

OBU-102 Series

2-channel optical fiber bypass units



Features and Benefits

- Supports Fast, Gigabit, and 10 Gigabit Ethernet fiber connections in SC/ST/LC connectors
- Redundant dual 12/24/48 VDC power inputs
- IP30 metal housing
- -20 to 70°C operating temperature range
- DIN-rail mounting ability
- Ultra-low power consumption 0.72 W

Certifications

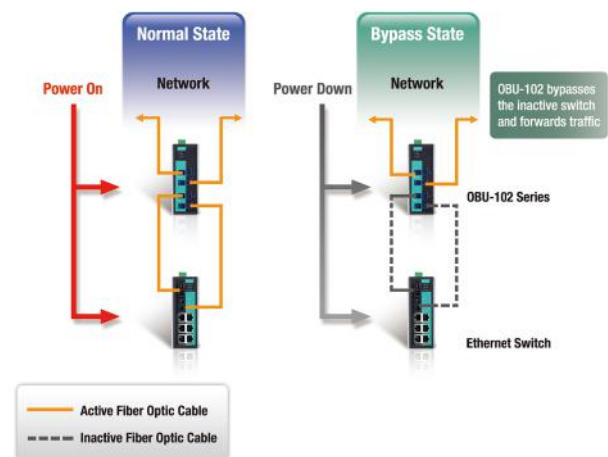


Introduction

Moxa's OBU-102 fiber-optic bypass units add bypass relay functionality to any network node. In linear topologies, a single power outage or node failure can take out an entire chunk of the network, because communications to all the network nodes further down the line are also cut. With relay bypass, that node is bypassed in the event of a failure, and the rest of the network is unaffected.

Bypass Relay Functionality

The OBU-102 Series sits between a node and the network to add bypass relay functionality to any network switches that do not already support this important function. In normal operations, the OBU-102 Series acts as a gateway that forwards network traffic to and from the network switch. However, if power is lost, the OBU-102 will bypass the unpowered switch and simply pass network traffic to the next switch in the relay.



Specifications

Ethernet Interface

Single-Mode Fiber, SC Female Connector	OBU-102-SS-SC: 4
Single-Mode Fiber, ST Female Connector	OBU-102-SS-ST: 4
Single-Mode Fiber, LC Female Connector	OBU-102-SS-LC: 4

Bypass Properties

Optical Switching Time	10 ms (max.)
Insertion Loss	1.6 dB (max.)

Rotary Switch Configuration

Boot Delay Interval	10 steps, each step represents a 5 second delay
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Power Parameters

Input Voltage	12/24/48 VDC, Redundant dual inputs
Input Current	0.1 A @ 48 VDC
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
Weight	700 g (1.54 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

Environmental Limits

Operating Temperature	-20 to 70°C (-4 to 158°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

Safety	UL 508
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV IEC 61000-4-5 Surge: Power: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Freefall	IEC 60068-2-31
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

Warranty

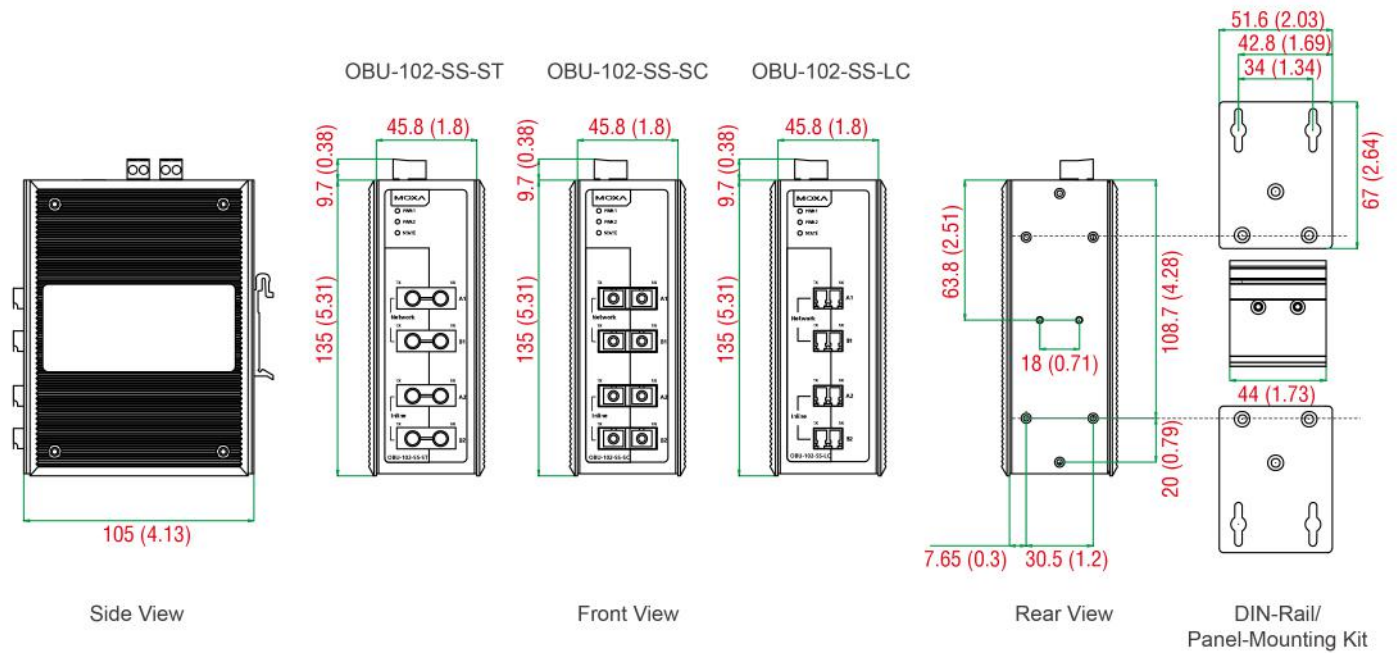
Warranty Period	2 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x OBU-102 Series optical fiber bypass unit
Documentation	1 x quick installation guide 1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Single-Mode Fiber SC Female Connectors	Single-Mode Fiber ST Female Connectors	Single-Mode Fiber LC Female Connectors
OBU-102-SS-SC	4	–	–
OBU-102-SS-ST	–	4	–
OBU-102-SS-LC	–	–	4

Accessories (sold separately)

Power Supplies

DR-120-24	120W/2.5A DIN-rail 24 VDC power supply with universal 88 to 132 VAC or 176 to 264 VAC input by switch, or 248 to 370 VDC input, -10 to 60°C operating temperature
DR-75-24	75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature
MDR-40-24	DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
MDR-60-24	DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

Wall-Mounting Kits

WK-30	Wall-mounting kit, 2 plates, 4 screws, 40 x 30 x 1 mm
WK-46	Wall-mounting kit, 2 plates, 8 screws, 46.5 x 66.8 x 1 mm

Rack-Mounting Kits

RK-4U	19-inch rack-mounting kit
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