data Transmit and Feeding power(-)	Tx+	Data Transmit
4 NC	Not Connected	NC	Not Connected
5 NC	Not Connected	NC	Not Connected
6 Tx- (Vdc-)	Data Transmit and Feeding power(-)	Tx-	Data Transmit
7 NC	Not Connected	NC	Not Connected
8 NC	Not Connected	NC	Not Connected

Note: pins 3 and 6 (-Vdc) should not be shorted to ground

• PoE Definition 2 - Mode B ("Midspan")



■ 1000Base-T

RJ-45 Input (Data and Power)		RJ-45 Output (Data Only)	
Symbol	Description	Symbol	Description
1 BI_DA+	Data BI_DA+	BI_DA+	Data BI_DA+
2 BI_DA-	Data BI_DA-	BI_DA-	Data BI_DA-
3 BI_DB+	Data BI_DB+	BI_DB+	Data BI_DB+
4 BI_DC+ (Vdc+)	Data BI_DC+ and Feeding power(+)	BI_DC+	Data BI_DC+
5 BI_DC- (Vdc+)	Data BI_DC- and Feeding power(+)	BI_DC-	Data BI_DC-
6 BI_DB-	Data BI_DB-	BI_DB-	Data BI_DB-
7 BI_DD+ (Vdc-)	Data BI_DD+ and Feeding power(-)	BI_DD+	Data BI_DD+
8 BI_DD- (Vdc-)	Data BI_DD- and Feeding power(-)	BI_DD-	Data BI_DD-

■ 10/100 Base-T(X)

RJ-45 Input (Data and Power)		RJ-45 Output (Data Only)	
Symbol	Description	Symbol	Description
1 Rx+	Data Receive	Rx+	Data Receive
2 Rx-	Data Receive	Rx-	Data Receive
3 Tx+	Data Transmit	Tx+	Data Transmit
4 Vdc+	Feeding power(+)	NC	Not Connected
5 Vdc+	Feeding power(+)	NC	Not Connected
6 Tx-	Data Transmit	Tx-	Data Transmit
7 Vdc-	Feeding power(-)	NC	Not Connected
8 Vdc-	Feeding power(-)	NC	Not Connected

Note: pins 7 and 8 (-Vdc) should not be shorted to ground



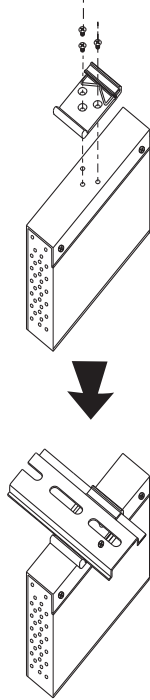
Printed on Recycled Paper

Quick Installation Guide

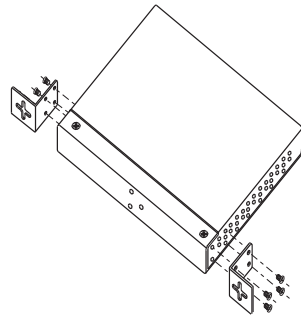
Industrial Gigabit PoE Splitter - ETH-SPL-24-1

Installation

• DIN Rail

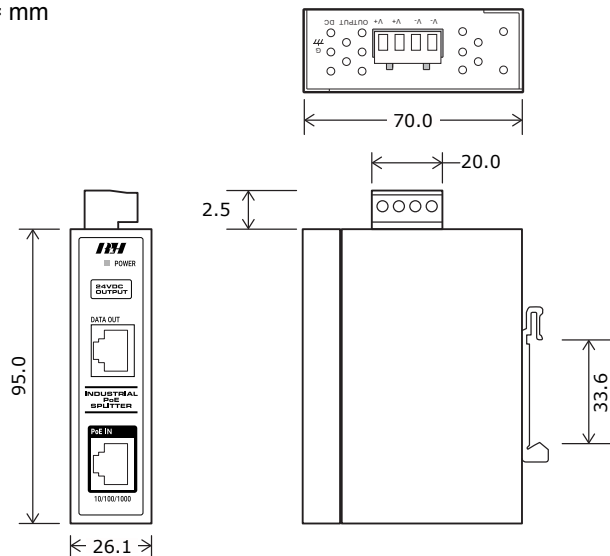


• Wall Mount



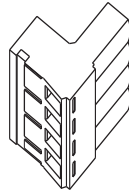
Dimensions

Unit = mm



Accessory

① 4 Position Terminal Connector



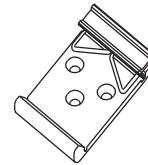
② RJ-45 Dust Caps



③ Wall Mount Ears



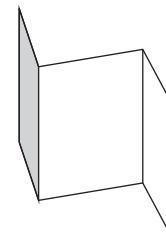
④ DIN Rail Clip



⑤ M3 x 3 Screw



⑥ Quick Install Guide



Packing List

Model	Description	Accessory
ETH-SPL-24-1	Industrial Gigabit High Power PoE+ Splitter, 24VDC output, IEEE 802.af/at compliant.	① X 1 ② X 2 ③ X 2 ④ X 1 ⑤ X 8 ⑥ X 1



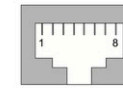
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Connector and Pin Definition

• 10/100 Base-T(X) Ethernet Ports (MDI/MDI-X)

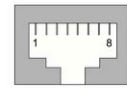
■ RJ45 (8-pin, MDI) Port Pinouts

Pin	Single
1	Tx+
2	Tx-
3	Rx+
6	Rx-

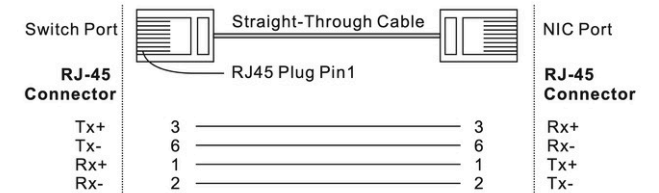


■ RJ45 (8-pin, MDI-X) Port Pinouts

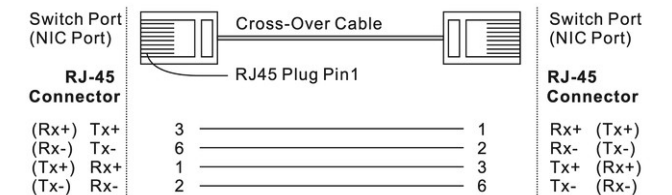
Pin	Single
1	Rx+
2	Rx-
3	Tx+
6	Tx-



■ RJ45 (8-pin) to RJ45 (8-Pin) Straight-Through Cable Wiring



■ RJ45 (8-pin) to RJ45 (8-Pin) Cross-Over Cable Wiring



Front Panel

