



# MODBUS ADAPTER UNIT

## 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 eg. 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

## SPECIFICATIONS

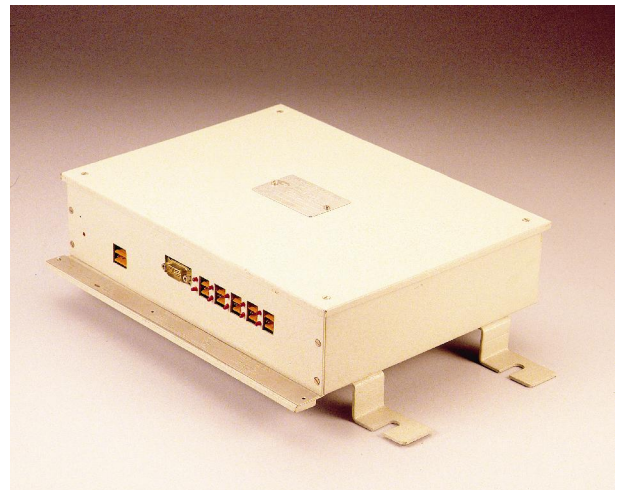
**Power** : 110 /230 VAC  $\pm$ 15%, 50Hz, 2VA

**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** :  
◆ Optoisolators 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



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

**Construction** : Powder coated enclosure

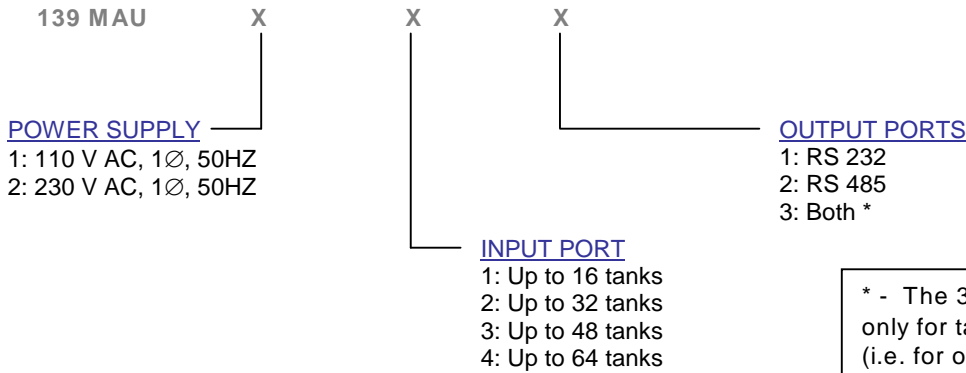
**Terminations** :  
Suitable for 2.5mm<sup>2</sup> conductor cable.

**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:**

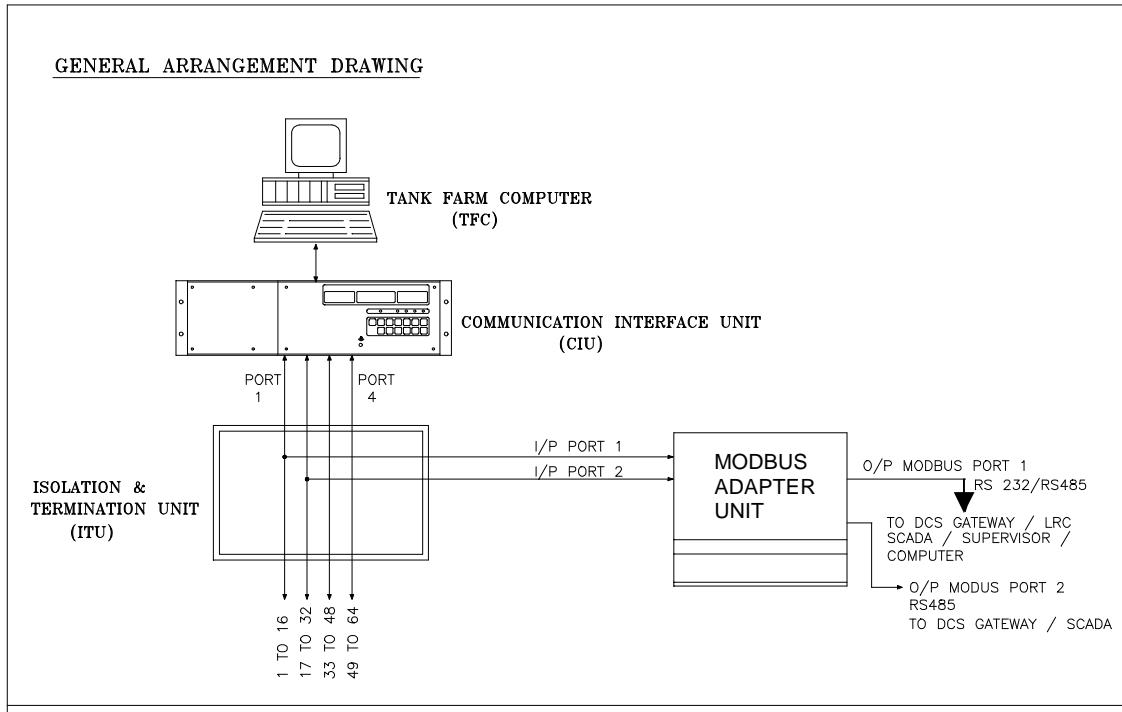


\* - The 3<sup>rd</sup> option in output ports is valid only for tanks upto 32 nos. (i.e. for options 1 & 2 of input ports)

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

MODBUS Adapter Unit with 230V AC, single phase, 50 Hz power supply, 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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**SBEM Pvt. Ltd.**

39, Electronic Co-Operative Estate, Pune-Satara Road, Pune – 411 009 (INDIA)

Tel. – 91-20-4220505, 4223375 Fax – 91-20-4215670

Email – [sbemsales@sbem.co.in](mailto:sbemsales@sbem.co.in), [sbemsales@vsnl.com](mailto:sbemsales@vsnl.com)

Works: Bibwewadi Industrial Estate, 691/A/2, Pune-Satara Road, Pune-411 037(India) Email: [mfg@sbem.co.in](mailto:mfg@sbem.co.in)

Office	MUMBAI	CHENNAI	NEW DELHI
Tele.	91-22-5222824, 5242520	91-44-4451235, 4412947	91-11-6560647, 6969679
Fax	91-22-5230236	91-44-4412947	91-11-6969679
Email	<a href="mailto:mumbai@sbem.co.in">mumbai@sbem.co.in</a>	<a href="mailto:chennai@sbem.co.in">chennai@sbem.co.in</a>	<a href="mailto:newdelhi@sbem.co.in">newdelhi@sbem.co.in</a>