

Unmanaged Switch

Quick Start Guide

uES4F Series

Industrial 4 Port Unmanaged Ethernet Switch IEC 61850-3 and IEEE 1613 Compliant

Introduction

uES4F/uES4F-S is an unmanaged industrial grade cost-effective 4 ports Ethernet switch which is IEC 61850-3 and IEEE 1613 Compliant. uES4F supports MDI/MDIX auto detection, so no crossover wires are needed.

uES4F/uES4F-S is made of IP-40 galvanized steel, accepts a wide voltage range of 9-36VDC, 36-75VDC, to high voltage of input 110-370VDC or 90-264VAC.

uES4F/uES4F-S features combined with a wide operating temperature of -40°C to 85°C help protect mission-critical applications from network interruptions or temporary malfunctions and make it suitable for the harshest of environments without the use of fans.

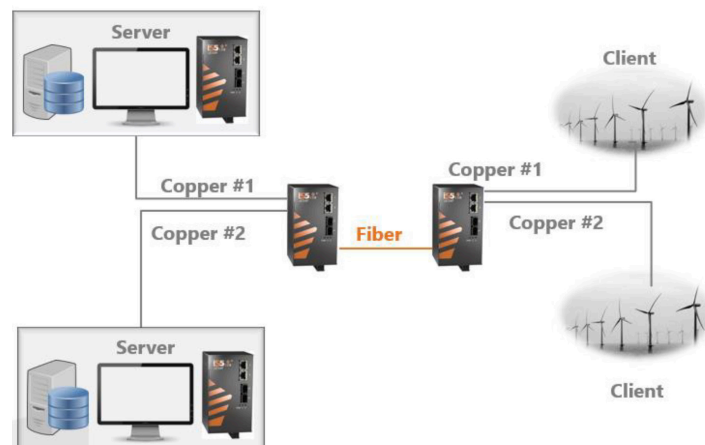
Features

- Supports**
- 2 x 10/100Base-T(X) auto-negotiation and auto-MDI / MDI-X ports and
 - 2 X 100Base-X SFP ports
 - Auto-Negotiation function for 100Base-TX interface
 - Full/half duplex operation
 - Store and Forward transmission

IP-40 Galvanized Steel
Housing Operating Temperature -40°C to +85°C
DIN-Rail and Wall Mount

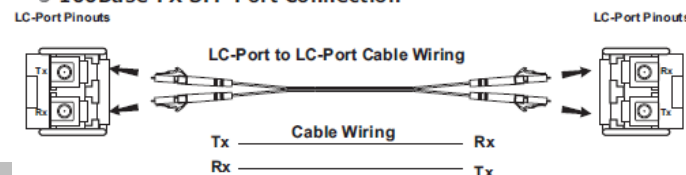


Unmanaged Switch - Network Architecture



Communication Connections

100Base-FX SFP Port Connection



Technical Specification

DESCRIPTION	SPECIFICATION
10/100BASE-T(X) RJ45 PORTS AUTO MDI/MDIX	2
100BASE-FX SFP PORTS	2
TECHNOLOGY	
PROCESSING	Store-and-Forward
PHYSICAL CHARACTERISTICS and POWER	
ENCLOSURE	IP-40 Galvanized Steel
DIMENSIONS (W X D X H)	uES4F: 76.20 (W) x 90.20 (D) x 148.35 (H) mm (3.00 x 3.55 x 5.84 inches) DIN Rail mount 114.3 (W) x 82.51 (D) x 203.20 (H) mm (4.50 x 3.25 x 8.0 inches) Panel mount uES4F-S: 50.80(W) x 88.75(D) x 148.37(H) mm (2.00 x 3.49 x 5.84 inches) DIN Rail mount 51.73(W) x 82.42(D) x 177.80(H) mm (2.04 x 3.25 x 7.00 inches) Panel mount
WEIGHT (G)	uES4F: ~800g uES4F-S: ~600g
INPUT POWER	Input 9-36VDC, 36-75VDC or 110-370VDC (uES4F only) or 90-264VAC (uES4F only)
POWER CONSUMPTION (TYP.)	2.2 Watts
OVERLOAD CURRENT PROTECTION	Present
REVERSE POLARITY PROTECTION	Present on terminal block
TYPE	STANDARDS
ELECTROMAGNETIC EMISSIONS	FCC Part 15, CISPR (EN55022) class A, EN 50155 (EN 50121-3-2, EN 55011, EN 50121-4)
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
INDUSTRY STANDARDS	IEC 61850-3, IEEE 1613
SAFETY STANDARDS	EN60950-1
OPERATING ENVIRONMENT	-40°C to +85°C (-40° to 185°F) (no fans) EN 60068-2-21
STORAGE ENVIRONMENT	-40°C to +85°C (-40° 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	IEC 60068-2-6
WARRANTY	5 years, (extendable option with additional terms)

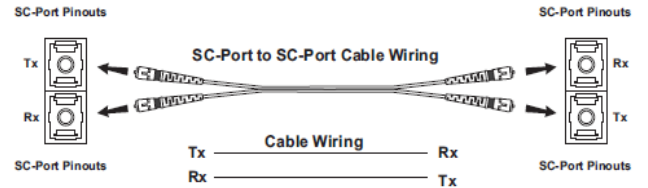
DESCRIPTION	SPECIFICATION
IEEE STANDARDS	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-T(X) and 100Base-FX IEEE 802.3x for Flow control
RFC COMPLIANCE	RFC 4445 MDI

Installation

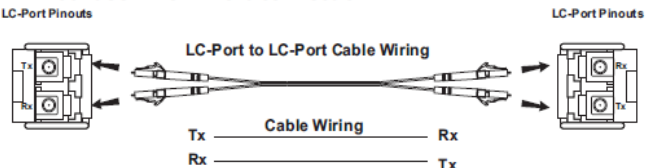


Communication Connections

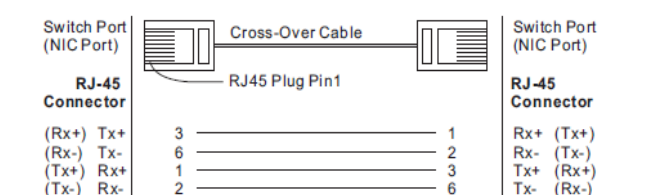
100Base-FX Connection



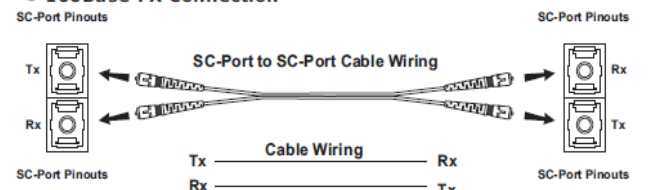
100Base-FX SFP Port Connection



RJ45 (8-pin) to RJ45 (8-Pin) Cross-Over Cable Wiring



100Base-FX Connection



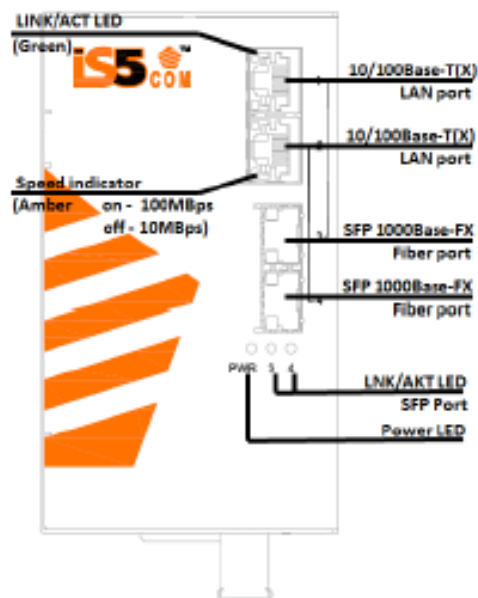
Unmanaged
Switch

Quick Start Guide

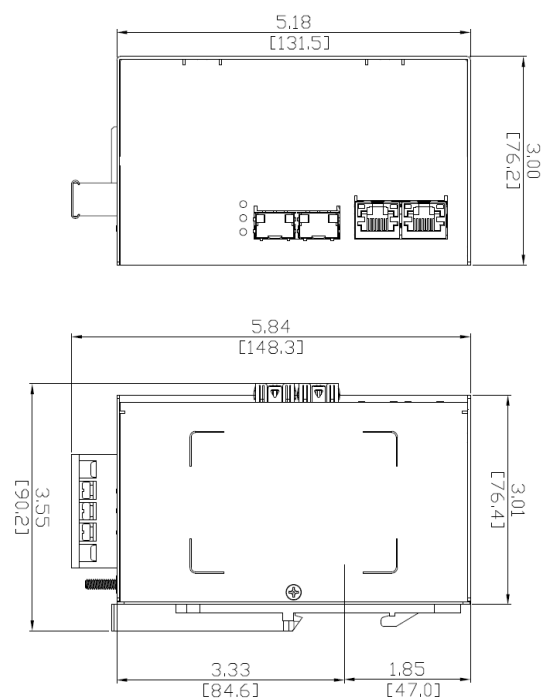
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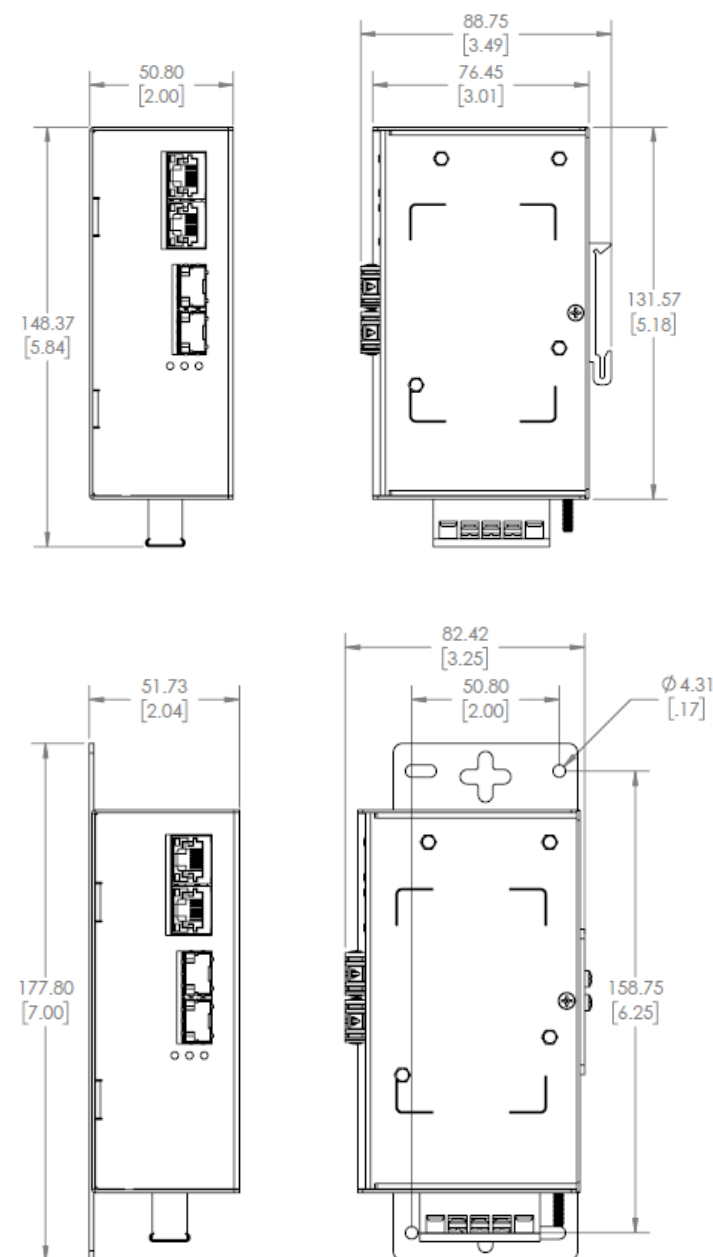
Front Panel



Dimensions uES4F



Dimensions uES4F-S



Power Connection Guide

