# INT-MONO-TCP/IP-P2P

# **TCP/IP Interface - Monomode Fiber**

## Installation Manual - Peer to Peer TCP/IP connection

#### Introduction

The current manual describes how to connect two Global Fire Addressable Panels via peer-to-peer Mono-mode Fiber. The present "KIT" offers a solution to convert TCP/IP to Monomode Fiber.

By acquiring the INT-MONO-TCP/IP-P2P "kit", Global Fire Equipment will provide a pre-configured setup. This equipment is only to be used as a Peer-to-Peer connection solution. No other configuration is needed. This "KIT" includes a power supply module, SFP converters and cables.

The "kit" contains a 3rd party converter, the MMC-GASFP Mini Media Converter developed by FS company already coupled with a SFP module, the SFP1G-LX32 also developed by FS  $\widehat{\mathbb{R}}$ .

Pre-installed GFE-TCP/IP-INT modules should already be installed. This kit will only serve as an "ethernet tunnel" through monomode fiber.

Please be aware that GFE-TCP/IP-INT modules are sold separately.

The preconfiguration of the mono-mode converters are made in the factory by Global Fire Equipment and is exclusively for use in dedicated peer-to-peer connection. All internal module configuration, specific to monomode and Ethernet TCP / IP communication, should never be changed.

#### Please Note:

- Installation of the Monomode Fiber should only be used as dedicated P2P network. This equipment can not be integrated into a pre-existing network or any networked system.
- Factory reset to the pre-programmed equipment is not allowed or recommended (using the dedicated button). Global Fire Equipment is not responsible for their reprogramming in case of clients factory reset action.
- Please be aware that neither the GFE-TCP/IP-INT nor Monomode Fiber cable are supplied in this "KIT".

## Point to point connection (TCP/IP to MONOMODE to TCP/IP)

Physically, to make a "point-to-point" connection, two single-mode independent fibers (TX and RX) must be used. This pair of fibers will be soldered to a "LC Duplex" plugs so that later can be fitted into the SFP interface (integrated in the MMC-GASFP Mini Media Converter module).

The base configuration will always be between a GFE TCP / IP INT module configured as a Server and another GFE TCP / IP INT configured as Client. The INT-MONO-TCP / IP-P2P "kit" only serves as a "transparent connection". The system network configuration is always done directly in the GFE TCP / IP INT module. For more information please consult <a href="https://www.globalfire.pt">www.globalfire.pt</a>



Complete equipment needed for a Peer to peer connection (per panel connection):

- TCP/IP interface (not included in the "kit")
  - 1 x GFE TCP/IP INT.
- Cable between GFE TCP/IP INT and MMC-GASFP
  - o Ethernet RJ45 cable.
- GFE BUCK module (5V PSU)
  - o 28V to 5V converter
- Power Cables
  - GFE Buck Supply cable (28V) + Monomode Converter Supply Cable (5V)
- TCP/IP to SFP Module converter
  - 1x MMC-GASFP Mini Media Converter from www.fs.com
- SFP to Monomode Fiber converter
  - 1 x SFP1G-LX-31 from www.fs.com
- Monomode Fiber connector + MMF/SMF fiber (both not included in the "kit")
  - o Monomode Fiber pair (TX+RX) with "LC duplex" connector on each end.

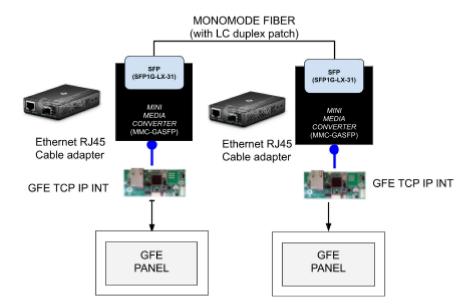


Ethernet Module->SFP (MMC-GASFP)



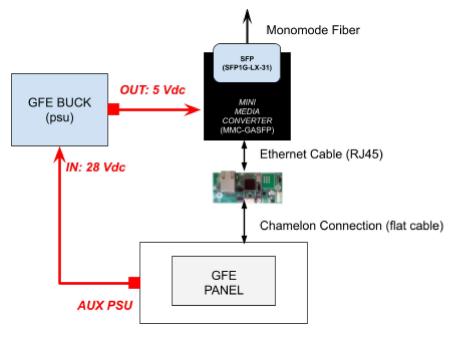
SFP Module (SFP1G-LX-31)

### **Connections**





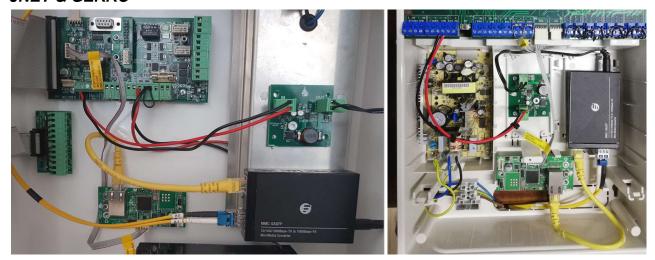
# **Kit Supply connections**



## **Assembly suggestion**

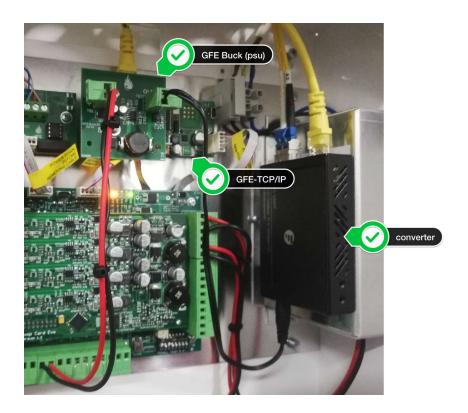
The following assembly suggestions are not mandatory. If the assembly is difficult, an application of an extra box just aside is recommended. Please contact Global Fire Equipment for further instructions.

### JNET & GEKKO





## OCTO+ & NODE+







## **Danger of laser presence**

Never look directly at the fiber optic emitters. Radiation from light transmitted through the fiber can lead to serious consequences to your vision, including blindness.

ORDER CODE		
GFE-TCP/IP-INT	Global Fire Equipment Ethernet interface	
INT-MONO-TCP/IP-P2P	Kit: 1 x MMC-GASFP+ 1 x Cable adapter + 1 x SFP1G-LX-31 + 1 x GFE BUCK	

Technical Specifications		
Power Supply (MMC-GASFP)	5V DC / 2A max. (5.5 watts max)	
Dimensions	97 x 70 x 26 mm	
Weight	200g	
Temperature and Humidity	0-50°C (10%-90% RH)	
Certifications	FCC Class A	

#### ATTENTION:

For further information, please read the 3rd party manufacturer equipment (www.fs.com) datasheet and manual. Global Fire Equipment is not responsible for the correct behaviour of these equipments.

References		
Ethernet to SFP Slot Module	MMC-GASFP from FS	
Recommended SFP Module	SFP1G-LX-31 from fs.com (LC duplex @ FP 1310nm)	
Recommended Fiber (accordingly with 3rd party converter manufacturer)	MMF (A mode-conditioning patch cord, as specified by the IEEE standard, is required regardless of the span length. Note how the mode conditioning patch cord for 62.5-µm fibers has a different specification from the mode-conditioning patch cord for 50-µm fibers).  SMF (ITU-T G.652 SMF as specified by the IEEE 802.3z standard)	

## **GLOBAL FIRE EQUIPMENT S.A.**

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