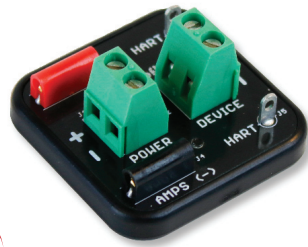




Field Tools

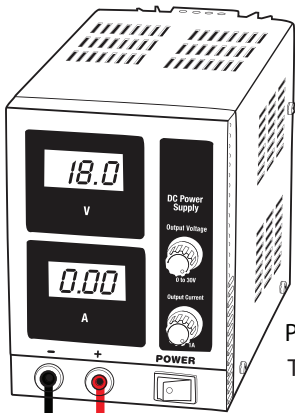
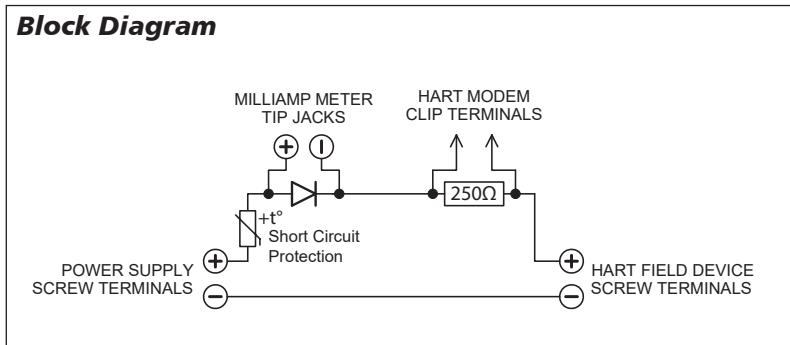
Loop Tap

101-0095

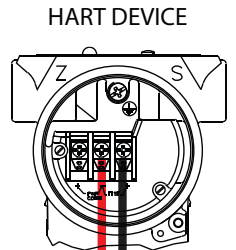


- **Fast and Easy loop transmitter test setup**
- **Reliable connections - No Alligator Clips**
- **Includes loop resistor**
- **HART modem clip terminals - simple modem connection**
- **Current meter tip jacks - connect/disconnect current meter without breaking the loop**
- **Compact durable enclosure stands up to rugged field use**
- **PTC short circuit / over current protection**

Block Diagram



POWER SUPPLY
Typically 24VDC, 30V Max



HART DEVICE

mA METER (+) TIP JACK ▶

◀ HART MODEM

mA METER (-) TIP JACK ▶

◀ HART MODEM



Meter lead Tip Jacks



HART Modem Clips

Specifications

POWER Supply Input

Volts Typical	24V DC
Volts Maximum	30V DC
Short Circuit / Overload Protection	50mA Hold, 150mA Trip
Wire Screw Terminals26AWG to 14AWG

Loop Device

Wire Screw Terminals26AWG to 14AWG
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AMPS - Meter Tip Jacks

Diode Voltage Drop	1V Typ
Diode Leakage Current	5nA Max
Tip Jacks	Accept Standard .080" [2.03mm] Meter Leads
Red (+), Black (-)	

HART Protocol Support

Connection Type	Accepts Modem Mini-Grabbers (.098" x .063" hole)
Loop Resistor	250Ω +/-1%

Enclosure

Molded ABS Plastic with FR4 Circuit Board - RoHS Compliant	
Weight	0.5 ounces
Enclosure Dimensions	1.57" x 1.57" x 0.79"

Environmental

Operating Temperature	-30°C to 50°C (-22°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	0 to 95% (non-condensing)

Power

Connect the screw terminals marked **POWER** to a DC power supply. Loop powered devices typically use a 24 volt DC supply capable of at least 30 milliamps.


Device

Connect the screw terminals marked **DEVICE** to the loop powered field device. Observe polarity while making the connections. There is no need to add a loop resistor - Loop Tap includes this resistor internally.

Measuring Loop Current

Loop Tap includes test lead tip jacks to simplify connection to a DC current meter for loop current measurements. An internal diode allows the meter to be connected or disconnected without interrupting the loop supply or opening the loop.

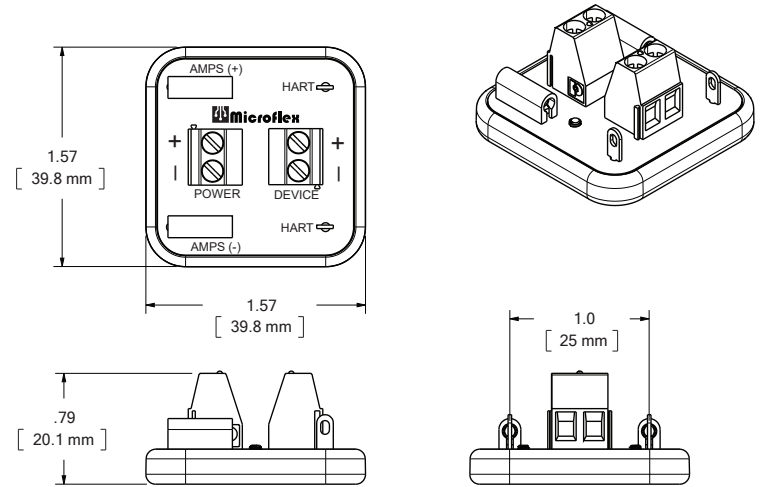
Set the test meter to measure milliamps before connecting. Connect your test meter by inserting the meter lead tips into the tip jacks; red positive, black negative.

 Current meters with more than 1 volt drop across the meter may not read current accurately. Verify that your test meter is compatible before performing transmitter calibrations.

HART Protocol Modem Connections

A HART modem or HART communicator can be connected to the Loop Tap using the two terminals provided. The terminals allow standard HART modem mini-clips to be easily connected across the internal 250 ohm loop resistor.

Dimensions



Limited Warranty

Microflex, LLC warrants this unit against defects in materials and workmanship for a period of one year from the date of shipment. Microflex, LLC will, at its option, repair or replace equipment that proves to be defective during the warranty period. This warranty includes parts and labor.

A Return Authorization (RA) number must be obtained from the factory and clearly marked on the outside of the package before equipment will be accepted for warranty work.

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