

BS-MC-50 Low-rate optical converter



BS-MC-50

- Low-rate optical converter dedicated for conversion of optical signals used by protection relays
- Range of applications:
- MM (820nm/1300nm) to SM (1310/1550nm) conversion
- Wavelength conversion (CWDM, DWDM)
- Signal repeating
- Optical interfaces:
- Local interface: 820/850nm or 1300nm, ST connectors, up to 115,2kbit/s transmission speed
- Line interface : SFP or built-in SC connectors, (MM/SM/xWDM)
- Port status LED signalization
- One or two optical interfaces (1+1 protection, ability to operate in ring/bus topology)
- Optional redundant power supply

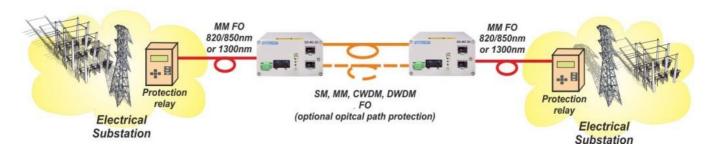
BS-MC-50 low-rate optical converters can transmit multi-mode RS232/485, 820/850/1300 nm optical signal used by protection relays (differential, distance, voltage, frequency protection) over SM/CWDM/DWDM fiber optical path. Local interface is realized by built-in 820/850/1300nm multi-mode optical interface with ST-connectors. Line interface can be realized by SFP modules or built-in optical interface with SC connectors.

BS-MC-50 device can be used to provide:

- MM (820nm/1300nm) to SM (1310/1550nm) conversion
- Wavelength conversion (CWDM, DWDM)
- · Signal repeating

BS-MC-50-P version of device is equipped with two optical interfaces to provide optical path protection (and ability to operate in ring/bus topology).

Typical application is presented on the drawing below:



Protection relays commonly used in electrical substations operates at low bit-rates. BitStream's optical devices can be used to provide conversion of such signals

BS-MC-50 is able to operate in-pair with RSMUX2-FO optical multiplexer to provide optical connectivity between pair of protection relays/ controllers, one using optical RS232/485 interface and second one using electrical RS232/485 interface.





The **BS-MC-50** is supplied with direct current source, with rated voltage value within the range of 12-60V or from an external direct voltage power supply unit delivered on an order by the producer. Device can be mounted directly on the DIN rail.

PARAMETERS

Optical local interface

BS-MC-51 version:

- ST connectors, 820nm, MM
- 0-115,2 kbit/s transmission speed
- Sensivity: -25,4 dBm
- Tx power: -18,8dBm (50um), -16dBm (62,5um),
 -12dBm (100um), -7dBm (200um)

BS-MC-52 version:

- ST connectors, 1300nm, MM
- 0-115,2 kbit/s transmission speed
- Sensivity: -21 dBm
- Tx power: -17,0dBm (50um), -14,0dBm (62,5um)

Optical line interface

- One or two optical interfaces
- SM, MM, WDM, 1310nm, 1550nm
- Fiber type 9/125um, 62,5 / 125um
- SC connector
- Ranges depending on the type of optical port 15km, 50km, 120km (1550nm), 20km WDM, WDM, 40km, 60km WDM
- Device is also available with SFP port.

Dimensions

- Housing: 103 x 77 x 53mm
- Suitable for mounting on DIN rail
- Weight: 0.5 kg

Power

- Supply voltage range: 12-60V DC,
- Optional external power supply
- Power Consumption: up to 4W



BS-MC-5X-Y-(Z)-(P)-UUU

Power supply 5 - 12-60V DC 55p - 2x 12-60V DC

Optional

Version with two line interfaces

Optional

Type of transceiver (only for WDM):

- 1 1310/1550 nm
- 2 1550/1310 nm
- 3 1310/1550nm and 1550/1310 nm (only for P version)

Optical line interfaces:

S - 1310 nm SM/MM - 15km range

M - 1310 nm SM/MM - 50km range

L - 1550 nm SM/MM - 100km range

WDM interfaces:

(type of transiceiver option required)

WS - 1310/1550 nm SM - 20km range

WM - 1310/1550 nm SM - 40 km range

WL - 1310/1550 nm SM - 60km range

WLL - 1510/1570 nm SM - 100km range

SFP - optical line interface realized by SFP module

Local optical interface:

- 1 820/850nm MM up to 1,5km transmission range, ST connectors
- 2 1300nm MM up to 5km transmission range, ST connectors



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