

# ISF3010D Series Ring Network Industrial Ethernet Switch



## Key Features:

- ☑ iRing for network redundancy.
- ☑ Support VLAN configuration
- ☑ IP40 protection class, fully enclosed metal cabinet
- ☑ Exceeds Industrial class III specifications
- ☑ Plug and play
- ☑ Wide operating temperature : -40~+85 °C
- ☑ Wide voltage range design, 2×24VDC (12~48VDC)
- ☑ Support relay alarm output
- ☑ DIN- Rail or wall mounting options

## Product Overview

ISF3010D series products are 10-port DIN-Rail Unmanaged Industrial Ethernet Switch designed for applications in electric power, transportation, and industrial control and other severe industrial environment. It integrates high-standard wide-range temperature and voltage design, enterprise-class forwarding performance, strong cabinet, protected industrial circuit and other industrial features, is capable of plug and play, and can satisfy reliability requirement under harsh industrial environment.

## Product Features

### ➤ Proven dependable industrial quality

- ☑ Fault-free and reliable operation in applications such as: electric power stations, transportation, industrial control environments, and SCADA systems.
- ☑ Excellent electromagnetic/radiation/electrostatic protection capacity and zero packet loss under intensive electromagnetic interference
- ☑ Excellent EMC/EMI and anti-radiation performance
- ☑ Real industrial-class design, with working temperatures at -40~85 °C
- ☑ Redundant power input and industrial-class surge protections
- ☑ Tough metal cabinet with corrosion-proof coating

- ☑ IP40 seal protection: dust proof, stain proof and debris proof

### ➔ Simple and easy to use

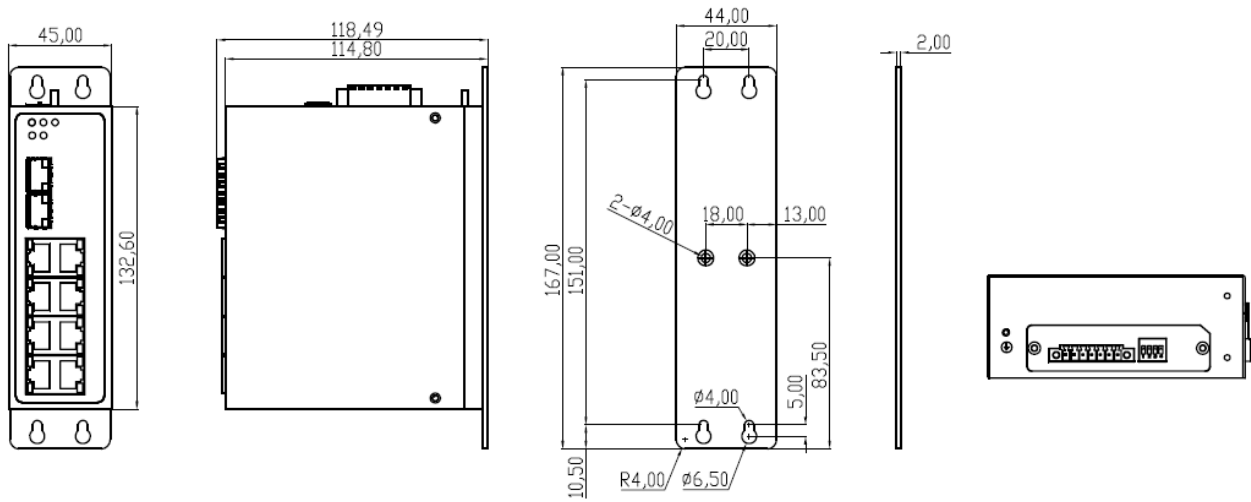
- ☑ Plug-and-play functionality for rapid deployment
- ☑ Linear data forwarding to ensure real time performance
- ☑ Compatible with industrial DIN-rails or available with an optional wall-mounting kit Supports IEEE 802.3x flow control and backpressure type flow controls to guarantee data integrity.
- ☑ Latency under 3μs, satisfying the real time performance requirements of a production environment.
- ☑ Support iRing Ethernet ring, with ring network failover time <30ms@100; automatic ring formation, no ring network configuration required
- ☑ Support VLAN function

## Product Specification

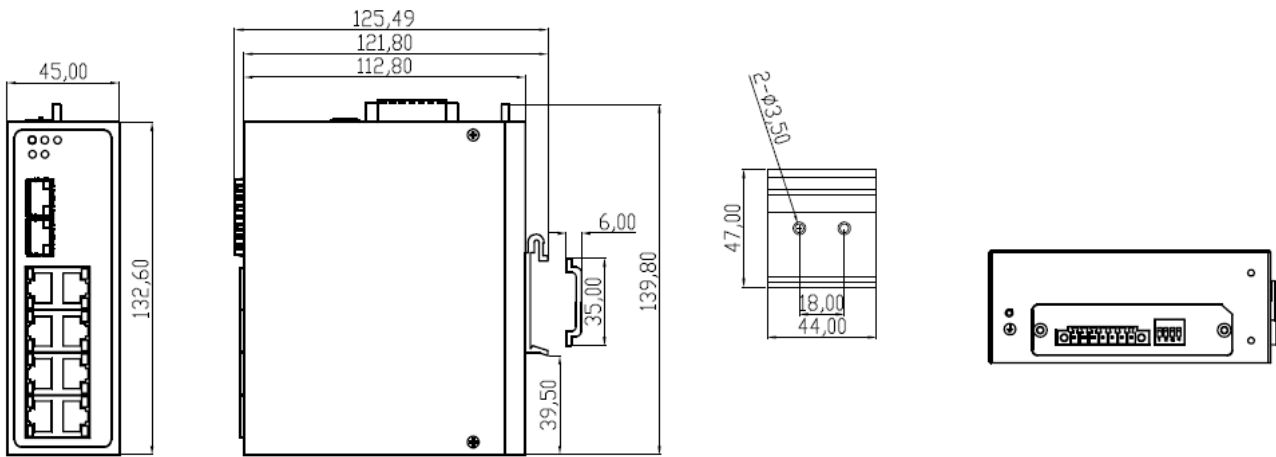
Item		ISF3010D
Interface	RJ45 port	10/100Base-T(X) auto-sensing RJ45 port
	FX optical port	100Base-FX port (SC/ST/FC port)
	Gigabit port	1000Base SFP slot
	LED indication	PWR1, PWR2, STAT, FAULT, FX , GX
Mechanical structure	Housing	IP40 protection class, fully enclosed and seamless metal cabinet, PCB protection coating available
	Dimensions (WxHxD)	45mm x 132.6mm x 112mm
	Weight	0.6 kg
	Heat dissipation	Fanless heat dissipation
	Installation	DIN rail and wall mounting (kit optional)
	MTBF	35 years
Power source	Input voltage	24VDC(12~24VDC), Support redundant input
	Interface terminal	7-pin pluggable screw connection terminal
	Overload protection	Available
	Reverse polarity protection	Available
	Power consumption	<7.1w
Working environment	Working temperature	-40 ~ +85 °C
	Storage temperature	-40 ~ +85 °C
	Relative humidity	5%~95% (no condensing)

Item		ISF3010D
Switching performance	Forwarding inherent time delay	<4μs
	Backplane bandwidth	5.6Gbps
	MAC address table	8k
	Data package buffer	1Mbit
Function features	Ethernet standard	IEEE 802.3 for 10Base-T
		IEEE 802.3u for 100Base-T(X)and 100Base-FX
		IEEE 802.3ab for 1000BaseT(X)
		IEEE 802.3z for 1000BaseX
		IEEE 802.3x for flow control
	Port flow control	Support IEEE 802.3 x flow control and backpressure type flow control, capable of enabling/disabling flow control via dip switch
	Relay alarm output	Rated control capacity: 2A@30V DC
		Maximum allowable power: 60W
		Maximum allowable voltage: 220V DC
Maximum allowable current: 2A DC		
Dip switch	With dip switch, capable of enabling/disabling broadcast storm control and port flow control and with relay alarm function	
Ring network function	iRing for network redundancy	
VLAN function	Support VLAN function (made to order)	
Industrial standard	Electromagnetic compatibility	IEC 61000-4-2(Electrostatic discharge) level 3
		IEC 61000-4-3(Radiated, radio-frequency, electromagnetic field) level 3
		IEC 61000-4-4(Electrical fast transient/burs) level 3
		IEC 61000-4-5(surge) level 3
		IEC 61000-4-6(Immunity to conducted disturbances, induced by radio-frequency fields) level 3
		IEC 61000-4-8(Power frequency magnetic field) level 4
	Impact	IEC60068-2-27
	Freefall	IEC60068-2-32
	Vibration	IEC60068-2-6
Certifications	UL	
Warranty	5 years	

**Dimensions**



**Wall Mount**



**DIN-Rail Mount**

## Ordering Information

### 1. Ordering information

Product Model	Port				
	10/100 Base-TX	100Base-FX(SC/ST/FC)			SFP slot
		Multimode dual fiber	Single mode dual fibers	Single mode single fiber	
ISF3010D-8T-2GSFP-24	8	-	-	-	2
ISF3010D-4T-2GSFP-4M-24	4	4	-	-	2
ISF3010D-4T-2GSFP-4S-24	4	-	4	-	2
ISF3010D-4T-2GSFP-4B-24	4	-	-	4	2
ISF3010D-4T-2GSFP-2S-2M-24	4	2	2	-	2
ISF3010D-4T-2GSFP-2B-2M-24	4	2	-	2	2

#### Note:

- Multimode dual fiber supports 2km; single mode dual fiber support 20/40/80/120KM;single mode single fiber supports 0.5/20/40/60/80/120KM
- Power supply default is DC24V low-voltage

### 2. SFP optical module ordering information

Name	Description
SFP-GT-RJ45	Electrical module-SFP-GT-(RJ45)
SFP-GX-SXM8-LC	optical module-SFP-GX-multimode module-(850nm,0.5km,LC)
SFP-GX-SXM3-LC	optical module-SFP-GX-multimode module-(1310nm,0.5km,LC)
SFP-GX-LXS3-LC	optical module-SFP-GX-single mode module-(1310nm,10km,LC)
SFP-GX-LXS5-LC	optical module-SFP-GX-single mode module-(1550nm,10km,LC)
SFP-GX-LH40S3-LC	optical module-SFP-GX-single mode dual fiber-(1310nm,40km,LC)
SFP-GX-LH40S5-LC	optical module-SFP-GX-single mode dual fiber-(1550nm,40km,LC)
SFP-GX-LH80S5-LC	optical module-SFP-GX-single mode dual fiber-(1550nm,80km,LC)
SFP-GX-LH100S5-LC	optical module-SFP-GX-single mode duplex fiber-(1550nm,100km,LC)
SFP-GX-SXB35-LC	optical module-SFP-GX-single mode single fiber-(TX1310/RX1550nm,0.5km,LC)
SFP-GX-SXB53-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1310nm,0.5km,LC)
SFP-GX-LXB35-LC	optical module-SFP-GX-single mode single fiber-(TX1310/RX1550nm,10km,LC)
SFP-GX-LXB53-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1310nm,10km,LC)
SFP-GX-LH40B35-LC	optical module-SFP-GX-single mode single fiber-(TX1310/RX1550nm,40km,LC)
SFP-GX-LH40B53-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1310nm,40km,LC)
SFP-GX-LH80B45-LC	optical module-SFP-GX-single mode single fiber-(TX1490/RX1510nm,80km,LC)
SFP-GX-LH80B54-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1490nm,80km,LC)
SFP-GX-LH100B45-LC	optical module-SFP-GX-single mode single fiber-(TX1490/RX1550nm,100km,LC)
SFP-GX-LH100B54-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1490nm,100km,LC)

### InHand Networks

InHand Networks provides reliable, secured and intelligent M2M solution for electric power, industrial automation, commercial and medical devices. Recognized by world class customers and partners. Proven by a large install base. Expanding with intensive investments in research and development. Enduring for long-term support.

InHand Networks has become leader in industrial grade network technology by providing industrial cellular routers, industrial Ethernet switches, wireless sensor network devices and cloud based M2M platforms.

Connecting devices, enabling services.



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