Fiber Optic Coupler
560FOC40

Application
The 560FOC40 module is intended for use in RTU560 configurations with binary I/O modules 23BA40 / 23BE40.
The module 560FOC40 is used to transmit data via fiber optical cables.
Fiber-optic cables are not sensitive to inductive and capacitive interference as well as to differences in potential between two data communication units/systems.
Fiber-optic links will be used to cover large distances in critical environments or if potential isolation is required.
Available version is 820 nm multimode glass fiber optic.
- RTU560 I/O Bus
- RS485 (inactive signal = light off)
The board 560FOC40 is snap mounted.

The board is available in the following version.
- 820 nm glass fiber optic bayonet lock socket type: BFOC/2.5 (IEC 874-10)
The fiber-optic cable connection is done by the sockets at the base side.
The maximum distance between two 560FOC40 module depends on
  - fiber-optic cable type
  - number of fiber splices
The exact distance has to be specified by the fiber-optic cable used (see Technical Data). The output optical power can be adapted in two steps to the actual cable length.
The maximum transfer rate is given by the serial peripheral bus.
The 560FOC40 module connects the housings either in a star configuration or in a multipoint-T configuration (Fig. 2 and 3).
Two LED’s on the front panel indicate the following operation states:
  - R/T Receive / Transmit data active
  - ON 560FOC40 active
The serial peripheral I/O bus can be terminated directly on the module 560FOC40.
The module 560FOC40 can be used together with the modules 23OK22 and 23OK24.
Fig. 2: Multipoint Configuration

Fig. 3: Star Configuration
Technical Data

In addition to the RTU560 general technical data, the following applies:

**Fiber optic coupler**

- Wave length: 820 nm glass-fiber optic
- Input optical power: min. 24 dBm, max. 12 dBm
- Transmission rate: 5 MBit/s
- Normal position of light: Off
- Fiber glass length:
  - 50/125 μm => 1400 m
  - 62.5/125 μm => 2600 m

**Power supply**

- Supply voltage: 24 V DC / 200 mA (18 ... 30 V DC)

**RTU560 peripheral bus and RS485 bus**

- Signals: TA / TB; RxA / RxB
- Input voltage: -12 V to +15 V
- Output voltage: 5 V max. (at 54 Ohm load) 1.5 V min.
- Input impedance: > 12 kΩ
- Transmission rate: 19.2 kBit/s
- Ready to receive after send: < 10 μsec.
- No optical echo approx. 10 μsec.

**Connection types**

- Fiber-optic connector: F-ST (BFOC)
- El. connector: terminals
- El. cable length: max. 50 m

**Mechanics**

- Dimension: 82 x 93 x 22.5 mm (HxDxW)
- Weight: 0.25 kg
- Case: Polyamide, black Snap mounting

**Environmental conditions**

- Temperature: 0 ... 70 °C
- Relative humidity: 5 ... 95 % (non condensing)

**Ordering information**

- 560FOC40 R0001 1KGT011500 R0001

**Note:**

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents - in whole or in parts - is forbidden without prior written consent of ABB AG.

Copyright© 2012 ABB
All rights reserved