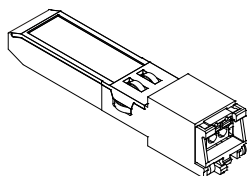


EVOLVE-NET-TP Twisted-Pair SFP Network Controller Installation Sheet



Description

The EVOLVE-NET-TP small form-factor pluggable (SFP) network controllers support data communication over one twisted-pair wire. Each controller supports a single twisted-pair wired intranet connection within the life safety system. These links are supervised for opens, shorts, ground faults, and continuous communications.

The EVOLVE-NET-TP supports all command and control functions.

EVOLVE-NET-TP network controllers plug into one SFP slot in either the EVOLVE-MEDIA1 media converter or EVOLVE-MEDIA2 dual port media converter.

Installation

Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.

Caution: Equipment damage hazard. This product is sensitive to electrostatic discharge (ESD). To avoid damage, follow accepted ESD handling procedures.

Note: When stripping wire ends, exposing more wire may cause a ground fault; exposing less wire may result in a faulty connection. Strip 0.35 in. (9 mm) from the ends of all wires that connect to the EVOLVE-NET-TP.

To install the SFP network controller:

1. Close the bale clasp (Figure 1), and then make required connections. Refer to Wiring.

Gently push the wire into the wiring terminals in the controller until a stop is felt. See Figure 1. Gently pull the wires to make sure that you cannot remove them.
2. Insert the SFP network controller into the media converter until it is seated into the connector (Figure 2). Firmly press the SFP network controller into the slot until it latches (clicks).
3. Without releasing the bale clasp, gently pull the SFP network controller to make sure that you cannot remove it.

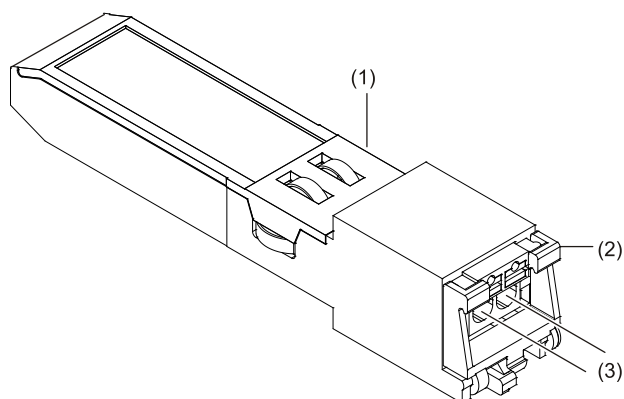
To uninstall the SFP network controller:

1. Open the bale clasp.
2. Gently pull the SFP network controller out of the media converted SFP connector by pulling on the open bale clasp.
3. Press both wire release buttons using a #6 (1/8 in. span) spanner tool, and then remove the wires from the EVOLVE-NET-TP. See Figure 3.

Notes

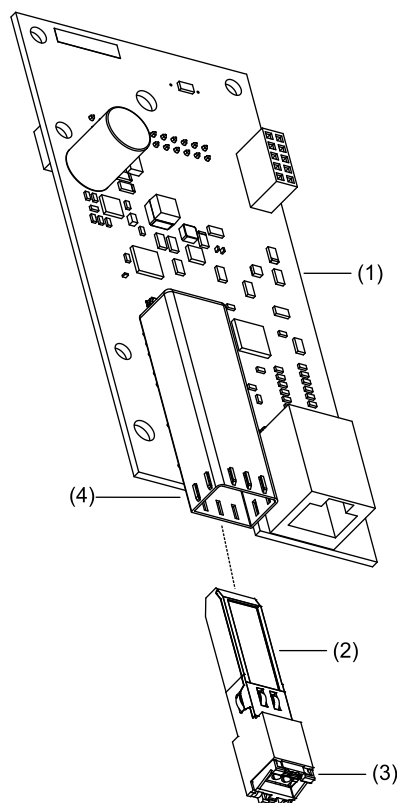
- Depending on the installation, it might be easier to remove the wires from the controller after the controller is removed from the module.
- SFP network adapters are hot-swappable.

Figure 1: EVOLVE-NET-TP components



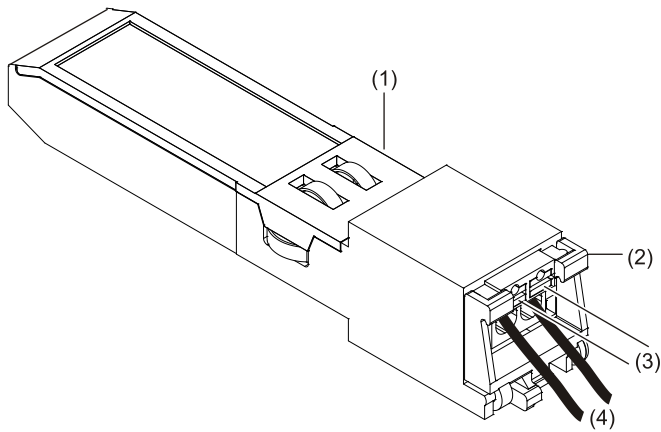
- | | |
|----------------------------|--------------------|
| (1) SFP network controller | (3) Wire terminals |
| (2) Bale clasp | |

Figure 2: EVOLVE-NET-TP installation



- | | |
|----------------------------|-------------------|
| (1) Media converter | (3) Bale clasp |
| (2) SFP network controller | (4) SFP connector |

Figure 3: SFP wire removal



- (1) SFP network controller
(2) Bale clasp
(3) Wire release buttons
(4) Wires

Wiring

Network data circuit wiring is supervised and power-limited. The wiring connections on the EVOLVE-NET-TP are *not* polarity sensitive.

Supported wiring styles include:

- Class A/DCLA
- Class B/DCLB
- Class X/DCLC

Table 1: Cabling specifications

Wire type	Wire size	Circuit length [1]	Maximum circuit resistance	Maximum circuit capacitance	Communication speed
UTP - Unshielded twisted-pair (UTP) other than CAT cables [2]	16 to 22 AWG	5,000 ft. (1,524 m)	80 Ω	0.09 μF	Up to 2 Mbps TX and RX Communication
CAT 5e or better - UTP that meets ANSI/TIA/EIA-568-A definition	22 to 24 AWG	328 ft. (100m)	N/A	N/A	Up to 2 Mbps TX and RX Communication
Shielded twisted-pair (STP) other than CAT cables [3]	Not supported				

- [1] Circuit length is between any two nodes.
[2] It is recommended to use 16 to 18 AWG for reliability and simplicity of installation.
[3] Shielded twisted-pair is not supported for the EVOLVE-NET-TP.

Specifications

Current [1]	
Standby/Alarm	32 mA at 24 VDC
Cable specifications	See Table 1
Operating environment	
Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing

[1] Used for battery calculations

Regulatory information

FCC compliance	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Environmental class	UL/ULC: Indoor dry IEC: 3K5

Contact information

For contact information, see www.kidde-esfire.com.