



**FB-FirePAC®**  
**Main Termination Panel (MTP)**  
**1756-MTP-1002**



**Overview**

FB-FirePAC is a Protected Premises Control Unit and Combination System that is NRTL tested and approved to meet ANSI / UL-864 10th Edition and various other UL & NFPA codes as required by this standard.

The FireBus Main Termination Panel (MTP) transmits and receives data to / from the FB-FirePAC Fire Protection Interface (FPI) module in the ControlLogix® chassis and other components in the system.

These other components include two FB-AP Series® analog addressable smoke detection loops and up to four 7254-ITP-48AM system monitor and interface units with 48 zone annunciator.

**FPI Connections**

The MTP and FPI are connected utilizing redundant Cat-5e cables with RJ-45 style connectors on both ends. The connections are labeled "A" and "B" both on the MTP and at the FPI and are connected "A to A" and "B to B". This fault tolerant link is designed to maintain communications within the system even if one of the links is disconnected or otherwise compromised.

**ITP Data Link (ITPDL) Connections**

There are two RJ-45 style connections on the MTP that allow communication with FireBus Intelligent Termination Panels (ITPs) over a fault-tolerant digital communication network called the ITP Data Link or "ITPDL". This data link is a "Class X" Signaling Line Circuit (SLC) that allows the Programmable Automation Controller (PAC) or FPI to communicate with and control devices on the ITPDL.

The ITPDL connections are labeled "Start" and "End". If ITPs are used in the system, connect the "Start" port of the MTP to the "IN" port on the first ITP in the system. The "OUT" port on the ITP connects to the "IN" port of the next ITP or in the case of the last ITP, the "OUT" port connects back to the "END" port on the MTP.

This creates a fault-tolerant "loop" starting and ending at the MTP. This fully redundant link ensures full and proper operation of the system even if one of the links is disconnected or otherwise compromised.

**Hardware Compatibility**

The 1756-MTP-1002 Main Termination Panel (MTP) is compatible with FB-FirePAC systems based on the 1756 ControlLogix platform from Rockwell Automation. The MTP is an extension of the FPI which is a part of the Integrated Architecture and offers the benefits of utilizing the Common Industrial Protocol (CIP) for sharing Fire & Gas data via EtherNet/IP®, ControlNet®, and DeviceNet® networks.

**MTP Indicating LED's**

The MTP has the following 12 LED's giving status information on the addressable loops and releasing system:

- Loop 1 Trouble
- Loop 1 Alarm
- 24 VDC Power On
- Loop 2 Trouble
- Loop 2 Alarm
- Releasing Enabled
- Pre-Discharge
- Discharge
- Abort
- Manual Release
- Post Discharge
- Water Flow

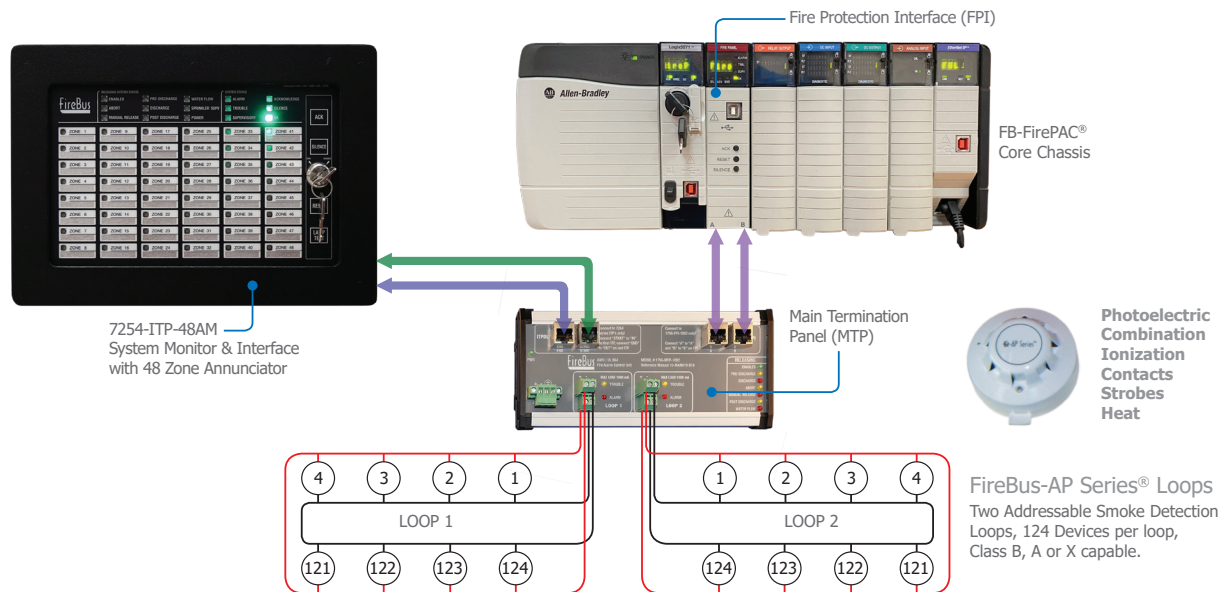
**FB-AP Series® Addressable Smoke Detection**

Each MTP supports two 124 device addressable smoke detection networks, 248 total devices. These networks can be wired in either a Class B (spur) or Class A (loop) topology, upgradable to Class X by using isolator bases.

Each network has four terminals, two "lower deck" constituting the origin point for the network and two "upper deck" providing a return point if "Class A" wiring is used. Class A is most common and is a "loop" topology. Typical addressable devices:

- Ionization Smoke Detector
- Heat Detector
- Optical Smoke Detector
- Contact Monitor
- Combination Detector (Heat & Smoke)
- NAC Module

<p><b>Main Termination Panel (MTP)</b> Part No 1756-MTP-1002</p> <p><b>Control Platform:</b> FB-FirePAC on the 1756 ControllLogix Platform</p> <p><b>Software Compatibility:</b> Studio 5000 Logix Designer Rev. 32 and up.</p> <p><b>Device Configuration:</b> Studio 5000 Logix Designer Add On Profile (AOP) for FPI, ITPs and FB-AP Series devices.</p>	<p><b>Operating voltage:</b> 18–30 VDC</p> <p><b>Communication protocols:</b> FireBus (FPI to MTP).</p> <p>FB-AP to Smoke Loops</p> <p>FireBus ITPDL to Intelligent Termination Panels.</p> <p><b>Current (24 vdc):</b> Standby: 180 mA Alarm: 220 mA</p> <p>* FB-AP Loop current calculated separately, MTP capable of supplying up to 1 Amp @24 VDC per loop.</p>	<p><b>EMI/RFI compatibility:</b> ANSI/UL 864-2014 10<sup>th</sup> Edition Section 84</p> <p><b>Temperature range:</b> Max. continuous operating 158°F (70°C) Min. continuous operating -4°F (-20° C) (no condensation/icing)</p> <p>Storage -40°F to +176°F (-40°C to +80°C)</p> <p><b>Humidity:</b> 5 to 95% relative humidity (no condensation)</p>	<p><b>Approvals:</b> Control Units and Accessories For Fire Alarm Systems [UL 864:2014 Ed. 10]</p> <p><b>Location rating:</b> Class I, Div. 2, Groups B,C,D (Pending)</p> <p>7 3/4 in (200mm) Long 3 1/2 in (89.6mm) Wide 2 1/2 in (60.6mm) (in base)</p> <p><b>Weight:</b> 8.9 oz (252g)</p> <p>Materials: ROHS compliant</p>
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**Ordering information:**

- 1756-FPI-1002 Fire Protection Interface (FPI) module.
- 1756-MTP-1002 Main Termination Panel (MTP)
- 7254-ITP-48AM Annunciator Module