

## iES6-SFP

Industrial 6 Port Lite-managed Ethernet Switch



### Product Overview

The iES6-SFP is an industrial 6 Port lite-managed Ethernet switch with 4 x 10/100Base-T(X) RJ45 ports and 2 x 100Base-X SFP.

The iES6-SFP provides redundancy support through functions such as RSTP assuring protection of all mission critical network applications. iES6-SFP can be managed via the Web, iManage Software Suite, Telnet, and Console (CLI).

The switch is made of IP-40 galvanized steel and has a wide operating temperature range from -40°C to +85°C, which is suitable for the harshest of environments without the use of fans.

# Features and Benefits

Table 1. Common Specification

FEATURE	
SUPPORTS	<ul style="list-style-type: none"> <li>• RSTP (IEEE 802.1 D-2004)</li> <li>• LLDP (Link Layer Discovery Protocol)</li> <li>• Port-based VLAN</li> <li>• SNTP for synchronizing the switch's clocks</li> <li>• MRP - Media Redundancy Protocol*</li> </ul>
SNMP V1 / V2C /V3	
MULTIPLE ALARM NOTIFICATION METHODS	
CONFIGURABLE BY WEB BROWSER, TELNET, CONSOLE(CLI), IMANAGE SOFTWARE RUNNING ON WINDOWS 10, NT/2000/XP/2003/VISTA/7	
DIN RAIL AND PANEL MOUNT	

\* MRP implementation is based on IEC 62439 Ed. 1.0

## PRODUCT SPECIFICATIONS

Table 2. Technical Specification

DESCRIPTION	SPECIFICATION
10/100BASE-T(X) RJ45 PORTS AUTO MDI/MDIX	4
100BASE-X SFP PORTS	2
RS-232 SERIAL CONSOLE PORT	RS-232 in RJ45 connector with console cable: 9600 bps, 8, N, 1
WARNING / MONITORING SYSTEM	Relay output for fault event alarming 2 alarm warning methods for system events supported: <ul style="list-style-type: none"> <li>• SYSLOG with server / client structure; recording and viewing events in the System Event Log</li> <li>• SMTP for notification via email</li> </ul> Event selection per port
ALARM	Relay output to carry capacity of 1 A at 24 VDC

# Product Specifications

## TECHNOLOGY

MAC TABLE	1024 MAC addresses
PROCESSING	Store-and-Forward
SWITCH PROPERTIES	Switching latency: 7 $\mu$ s Switching bandwidth: 1.2 Gbps
SECURITY FEATURES	<ul style="list-style-type: none"><li>• RSTP (IEEE 802.1 D-2004)</li><li>• Enable / disable ports</li><li>• Port-based VLAN</li><li>• SNMPv3 authentication and privacy encryption</li><li>• Web and CLI authentication</li></ul>
SOFTWARE FEATURES	<ul style="list-style-type: none"><li>• Web or CLI based Management (Console or Telnet)</li><li>• Redundancy— RSTP, Fast Recovery, and Ring</li><li>• LLDP</li><li>• Supports SNMPv1/v2/v3</li><li>• Warnings (Syslog and SMTP) and Fault Alarm (power and port failure)</li><li>• SNTP for synchronizing of clocks over network</li></ul>
NETWORK REDUNDANCY	<ul style="list-style-type: none"><li>• RSTP (IEEE 802.1 D-2004)</li><li>• Fast Recovery</li><li>• Ring</li></ul>

## PHYSICAL CHARACTERISTICS

ENCLOSURE	IP-40 Galvanized Steel
DIMENSIONS (W X D X H)	65(W) x 164(D) x 191(H) mm (2.56x6.47x7.53 inches)
WEIGHT (G)	~700 g

## POWER

INPUT POWER	Redundant Power Supplies: Dual Input 24VDC(Nom), 10-36VDC (Oper), or Single Input 48VDC(Nom), 36-75VDC (Oper) with Single 24VDC(Nom), 10-36VDC (Oper) Backup, or Single Input 100-240VDC(Nom), 88-300VDC(Oper) or 100-240VAC(Nom), 85-264VAC(Oper) 50/60Hz with Single 24VDC (Nom), 10-36VDC (Oper) Backup
POWER CONSUMPTION (TYP.)	7 Watts
OVERLOAD CURRENT PROTECTION	Present
REVERSE POLARITY PROTECTION	Internal

# Product Specifications

Table 3. Compliance Specification

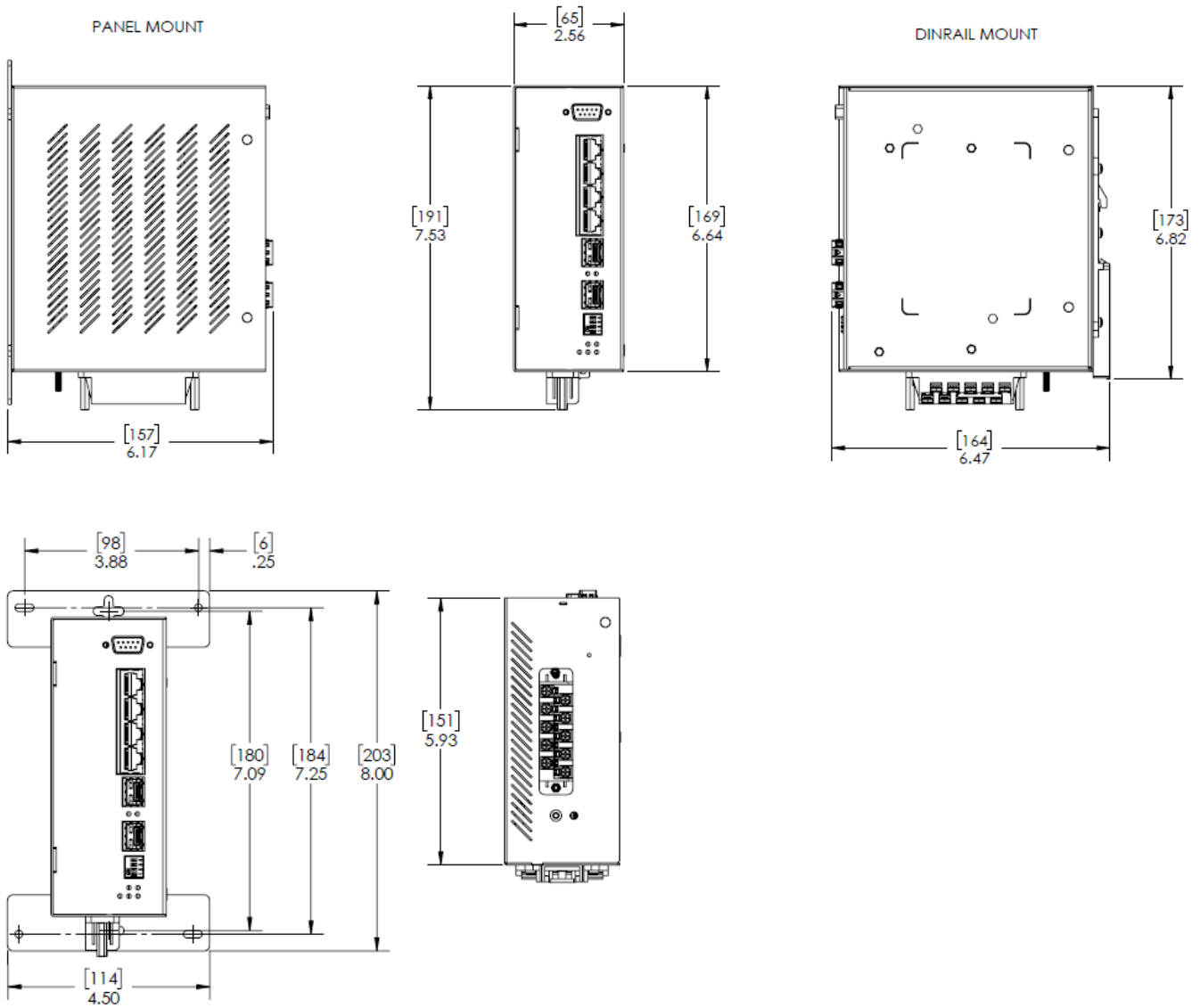
TYPE	STANDARDS
ELECTROMAGNETIC EMISSIONS	FCC Part 15, CISPR (EN55022) class A,
ELECTROMAGNETIC IMMUNITY	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
SAFETY STANDARDS	EN60950-1
OPERATING ENVIRONMENT	-40°C to +85°C (-104° to +185°F) (no fans) EN 60068-2-21
STORAGE ENVIRONMENT	-40°C to +85°C (-104° to +185°F) EN 60068-2-14
OPERATING HUMIDITY	5% to 95% Non-condensing EN 60068-2-30
SHOCK	IEC60068-2-27
FREE FALL	IEC60068-2-32
VIBRATION	IEC60068-2-6
WARRANTY	5 years, (extendable option with additional terms)
MTBF	455104 Hours/ 51 Years (Operating Temperature: 55°C)

Table 4. Standards and Management

DESCRIPTION	SPECIFICATION
IEEE STANDARDS	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3x for Flow control IEEE 802.1D – 2004 Spanning Tree Protocol (RSTP) IEEE 802.1AB – 2016 Station and Media Access Connectivity discovery (LLDP)
RFC COMPLIANCE	<ul style="list-style-type: none"> <li>• RFC 768: UDP</li> <li>• RFC 783: TFTP</li> <li>• RFC 791: IPv4</li> <li>• RFC 792: ICMP</li> <li>• RFC 793: TCP</li> <li>• RFC 854: Telnet</li> <li>• RFC 959: FTP</li> <li>• RFC 1157: SNMPv1</li> <li>• RFC 1901,1902-1907: SNMPv2</li> <li>• RFC 2273-2275: SNMPv3</li> <li>• RFC 2571: SNMP Management</li> <li>• RFC 1166: IP Addresses</li> </ul>

# Dimensions

All dimensions are shown in inches [millimeters].



# Ordering Information

## SUPPORTED SFPs FOR iES6-SFP

ORDER CODE	DESCRIPTION	PORTS 5-6
SFP100-MM-550	SFP 100Mbps Multimode LC Transceiver 550m, 850nm, -40°C to +85°C	•
SFP100-MM-2	SFP 100Mbps Multimode LC Transceiver 2km, 1310nm, -40°C to +85°C	•
SFP100-SM-20	SFP 100Mbps Singlemode LC Transceiver 20km, 1310nm, -40°C to +85°C	•
SFP100-SM-40	SFP 100Mbps Singlemode LC Transceiver 40km, 1300nm, -40°C to +85°C	•
SFP100-SM-100	SFP 100Mbps Singlemode LC Transceiver 100km, 1550nm, -40°C to +85°C	•
SFP100-SM-120	SFP 100Mbps Singlemode LC Transceiver 120km, 1550nm, -40°C to +85°C	•
SFP100BIDI1-SM-40	SFP 100Mbps Bi-Directional Singlemode LC Transceiver 40km, TX1310nm, RX1550nm, -40°C to +85°C	•
SFP100BIDI2-SM-40	SFP 100Mbps Bi-Directional Singlemode LC Transceiver 40km, TX1550nm, RX1310nm, -40°C to +85°C	•

## Ordering Information

BASE	POWER SUPPLY	MOUNT	ETHERNET PORT 1-4	ETHERNET PORT 5&6	MOD	DESCRIPTION
iES6-S	LV	D	4RJ45	2SFP		
iES6-S						Slim Line Core assembly and packaging
	LV					Dual Input 10-48VDC
	MV					Single Input 36-75VDC with Single 10-48VDC Backup
	HV					Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup
		D				DIN Rail Mounting
		P				Panel Mounting
		N				No Mounting Hardware
			4RJ45			4 X 10/100Base-T(X) RJ45
				2SFP		2 X 100Base-X SFP (Blank no optical transceivers**)
					C1	Conformal Coating

### iES6-SFP Sample Order Code

iES6-S-HV-P-4RJ45-2SFP

Description: iES6 - 6 Port Ethernet Switch, (Power Supply) Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup, (Mount) Panel Mounting, (Ethernet Port 1-4) 4 X 10/100Base-T(X) RJ45, (Ethernet Port 5&6) 2 X 100Base-X SFP ports.

The same unit, may be ordered with conformal coating by appending 'C1' to the order code, for example:

iES6-S-HV-P-4RJ45-2SFP-C1

Description: iES6 - 6 Port Ethernet Switch, (Power Supply) Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup, (Mount) Panel Mounting, (Ethernet Port 1-4) 4 X 10/100Base-T(X) RJ45, (Ethernet Port 5&6) 2 X 100Base-X SFP ports, This system will be conformal coated.



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