

IGS-402CSW

4x GbE RJ45 + 2x 100/1000 SFP , Compact size

NEW



- 4KV surge protection for UTP and SFP ports
- EN50121-4, EN61000-6-2, EN61000-6-4, CE, FCC certified
- Compact size for easy installation



The IGS-402CSW is a managed industrial grade L2 switch with 4 10/100/1000Base-T ports and 2 GbE/100M SFP ports. Housed in rugged DIN rail or wall mountable enclosures, the switch is designed for harsh environments, such as industrial networking. It is an ideal solution for Smart City, surveillance, Intelligent traffic control systems, production automation applications. 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 power input
 - Cable diagnostics
 - Provides SmartConfig for quick and easy mass Configuration*
 - Supports SmartView for Centralized Management*
- *Please see Chapter 1- **Software Management** for more details

Specifications

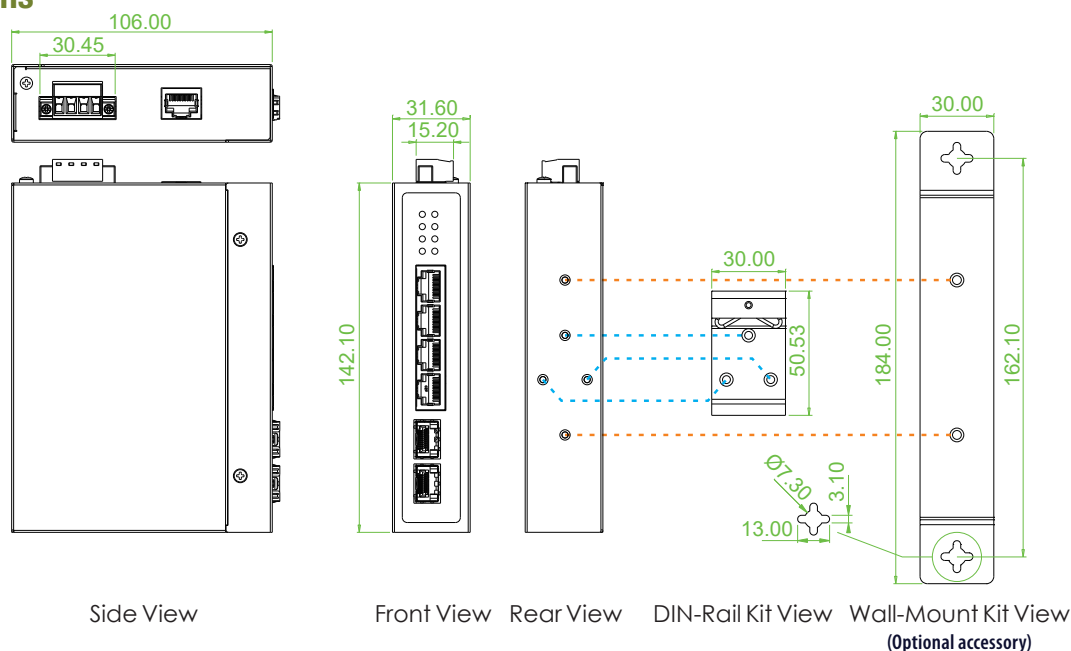
Standard	IEEE 802.3	10Base-T 10Mbit/s Ethernet	LED	Per unit: Power 1 (Green), Power 2 (Green)	
	IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet		Per RJ-45 port: 10/100 Link/Active (Green)	
	IEEE 802.3ab	1000Base-T Gbit/s Ethernet over twisted pair		1000 Link/Active (Amber)	
	IEEE 802.3z	1000Base-X Gbit/s Ethernet over Fiber-Optic		SFP Fiber Per port: Link/Active (Green)	
	IEEE 802.1d	STP (Spanning Tree Protocol)		Jumbo Frame	10K
	IEEE 802.1w	RSTP (Rapid Spanning Tree Protocol)		IEEE802.3ac	Max frame size extended to 1522Bytes (allow Q-tag in packet)
	IEEE 802.1s	MSTP (Multiple Spanning Tree Protocol)		MAC Address Table	4K
	IEEE 802.1Q	Virtual LANs (VLAN)		Memory Buffer	1.75M bits for packet buffer
	IEEE 802.1X	Port based and MAC based Network Access Control, Authentication		Device Memory	128M Bytes Flash ROM, 256M Bytes RAM
	IEEE802.3ac	Max frame size extended to 1522Bytes		Warning Message	System Syslog, SMTP/ e-mail event message
	IEEE 802.3ad	Link aggregation for parallel links with LACP(Link Aggregation Control Protocol)		Removable Terminal Block	Provide 2 redundant power 4 Pin
	IEEE 802.3x	Flow control for Full Duplex		Operating Temperature	-10 ~ 60°C (IGS-402CSW)
	IEEE 802.1ad	Stacked VLANs, Q-in-Q		Operating Humidity	-40 ~ 75°C (IGS-402CSW-E)
	IEEE 802.1p	LAN Layer 2 QoS/CoS Protocol for Traffic Prioritization		Storage Temperature	5% to 95% (Non-condensing)
	IEEE 802.1ab	Link Layer Discovery Protocol (LLDP)		Housing	-40 ~ 85°C
	IEEE 802.3az	EEE (Energy Efficient Ethernet)		Dimensions	Rugged Metal, IP30 Protection, Fanless
Switch Architecture	Back-plane (Switching Fabric): 12Gbps Full wire-speed		Installation Mounting	106x 31.6x 142mm (Dx Wx H)	
	Store and Forward		Weight	535g	
Data Processing	IEEE 802.3x for full duplex mode Back pressure for half duplex mode		MTBF	DIN Rail mounting, or wall mounting (Optional)	
Flow Control	IEEE 802.3x for full duplex mode Back pressure for half duplex mode		Warranty	960,226Hours (MIL-HDBK-217)	
Network Connector	4x 10/100/1000Base-T RJ-45 + 2x FE/GbE SFP slot RJ-45 UTP port support Auto negotiation speed, Auto MDI/MDI-X function, SFP ports support FE/GbE with DDMI		Certification	5 years	
Console	RS-232 (RJ-45)		EMC	CE (EN55032, EN55035)	
Network Cable	UTP/STP above Cat. 5e cable		EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A,CE	
Protocols	EIA/TIA-568 100-ohm (100m)		Railway Traffic	EN50121-4	
	CSMA/CD		Immunity for Heavy Industrial Environment	EN61000-6-2	
Reverse Polarity Protection	Supported for power input		Emission for Heavy Industrial Environment	EN61000-6-4	
Overload Current Protection	Supported		EMS	EN61000-4-2 (ESD) Level 3, Criteria B	
CPU Watch Dog	Supported		(Electromagnetic Susceptibility)	EN61000-4-3 (RS) Level 3, Criteria A	
Power Supply	Redundant Dual 12/24/48VDC (9.6~60VDC) Input power (Removable Terminal Block)		Protection Level	EN61000-4-4 (Burst) Level 3, Criteria A	
Power Consumption				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	
				EN62368-1 (Pending)	
			Safety	4KV for UTP and Fiber ports	
			Surge protection	IEC 60068-2-27	
			Shock	IEC 60068-2-31	
			Freefall	IEC 60068-2-6	
			Vibration		

Software Specifications

Topology	
VLAN	IEEE 802.1q VLAN, up to 4094 802.1Q VLAN VID IEEE 802.1q VLAN, up to 4094 Groups IEEE 802.1ad Q-in-Q MAC-based VLAN, up to 256 entries IP Subnet-based VLAN, up to 128 entries Protocol-based VLAN (Ethernet, SNAP, LLC), up to 128 entries VLAN Translation, up to 256 entries Private VLAN for port isolation GVRP (GARP VLAN Registration Protocol) MVR (Multicast VLAN Registration)
Link Aggregation (Port Trunk)	Static (Hash with SA, DA, IP, TCP/UDP port), up to 5 trunk group Dynamic (IEEE 802.3ad LACP), up to 5 trunk group
Spanning Tree	IEEE 802.1d STP IEEE 802.1w RSTP IEEE 802.1s MSTP
Loop Protection	Supported
QoS Features	
Class of Service	IEEE 802.1p 8 active priorities queues for per port
Traffic Classification	IEEE 802.1p based CoS IP Precedence based CoS IP DSCP based CoS QCL (QoS Control List): Frame Type, Source/Destination MAC, VLAN ID, PCP, DEI QCE (QoS Control Entry): Protocol, Source IP, IP Fragment, DSCP, TCP/UDP port number
Bandwidth Control for Ingress	100~1,000,000 when the "Unit" is "kbps" and 1~1,000 when the "Unit" is "Mbps"
Bandwidth Control for Egress	100~1,000,000 when the "Unit" is "kbps" and 1~1,000 when the "Unit" is "Mbps" Per queue / Per port shaper
DiffServ (RF 2474) Remarking	
Storm Control	for Unicast, Broadcast, Multicast
IP Multicasting Features	
IGMP / MLD Snooping	IGMP Snooping v1, v2, v3 / MLD Snooping v1, v2 Port Filtering Profile Throttling, Fast Leave Maximum Multicast Group: up to 1022 entries Query / Static Router Port
Security Features	
IEEE 802.1X	Port-Based MAC-Based
ACL	Number of rules: up to 256 entries for L2 / L3 / L4 L2: Mac address SA/DA/VLAN L3: IP address SA/DA, Subnet L4: TCP/UDP
RADIUS authentication & accounting	
TACACS+ authentication & accounting, TACACS+ 3.0	

HTTPS, HTTP	Supported
SSL / SSH v2	Supported
User Name	Local Authentication
Password Authentication	Remote Authentication (via RADIUS / TACACS+)
Management Interface Access	Web, Telnet / SSH, CLI RS-232 console
Filtering	
Management Features	
CLI	Cisco® like CLI
Web Based Management	
Telnet	Supports for management and monitoring
SNMP	V1, V2c, V3
ModBus/TCP	Supports management and monitoring
SW & Configuration Upgrade	TFTP, HTTP
FTP client	Redundant firmware in case of upgrade failure
FTP client	Supports for upload/download configuration
RMON	RMON I (1, 2, 3, 9 group), RMON II
MIB	RFC1213 MIB II, Private MIB
UPnP	Supported
BOOTP	Supported
DHCP	Server, Client, Relay, Relay option 82, Snooping
RARP	Supported
IP Source Guard	Supported
Port Mirroring	Supported
Event Syslog	Syslog server (RFC3164)
Warning Message	System syslog, e-mail
DNS	Client, Proxy
NTP	Client
LLDP (IEEE 802.1ab)	Link Layer Discovery Protocol LLDP-MED
IPv6 Features	
IPv6 Management	Telnet Server/ICMP v6
SNMP over IPv6	Supported
HTTP over IPv6	Supported
SSH over IPv6	Supported
IPv6 Telnet	Supported
IPv6 NTP	Client
IPv6 TFTP	Supported
IPv6 QoS	Supported
IPv6 ACL	Number of rules: up to 256 entries for L2 / L3 / L4 L2: Mac address SA/DA/VLAN L3: IP address SIP, Subnet (32bit) L4: TCP/UDP
Others Features	
Green Ethernet	Supports IEEE 802.3az EEE (Energy Efficient Ethernet) Management to optimize the power consumption Determine the cable length and lowering the power for ports with short cables Lower the power for a port when there is no link
Cable Diagnostic	Measuring UTP cable normal or broken point distance

Dimensions



2021 V2.0

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

www.ctcu.com / sales@ctcu.com

Ordering Information

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

■ Package List

- IGS-402CSW device
- Console cable (RJ-45 to DB9)
- Din Rail with screws
- Terminal block
- Protective caps for SFP ports

Optional Accessories

■ Wall Mount Kit

IND-WMK01	Wall Mount kit for Industrial product (184x30mm) (Narrow)
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■ Industrial SFP Transceiver

The ISFP series of industrial grade SFP modules have been fully tested with the series product for guaranteed compatibility and performance. The best performance can be guaranteed even in mission-critical applications.

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