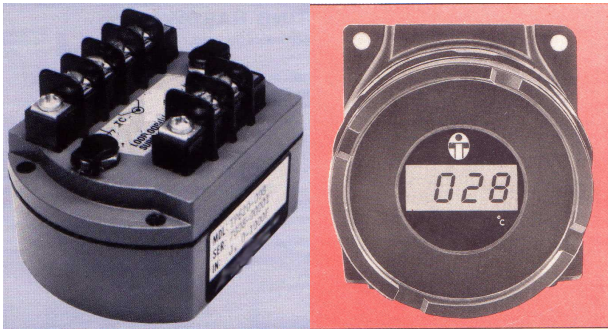




teletherm
INSTRUMENT CO. PVT. LTD.

POTENTIOMETER INPUT TWO-WIRE TRANSMITTERS (MODEL : TP 752)



- PROVIDES AN ISOLATED CURRENT LOOP IN PROPORTION TO 3 WIRE POTENTIOMETER
- PROTECTS EQUIPMENT WITH 600 V INPUT TO OUTPUT ISOLATION
- ELIMINATE GROUND LOOPS
- WIDE-RANGING ZERO AND SPAN ADJUSTABILITY (80%)
- 3 ½ DIGIT LCD LOCAL DISPLAY
- 3 YEAR S WARRANTY

APPLICATION

This Model TP752 is useful in any application requiring an isolated two-wire loop current from a 3-wire potentiometer. Typical applications include tank level data acquisition and position sensor conditioning. The output of TP752 can be used to drive a digital meter for direct display or interface with a computer for monitoring or control.

DESCRIPTION

The MODEL TP752 offers the user an input range from 0 to 50 Ohms to 0 to 200K (end to end) and two output ranges, which are field selectable via a top - accessed DIP switch. The TP752 provides 600 V DC isolation with outputs of either 4 - 20 mA or 10 – 50 mA. Current outputs are in proportion to selected potentiometer input.

A major advantage of this model is its truly wide-ranging capability. TP752 enables 80% zero and span adjustability, within the input range of the potentiometer. The difference between the maximum span (100% of potentiometer) and the minimum span (20% of the potentiometer) provides the 80% adjustability factor. This allows the user to field-calibrate the unit for a wide variety of input span from the maximum (0-100%) down to any minimum (20%) span. (eg. 4% to 24% , long as the adjusted span remains within the input range of potentiometer.

The MODEL TP752 allows intrinsically safe installations in Class1, Division1, Group A-D hazardous locations when installed with approved intrinsic safety barriers as per manufacturers drawing.

OUTPUT RANGES

An access cover located on the top of the unit protects the output range selection switch (Refer the Top View Diagram). Switch selectable 4 – 20 mA and 10 – 50 mA outputs are provided. The OFF (open) position selects 4 – 20 mA and the ON (closed) position selects the 10 – 50 mA range

CALIBRATION

- a) Open the access lid on the top of the unit (See top view diagram)
- b) Connect the input to a calibrated resistive source and monitor the output current (Refer to Terminal wiring)
- c) Set the calibration to the desired maximum and adjust zero to obtain minimum specified output (eg. 4 mA or 10 mA)
- d) Set the calibration to the desired maximum and adjust span to obtain maximum specified output (eg. 20 mA)
- e) Repeat steps c & d for maximum accuracy

MOUNTING

The Model TP752 is designed for installation in industrial field environments; units are enclosed in rugged, die – cast aluminum housings, which are sealed for protection against corrosion, moisture, dust and electrical noise such as RFI and EMI.

For protection against extreme moisture, hose-directed water or hazardous environments, IP-65 (Option I) explosion – proof housing should be used. IP65 housing provides ready to install plumbing ports for easy hook-up and operation in harsh process environment.

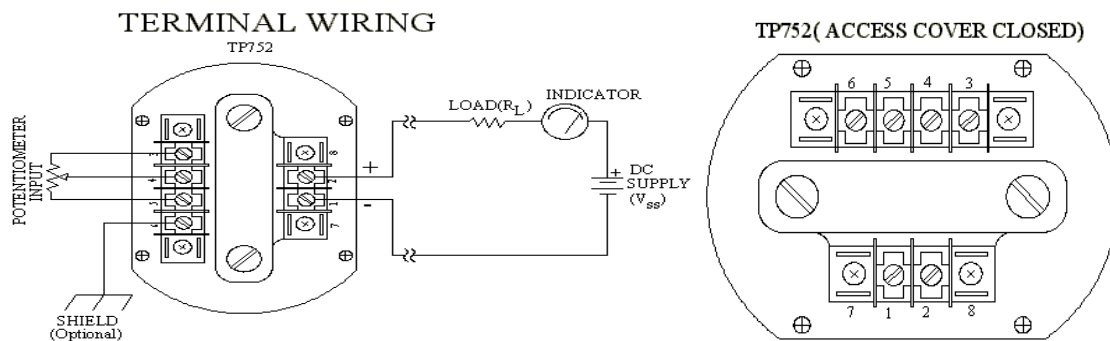
OPTIONS

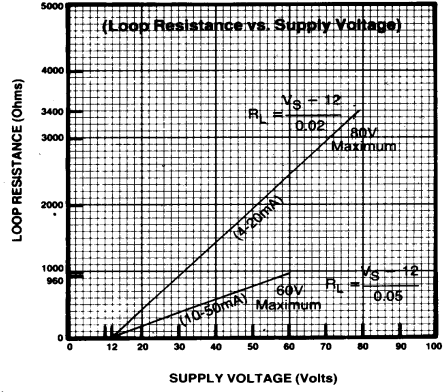
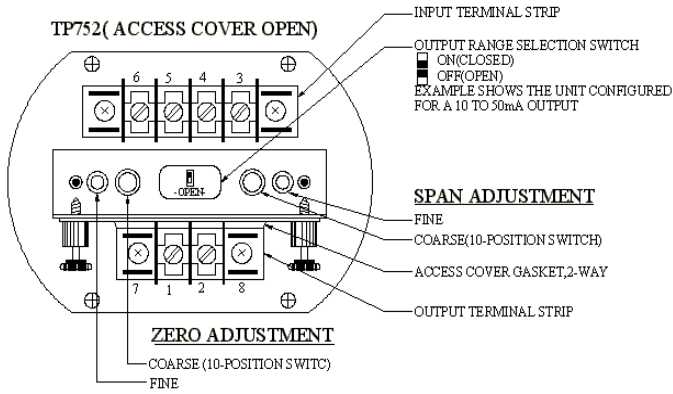
1. Option U: Provides conformal Urethane coating over the internal circuitry (for protection against moisture and corrosion)
2. Option I: IP – 65 housing
3. Option L: 3½ Digit LCD loop powered indicator

SPECIFICATION

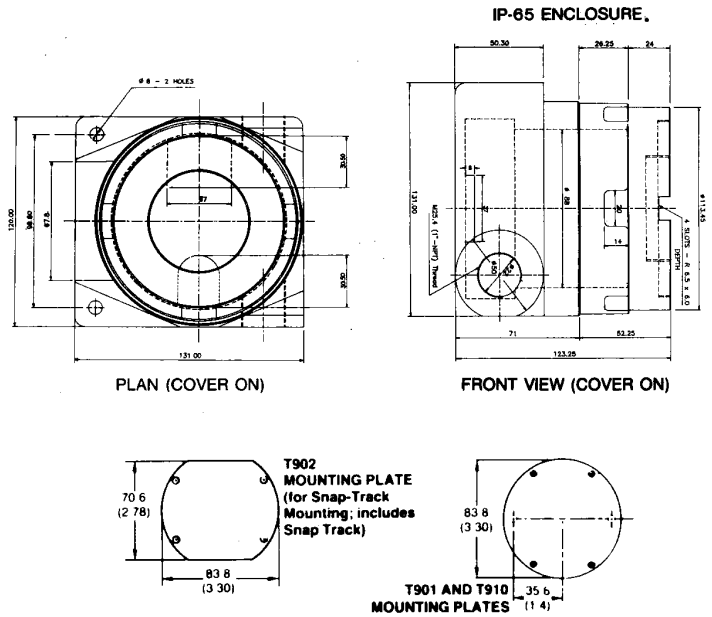
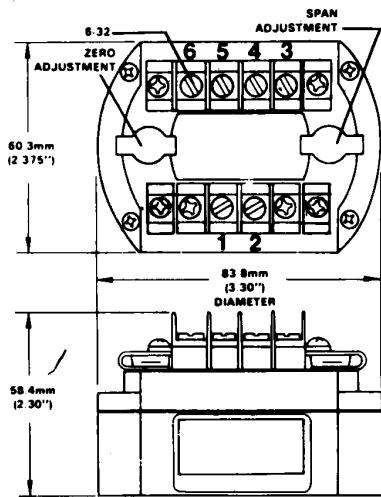
INPUT SPAN	:	A) MAX : 0 TO 100% B) MIN : 0 TO 20%
EXCITATION TABLE	:	50 mV, TYPICAL
POTENTIOMETER RESISTANCE (END TO END)	:	50 OHM TO 200K OHM
LEAD WIRE RESISTANCE EFFECT	:	<0.25UV/OHM
INPUT IMPEDANCE	:	5 MEGA OHM, TYPICAL
OUTPUT SPAN	:	4-20MA/10-50MA DC, SWITCH SELECTABLE
MINIMUM OUTPUT CURRENT	:	3.3MA TYPICAL
MAXIMUM OUTPUT CURRENT	:	A) 4-20 MA 24MA, TYPICAL

SUPPLY VOLTAGE RANGE	:	B) 10-50MA 58MA, TYPICAL A) 4-20MA 12 TO 80V DC B) 10-50MA 12 TO 60V DC
MAX. CHANGE IN SUPPLY VOL. EFFECT	:	0.05% OF SPAN
MAX. CHANGE IN LOAD EFFECT	:	0.05% OF SPAN
LOOP VOLTAGE DROP	:	12VDC @
STABILITY		
A)ZERO	:	+0.02% OF SPAN/C MAX
B)SPAN	:	+0.01% OF SPAN/C MAX
OVERALL ACCURACY (INCLUDES LINEARITY, HYSTERESIS, STABILITY AND REPEATABILITY)	:	+0.05% OF SPAN MAX.
ZERO ADJUSTABILITY	:	80% TURN UP OF SPAN
SPAN ADJUSTABILITY	:	80% TURN DOWN OF FS RANGE
REPEATABILITY	:	+0.02% OF SPAN
RESPONSE TIME	:	50MS MAX
OUTPUT RIPPLE	:	0.1% OF SPAN, RMS TYPICAL
RFI EFFECT (5W, 470MHZ AT 3FT.)	:	<1% OF SPAN ERROR
INPUT - OUTPUT -CASE ISOLATION	:	1500 v DC MAX., INPUT TO OUTPUT
OPERAITNG TEMP RANGE	:	-40 TO 80C
HUMIDITY	:	4 - 95% RH (NON CONDENSING)





DIMENSIONS



MANUFACTURED BY:

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