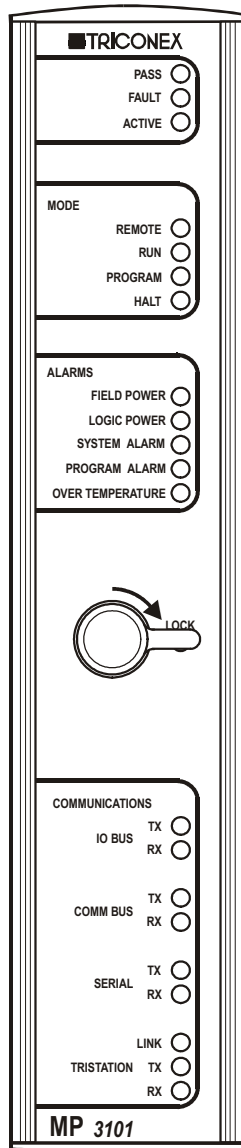


Models 3101 Main Processor Module

MP Module
Front Panel



Main Processor Module Specifications

Application Processor

Feature	Specification
SX Processor	Motorola MPC860, 32-bit, 50 MHz
Flash PROM	6 MB used for SX, IOX, and control application storage CRC-protected
DRAM	16 MB used for SX control application execution and program and SOE data Byte parity
NVRAM	8 KB, used for retentive variables CRC-protected
Clock calendar	
Accuracy during power on	1 sec/day typical 2.2 sec/day maximum
Accuracy during power off, with battery backed up	2.2 sec/day typical 9.2 sec/day maximum
Battery	½ AA lithium, 15-year predicted life
TriBus	25 Mbps CRC-protected 32-bit + parity DMA
TriStation port	1 10BaseT Ethernet connector RJ-45 shielded connector on baseplate
Modbus port	1 RS-232/485 DTE DB-9-pin shielded connector on baseplate
Debug port	Used to access diagnostic information RJ-12 connector located on baseplate, shared with IOX debug port
Communication bus	RS-485 2 Mbps HDLC
Alarm contacts	Redundant, normally closed

Input/Output Processor

Feature	Specification
IOX Processor	Motorola MPC860, 32-bit, 50 MHz
DRAM	16 MB, used for IOX execution Byte parity
Shared memory	128 KB, used to communicate with SX Byte parity
Diagnostic bus	2 Mbps HDLC, used to communicate I/O module diagnostic information between MP channels
Debug port	Used to access diagnostic information RJ-12 connector located on baseplate, shared with SX debug port
I/O bus	RS-485 2 Mbps HDLC

Logic Power

Feature	Specification
Nominal input voltage	24 V DC
Operational voltage range	24 V DC $-15\%/+20\%$ + 5% AC ripple (+19.2 / +30 V DC)
Logic power	8 W maximum
Absolute maximum input voltage	33 V DC
Absolute maximum reverse input voltage	-0.6 V DC
Input power interruption time from nominal	1 ms minimum
Repetition rate	1 sec maximum
Reverse current isolation input to input	500 μ A maximum
In-rush current per input	2.4 A maximum 1.2 A for 50 ms, typical
Short circuit current limit per input	2.4 A maximum
Functional-earth-to-logic-ground isolation	0 V, no isolation
Protective-to-functional-earth isolation	500 V DC

Communication Ports

Modbus Port

Feature	Specification
Connector	DB-9-pin DTE standard, shielded, located on baseplate
RS-232 maximum cable length	15 m (50 ft)
RS-485 maximum cable length	1.2 km (4,000 ft)
Supported transmission rates (bps)	1200, 2400, 4800, 9600, 19.2 K, 38.4 K, 57.6 K, 115.2 K
Protocols	Slave, RTU mode, optional parity, 1 stop bit
Galvanic isolation	500 V DC

Network Port

Feature	Specification
10BaseT connector	RJ-45 standard, shielded, located on baseplate
10BaseT maximum cable length	100 m (330 ft) using category 5 twisted-pair cable
Protocol	TriStation, TSAA, Triconex Peer-to-Peer
Network address	Derived from baseplate address plug
Galvanic isolation	500 V DC

System and IO Executive Debug Ports

Feature	Specification
Connector	RJ-12, Triconex proprietary pin-out
Maximum cable length	8 m (25 ft)
Protocol	RS-232, 9600 bps, ASCII, asynchronous
Galvanic isolation	500 V DC