

DC mV/mA/Volt Input, 2-Wire Signal Conditioners

Field Mounted, Precision, Universal

Model UTI/3, UTN/3

Model UTI/3 is a precision loop-powered 2-wire transmitter with galvanic isolation between its input and the current loop output signal. The UTI/3 provides the necessary circuitry for amplification and processing of DC mV/mA/Volts signals from various sensors and signal sources. Specially designed circuitry provides excellent protection from external EMI/RFI sources.

The UTN/3 is a non-isolated, lower cost version of the UTI/3, for those applications which require its precision and RFI immunity but do not require Input/Output isolation.

The UTI/3 and UTN/3 can be easily ranged without requiring special tools or board modifications. The transmitters are members of Mescon's family of advanced Universal-Input transmitters which may be readily re-configured to accept other popular inputs such as Pt-100 RTDs, Thermocouples and Potentiometers.



FEATURES:

- 2-wire transmitter system
- Eliminates ground loop errors
- Excellent EMI/RFI protection
- User selectable input
- User range-able
- Over 1000 Volts isolation (UTI)
- Wide ranging ZERO and SPAN

OPTIONS:

- Input voltage to 500 VDC
- NEMA 4X or NEMA 7 enclosure
- DIN rail mounting



MESCON
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SPECIFICATIONS:

Input	DC mV, mA or Volts
Output	4-20 mA, 2-wire, limiting @ < 28mA
Input Range (std.)	Voltage: 5mV min, 300V max (500V opt) Current: 10mA min, 100mA max (200mA opt)
Input Protection	X20 of rated input to 500VDC max for voltage input, 500mA max for current.
Linearity	Better than $\pm 0.025\%$ of span
Calibration Accuracy	$\pm 0.1\%$ of span for linear input
Input Impedance	<input type="checkbox"/> 10M Ω for inputs <200mV <input type="checkbox"/> 1.0M Ω for inputs >200mV
Voltage Drop	- 200mV on current input
I/O Isolation	> 1000 VDC or peak AC
EMI/RFI Protection	Tested per SAMA PMC 33.1 from 20 to 1000 MHz and field strength to 30 V/m, meets CE specifications
C.M.R.R.	> 120 db, DC to 60 Hz
Output Ripple	< 0.01% of span (to 5KHz)
Adjustments	> $\pm 25\%$ for both Zero and Span
Power Supply Range	10-50 VDC, reverse polarity protected
Supply Voltage Effect	Negligible
Operating Temperature	- 20°C to 70°C, (0°F to 160°F)
Temperature Stability	Better than $\pm 0.02\%$ of span/°F
Temperature Humidity	0-95% RH, non-condensing
Maximum Load	Rmax = (Vsupply -10V)/20mA

All specifications are subject to change without notice.

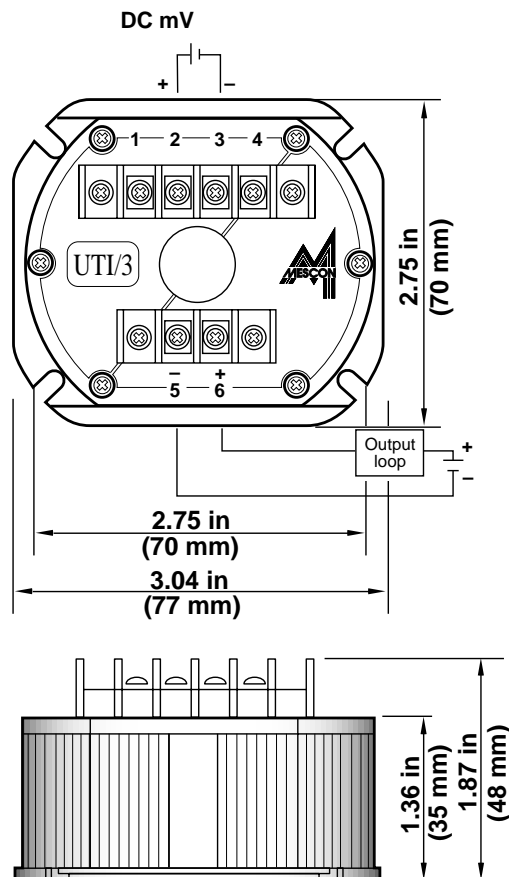
ORDERING INFORMATION

UTI/3 - (XX-XXX) V

Model
 UTI = Isolated
 UTN = Non-Isolated

Input Units - mV, mA, V
 Input Range

Please request our ordering and calibration diskette describing the rest of Mescon's products.



Wiring Instructions:

1. Connect the input signal according to the interconnection diagram.
2. Connect the output signal to a digital indicator.
3. Connect the power supply according to the drawing, observe for proper polarity.

Calibration and Adjustments:

It is assumed that the unit undergoing calibration has been properly ranged at the factory or workplace.

1. Connect a DC Voltage simulator to the UTI/3 input terminals. Observe for proper polarity.
2. Complete the output loop using a power supply and a precision digital current indicator. Turn the power on.
3. Set the input to the desired minimum signal and adjust the ZERO pot until the current indicator reads 4.00mA.
4. Set the input to the desired maximum signal and adjust the SPAN pot until the current indicator reads 20.00mA.
5. Repeat steps 3 & 4 until no further adjustment is needed.

Note: If the unit can not be calibrated to the desired range, it should be returned to the workshop for proper ranging.

Distributed By:



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