

OPERATION MANUAL

JENCO MODEL 392 CONDUCTIVITY TRANSMITTER

JENCO ELECTRONICS,LTD.
MANUFACTURER OF PRECISION INSTRUMENTS

INITIAL INSPECTION

Carefully unpack the instrument and accessories. Inspect for damages made in shipment. If any damage is found, notify your Jenco Representative immediately. All packing materials should be saved until satisfactory operation is confirmed.

GENERAL INTRODUCTION

The **Model 392** is a 4-wire industrial conductivity transmitter. It will produce an isolated 4 – 20 mA output, proportional to the displayed conductivity. The range may be adjusted via internal DIP-switches.

ASSEMBLY and MOUNTING PROCEDURE

1. Make a cutout on any panel (**figure 1**), with a thickness of 1/16 in. (1.5 mm) to 3/8 in. (9.5mm)
2. Remove the mounting assembly from the controller and insert the controller into the cutout. (**figure 2**)
3. Replace the mounting bracket assembly onto the controller and secure the controller to the mounting panel. (**figure 3**)

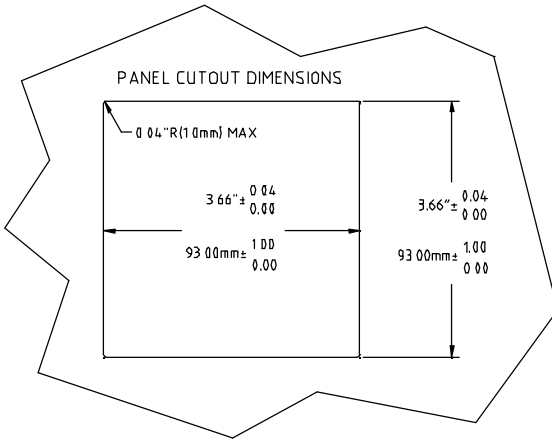


Figure 1

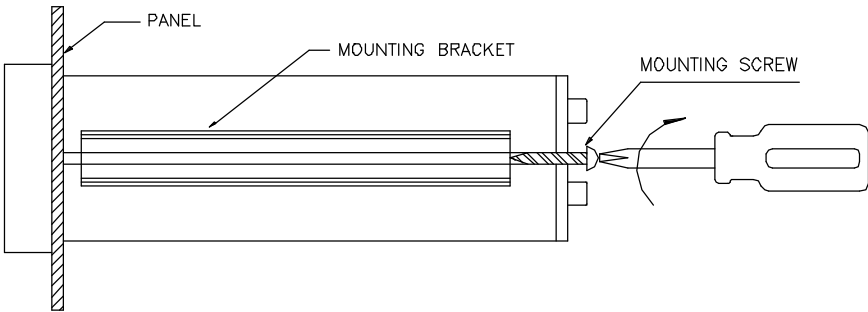


Figure 2

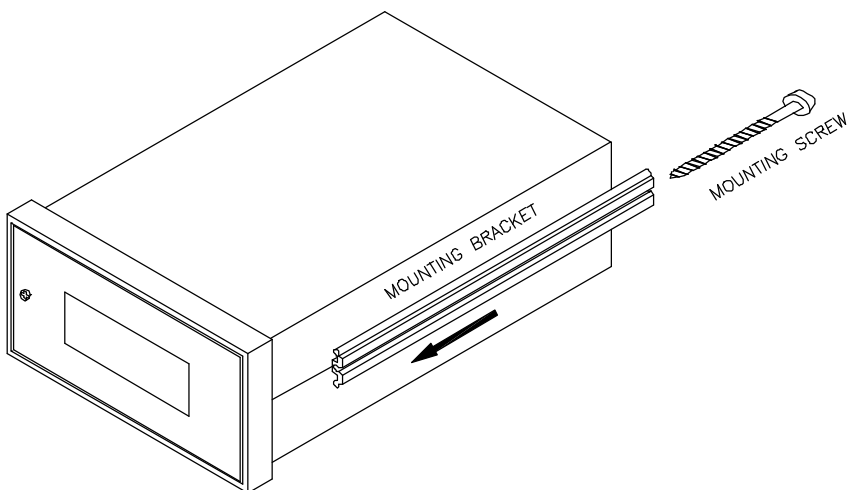


Figure 3

REAR CONNECTORS

1. Connect the **AC** line to the rear of the transmitter. The **Model 392** can be used with **115VAC** or **230 VAC**, 50/60Hz.

2. Connect the proper load to the 4-20mA output terminals. Ensure that the proper polarity is achieved.
3. Connect the **ATC** leads from the conductivity probe to the **ATC** terminals on the **392**. Next, connect the **Cell** leads from the probe to the **Cell** terminals.

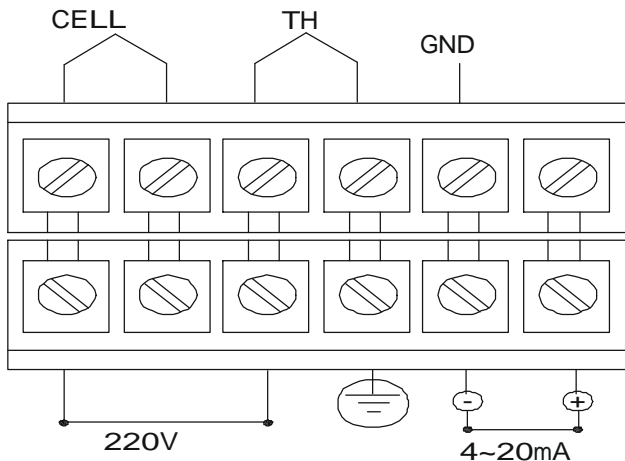


Figure 4

TEMPERATURE COMPENSATION

Model 392 is designed to be used with Automatic Temperature Compensation (ATC), this ensure that the conductivity measurement will be accurate, despite any temperature change in your process. If you choose not to use ATC, a 10K ohm resistor may be placed across the ATC terminals simulate 25 ? .

PROBE CALIBRATION

To obtain accurate result, the conductivity probe must be calibrated before its first use and periodically thereafter. A

maintenance schedule should be established in which the probe is cleaned (wiped with a clean towel) and recalibrated. This should be done **at least** once a month

Before calibrating you need to determine your conductivity range, refer to figure 5 to set the switches. Next choose a conductivity calibration solution near the midpoint of this range. Immerse the probe in the conductivity solution and quickly stir for 5 seconds. Compare the **392's** display value with that of the solution. Adjust the potentiometer labeled **CALIB** (figure 6) on the front panel, until the two values agree. The probe is now calibrated.

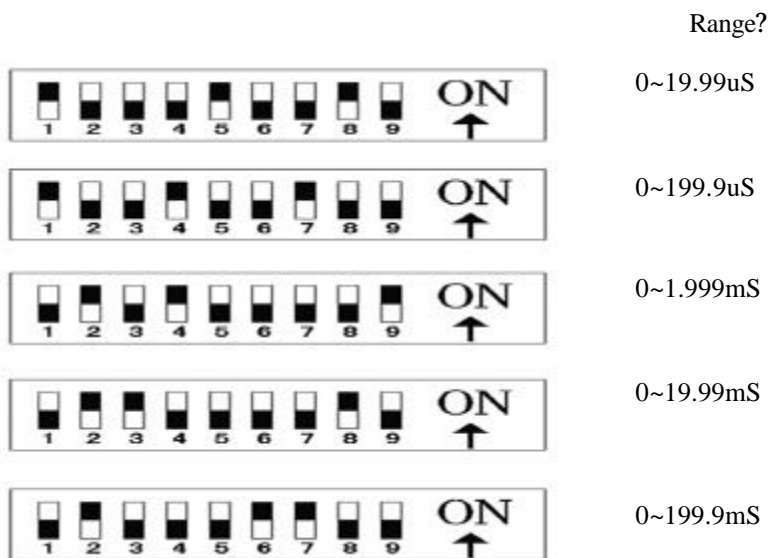


Figure 5

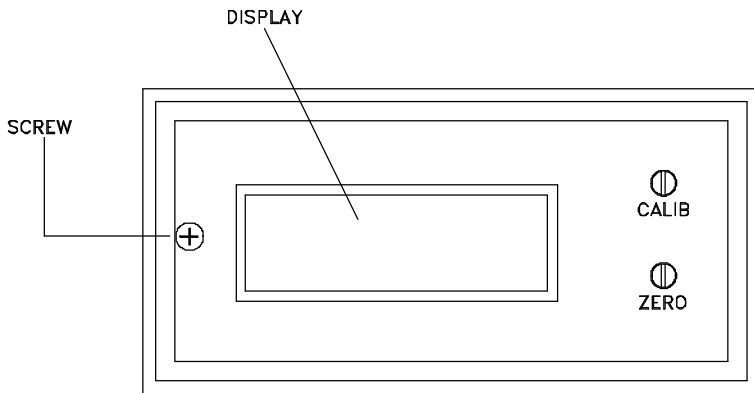


Figure 6

SPECIFICATIONS

1. Measure Range and Resolution

? Range?	Resolution	Cell Constant
0~19.99uS/cm	0.01uS/cm	K=0.01
0~199.9uS/cm	0.1uS/cm	K=1.0
0~1.999 mS /cm	0.001mS/cm	K=1.0
0~19.99mS/cm	0.01mS/cm	K=1.0
0~199.9mS/cm	0.1mS/cm	K=10

- | | |
|----------------------------|-----------------------|
| 2. Accuracy | 1%FS ± 1LSD |
| 3. ATC | 5 ~ 55 ? , |
| 4. Temperature Coefficient | 2 % /? |
| 5. Cell Constant | 0.01, 1.0, 10 |
| 6. mA output | 4 ~ 20mA (Isolated) |
| 7. Load | 450 ohms |
| 8. Isolation to GND | 500VDC |
| 9. Input Impedance | >10 ¹² ohm |
| 10. power | 220V±10%, 50Hz |
| 11. Dimention | 96x48x167mm |
| 12. Ambient Temperature | 5 ~ 45 ? |
| 13. Ambient Humidity | ? 85% |

WARRANTY

Jenco Instruments, Ltd. warrants this product to be free from significant deviations in material and workmanship for a period of 1 year from date of purchase. If repair or adjustment is necessary and has not been the result of abuse or misuse, within the year period, please return-freight-prepaid and the correction of the defect will be made free of charge. If you purchased the item from our Jenco distributors and it is under warranty, please contact them to notify us of the situation. Jenco Service Department alone will determine if the product problem is due to deviations or customer misuse.

Out-of-warranty products will be repaired on a charge basis.

RETURN OF ITEMS

Authorization must be obtained from one of our representatives before returning items for any reason. When applying for authorization, have the model and serial number handy, including data regarding the reason for return. For your protection, items must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Jenco will not be responsible for damage resulting from careless or insufficient packing. A fee will be charged on all authorized returns.

NOTE: Jenco reserves the right to make improvements in design, construction and appearance of our products without notice.

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