Serial Interface I/O F	Processor/FTA - Modbus
------------------------	------------------------

MU-TSIM12

Parameters	Specification
Physical Interface	EIA-232 or EIA-485
Devices Supported	Multivendor Qualified Modbus Compatible Devices
Distance, Power Adapter to FTA	 Internal cable within APM/HPM cabinet or External cable 300 m (1000 ft.) maximum
Surge withstand capability	ANSI/IEEE C37.90.1-1978
ESD Protection	IEC 801.2
Number of Devices per SI	 2 FTAs per SI Up to 15 devices per FTA
Data Quantity per IOP	16 Points per serial channel (organized as Arrays in the APMM/HPMM) Each point can access <i>one</i> of the following: 512 Booleans into FLAGS 16 Reals or 32 Integers into NUMERICS 64 NUMERICS (Diagnostic Counter Data Only) 1 STRING of 64 Characters 2 STRINGS of 32 Characters 4 STRINGS of 16 Characters 8 STRINGS of 8 Characters
Serial Data Format	8 data bits with programmable 9th bit
EIA RS232 Support Transmission Mode: Lines Supported: Distance, FTA to Device:	Serial asynchronous, bidirectional TXD, RXD, RTS, CTS, DSR, DTR, DCD, Logic GND, Protective GND 15 m (2500 pf cable capacity maximum)
EIA-RS485 Support Transmission Mode: Lines Supported: Common Mode Operation: Number of drops: Distance, FTA to Device:	Serial asynchronous, bidirectional, half duplex only Two wire, differential pair: Data+(B), Data-(A), Protective GND (shield) 250 Vac rms (continuous) 15 drops maximum 1.2 Km (4000 ft.) maximum
Modbus Interface Specification Protocol: Serial Line Mode: Selectable Baud Rates: Selectable Parity: Number of Stop Bits: Modem Control Support: Keep Alive Cell Write Message Response Timeout: Exception Errors Reported: Data Formats Supported: Intermessage stall time: Function Codes Supported:	(Default parameters are shown in <u>bold</u> .) Modbus, Remote Terminal Unit (RTU) <u>RS232</u> or RS485 1200, 2400, 4800, 9600, <u>19200</u> bps None, <u>odd</u> , or even 1 Selectable ON/ <u>OFF</u> Configurable address/ <u>NONE</u> Configurable timeout/ <u>1.5 seconds</u> All Boolean, Real, ASCII Strings, Signed Integers 3.5 character time minimum 01, 02, 03, 04, 05, 06, 08, 16