



IM-0494 Rev. F
 Date: 3/22/97
 By: Engineering Dept.

MODEL ST-4130/40 2-WIRE TRANSMITTER
 (Formerly EC-10649)

A. DESCRIPTION

The Jordan Controls Model ST-4130/40 is a two-wire transmitter that varies the current on a dc supply line proportional to the input resistance. The ST-4130/40's requirements are a 500-10000 ohm potentiometer. It outputs a 4 to 20mA signal according to the wiper position of the feedback potentiometer. Elevation and Range adjustments on the ST-4130 are used to adjust the output to the Range of the feedback potentiometer.

The ST-4130 is the standard flat mount model. The ST-4140 is the tab mount model. There is an optional 24Vdc power supply and a terminal strip with a base for easy mounting available for each of these models.

B. SPECIFICATIONS

Range Signal	4 to 20mA, proportional to a full scale input
Output Linearity	Within .1% full scale output referenced to linearity of input
Input Resistance	500-10000 ohms, standard = 1000 ohm
Power Supply Voltage Required	12.0 to 36Vdc, regulated at 25mA
Loop Resistance	Load = $(V_{supply} - 8) / .020A$
Temp Range	0 - 90° C (32 - 200° F)

- Temp. Effect .05% output variation
- Grounding Input or output grounding is acceptable, however, they CANNOT be common to each other.
- Installation and Wiring Refer to page 2 and 3

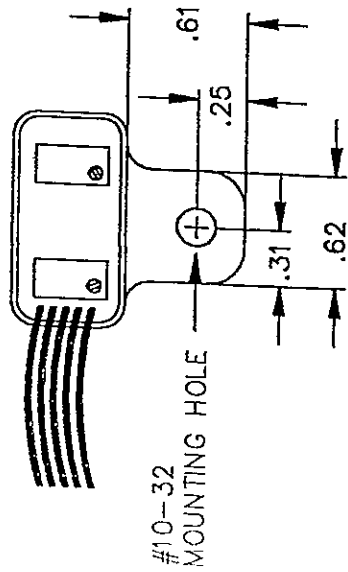
C. CALIBRATION

For the unit to function properly, the 4mA end of the potentiometer must be present to approximately 50 ohms. This will ensure linearity across the active region of the potentiometer. Both the Elevation and Range adjustment interact (Range affects Elevation more than Elevation affects Range). The elevation adjustment is used to set the 4mA point and the Range adjustment is used to set the 20mA point.

1. Position the potentiometer at the position where a 4mA output of the ST-4130/40 is desired.
2. Confirm that the resistance is approximately 50 ohms.
3. Adjust the Elevation for 4mA.
4. Position the potentiometer at the position where a 20mA output of the ST-4130/40 is desired.
5. Adjust the Range for 20mA.
6. Repeat steps 1 and 3-5 until interaction no longer takes place.
7. If the transmitter has the output reversed (4mA where the 20mA is desired) reverse the blue and the yellow wires and repeat the above steps.

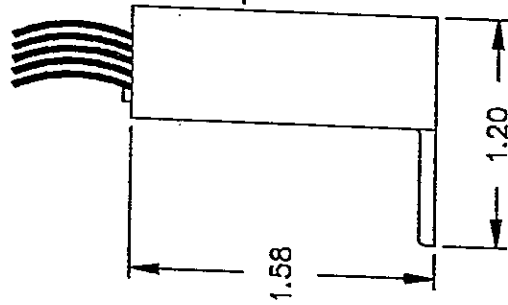
Due to wide variations in the terminal numbering of actuator products, actual wiring of this device should follow the wiring drawing supplied with the unit.

ST-4140

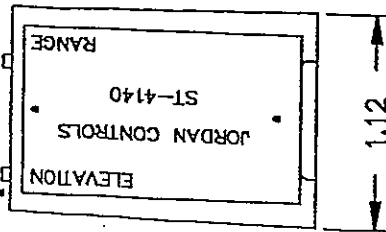


NOTE!

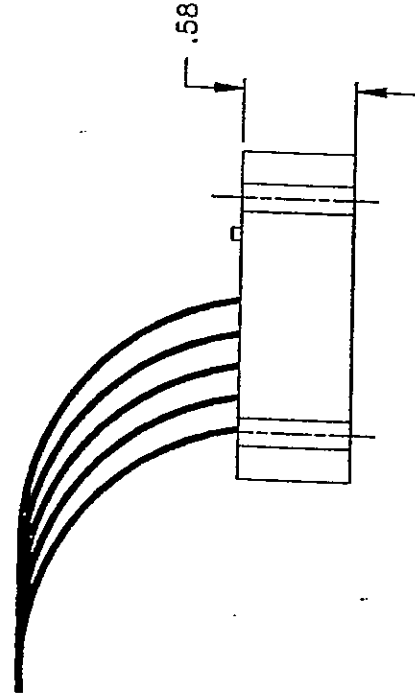
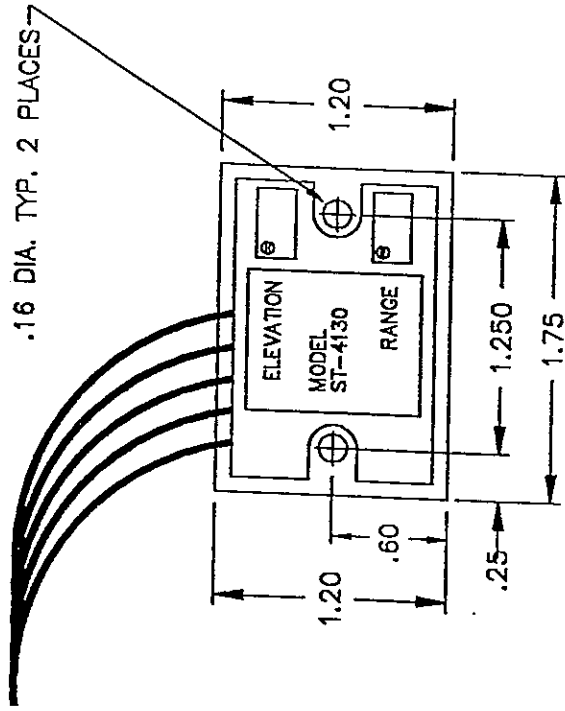
IF USING TAPE ADHESIVE FOR MOUNTING TRANSMITTER, IT WILL REQUIRE CLEANING BEFORE TRANSMITTER CAN BE APPLIED FOR BEST RESULTS OF BONDING.



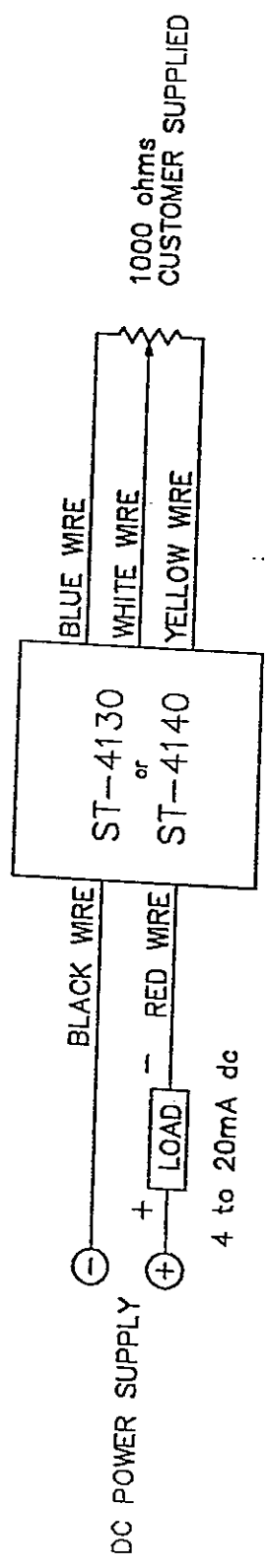
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ST-4130



WIRING FOR ST-4130 / ST4140



INPUT POWER: 12.0 (MIN) TO 36Vdc (MAX), 25mA.

$$\text{MAXIMUM LOAD (OHMS)} = \frac{\text{dc SUPPLY VOLTAGE} - 8 \text{ V}}{.020 \text{ A}}$$

4 TO 20mA SIGNAL INCREASES FOR INCREASING RESISTANCE BETWEEN THE BLUE AND WHITE LEADS.

