



TP-SW8 Series

DATA SHEET

PoE 8 Port Switch

Features

- High Power 10/100Mb 8 Port PoE Switch
- Remotely Power Equipment thru CAT5 Cable up to 100m
- Extend Ethernet and POE up to 200m
- Up to 2A per Port
- Built-In Surge Protection
- Automatic MDI/MDI-X Crossover
- High Temperature Operation
- CE and FCC Certification

Applications

- Wireless Access Points and Client Devices
- IP Phone and Security Camera Systems
- Power multiple devices from 1 data cable



Description

The **TP-SW8-D** Power Over Ethernet 802.3af/at (PoE) 10/100Mb switch offered by Tycon Power Systems is a fully automatic high speed 8 port Ethernet switch. The **-NC** version is a passive PoE model for devices which are not 802.3af/at compliant. On the **-NC** version the PoE output voltage = the input voltage so it is universal in its application. The DC input power range can be from 12V to 57V. The units can be powered via 2 or 4 pair PoE to port 8 (2A max). TP-SW8-D has a 2 channel 802.3at input for 70W max PoE input. Both models supply power to the remote device on the unused Ethernet pins 4,5(V+) and 7,8(V-). The Ethernet spec supports distances up to 100m (328 feet) between the PoE switch and the remote device.

18V, 24V and 48V 60W, 120W and 180W power supplies are available. There are 2 power inputs for attachment of primary and backup power sources.

Device Pinouts

RJ-45 Port 8 (Data/PoE Input)			RJ-45 Port 1-7 (Data & PoE Out)	
Pin	Symbol	Description	Symbol	Description
1	RX+, V+, V-	Data Rx(+), PoE in	RX+	Data Receive(+)
2	RX-, V+, V-	Data Rx(-), PoE in	RX-	Data Receive(-)
3	TX+, V-, V+	Data $Tx(+)$, PoE in	TX+	Data Transmit(+)
4	V+, V-	PoE in,	+Vdc	DC power(+)
5	V+, V-	PoE in	+Vdc	DC power(+)
6	TX-, V-, V+	Data Tx(-), PoE in	TX-	Data Transmit(-)
7	V-, V+	PoE in	-Vdc	DC power(-)
8	V-, V+	PoE in	-Vdc	DC power(-)

Specifications

	TP-SW8-D / -NC	
Ethernet Standard	IEEE802.3/IEEE802.3u (10 base-T/100base-T)	
POE Standard (Port 1-8)	TP-SW8-D IEEE802.3af/at TP-SW8-NC Passive POE 12-57VDC	
Ports	One data/PoE input and seven data/PoE outputs automatic crossover and polarity	
Transmission Speed	100 Mbps(100base-T),10 Mbps(10base-T) Auto-negotiation	
Switch Technology	Store and Forward	
Protocol	CSMA/CD	
Flow Control	IEEE802.3x(full-duplex), Back Pressure(half-duplex)	
Data Transmission Rate	148800pps for 100base-T, 14880pps for 10base-T	
Address Table	2K MAC, self-learning	
Connections	Shielded RJ45	
POE Port	Port 1-7, auto power management Pin assignment: TX(1,2), RX(3,6), V+(4,5), V-(7,8)	
Maximum POE Power	Port 1-8, 2A Per Port – NC Version Port 1-7(35W), 8 (70W) – 802.3af/at Version Wire Terminal or DIN Connector Input Max 10A	
POE Protection	Over Temperature, Over Current, Over/Under Voltage	
Data Surge Protection	IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact) IEC61000-4-4 (EFT) 40A (5/50ns) IEC61000-4-5 (Lightning) 20A (8/20μs)	
LED's	Link (Green On, Yellow On) Activity (Green Blinking, Yellow Blinking) PoE Input Detect-4 pair (Yellow On) PoE Input Detect-2 pair (Yellow Blinking) Power On (Green On) Power On Alarm (Red On)	
DC Power Input	46V to 57V, 12V to 57V(-NC Version) Dual DC Inputs, Reverse Polarity Protected.	
Self Consumption	<1.5 Watts	
Operating Temperature	-40 to +85°C (-40 to 185°F)	
Operating Humidity (RH)	5% - 90% (non condensing)	
Storage Temperature	-55 to +105°C (-67 to +221°F)	
Dimensions (LxWxH)	159 x 116 x 40mm (6.3 x 4.6 x 1.6")	
Weight	0.45kg (1lb)	
Warranty	1 Year	

LED STATUS INDICATORS

LED	STATUS	DESCRIPTION	
Power	Green	LED ON if either power input (port 8 or wire terminal) has valid power applied	
	Red	LED ON if the following condition happened. *Power input under voltage (Vin< 12V) *Wire Terminal Power input over voltage (Vin>58V) *PoE over current (>2A)	
	Off	No power in DC input	
LED	STATUS	DESCRIPTION	
P1~P8 Link/Act	Green	A network device is detected at 100Mbps, but no communication activity is detected.	
	Green Blinking	This port is transmitting to, or receiving packet from another device at 100Mbps.	
	Yellow	A network device is detected at 10Mbps, but no communication activity is detected.	
	Yellow Blinking	This port is transmitting to, or receiving packet from another device at 10Mbps.	
	Off	No device is detected.	
LED	OTATUO		
LLD	STATUS	DESCRIPTION	
P1~P7 PoE PSE	Yellow	A valid Powered Device(PD) is detected and delivering power on this port.	
P1~P7		A valid Powered Device(PD) is detected and delivering power on	
P1~P7	Yellow	A valid Powered Device(PD) is detected and delivering power on this port.	
P1~P7 PoE PSE	Yellow	A valid Powered Device(PD) is detected and delivering power on this port. No PD is detected on this port.	



System Ordering:

TP-SW8-D 8 Port 802.3af/at compliant PoE Switch (no power supply included – requires 46-57V DC power source)

TP-SW8-NC 8 Port 12V-57V passive PoE Switch (no power supply included)

For further information contact:

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