

# OBU-102 Series

## 2-channel optical fiber bypass units



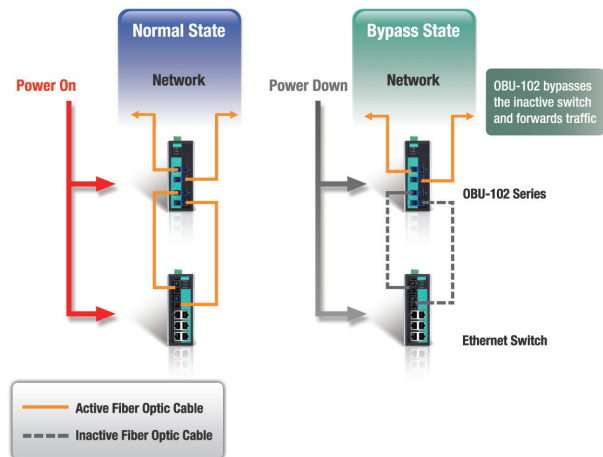
- > Supports Fast, Gigabit and 10 Gigabit Ethernet fiber connections in SC/ST/LC connectors
- > Redundant dual 12/24/48 VDC power inputs
- > IP30 metal housing
- > -20 to 70°C operating temperature range
- > DIN-rail mounting ability
- > Ultra low power consumption 0.72 W



### Introduction

Moxa's OBU-102 fiber optical 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 instead simply bypassed in the event of a failure, and the rest of the network is unaffected.

The OBU-102 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 simply 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

#### Bypass Properties

**Optical Switching Time:** Max. 10 ms

**Insertion Loss:** Max. 1.6 dB

#### Interface

**Fiber Ports:** 100M/1G/10G fiber in SC/ST/LC connector, single mode

**Rotary Switch:** configure boot delay interval

**LED Indicators:** PWR1, PWR2, STATE

#### Power Requirements

**Input Voltage:** 12/24/48 VDC redundant dual inputs

**Overload Current Protection:** 1100 mA @ 48 VDC

**Connection:** 2 removable 2-contact terminal block

**Reverse Polarity Protection:** Present

#### Physical Characteristics

**Housing:** Metal, IP30 protection

**Dimensions:**

53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)

**Weight:** 700 g

**Installation:** DIN-rail mounting, wall mounting (with optional kit)

#### Environmental Limits

**Operating Temperature:** -20 to 70°C (-4 to 158°F)

**Storage Temperature:** -40 to 85°C (-40 to 185°F)

**Ambient Relative Humidity:** 5 to 95% (non-condensing)

#### Standards and Certifications

**Safety:** UL 508

**EMI:** FCC Part 15 Subpart B Class A, EN 55022 Class A

**EMS:**

EN 61000-4-2 (ESD) Level 3, EN 61000-4-3 (RS) Level 3,

EN 61000-4-4 (EFT) Level 3, EN 61000-4-5 (Surge) Level 3,

EN 61000-4-6 (CS) Level 3, EN 61000-4-8, EN 61000-4-11

**Shock:** IEC 60068-2-27

**Freefall:** IEC 60068-2-32

**Vibration:** IEC 60068-2-6

*Note: Please check Moxa's website for the most up-to-date certification status.*

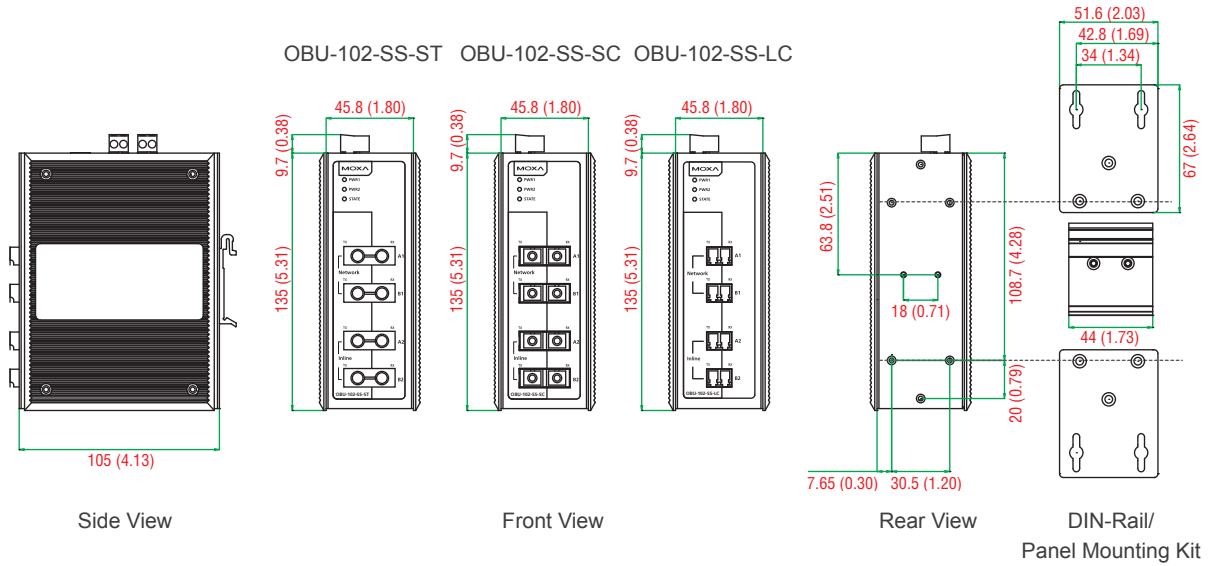
#### Warranty

**Warranty Period:** 2 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

**Dimensions**

Unit: mm (inch)



**: Ordering Information**

Available Models (-20 to 75°C)	Port Interface		
	Single-mode, SC Connector	Single-mode, ST Connector	Single-mode, LC Connector
OBU-102-SS-SC	4	–	–
OBU-102-SS-ST	–	4	–
OBU-102-SS-LC	–	–	4

**Optional Accessories** (can be purchased separately)

**DR-4524/75-24/120-24:** 45/75/120 W DIN-rail 24 VDC power supplies

**MDR-40-24/60-24:** 40/60 W DIN-rail 24 VDC power supplies, -20 to 70°C operating temperature

**WK-30:** Wall mounting kit

**WK-46:** Wall mounting kit

**RK-4U:** 4U-high 19" rack mounting kit

**Package Checklist**

- OBU-102 unit
- Hardware installation guide (printed)
- Warranty card