ITP-800A

EN50155 M12, 8x 10/100Base-TX, Redundant input power

- M12 connector for Ethernet and Power
- EN50155, EN50121-4, EN45545-2 for railway certified
- Rugged metal housing and fanless design
- Build-in 2 bypass port
- 12/24/48VDC redundant dual input power

CE FC EN550155 EN50121-4 EN45545-2 EN61000-6-2 EN61000-6-4

These models are unmanaged, industrial grade Fast Ethernet switches with 8 10/100Base-TX Fast Ethernet ports. This series of unmanaged Ethernet switches is designed for industrial applications in harsh environments. These switches Ethernet ports utilize M12 connectors to ensure water tight, robust connections and guarantee reliable operation against environmental disturbances such as vibration and shock.

These switches are compliant with EN50155, covering operating temperature, power input voltage, surge, ESD, vibration, and shock, thus making them suitable for industrial applications in vehicle, rolling stock and railways.

Features

- 8-Port 10/100Base-TX Ethernet Switch
- Use M12 connector anti vibration and shock for vehicle, rolling stock, and railway applications
- Supports flow control
- Wall mounting installation
- Supports auto-negotiation and auto-MDI/MDI-X
- Build-in 2 bypass port to avoid one or more nodes power fail in a bus structure to collapse the network
- Redundant dual DC input power 12/24/48VDC (8.4~60VDC)
- Very low power consumption
- Rugged metal, IP50 protection and fanless design
- Wide operating temperature -40~75°C
- CE, FCC, EN50155, EN50121-4 and EN45545-2 for railway certified
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified

Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet
	IEEE 802.3u 100Base-TX Fast Ethernet
	IEEE 802.3x Flow Control and Back Pressure
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps (Full wire-speed)
Data Processing	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
MAC Address Table	1 K
Packet Buffer Size	448Kbits
	8x M12 D-code Female
	10/100Base-TX auto negotiation speed
	Auto MDI/MDI-X function
	Full/Half duplex
	Built in 2 bypass port
Network Cable	10Base-T: 2-pair UTP/STP Cat. 5e cable
	EIA/TIA-568 100-ohm (100m)
	100Base-TX: 2-pair UTP/STP Cat. 5e cable
	EIA/TIA-568 100-ohm (100m)
Protocols	CSMA/CD
LED	Per unit: Power 1 (Green), Power 2 (Green)
	Per port: Link/Active (Green)
Reverse Polarity Protection	Present for power input
Overload Current Protection	Supported
Power Supply	Redundant Dual DC 12/24/48V (8.4~60VDC) Input power
Power Connector	5 Pin Male A-Code M12

Power Consumption	Input Voltage	ITP-800A
	12VDC	1.8W
	24VDC	2.2W
	48VDC	3.4W

Operating Temperature	-40°C~75°C
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C~85°C
Housing	Rugged metal housing, IP50 protection and fanless
Dimensions	45x 71.5x 219 mm (D x W x H)
Weight	420g
Installation Mounting	Wall mounting
MTBF	1,492,660 Hours (MIL-HDBK-217)
Warranty	5 years
Certification	
EMC	CE (EN55024, EN55032)
EMI	FCC, FCC Part 15 Subpart B Class A, CE
Railway Traffic	EN50155, EN50121-4
Fire Protection of Railway Vehicles	EN45545-2
Immunity for Heavy Industrial Environment	EN61000-6-2
Emission for Heavy Industrial Environment	EN61000-6-4

EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria B
	EN61000-4-3 (RS) Level 3, Criteria A
	EN61000-4-4 (Burst) Level 3, Criteria A
	EN61000-4-5 (Surge) Level 3, Criteria B
	EN61000-4-6 (CS) Level 3, Criteria A
	EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A
	EN 61000-4-11 Voltage Dips

Safety	UL60950-1 (Pending)
Shock	IEC 61373
Freefall	IEC 60068-2-32
Vibration	IEC 61373

Application

Figure 1 : ITP Series in Onboard Train Application

Phone
Display
Passenger System
Smoke Detector
IP Camera
Passenger LCD Display
NVR
Camera
Passenger LCD Display
Alarm
IP Camera
Passenger LCD Display

ITP-500
ITP-800A
ITP-802GTM-8PH24
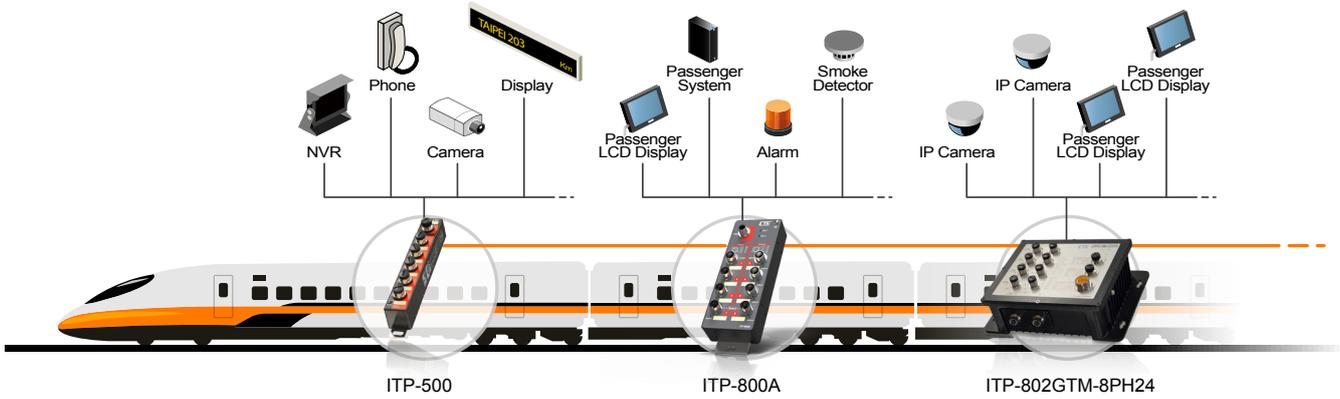
Figure 2 : Wide Range Temperature

Figure 3 : ITP Series for Industrial Automation

Dimensions

71.50
219.00
205.00
5.5
12.5

45.00
32.00
45.00

Side View
Front View
Rear View

2019 V2.0

Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.   www.ctcu.com / sales@ctcu.com

5-2
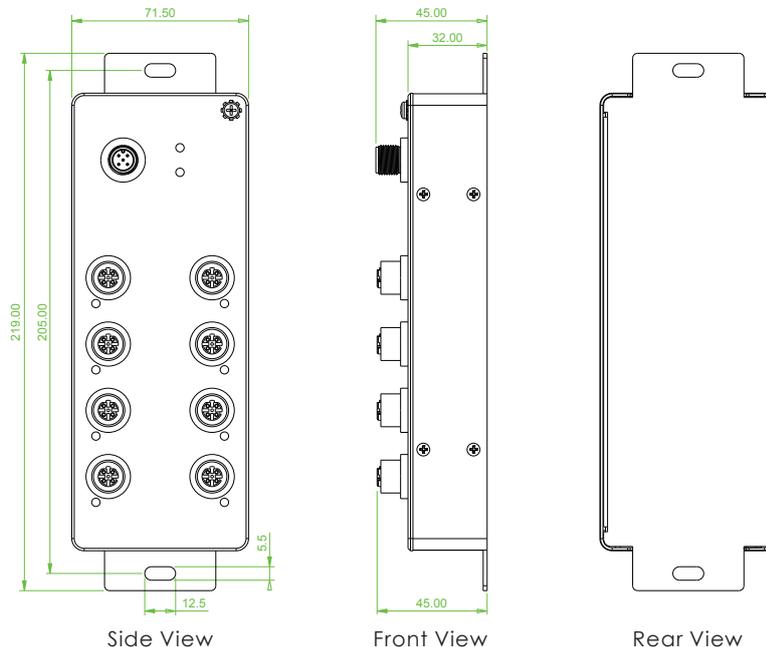
Ordering Information

Model Name	Total Port	UTP Port M12	Redundant Power	Certification				Shock Vibration	Operating Temperature
		10/100 Base-TX	12/24/48VDC (8.4~60VDC)	EN45545-2	EN50155 EN50121-4	EN61000-6-2 EN61000-6-4	CE FCC	IEC61373	
ITP-800A-E	8	8	V	V	V	V	V	V	-40~75°C

Model Naming Rule

ITP — 8 00 A — E ● E: -40~75°C

Industrial TransPortation Switch

8: 8x FE UTP 00: 0 Fiber A generation
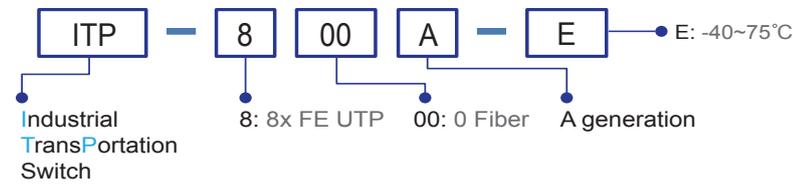
Package List

- ITP-800A-E device
- Protective caps for UTP port and power
- Wall mount (bound with switch device)
- Quick installation guide

Optional Accessories

Optional Cable/Connector

P/N: CAB-M12DM4-RJ45
M12 D-code Male (4-Pin) to RJ-45, AWG 24 ,IP67, 1 meter

For FE UTP

P/N: CAB-M12AF5-OPEN
M12 A-code Female (5-Pin) to open wire, AWG 22, IP67, 1 meter

For Power

P/N: M12D-M4
M12 D-code Male (4-Pin) connector, IP67

For FE UTP

P/N: M12A-F5
M12 A-code Female (5-Pin) connector, IP67

For Power