



ICS-130 Industrial 10/100Base-T to 100Base-FX(BX) Media Converter

Access Technologies ... FTTX, IP Digital Surveillance Networking

ICS-130

Industrial, Extended Temperature 10/100Base-T to 100Base-FX(BX) Media Converter



Key Features

- RJ-45 Port Auto-Negotiates 10/100Mbps & Full/Half-Duplex Mode, with Auto-MDIX
- 100FX Port Available with Multimode, Single mode, and WDM Single mode fiber
- DIP Switch Configuration for Link Fault Signaling/Link Down Alarm & Duplex Mode
- Support Link Fault Pass-Through (LFP)
- Back-Pressure and IEEE 802.3x Compliant Flow Control
- Alarms for Power Failure and Port Link Failure via Relay Output
- Redundant 24V DC Terminal Block Power Inputs
- Supports DIN-Rail or Panel Mount Installations
- -40 to 75°C operating temperature range
- Range extension up to 80 km (50 miles) available
- Design for hazardous and harsh application environment (UL 1604 Class 1, Division 2 Classified)
- Meets IEC61000-6-2 EMC Generic Standard Immunity for Industrial Environment.

Product Description

The ICS-130 ruggedized industrial media converters provide industrial-grade media conversion between 10/100Base-TX copper and 100Base-FX copper network.

It is designed for outdoor and hazardous application including transportation, petro pipeline, shop floors, and other harsh environments where consistent operation at extreme temperature of – 40 to 75°C is mandatory.

This Industrial Media Converter is well suited to convert 10/100 Base-T industrial devices to fiber network allowing to take inherent advantage such as noise immunity and longer cable reach of fiber link.

The RJ-45 port is full or half duplex enabled auto-negotiating the speed and flow control capabilities with its copper linked device and configures itself automatically. The 100Base FX fiber optical port utilizes industry standard ST or SC connectors and supports multimode and single mode of fibers

In addition to DIN-Rail and Panel Mount, its unique compact size provides smaller footprint conserving space in many of critical installation sites

To increase reliability and field flexibility, the ICS-130 features redundant power inputs. LED indicators are provided to illustrate the link status and activity of each port as well as power on or off status.

The ICS-130 is a compact, plug-and-play devices that does not require complex user configuration, but has the manual setting features necessary to adapt for extreme operating conditions.



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Specification

Technology

Standards: IEEE 802.3 for 10BaseT; IEEE 802.3u for 100BaseT(X) and 100BaseFX

Interface

RJ45 ports: 10/100BaseT(X)

Optical ports: 100BaseFX (SC/ST connectors)

LED Indicators: PWR1, PWR2 (inversely indicated), FAULT, 10/100M (TP Port), 100M (Optical Port), FDX/COL (Optical Port)

DIP Switches: 100BaseFX Full/Half duplex selection, Port Link Failure alarm mask

Alarm Contact: One relay output with current capacity of 1A @ 24 VDC

Fiber Optics

Operating wavelength: 1300nm for Multimode fiber; 1310nm or 1550nm for single mode fiber

Transmitting distance: typical, 2km on dual strand Multimode fiber;
15~80km for single mode single or dual strand fiber

Mechanical

Housing: Metal, IP30 protection

Dimensions (WxHxD): 51x115x92 mm

Weight: 562g

Installation: DIN-Rail mounting or wall mounting

Environmental

Operating Temperature:

- Standard Models: 0 to 60°C (32 to 140°F)
- Extended Temperature Models: -40 to 75°C (-40 to 167°F)

Operating Humidity: 5 to 95% RH

Storage Temperature: -40 to 85°C (-40 to 185°F)

Power Requirements

Input Voltage: 24 VDC (12 to 48 VDC), redundant inputs

Input Current: 170mA @ 24 V DC

Connection: Removable Terminal Block

Protection: Reverse Polarity Protection



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Regulatory Approvals

EMI:

FCC Part 15, CISPR22 (EN55022) CLASS A

EMS:

EN61000-4-2 (ESD)
EN61000-4-3 (RS)
EN61000-4-4 (EFT)
EN61000-4-5 (Surge)
EN61000-4-6 (CS)
EN61000-4-8
EN61000-4-11

Freefall:

IEC680068-2-32

Shock:

IEC680068-2-27

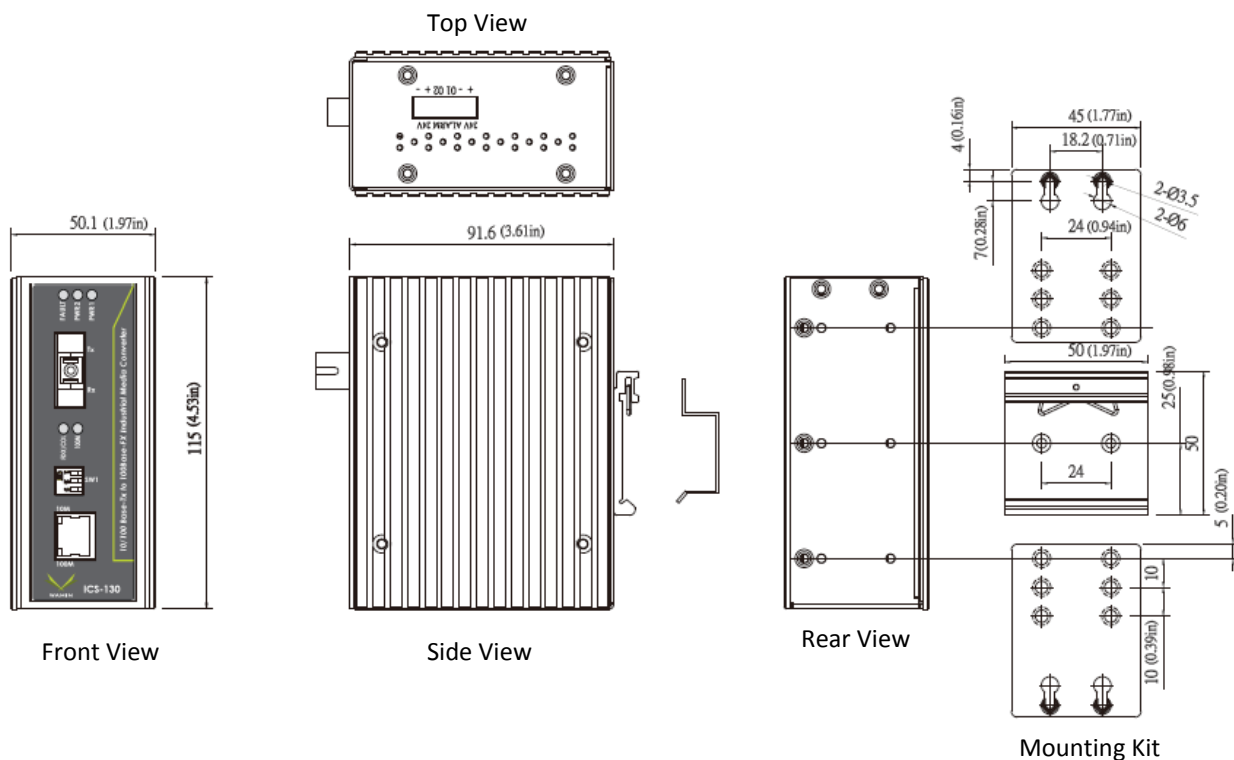
Vibration:

IEC680068-2-6

BTMF: 402,000 hrs at 25°C

Dimensions: mm

Dimensions and viewing of ICS-130 is illustrated in figures below.





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Ordering Information

The ICS-130 available models, duplex mode, fiber interface, transmission distance and operating temperature is described in the table below.

Model Number	Description			
ICS-130-MS1	Duplex multimode	SC fiber interface,	2 km,	0 to 60°C
ICS-130-MS1E	Duplex multimode	SC fiber interface,	2 km,	-40 to 75°C
ICS-130-MS4	Duplex multimode	ST fiber interface,	2 km,	0 to 60°C
ICS-130-MS4E	Duplex multimode	ST fiber interface,	2 km,	-40 to 75°C
ICS-130-SB2	Simplex single-mode	SC fiber interface,	15 km, Tx: 1310 nm,	0 to 60°C
ICS-130-SB2E	Simplex single-mode	SC fiber interface,	15 km, Tx: 1310 nm,	-40 to 75°C
ICS-130-SB3	Simplex single-mode	SC fiber interface,	15 km, Tx: 1550 nm,	0 to 60°C
ICS-130-SB3E	Simplex single-mode	SC fiber interface,	15 km, Tx: 1550 nm,	-40 to 75°C
ICS-130-SD2	Simplex single-mode	SC fiber interface,	25 km, Tx: 1310 nm,	0 to 60°C
ICS-130-SD2E	Simplex single-mode	SC fiber interface,	25 km, Tx: 1310 nm,	-40 to 75°C
ICS-130-SD3	Simplex single-mode	SC fiber interface,	25 km, Tx: 1550 nm,	0 to 60°C
ICS-130-SD3E	Simplex single-mode	SC fiber interface,	25 km, Tx: 1550 nm,	-40 to 75°C
ICS-130-SL1	Duplex single-mode	SC fiber interface,	60 km	0 to 60°C
ICS-130-SL1E	Duplex single-mode	SC fiber interface,	60 km	-40 to 75°C
ICS-130-SL4	Duplex single-mode	ST fiber interface,	60 km	0 to 60°C
ICS-130-SL4E	Duplex single-mode	ST fiber interface,	60 km	-40 to 75°C
ICS-130-SM2	Simplex single-mode	SC fiber interface,	40 km, Tx: 1310 nm,	0 to 60°C
ICS-130-SM2E	Simplex single-mode	SC fiber interface,	40 km, Tx: 1310 nm,	-40 to 75°C
ICS-130-SM3	Simplex single-mode	SC fiber interface,	40 km, Tx: 1550 nm,	0 to 60°C
ICS-130-SM3E	Simplex single-mode	SC fiber interface,	40 km, Tx: 1550 nm,	-40 to 75°C
ICS-130-SS1	Duplex single-mode	SC fiber interface,	30 km,	0 to 60°C
ICS-130-SS1E	Duplex single-mode	SC fiber interface,	30 km,	-40 to 75°C
ICS-130-SS4	Duplex single-mode	ST fiber interface,	30 km,	0 to 60°C
ICS-130-SS4E	Duplex single-mode	ST fiber interface,	30 km,	-40 to 75°C
ICS-130-SU1	Duplex single-mode	SC fiber interface,	80 km,	0 to 60°C
ICS-130-SU1E	Duplex single-mode	SC fiber interface,	80 km,	-40 to 75°C
ICS-130-SU4	Duplex single-mode	ST fiber interface,	80 km,	0 to 60°C
ICS-130-SU4E	Duplex single-mode	ST fiber interface,	80 km,	-40 to 75°C