

# IS-DG410 Series

10-ports Full Gigabit Din-Rail Web-Smart Managed Layer 2 Switch



The IS-DG410 Series are full Gigabit web-smart managed 10-port Ethernet switch with 2GTX/FX port that provide easy to access, plug-n-play Gigabit ports for applications; The cost-effective IS-DG410 Series web-smart managed switches can be easily used in factory production line or embedded into machine system. The IS-DG410P Series switches also support some useful function by default for network traffic optimization, such as QoS and storm protection.



## Key features

- ▶ 10/8 Gigabit RJ45 Copper ports plus 0/2 100/1000 Based SFP(SX/LX/LHX) ports
- ▶ Support 9K Jumbo frames
- ▶ Layer 2 Line-Speed Switching Fabric, non-blocking
- ▶ Support Network redundancy IEEE 802.3ad LACP/Port Trunk
- ▶ Support standard redundant protocol STP, RSTP
- ▶ Support Port-based, IEEE 802.1Q Tag-based VLAN, IEEE 802.1p QoS
- ▶ Support Bluetooth Web-Access Configuration
- ▶ Support Bluetooth Mesh for IOT device connectivity(Preliminary)
- ▶ Support Firmware and Configuration Upgrade via USB host
- ▶ Support Loop Detection
- ▶ Redundant Power Input, 12~58VDC input.
- ▶ Support SNMP v1/v2c
- ▶ Din-Rail and Wall Mount Installation
- ▶ -40~75°C operating temperature
- ▶ IP 30 Protection
- ▶ Fan-less Design
- ▶ Fault Alarm Notification (Power, Ports)

## Specification

### Ethernet

Operating Mode	Store and Forward, L2 wire-speed/non-blocking switching engine
MAC addresses	16K
Packet Buffer	2 Mbits
Jumbo Frame	9K
Backplane / Switching Fabric	20Gbps

### RJ45 Copper ports

Speed	10/100/1000 Mbps
MDI/MDIX Auto-crossover	Support straight or cross wired cables
Auto-negotiation/Duplex	10/100/1000 Mbps speed auto-negotiation; Full & Half Duplex

### Fiber Ports

Port Types supported	100/1000 Base SFP Slot
Fiber port connector	LC/RJ45 connector for fiber ports
Optimal fiber cable	Typical 50 or 62.5/125 $\mu\text{m}$ for multimode (mm) Typical 8 or 9/125 $\mu\text{m}$ for single mode (sm)

### Protocols & Standards

IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.1D/w/s, IEEE 802.1Q/p, IEEE 802.1ab, IEEE 802.3ad LLDP, IPv4/IPv6, SNMP v1/v2c, TFTP, ARP, RARP, Telnet, Syslog, Flow Control, Back Pressure, ICMP, UDP, TCP

### Bluetooth

Network Topology	Star / Mesh
Distance	50m (Point to Point)

Functionality	Configuration / Web-Access
Bluetooth Mesh	*Q3, 2017 (IIOT Device Connectivity)

## Network USB 2.0

Host Type	A
Functionality	Configuration Upgrade / Firmware Upgrade
Support	Flash disk with partition (Logic unit number, LUN)
File system	FAT32

## Network Redundancy

Spanning Tree Protocol	IEEE 802.1D/1w, STP/RSTP
Port Trunk / LACP	Static Trunk or LACP (Link Aggregation Control Protocol)

## Bridge, VLANs, Protocols

Flow Control	IEEE 802.3x (Full Duplex) and Back-Pressure (Half Duplex)
VLAN Types	Port-Based VLAN
	IEEE 802.1Q tag-based VLAN
VLAN ID	4K
LLDP	IEEE 802.1ab LLDP

## Traffic management & QoS

Priority	IEEE 802.1p QoS
Scheduling schemes	SPQ, WRR

## Security

Storm Control	Multicast / Broadcast / Flooding Storm Control
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## Management

User Management Interfaces	Web-based Management
	Telnet CLI (Command Line Interface)
	SNMP V1, V2c
Management Security	HTTPs
Upgrade & Restore	FTP/TFTP for Firmware Upgrade
Diagnostic	Syslog
SNTP	YES
DHCP	Client Mode
System Status	Device info/status; Ethernet port status

## Power

Power Input	Redundant Power Input, Removable Terminal Block
Input Voltage Range	12-58 VDC
Reverse power protection	YES
Power Consumption	13 Watt

## Indicators

Power status indication	Power Input status
Ethernet port indication	Link & speed
Bluetooth	Activated

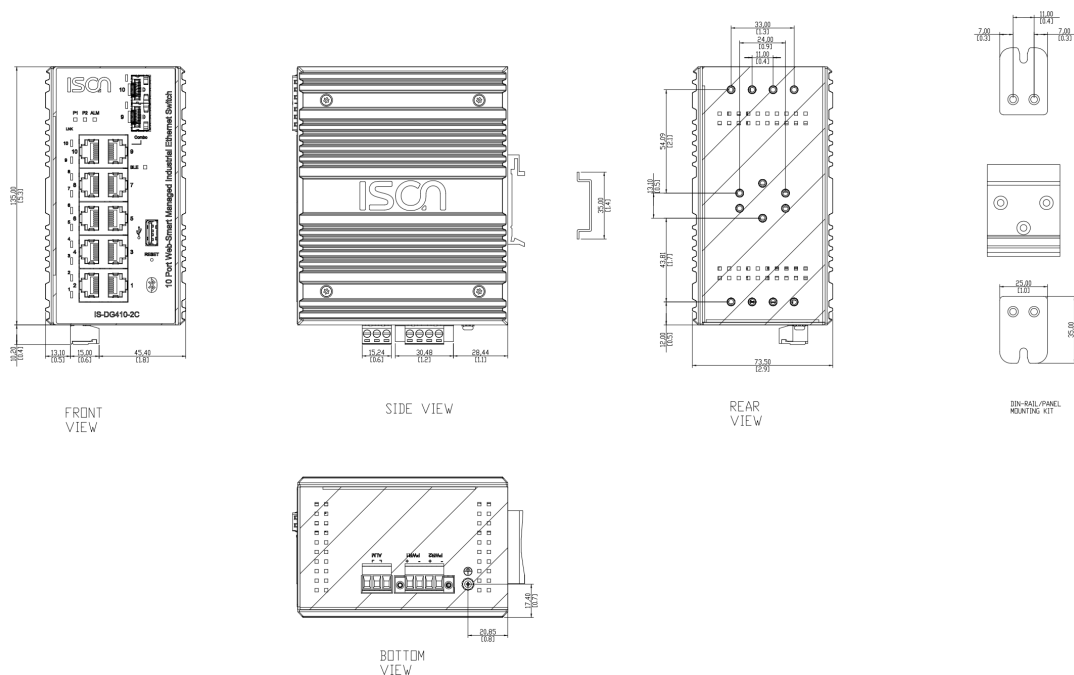
## Environmental and Compliances

Operating Temperature	-40~75°C (Cold startup at -40°C)
Storage Temperature	-40~85°C
Humidity	5~95% (Non-Condensing)
Vibration, shock, free fall	IEC-60068-2-6, -27, -32
Certification Compliance	CE, FCC
Electrical safety	CE
EMC	FCC Part 15, CISPR 22 (EN55022) Class A IEC-61000-4-2, -3, -4, -5, -6 (Level 3)
RoHS & WEEE	RoHS (Pb free) and WEEE Compliant
MTBF	>200,000 hrs

## Mechanical

Protection	IP30
Dimension	135mmx73.5mmx110mm (LxWxD)
Weight	0.9 kg
Installation	Din-Rail Mount, Wall mount
Relay Output	1A, 24V, Normal Open

## Dimension Diagram



## Ordering Information

Available Models	Description	10/100/1000Mb TX	100/1000Mb FX
IS-DG410-2C	Industrial 10 port Gigabit Layer 2 Web-smart Managed Switch	8	2 (SFP or RJ45)

## Accessories

1. 100 Mb SFP Modules
2. Gigabit SFP Modules
3. IS-RK2U 19" mounting kit
4. IS-RK4U 19" mounting kit
5. IS-PS20-12 AC/DC power adaptor

## Package Checklist

- IS-DG410-2C Switch
- Quick Installation Guide (Printed)
- Documentation & Software CD
- RJ45 /SFP Cap /Wall Mount kit /Din-Rail kit