SECTION 1 - INTRODUCTION

OVERVIEW

The IMMFP12 Multi-Function Processor Module (MFP) is one of the workhorses of the INFI 90® OPEN control module line. It is a multiple loop analog, sequential, batch and advanced controller that provides powerful solutions to process control problems. It also handles data acquisition and information processing requirements providing true peer-to-peer communications. The comprehensive set of function codes supported by this module handles even the most complex control strategies. The INFI 90 OPEN system uses a variety of analog and digital I/O modules to communicate with and control the process. The MFP module communicates with a maximum of 64 modules in any combination (refer to Figure 1-1).

The MFP module has three operating modes: execute, configure and error. In the execute mode, the MFP module executes control algorithms while constantly checking itself for errors. When an error is found, the front panel LEDs display an error code corresponding to the type of error found. In the configure mode, it is possible to edit existing or add new control algorithms. In this mode, the MFP module does not execute control algorithms. If the MFP module finds an error while in execute mode, it automatically goes into error mode. Refer to the Section 4 of this instruction for operating mode details.

A one megabaud CPU to CPU communication link allows the MFP module to accommodate redundant processors. This link enables a backup MFP module to wait in a hot standby mode while the primary MFP module executes the control algorithms. If the primary MFP module goes off-line for any reason, a bumpless transfer of control to the backup MFP module occurs.

INTENDED USER

Personnel installing, operating, or maintaining the MFP module should read this manual before performing any installation, operation, or maintenance procedures. Installation requires an engineer or technician with experience handling electronic circuitry. Formal training in INFI 90 OPEN systems and configuration (especially function codes) would help when configuring the MFP module.

HARDWARE DESCRIPTION

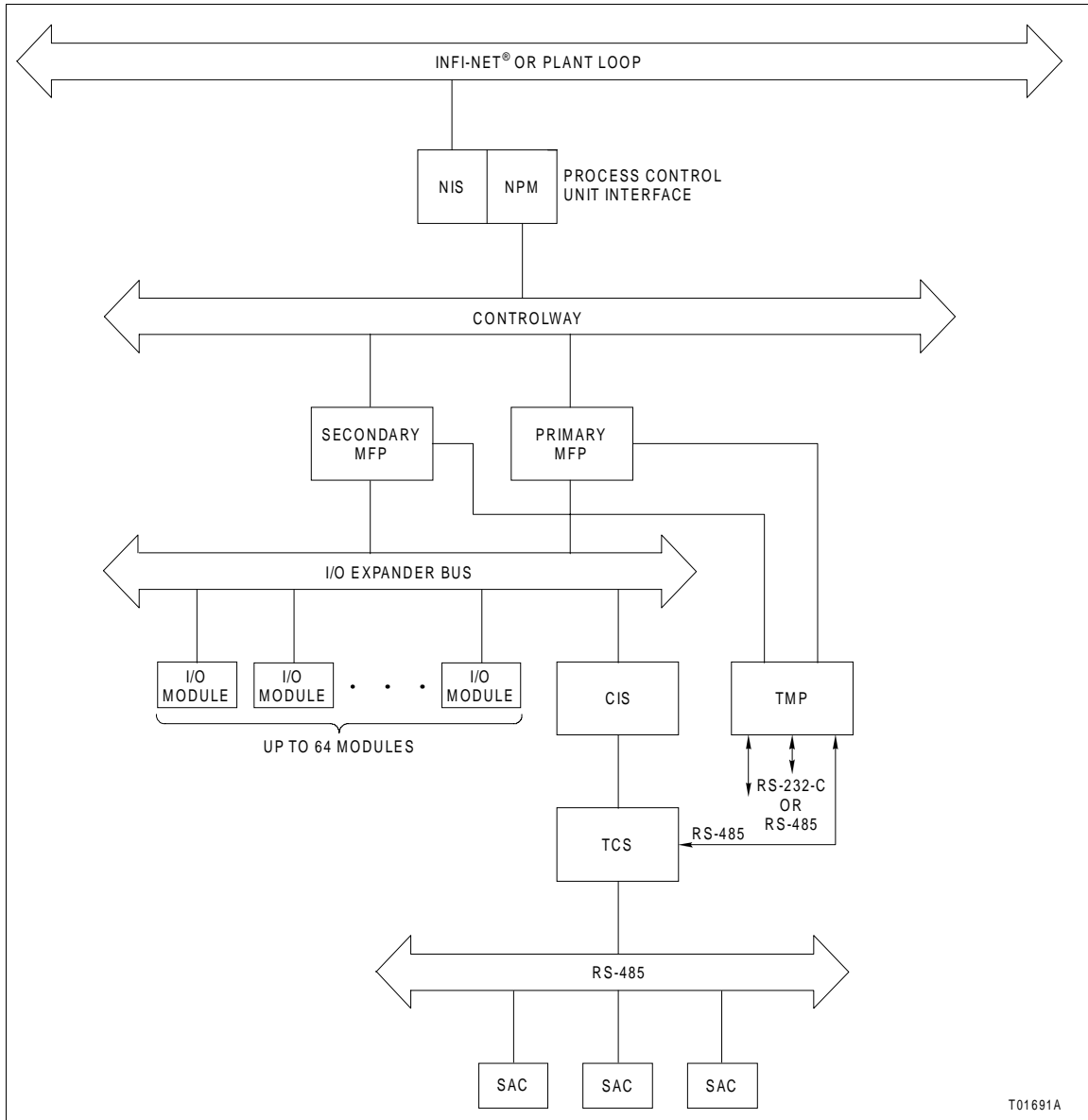The multifunction processor module consists of a faceplate and circuit board.

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Figure 1-1. Example IMMFP12 Module Applications

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Faceplate

The MFP faceplate measures 35.56 millimeters wide by 177.80 millimeters high (1.4 inches wide by seven inches high). Two latching screws, one at the top, the other at the bottom, lock the module assembly into the module mounting unit. A transparent window on the faceplate permits viewing of LEDs one through eight and the status LED. These LEDs display operating information. A small hole directly below the window provides access to the combination stop/reset pushbutton. Besides locking the module in place, the faceplate also protects the circuit components and promotes proper air flow within the cabinet.