

Serial Interface (SI) (APM and HPM only)

The **Serial Interface** IOP provides a communications interface to Modbus or Allen-Bradley compatible subsystems (see Figure 3). Each serial interface IOP, by way of a Power Adapter, supports any combination of up to two FTAs. Note that the SI IOP is supported by the APM and HPM *only*. Each FTA supports one port and up to 16 array points.

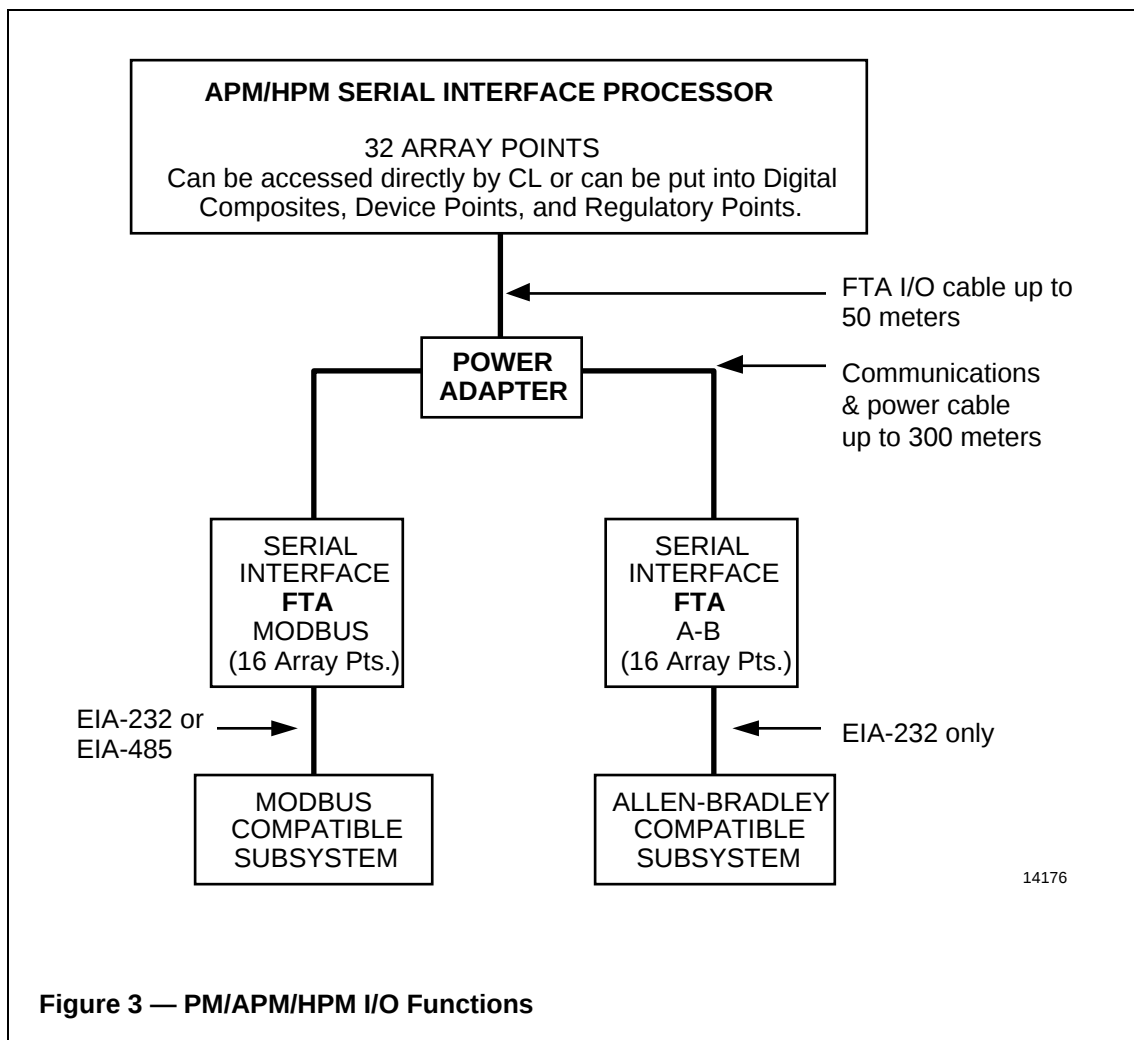


Figure 3 — PM/APM/HPM I/O Functions

Serial Device Interface (General Specifications)**MU-PSDX02**

Parameter	Specification
FTA Models	MU-TSDM02, TSDT02, TSDU02
Input Channels	1 galvanically isolated serial channel per FTA
Interface Type	EIA-232, EIA-422 or EIA-485
Points per FTA (Maximum of two FTAs per IOP)	1-8
Points per IOP	1-16
Common Mode Voltage, dc to 60 Hz	250 Vac rms or ± 250 Vdc
Dielectric Strength	1500 Vac rms or ± 1500 Vdc (channel to PM/APM/HPM)
Surge withstand capability	ANSI/IEEE C37.90.1-1978

Serial Device Interface - Toledo Weigh Cell**MU -TSDT02**

Parameter	Specification
Physical Interface	EIA-232 using DB-25 female connector
Device Supported	Toledo Weigh Cell Model Number 8142-2089
Lines Supported (EIA-232)	Transmit Data, Receive Data, Request To Send, Clear To Send, Data Set Ready, Data Terminal Ready, Data Carrier Detect, Logic Ground, Protective Ground
Full Modem Support	No
Distance, Power Adapter to FTA	- Internal cable within PM/APM/HPM cabinet or - External cable 300 m (1000 ft.) maximum
EIA-232 Cable Length, FTA to Device	15 m (2500 pF cable capacity maximum)*
Surge withstand capability	ANSI/IEEE C37.90.1-1978
ESD Protection	IEC 801.2
Number of Toledo Weigh Cells	2 FTAs per SDI IOP 1 Toledo Weigh Cell per FTA
Baud Rate	9600 bps fixed rate
Data Transfer	Bidirectional, Half-Duplex
Message Validity	- Single-bit character parity - Message block checksum

* Consult factory for longer lengths.

Serial Device Interface - Manual/Auto Station

MU-TSDM02

Parameter	Specification
Physical Interface	EIA-485 Multidrop using 5-terminal compression connector
Device Supported	Honeywell Manual/Auto Station
Lines Supported (EIA-485)	R (Data+), Data+, Shield, Data-, R (Data-)
Full Modem Support	No, Multidrop is not a modem interface
Distance, Power Adapter to FTA	- Internal cable within PM/APM/HPM cabinet or - External cable 300 m (1000 ft.) maximum
EIA-485 Cable Length, FTA to Device	1.2 km (4000 ft.) with appropriate cable*
Surge withstand capability	ANSI/IEEE C37.90.1-1978
ESD Protection	IEC 801.2
Number of Manual/Auto Stations	2 FTAs per SDI IOP 4 Manual/Auto Stations per FTA
Baud Rate	19.2 Kbps
Transmission Mode	Asynchronous, Bit Serial
Data Transfer	Bidirectional, Half-Duplex
Message Validity	- Single-bit character parity - Message block checksum
Tag ID Downloaded	8 Characters
PV Range	EUHI and EULO downloaded
Input Scan Rate	Four updates per second per point

* Refer to PM I/O Installation manual (PM20-520).