Application Note

Using Fiber Optic Data Transceivers

1. Introduction

This document describes how to use the ComNet FDX60 fiber optic data transceiver to create a fiber optic cabling bridge between SDI2 devices. You can use the ComNet FDX60 fiber optic data transceiver to connect SDI2 devices via fiber optic cabling. Using fiber optic cabling allows you to extend the distance between SDI2 devices. Do not include the length of the fiber cabling in your wire length calculations for the SDI2 bus. Building-to-building SDI2 connections of SDI2 devices such as keypads, access control modules, power supplies, wireless receivers, input modules, and output modules are easily made.

Notice!
Use of the ComNet fiber optic data transceiver and SDI2 devices has not been investigated by Underwriter's Laboratories. Do not use for UL applications or applications that include fire alarm components.

Notice!
Bosch does not provide technical support for ComNet devices. Contact ComNet with any problems you might have while installing this device.

Products affected

- B9512/B8512 Control Panels.
- B6512/B5512/B4512/B3512 Control Panels
- B520 Auxiliary Power Supply Module
- SDI2 Devices (keypads and modules)

2. Install the FDX60

2.1 Suggested modules

- FDX60-1
- FDX60-M-1

Please consult with ComNet to determine the correct module for your application.

Limitations:

- One ComNet device per SDI2 bus.
- Maximum of 3 SDI2 devices may be connected to a ComNet device.

SDI2 bus:

- ComNet device must be within 10 ft of the control panel with wiring in conduit.

2.2 Power connections

You can power the transceiver on the control panel end of the fiber cabling with the control panel or a B520 Auxiliary Power Supply Module (or other auxiliary power supply).

You must power the transceiver on the remote end of the fiber cabling with a B520 Auxiliary Power Supply Module (or other auxiliary power supply).

The B520 is a fully supervised power supply and communicates its status to the control panel via the SDI2 bus. The B520 allows you to power both the transceiver and SDI2 devices.

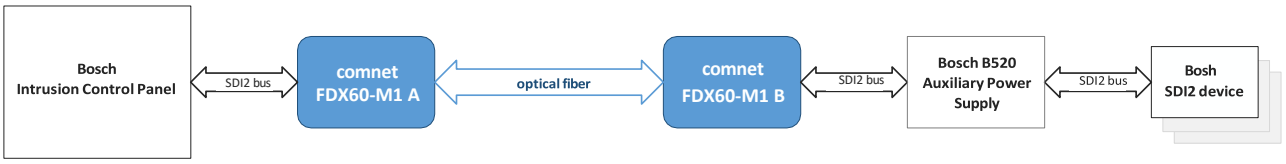
2.3 Data connections

Connect the SDI2 bus B/G (green) terminal to the FDX60 -DATA IN/OUT (-I/O) terminal.

Connect the SDI2 bus A/Y (yellow) terminal to the FDX60 +DATA IN/OUT (+I/O) terminal.

Notice!

You can connect up to three SDI2 devices to the transceiver on the remote end of the fiber cabling. Connecting more than three devices might cause unexpected behavior.

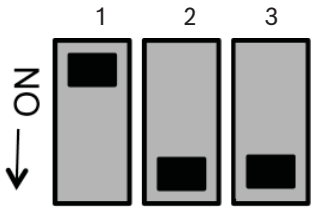


3. Configure the FDX60

The switches to configure the FDX60 are on the front panel on full size transceiver modules. The switches are on the back of small size modules.

Switches one (1) and two (2) set the data type. Switch three (3) toggles Loop Back Test Mode.

Set the switches as shown below:



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