

IGS-402S & IGS-402F

- ◀ 4x GbE RJ45 + 2x 100/1000Base SFP
- ▶ 4x GbE RJ45 + 2x 1000Base Fiber (ST/SC)
- ▲ Provides a DIP-Switch to set functions
- ▲ Supports power failure alarm message by relay
- ▲ 12/24/48VDC (9.6~60VDC) redundant dual input power
- ▲ IP30, rugged metal housing, fanless
- ▲ UL60950-1, EN50121-4, EN61000-6-2, EN61000-6-4, CE and FCC certified



Industrial unmanaged Ethernet switches provide stable and reliable Ethernet transmission. IGS-402S and IGS-402F have 4 Gigabit UTP ports and are equipped with 2 Gigabit SFP slots or 2 SC/ ST connector type Gigabit optical fiber ports to meet extended transmission distance requirements. It adopts a rugged enclosure designed for harsh environments, is fanless, has high MTBF, and supports wide operating temperature, redundant 12/24/48VDC power input, and is suitable for industrial networks, intelligent transportation systems (ITS) and environmental applications, and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications.

Features

- Wide operating temperature -40 ~ 75° C (" -E" model)
- Supports flow control
- Supports jumbo frame

Specifications

Standard	IEEE 802.3	10Base-T Ethernet
	IEEE 802.3u	100Base-TX and 100Base-FX Fast Ethernet
	IEEE 802.3ab	1000Base-T Gbit/s Ethernet over twisted pair
	IEEE 802.3z	1000Base-X Gigabit Ethernet over fiber-optic
	IEEE 802.3x	Flow Control and Back Pressure
Switch Architecture	Back-Plane (Switching Fabric): 12Gbps (Full Wire-Speed)	
Data Processing	Store and Forward	
Flow Control	IEEE 802.3x flow control, back pressure flow control	
Provides Broadcast Storm Protection	Present, Enable / Disable set by DIP SW	
Jumbo Frame	10K Bytes	
MAC Address Table	8K	
Packet Buffer Size	1Mbits	
Network Connector	4 x RJ-45	
	10/100/1000Base-TX Auto negotiation speed, Auto MDI/MDI-X function, Full/Half duplex	
	2 1000Base-X Fiber SC connector (IGS-402F) 2 100/1000Base-X SFP connector (IGS-402S)	
Network Cable	UTP/STP Cat. 5e cable or above	
	EIA/TIA-568 100-ohm (100meter)	
	Fiber Cable (Multi-mode): 50/125um, 62.5/125um Fiber Cable (Single-mode): 9/125um	
Protocols	CSMA/CD	

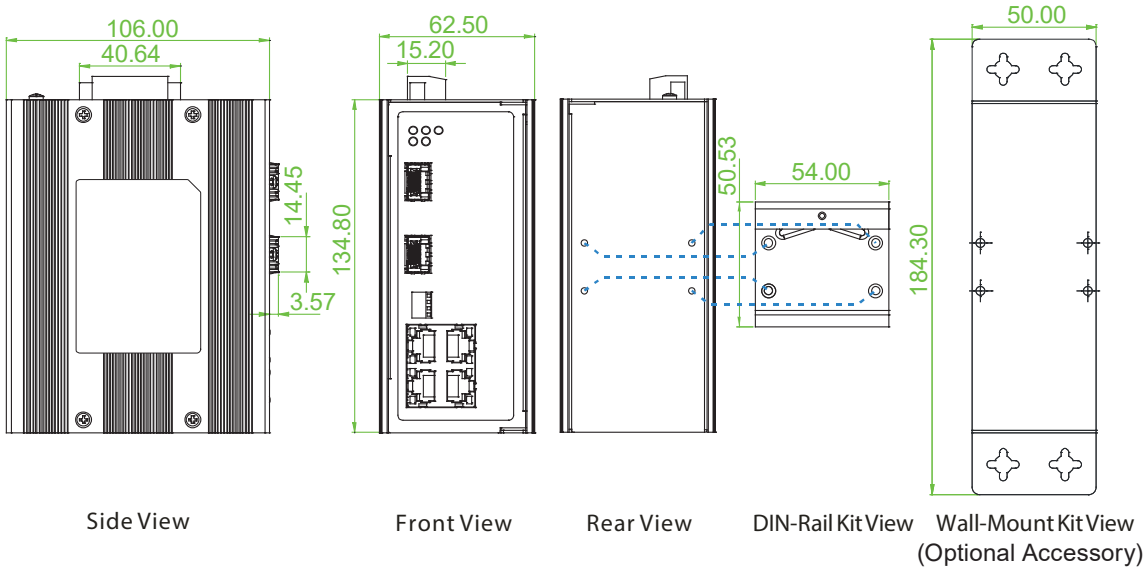
LED	System: Power 1 (Green), Power 2 (Green), Fault (Amber)	
	UTP: Link/Active (Green)	
	Speed 10 (OFF), 100 (Green), 1000 (Yellow)	
	SFP Slot: Link/Active (Green)	
DIP SW	DIP 1	ON : Disable power failure alarm OFF : Enable power failure alarm
	DIP 2	ON : Disables broadcast storm protection OFF : Enable broadcast storm protection
	DIP 4	ON : Fiber 2 for 100Base-FX SFP OFF : Fiber 2 for Gigabit SFP (IGS-402S)
	DIP 4	ON : Fiber 1 for 100Base-FX SFP OFF : Fiber 1 for Gigabit SFP (IGS-402S)
Reverse Polarity Protection	Supported for Power Input	
Overload current protection	Supported	
Power Supply	Redundant Dual DC 12/24/48V (9.6~60VDC) Input power (Removable Terminal Block)	
Power Consumption	7.9W (IGS-402F)	
	7.9W (IGS-402S)	
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC	
Removable Terminal Block	Provides 2 Redundant power, Alarm relay contact, 6 Pin	
Operating Temperature	-10 ~ 60°C (IGS-402S, IGS-402F)	
	-40 ~ 75°C (IGS-402S-E, IGS-402F-E)	
Operating Humidity	5% to 95% (Non-condensing)	
Storage Temperature	-40 ~ 85°C	
Housing	Rugged Metal, IP30 Protection, Fanless	
Dimensions	106 x 62.5 x 134.8 mm (D X W X H)	
Weight	0.84kg (IGS-402S)	
	0.68kg (IGS-402F)	
Installation Mounting	DIN Rail mounting, or wall mounting (Optional)	
MTBF	1,000,643 Hours (IGS-402S)	
	821,412 Hours (IGS-402F)	
	(MIL-HDBK-217)	
Warranty	5 years	

Certification

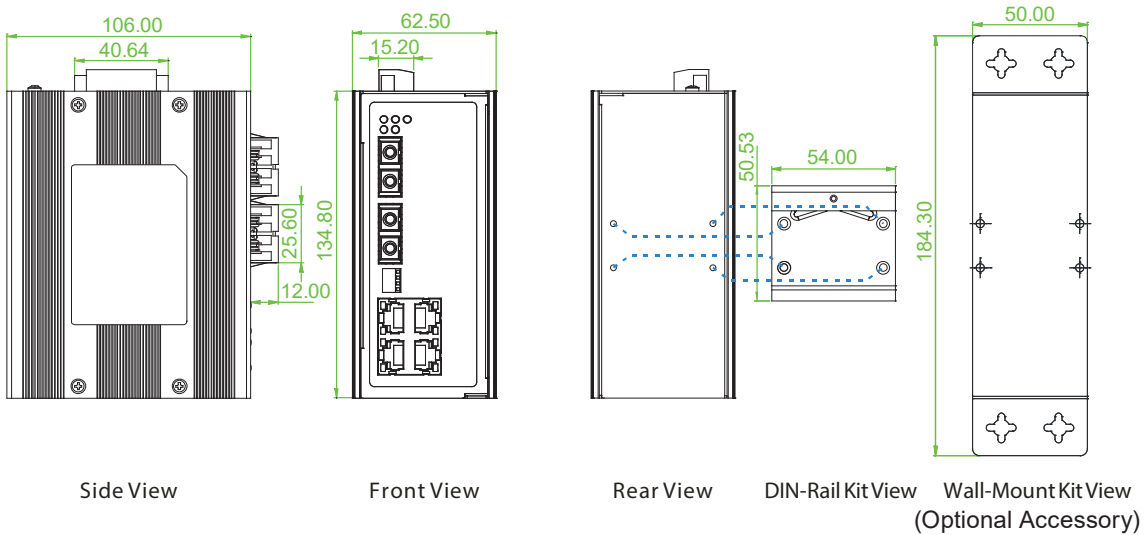
EMC/EMS	CE
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE
Railway Traffic	EN50121-4
Immunity for Heavy Industrial Environment	EN61000-6-2
Emission for Heavy Industrial Environment	EN61000-6-4
EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria 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
Safety	UL60950-1
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Dimensions

IGS-402S



IGS-402F



Ordering Information

Model Name	Total Port	RJ45 UTP Port		Fiber Port		Power Input	Certification			Operating Temperature
		10/100/1000 Base-T	1000 Base-X	100/1000 Base-X	Redundant	UL60950-1	EN50121-4	EN61000-6-2 EN61000-6-4	CE, FCC	
IGS-402S	6	4		2 SFP	12/24/48VDC	V	V	V	V	-10~60°C
IGS-402S-E	6	4		2 SFP	12/24/48VDC	V	V	V	V	-40~75°C
IGS-402F	6	4	2 SC		12/24/48VDC	V	V	V	V	-10~60°C
IGS-402F-E	6	4	2 SC		12/24/48VDC	V	V	V	V	-40~75°C

Fiber Connector	Connectivity Distance
SC (IGS-402F only)	SC001: 500m (SC, M/M) 002 : 2km (M/M) SC020: 20km (SC, S/M) SC040: 40km (SC, S/M)
	SC020A: WDM 20km A type (TX:1310nm)
	SC020B: WDM 20km B type (TX:1550nm)

Optional Accessories

■ Wall Mount Kit

IND-WMK02	Wall Mount kit for Industrial product, 184 x 50mm
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■ Industrial SFP Transceiver

The ISFP series of industrial grade SFP modules have been fully tested with all CTC Union industrial grade Ethernet switches for guaranteed compatibility and performance. Best performance can be guaranteed, even in mission-critical applications. (Please see CTC Union's Industrial SFP datasheets for more items and detailed information.)

ISFP-M7000-85-D(E)	Industrial SFP GbE 1000Base-SX, M/M, 500 meter, wave length 850nm, 7.5dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-S7020-31-D(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, DDMI, -10~70°C(-40~85°C)
ISFP-T7T00-00-(E)	Industrial SFP 10/100/1000Base-T UTP 100meter, -10~70°C (-40~85°C)
ISFP-M5002-31-D(E)	Industrial SFP 155M 100Base-FX, MM, 2km, wave length 1310nm, 12dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-S5030-31-D(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, DDMI, -10~70°C (-40~85°C)

■ Industrial Power Supply

MDR-20-24	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ +70°C
MDR-40-48	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ +70°C