

IFS-401F

4x 10/100Base-TX + 1x 100Base-FX Fast Ethernet Switch

IFS-402F

4x 10/100Base-TX + 2x 100Base-FX Fast Ethernet Switch



IFS-401F/402F models are 4 port 10/100Base-T Ethernet non-managed Fast Ethernet switches, with either 1x 100Base-FX fiber port (IFS-401F) or 2x 100Base-FX fiber ports, that provide stable and reliable Ethernet transmission. Housed in rugged DIN rail or wall mountable enclosures, these switches are designed for harsh environments, such as industrial networking, intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications. Standard operating temperature range models (-10 to 60°C) and wide operating temperature range models (-40 to 75°C) fulfill the special needs of industrial automation applications.

Features

- Redundant dual DC input power 12/24/48VDC (9.6~60VDC)
- IP30 rugged metal housing
- Wide operating temperature -40 ~ 75°C (IFS-401F-E and IFS-402F-E)
- Provides broadcast storm protection
- Supports DIP SW for alarm setting and broadcast storm protection
- Supports power failure alarm message by relay
- Supports flow control
- UL60950-1, CE, FCC Certification
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- 4-Port 10/100Base-TX (RJ-45) with 1 or 2-port 100Base-FX Fiber

Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX and 100Base-FX Fast Ethernet IEEE 802.3x Flow Control and Back Pressure	Power Supply	Redundant Dual DC 12/24/48V (9.6~60VDC) Input power (Removable Terminal Block) Provide DC Power JACK adapter cable for external power supply
Switch Architecture	Back-plane (Switching Fabric) : 1.0 Gbps (IFS-401F, IFS-401F-E) 1.2Gbps (IFS-402F, IFS-402F-E)	Power Consumption	4.4W (IFS-401F, IFS-401F-E) 5.8W (IFS-402F, IFS-402F-E)
Data Processing	Store and Forward	Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC, NC
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port	Removable Terminal Block	Provide 2 Redundant power, Alarm relay contact, 6 Pin
Flow Control	IEEE 802.3x flow control, back pressure flow control	Operating Temperature	-10 ~ 60°C (IFS-401F, IFS-402F) -40 ~ 75°C (IFS-401F-E, IFS-402F-E)
Provides Broadcast Storm Protection	Present	Operating Humidity	5% to 95% (Non-condensing)
MAC Address Table	2K	Storage Temperature	-40 ~ 85°C
Packet Buffer Size	448Kbits	Housing	Rugged Metal, IP30 Protection
Network Connector	4X RJ-45, 1 Fiber (IFS-401F, IFS-401F-E) 4X RJ-45, 2 Fiber (IFS-402F, IFS-402F-E) RJ-45 Port: Auto MDI/MDI-X function, 10/100Base-TX auto negotiation speed, Full/Half duplex 100Base-FX Fiber connector : SC/ST, Muti Mode/Single Mode	Dimensions	106 x 38 x 142mm (D x W x H)
Network Cable	10Base-T: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) Fiber Cable (Multi-mode): 50/125um~62.5/125um Fiber Cable (Single-mode): 8/125um~10/125um Wavelength: 1310nm (Multi-mode/Single-mode) Available distance: 2KM (Multi-Mode) 30KM (Single-Mode) 50KM (Single Mode)	Weight	0.625Kg (IFS-401F, IFS-401F-E) 0.63kg (IFS-402F, IFS-402F-E)
Protocol	CSMA/CD	Installation Mounting	DIN Rail mounting or wall mounting
LED	Per unit: Power 1 (Green), Power 2 (Green), Fault (Amber) RJ-45 Per port: Link/Active (Green), Speed 100 (Yellow) Fiber Per port: Link/Active (Green)	EMI	FCC Part 15 Subpart B Class A, CE EN 55022 Class A EN61000-6-4 – Emission for industrial environment
DIP SW	DIP 1 OFF : Enable power failure alarm ON : Disable DIP 2 OFF : Enable broadcast storm protection ON : Disables broadcast storm protection	EMS	EN61000-6-2 – Immunity for Industrial environment EN61000-4-2 (ESD) Level 3, Criteria B EN61000-4-3 (RS) Level 3, Criteria A EN61000-4-4 (Burst) Level 3, Criteria B EN61000-4-5 (Surge) Level 3, Criteria B EN61000-4-6 (CS) Level 3, Criteria A EN61000-4-8 (Magnetic Field) Level 3, Criteria A
Reverse Polarity Protection	Present	Safety	UL60950-1 (Pending)
Overload Current Protection	Present	Rail Traffic	EN50121-4
		Shock	IEC 60068-2-27
		Freefall	IEC 60068-2-32
		Vibration	IEC 60068-2-6
		MTBF	587,670Hrs (IFS-401F, IFS-401F-E) 509,883Hrs (IFS-402F, IFS-402F-E)
		Warranty	5 years

Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.

Application

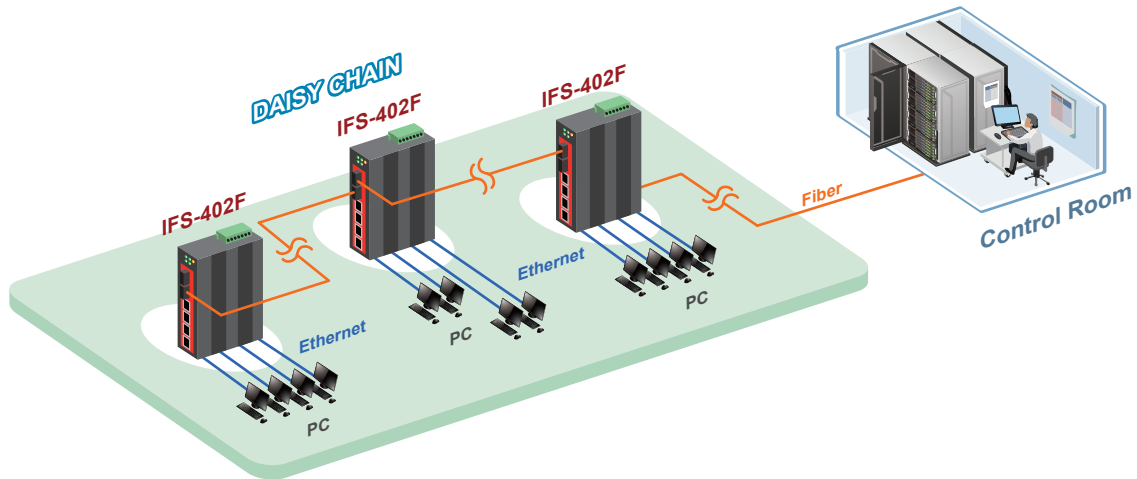
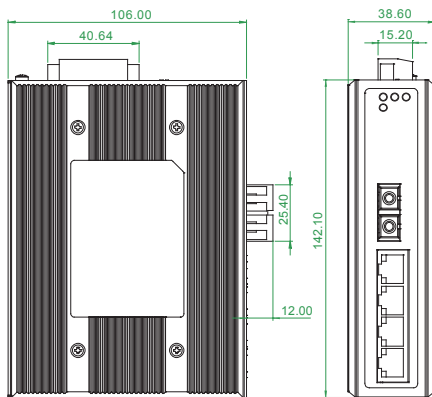


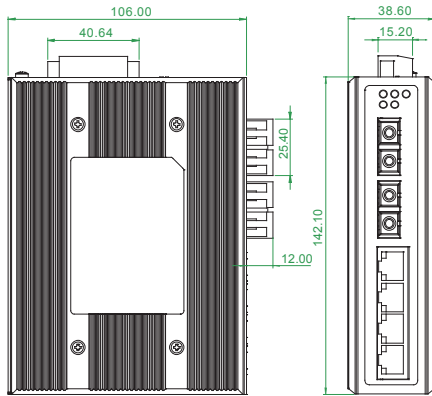
Figure : IFS-402F Fast Ethernet Switch Transmission with Daisy Chain

Dimensions

IFS-401F(-E)

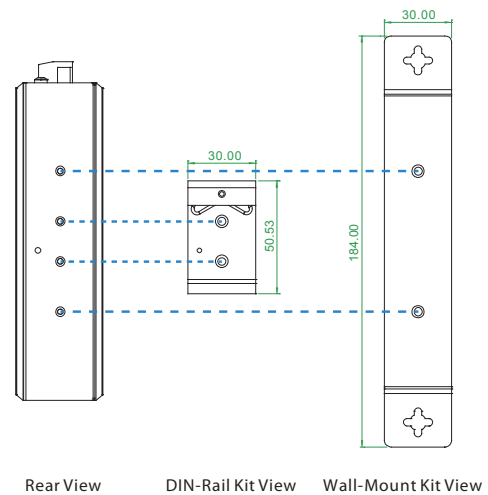


IFS-402F(-E)



Side View

Front View



Rear View

DIN-Rail Kit View

Wall-Mount Kit View

Ordering Information

Model Name	Description
IFS-401F	4-Port 10/100Base-TX + 1-Port 100Base-FX Fast Ethernet Switch, -10 ~ 60°C
IFS-401F-E	4-Port 10/100Base-TX + 1-Port 100Base-FX Fast Ethernet Switch, -40 ~ 75°C
IFS-402F	4-Port 10/100Base-TX + 2-Port 100Base-FX Fast Ethernet Switch, -10 ~ 60°C
IFS-402F-E	4-Port 10/100Base-TX + 2-Port 100Base-FX Fast Ethernet Switch, -40 ~ 75°C

Fiber Option Type	Connectivity Distance
SC, ST	002: 2km 030: 30km 050: 50km 020A: WDM 20km A type (TX:1310nm) 020B: WDM 20km B type (TX: 1550nm)

Accessories

DR-4524	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 48W, -10 ~ +50°C
MDR-40-24	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 40W, -20 ~ +70°C

Temperature Connector Connector Connectivity
Type Type Distance
IFS - 401F - [] - [] [] [] [] []
Example: IFS - 401F - E - SC002