



## Modbus Adapter Unit - MAU

### APPLICATIONS

The MODBUS ADAPTER UNIT (MAU) is to provide tank parameter data measured by SBEM Float Gauges / Servo Gauges / Hybrid based systems &/or Smart Tank Data Transmitters (STDT) with other supervisory systems e.g. SCADA / DCS GATEWAY / LOADING RACK COMPUTER OR SUPERVISORY COMPUTER in RTU MODBUS format.

MAU is control room (safe area) mounted instrument, which accepts tank parameter data directly from field bus/ buses & provides the same on RS 485/ RS 232 port with MODBUS Remote Terminal Unit (RTU) protocol output on MODBUS slave driver.

### ENCLOSURE:

The MODBUS unit is made of powder-coated enclosure with 4 welding mounting brackets for mounting of MAU. This unit can be mounted on wall or inside of panel in a control room.

### FEATURES

- High Reliability and Extended Life
- Low Cost
- No maintenance
- Disply

### SPECIFICATIONS

**Power** : 110 /230 VAC  $\pm$ 15%, 50Hz, 2VA

**Field Devices** : Smart Tank Data Transmitter / Servo Gauge/ Hybrid Servo Gauge

**Output Port** :

- ◆ Communication : Serial
- ◆ Type : EIA RS 232C, full duplex, no handshaking OR EIA RS 485, Half duplex, no handshaking (optional)
- ◆ Baud Rates : selectable 1200/ 2400/ 4800/ 9600
- ◆ Data Protection : Cyclic Redundancy check (CRC)
- ◆ Protocol : Modbus RTU

**Protection** :

- ◆ Opto-isolators provide isolation between input /output terminals & internal circuitry.
- ◆ Surge protection using Metal Oxide Varistors.

**Environment** :

- ◆ Operating temperature 0 to 55°C.
- ◆ Relative humidity 95% max., Non-Condensing
- ◆ Storage temperature: -40 to 85°C



Modbus Adapter Unit (MAU)

### SPECIFICATIONS (Cont.)

**Mounting** : Wall / panel Mounting. (inside) safe area

**Construction** : Powder-coated enclosure

**Terminations** : Suitable for 2.5mm<sup>2</sup> conductor

**Cabling** :

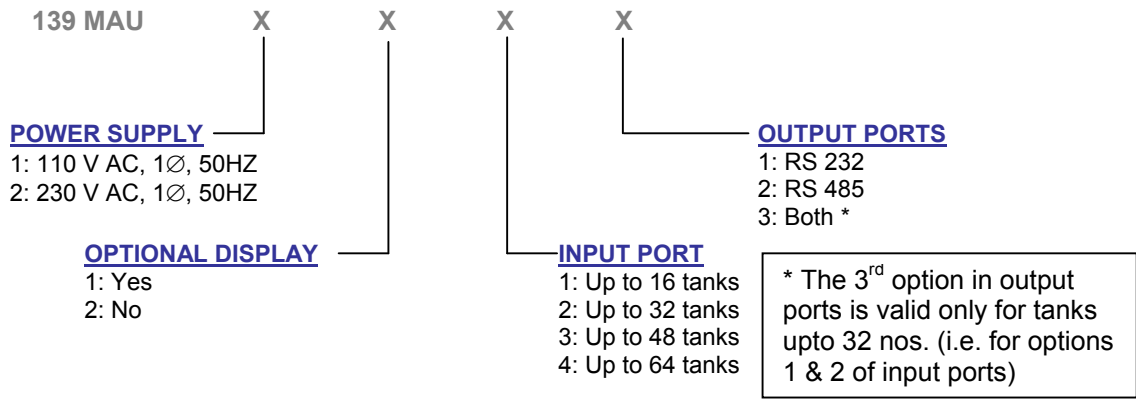
From ITU in control room: 2 core X 1 mm<sup>2</sup> Copper conductor cable PVC insulated.

From Signal Junction Box (JBS) in field: 1 pair X 1mm<sup>2</sup>. Twisted pair shielded copper PVC insulated armored cable.

**Input Port:** 1 / 2 / 3 / 4

- ◆ Communication: Serial
- ◆ Type: EIA RS 485, Half Duplex, No Handshaking.
- ◆ Baud Rate: 1200/ 2400/ 4800/ 9600
- ◆ Protocol: SBEM proprietary.
- ◆ Data Protection: longitudinal parity check & vertical checksum
- ◆ No. of tanks: Maximum 64 tanks –16 field devices on one port X 4 port

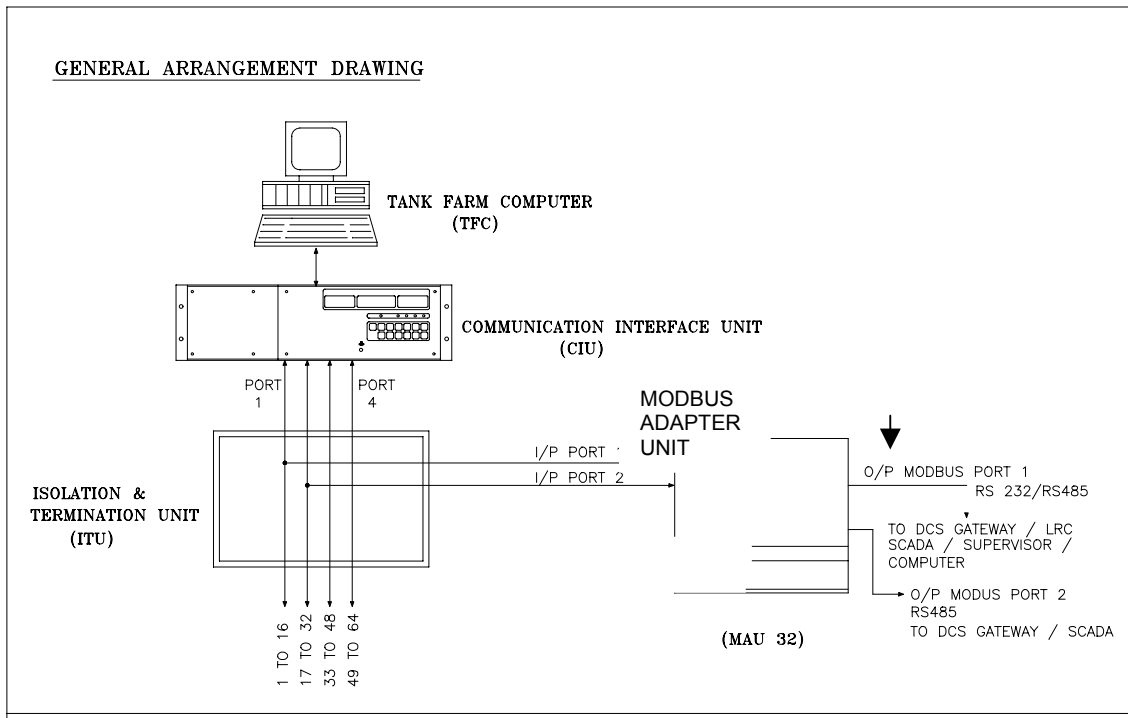
**ORDERING INFORMATION:**



**ORDERING EXAMPLE: 139 MAU 2 1 2 3**

MODBUS Adapter Unit with 230V AC, single phase, 50 Hz power supply, with display in it, with 2 input ports i.e. for 32 tanks and both output ports – RS 232 & RS 485.

**GENERAL ARRANGEMENT**



\*\*\* Continuous developments may necessitate various changes without prior notice.

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