





The ASI451145 + ASI462103 Kit provides a complete signal conditioning and power solution for 4–20 mA current loop systems. The ASI451145 2/3-wire signal splitter isolates, duplicates, and transmits analog signals to multiple devices, while the ASI462103 24V DC DIN rail power supply delivers clean, reliable power for precise signal operation. This pre-matched combination ensures accurate signal distribution and stable performance in control panels and process applications.

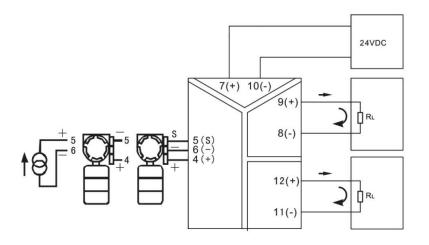
### Key Features & Benefits:

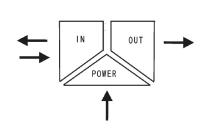
- Complete 4–20 mA Signal Solution Combines a precision signal splitter with a regulated 24V DC power source for reliable system integration.
- ASI451145 Signal Splitter Accepts a 4–20 mA input and provides two isolated
   4–20 mA outputs for transmitting signals to multiple instruments or PLCs.
- ASI462103 Power Supply Compact DIN rail–mounted 24V DC power source ideal for powering transmitters, splitters, and signal conditioners.
- DIN Rail Mounted Design Easy installation in control panels and automation enclosures.
- High Accuracy and Isolation Prevents ground loops and ensures signal integrity in industrial environments.
- Industrial-Grade Performance Reliable operation in demanding conditions, ideal for process control, automation, and instrumentation systems.

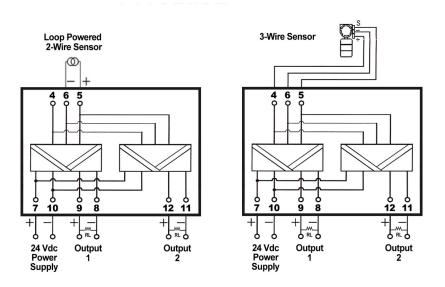
Dimensions L/W/H	99 x 17.5 x 114mm
INPUT	•
Input Signal	4-20mA
Voltage	17.5-25V
Input Impedance	≤ 100 Ω
Maximum Current	≤ 30mAdc
OUTPUTS	
Output Signal	4-20mA
Load Resistance	R ≤ 300 Ω
Other Technical Info	ormation
Power Supply	24V DC ± 10%
Power Consumption (24V DC Power Supply)	≤ 60mA
Output Accuracy (20°C)	0.5% F.S.
Temperature Drift (-20°C to +60°C)	0.05% F.S./10°
Response Time	≤ 100mS
Dielectric Strength	1500 Vac; 1min
Insulation Resistance (Between Input, Output and Power)	≥ 100M Ω, 500 Vdc
Electromagnetic Compatibility	GB/T 18266(IEC 61326-1)
Ambient Temperature	-20°C to +60 °C
Wire Size	20-14 AWG
Stripping Length	8mm

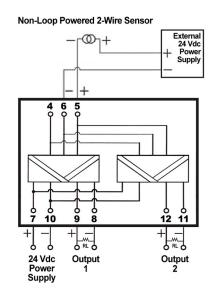
Technical Information - ASI462103	
Dimensions L/W/H	100 x 23 x 115mm
INPUT	
Widerange Input Voltage	85-264 V AC
Rated Input Voltage	115 V AC / 240 V AC
Input Current (trypical)	0.3A / 115 V AC, 0.16A / 230 V AC
Frequency Range	47-63 Hz
Efficiency	84%
OUTPUT	
Rated Output Voltage	24 V DC
Output Current Range	0-1A
Power	24W
Ripple and Noise	100mVpp
Voltage Tolerance	+1.0%
Linear Regulation	+0.30%
Load Regulation Factor	+0.3%
Hold Time(Min)	20mS
Overload Protection	110-150% of rated output power
	17.2-20.3V

## **Drawings**









Input 1 Zero adjust
Output 1 Span adjust
Power LBD
Output 2 Span adjust

<sup>\*</sup>Users may need to add an optional 250  $\Omega$  resistor to clear up the signal.

# **ASI451145-KIT 2-3 Wire Signal Splitter-Power Supply Combo**

#### **Please Note:**

- Output 1: Calibration and Setup Adjustments are made via the potentiometers on top of the module.
- Output 2: The module must be opened to access to 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 and 2 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  $\pm$  0.08 mA 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  $\pm$  0.08 mA DC.
- Step 4: Repeat steps 2 & 3 until the readings converge.
- Step 5: Repeat steps 1-4 for the second output's calibration.
- 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.