

ISF2016D Series Ring Network Industrial Ethernet Switch



Key Features:

- ☑ Supporting iRing ring protocol, with ring network recovery time <30ms.
- ☑ IP40 protection class, fully enclosed metal cabinet
- ☑ Passed industrial class III EMC test
- ☑ Wide temperature range design, with working temperature at -40~+85 °C
- ☑ With dip switch, capable of enabling/disabling broadcast storm control and port flow control and with relay alarm function
- ☑ Support 1 route relay alarm output
- ☑ DIN-rail or wall mounting optional

Product Overview

ISF2016D series products are of 16 ports DIN-rail ring-network Industrial Ethernet Switch, especially designed for applications in the field of electric power, transportation, industrial control and in other severe industrial environment. It integrates high-standard wide-range temperature and voltage design, enterprise-class link-speed forwarding performance, strong cabinet, protected industrial circuit and other industrial features, is capable of plug and play, and can satisfy reliability requirement under severe industrial environment.

Product Features

➤ Strong and reliable industrial quality

- Fault-free and reliable operation under electric power station, transportation and industrial control environment
- 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 temperature at -40~85 °C, wide voltage rang 24VDC(12~48VDC)
 - ☑ Redundant power input and industrial-class surge protection
 - ☑ Strong metal cabinet with corrosion-proof coating
 - ☑ Provided with IP40 seal protection, and dust proof, stain proof and debris proof

➤ **Simple and easy to use**

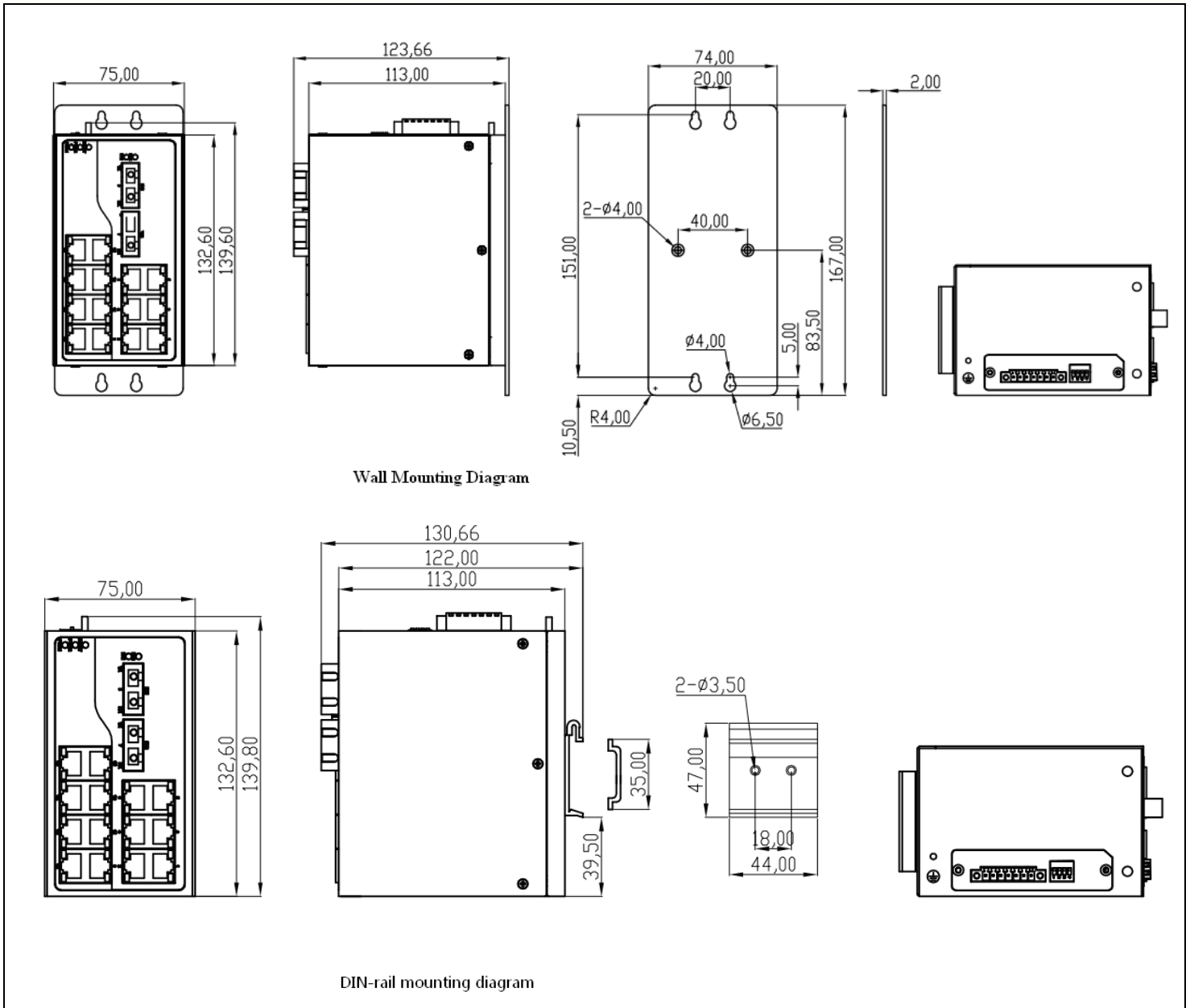
- Provided with plug-and-play function for rapid deployment
- Provided with linear data forwarding to ensure real time performance
 - ☑ Supporting iRing ring protocol, with ring network recovery time <30ms; automatic ring formation, no ring network configuration required
 - ☑ Supporting industrial DIN guide rail installation mode, optional wall-mounting kit available, satisfying requirement for deployment at different conditions and environment
 - ☑ Supporting enabling/disabling of broadcast storm protection via hardware dip switch, flow control and port connection interruption alarm; simple and easy to use.
 - ☑ Provided with 1 route of alarm output interface to facilitate identification of potential trouble in a timely manner and to ensure sustainability of business data
 - ☑ Supporting IEEE 802.3 x flow control and backpressure type flow control to guarantee data integrity
 - ☑ Forwarding inherent time delay <3μs, satisfying real time performance requirement of industrial production data

Product Specification

Item		ISF2016D
Interface	RJ45 port	10/100Base-T(X) self-adaptive RJ45 port, supporting full dual/half dual and MDI/MDI-X self adaptive
	FX optical port	100Base-FX port (SC/ST/FC port)
	LED indication lamp	PWR1,PWR2,STAT,FAULT, FX (optical port))
Mechanical structure	Housing	IP40 protection class, fully enclosed and seamless type metal cabinet, PCB protection coating available
	Dimensions (WxHxD)	75mm × 132.6mm × 113mm
	Weight	0.9 kg
	Heat dissipation mode	Fanless heat dissipation
	Installation mode	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	<7.2w
Working environment	Working temperature	-40 ~ +85 ℃

Item		ISF2016D
	Storage temperature	-40 ~ +85 ℃
	Relative humidity	5% ~95% (no condensation)
Switching performance	Forwarding inherent time delay	<10us
	Backplane bandwidth	3.2Gbps
	MAC address table	8k
	Data package buffer	1Mbit
Function features	Ethernet standard	IEEE 802.3, suitable for 10Base-T
		IEEE 802.3u, suitable for 100Base-T(X)and 100Base-FX
		IEEE 802.3x, suitable for flow control
	Port flow control	Supporting 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	Supporting iRing ring networking, with ring network failover time <20ms	
VLAN function	Supporting VLAN function (made to order)	
Industrial standard	Electromagnetic compatibility	IEC 61000-4-2 (Electrostatic discharge) class 3
		IEC 61000-4-3 (Radiated, radio-frequency, electromagnetic field) class 3
		IEC 61000-4-4 (Electrical fast transient/burs) class 3
		IEC 61000-4-5 (surge) class 3
		IEC 61000-4-6 (Immunity to conducted disturbances, induced by radio-frequency fields) class 3
		IEC 61000-4-8 (Power frequency magnetic field) class 4
	Impact	IEC60068-2-27
	Free fall	IEC60068-2-32
Vibration	IEC60068-2-6	
Warranty period	Warranty period	5 years

Dimensions



Ordering Information

Product Model	Port			
	10/100 Base-TX	100BaseFX optical port (SC/ST/FC)		
		Multimode dual fiber	Single mode dual fiber	Single mode single fiber
ISF2016D-14T-2M-24	14	2	-	-
ISF2016D-14T-2S-24	14	-	2	-
ISF2016D-14T-2B-24	14	-	-	2

Note:

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

Beijing InHand Networks Technology Co., Ltd.

Beijing InHand Networks Technology Co., Ltd focuses its energy upon development of equipment network (M2M) technology and products, for the purpose of providing safe, reliable, intelligent and advanced equipment network solutions for customers in the fields of electric power, industrial control, finance, medical and other industries. Industrial-class products and equipment monitoring software platforms developed by InHand have been used by a number of well-known big customers, and have stood the test of large-scale field applications for a long time.

InHand hopes to contribute her efforts to the transition process of Chinese manufacturing industry to high value-added products through constant innovation of equipment network solutions.

Many well-known commercial organizations at home and abroad have confirmed development and achievement of InHand. InHand has been awarded the honor of Top-50 High-tech Development Enterprise consecutively by Deloitte (China) since 2007 and was awarded Top-200 Innovative Enterprise in Asia and Top-100 Innovative Enterprise in Asia in 2007 and 2008 respectively by the famous business media “Red Herring” of USA.



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