

# Analog Signal Splitter ASI451141



## **Please Read Before Wiring!**



Single 4-20mA Input, Quad 4-20mA Output

Dimensions	
Depth/Width/Height	99 x 35 x 114 mm
Input	
Input Signal	4-20mA or 0-10 V
Current Input Impedance	≤ 100 Ω
Voltage Input Impedance	≤ 1M Ω
Output	
Output Signal	4-20mA
Load Resistance	RL ≤ 300 Ω 6 V
Other Technical Information	
Power Supply	24 Vdc ±10%
Power Consumption (24 Vdc Power Supply)	≤ 60mA
Output Accuracy (20 °C)	0.2% FS
Temperature Drift (-20°C ~ +60°C)	0.05% FS/10°C
Response Time	≤ 100mS
Dielectric Strength (Between Input, Output and Power)	1000 Vac; 1min
Insulation Resistance (Between Input, Output and Power)	≥ 100M Ω
Electromagnetic Compatibility	GB/T 18268 (IEC 61326-1)
Ambient Temperature	-20°C ~ +60°C

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### Please Note:

Outputs 3 and 4: Calibration and Setup Adjustments are made via the potentiometers on top of the module.

Outputs 1 and 2: The module must be opened to access the potentiometers located on the printed circuit board.

### **Calibration and Setup Procedure:**

1.) This module has been calibrated at the factory, do NOT attempt to recalibrate this module unless absolutely required.

2.) After connecting the power wires allow the module to warm up a few minutes prior to calibration.

3.) Use a grounded screwdriver for adjustments to avoid ESD damage to the circuit.

4.) Outputs 1, 2, 3 and 4 are separate from each other; calibrate them one by one.

5.) Always start by calibrating ZERO, then SPAN.

6.) For both ZERO and SPAN, turn the potentiometer clockwise to increase and counterclockwise to reduce the output.

7.) An accurate multimeter is always required to get good measurement results.

#### **Calibration and Setup Procedure Steps:**

Step 1: Connect the input signal and the output load as required for the output to be calibrated.

Step 2: Adjust the input signal to precisely 4.00 mA DC (ZERO); then adjust the output zero pot until the output reads precisely 4.000 mA  $\pm$  0.08mA DC.

Step 3: Adjust the input signal to precisely 20.00 mA DC (SPAN); then adjust the output span pot until the output reads precisely 20.000 mA  $\pm$  0.08mA DC.

Step 4: Repeat steps 2 & 3 until the readings converge.

Step 5: Repeat steps 1-4 for the second, third and fourth output's calibrations.

Step 6: As a confirmation step for the calibration and setup results, adjust the input current signal to 12.00mA.

Step 7: Confirm that the output value is within the range of 11.94mA and 12.06mA.