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4E-FSC installation and user guide	**Author:**	**DD**

SUMMARY

This document includes installation guide of 4E-FSC, the multimode fiber network interface for 4EVAC Voice Evacuation Systems. It explains how the 4E-FSC should be installed. Installation instructions are addressed to the trained technical personnel, such as installers, service technicians and commissioning engineers.

REVISION AND APPROVAL

Rev.	Date	Nature of Changes	Approved By
01	05-07-2018	Original draft	DD

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Thank you for choosing 4EVAC as your solution for Voice Evacuation System.

4EVAC Compact 500 is all-in-one-box Voice Evacuation System. The box contains a completely integrated Voice Evacuation System, capable of both standalone and network operation. 4EVAC Compact 500 is certified in accordance to EN54-16 and EN54-4, which are harmonized standards under Construction Products Regulation, mandatory in the European Union.

1. What is the 4E-FSC?

4E-FSC is DIN-rail mounted, optical multimode fiber signal adapter dedicated for 4EVAC Voice Evacuation Systems. 4E-FSC is dedicated only for G-Net (Global Network) of 4EVAC system, interconnecting main units of the system. It extends single link range up to 2 km.

Fiber adapter is powered directly over the G-Net port.

4E-FSC features standard SC connector for the fiber cable, providing easy click-in connection.

2. Installation

a) Install the 4E-FSC on a DIN rail, inside the housing of the 4EVAC main system.
b) Connect 4E-FCS to the G-Net port, using crossed CAT5e patch cable.
NOTE: G-Net port of the main unit is equipped with a power link jumper. Make sure it is in CLOSED position (power over G-Net), otherwise 4E-FSC adapter will remain unpowered.

c) Observe power indicator on 4E-FSC (green LED) to turn on.
d) Remove rubber plugs from SC connector and connect optical cable with SC plug.
e) Repeat previous steps on the other side of the link.
NOTE: 4E-FSC makes use of full duplex data link, therefore your optical cable must have 2 fibers per link, each for one direction of data transmission. Also, make sure that optical fibers are connected properly on both sides of the link (TX -> Rx).

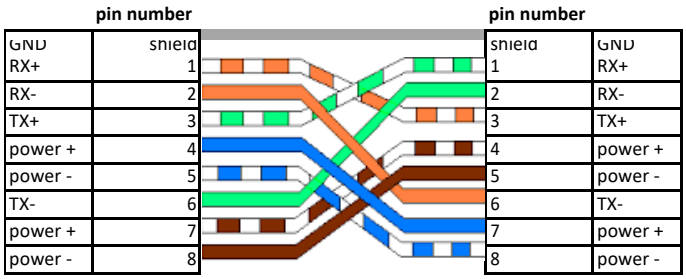
3. Connection diagram

4. Network cabling

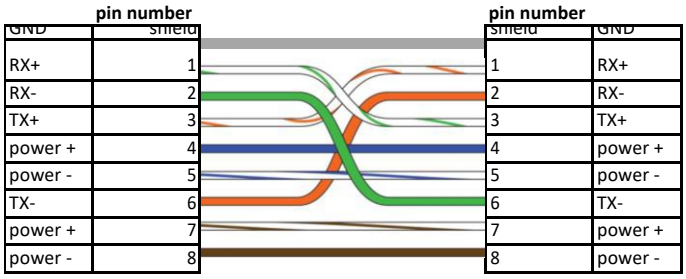
4EVAC network features full duplex RS-422 data link and 24V DC power to remote devices.

If you're building distributed system using 4EVAC network, you should make physical links between devices using the right cables. Cabling should meet following requirements:

1. Crossover twisted-pair cable (compatible with Ethernet crossover)



xover type A cable



xover type B cable

2. CAT5e or higher for maximum distance of 250m.
3. Non-CAT / lower than CAT5e: 250m not guaranteed.
4. Shield required (at least FTP)

NOTE: If you use a straight cable, the device will power up but the Tx/Rx data terminals will not be properly connected. This will result in communication fault.

Caution! Use only crossover cables and keep correct pinout! Connecting power pins to data pins will damage the network port.

5. Technical specifications

4E-FSC	
Power consumption @24V	20 mA
Maximum range (optical)	2000 m
Optical interface	
Wavelength	820 nm
Compatible fiber type	multimode Plastic-Clad Silica (PCS): 50/125 µm 62.5/125 µm (recommended) 100/140 µm 200 µm
Connector	SC
Cable type	Double fiber (full duplex)
Transceiver details	Avago (Broadcom) Tx: HFBR-14E4Z Rx: HFBR-24E2Z *manufacturer's datasheet: docs.broadcom.com/docs/AV02-0176EN*
Mechanical	
Dimensions HxWxD)	9 x 3.6 x 6.2 cm
Weight	70 g
Housing material	ABS
IP rating	IP 30
Mounting	DIN rail
Operating conditions	
Temperature	10–40°C
Relative humidity	max. 90% (non condensing)
Storage temperature	-40–70°C

COMPACT500

MADE IN THE NETHERLANDS

4EVAC is a trade name of:

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