



FB-FirePAC® Fire Protection Interface (FPI) 1756-FPI-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 1756-FPI-1002 Fire Protection Interface (FPI) natively integrates two addressable smoke detection networks into the ControlLogix line of Programmable Automation Controllers (PAC) and provides operator interface elements required by the fire codes.

The FPI interfaces to the FireBus 1756-MTP-1002 Main Termination Panel (MTP) via redundant communication links. The MTP provides terminals for connecting the two smoke detection loops to the system.

In addition the FPI / MTP combination interfaces to up to four FireBus 7254-ITP-48AM System Monitor / Zone Indicator Panels. This panel displays system status, provides remote acknowledge, silence & reset capability and has a 48 zone LED indicator panel controllable by PAC logic.

Operator Interface Elements

The faceplate and front panel of the FPI contains indicators and operator inputs required by the fire codes. This includes a four digit alphanumeric display, several color coded LEDs and three operator pushbuttons:

- Alarm LED
- Acknowledge LED
- Acknowledge PB
- Trouble LED
- Silence LED
- Silence PB
- Supervisory LED
- Ground LED
- Reset PB

Communications

The FPI communicates natively to the PAC via the backplane like other I/O or communication modules in the system and to the smoke detectors and ITPs by dual fault tolerant Cat-5 cables to the MTP with RJ-45 connectors on each end. Each cable contains power, ITP Data Link and smoke detector communication. If either cable is damaged or missing, 100% functionality is maintained.

Hardware Compatibility

The 1756-FPI-1002 Fire Protection Interface (FPI) is a plug in module compatible with FB-FirePAC systems based on the 1756 ControlLogix platform from Rockwell Automation. The FPI is a part of the Integrated Architecture and offers the benefits of the Common Industrial Protocol (CIP) for sharing Fire & Gas data via EtherNet/IP®, ControlNet®, and DeviceNet® networks.

Software Compatibility

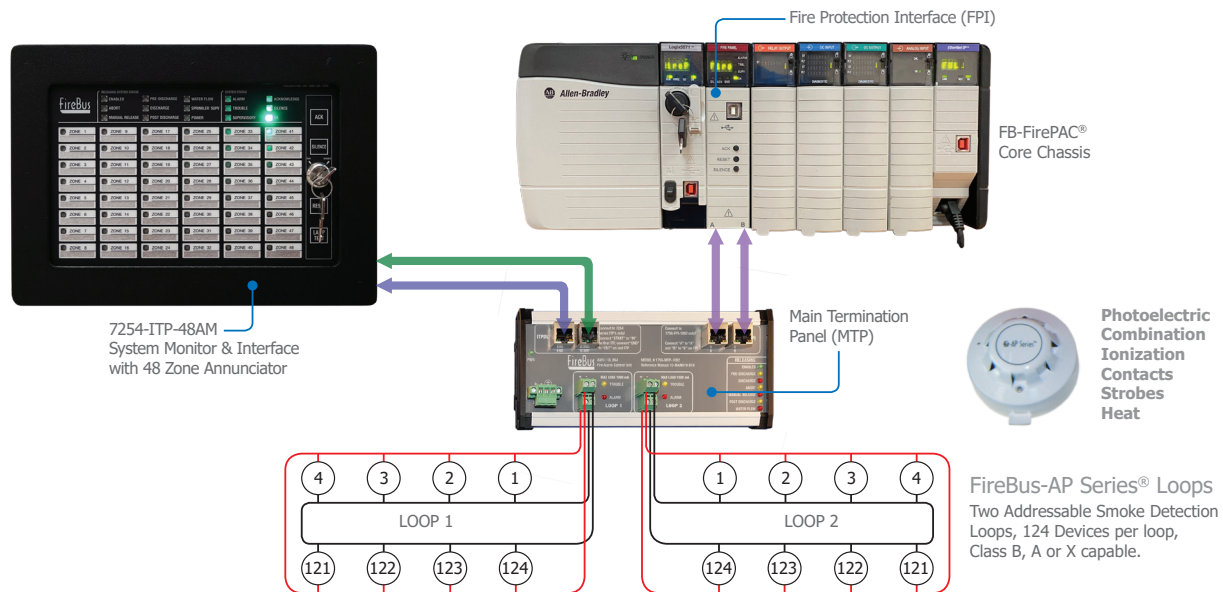
The programming and configuration of the FPI is done via an Add On Profile (AOP) within the Studio 5000 Logix Designer® programming environment allowing the FPI to be added to the "module tree" and configured like native controller, communication and I/O modules. This combines with the FireBus FireLogix® certified, secure Add On Instructions (AOI's) containing logic routines and elements for ANSI / UL-864 compliance and support for a wide range of industry leading field devices like gas detectors, optical and visual flame detectors. This tight software integration puts the FB-FirePAC among the most flexible Fire Alarm Control Units (FACU) in the world.

FB-AP Series® Addressable Smoke Detection

The FPI supports two analog addressable smoke detection loops, each having up to 124 devices. Each loop has a dedicated communication processor in the FPI and the devices on each loop are configured utilizing the RSLogix 5000 software. The status of these detection and alarm products are reported directly to the logic solver in the PAC where the user logic for the Fire Alarm Control Panel (FACP) resides and is executed. Typical addressable devices:

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

<p>Fire Protection Interface (FPI) Part No 1756-FPI-1002</p> <p>FB-FirePAC System: Up to 4 FPI's / System, 8 addressable loops, 992 addressable devices, 4 ITP data link units.</p> <p>Control Platform: 1756 ControllLogix with up to 128,000 Point-To-Point I/O (Up to 4000 Analog points)</p> <p>Software Compatibility: Studio 5000 Logix Designer Rev. 32 and up.</p> <p>Device Configuration: Studio 5000 Logix Designer Add On Profile (AOP) for FPI, ITPs and FB-AP Series devices.</p>	<p>Operating voltage: 18–30 VDC</p> <p>Communication protocols: Common Industrial Protocol (CIP) to ControllLogix logic solver.</p> <p>FB-AP to smoke detector addressable networks.</p> <p>FireBus ITPDL to Intelligent Termination Panels.</p> <p>Maximum current: Total: 500 mA</p>	<p>EMI/RFI compatibility: ANSI/UL 864-2014 10th Edition Section 84</p> <p>Temperature range: 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>Humidity: 5 to 95% relative humidity (no condensation)</p>	<p>Approvals: Control Units and Accessories For Fire Alarm Systems [UL 864:2014 Ed. 10]</p> <p>Location rating: Class I, Div. 2, Groups B,C,D (Pending)</p> <p>Dimensions: 5 3/4 in (146.0 mm) Long 1 1/4 in (31.75 mm) Wide 5 1/8 in (130.17 mm) Deep</p> <p>Weight: 10.5 oz (297g)</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