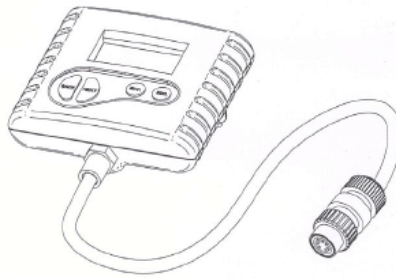


APPLICATION NOTE

EMSU



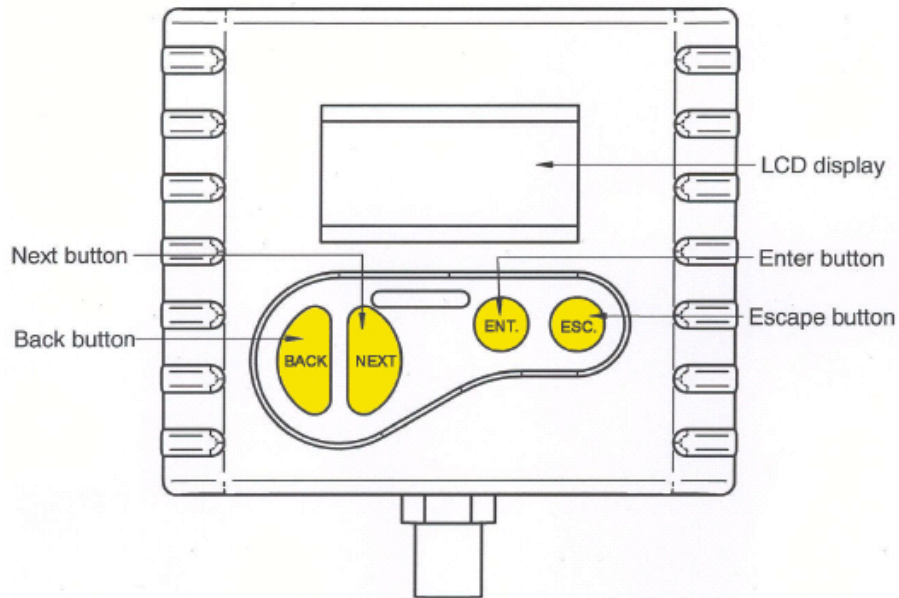
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1. INTRODUCTION

EMSU is an accessory for SolidAT mono-block level meters.

The EMSU is a remote version of the MSU and provides two main capabilities -

- Setup of products without an integral display and keypad
- Remote display for products with or without an integral display

EMSU preserves the specifications of the level meter when electrically connected as described in this document.

EMSU may be located up to 80 meters away from the measuring system and may be ordered with a pre-cut cable or in connector-based version.

2. EMSU SPECIFICATIONS

- Four digit LCD Display
- Four button keypad
- Cable length (EMSU –**MicroScan**) from 0.60m to 80m
- Housing material ABS + UV
- Enclosure IP65
- Dimensions 9.5 X 11 X 2.5 cm³ (3.7 X 4.3 X 0.98 in³)
- Weight 0.25 Kg (0.55 lb)
- Certifications CE

3. INSTALLATION

EMSU includes provisions for mounting brackets.



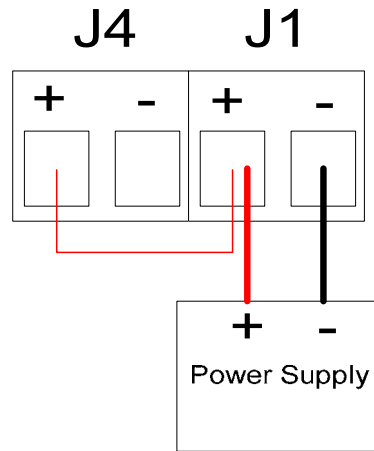
4. OPERATION

Operation of the EMSU is similar to the MSU and is described in details in **MicroScan** User Manual. The connection schemes of the EMSU differ from the MSU and described in the next two sections:

- No 4-20mA indication (LCD display only).
- With 4-20mA indication.

4.1 EMSU CONNECTION WITHOUT 4-20MA

- Connect a 12-28VDC power supply to J1, right terminal.
- Place a jumper between J4 positive pin to J1 positive pin as shown in the drawing below.



When connecting the EMSU as in the above configuration, the user will only use the LCD display as a level indication while 4-20mA is being ignored.

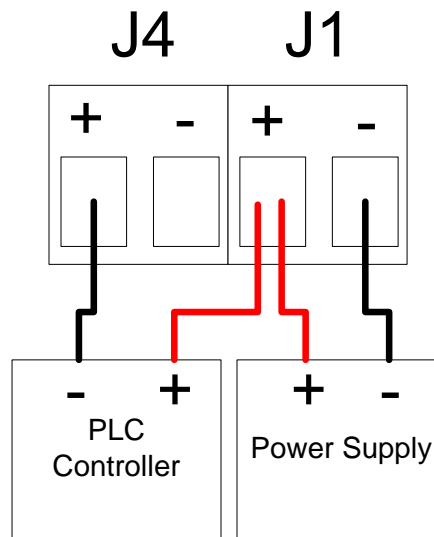


Note:

1. MicroScan will not be powered unless a jumper is placed between J1 positive pin to J4 positive pin.
2. The power supply must provide a minimum voltage of 12VDC at the EMSU inputs.

4.2 EMSU CONNECTION USING 4-20MA CURRENT

- 4-20mA can be measured with PLC, analog controller or any other device with a 4-20mA analog input.
- Connect a 12-28VDC power supply to J1, right terminal.
- Connect J1 positive pin (power supply positive pin) to the PLC Positive input as shown in the drawing below.
- Connect J4 positive pin to the negative input of the PLC as shown in the drawing below.



When connecting The EMSU as in the above configuration, the user can monitor the level using the LCD display and the 4-20mA output current.

Note:

1. If the polarity of the controller is reversed, the MicroScan will not be powered.
2. The power supply must provide a minimum voltage of 12VDC at the EMSU inputs.