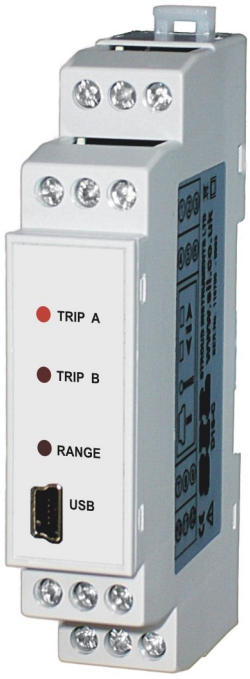
UNIVERSAL INPUT TRIP AMPLIFIER
Type D16-T

- **Simple configuration via USB port**
- **Universal input: PT100, thermocouple, mV, mA**
- **Isolated input**
- **Dual changeover relay contact outputs**
- **10 year warranty**



D16-T Trip Amplifiers provide voltage-free contacts that change state when the input signal passes an adjustable set-point. This unit will accept most common process and temperature sensor inputs. All temperature ranges are linear to temperature. Isolation is provided on all three ports. The unit configured using very easy to use PC software.

Easy configuration

A USB interface is provided for easy and rapid configuration. Simply connecting the D16-T to a PC via a standard USB cable is all that is required – none of the inconvenience of wiring to an external power source.

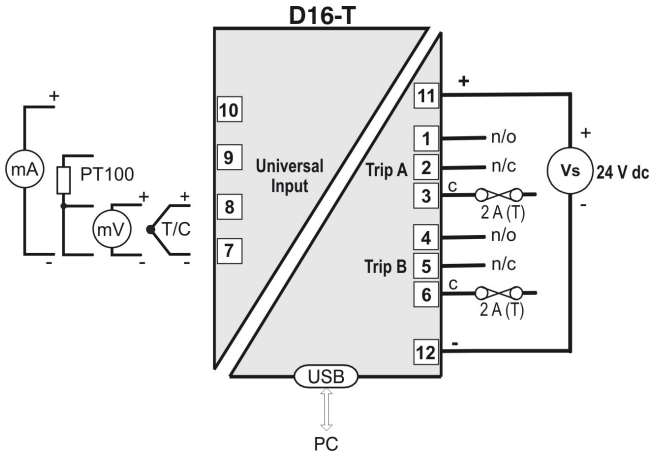
Using the free configuration software, your PC will download and display the existing configuration data from the unit and guide you through any changes you wish to make.

A 'range' LED indicates out of range during normal operation and stages during configuration. Alarm LEDs are provided for each trip-point.

Full-range set-point is provided plus adjustable hysteresis. Both set-point and hysteresis are set in units. Each trip relay may be set to energise either when the input signal is higher than the reference set-point, Trip Type set to (H) high type or to energise when the input signal is lower than the set-point, Trip Type set to (L) low type).

The following parameters are configurable :-

Input type:	PT 100; Thermocouple (types K, J, E, N, T, R and S); mV; mA
Units:	deg F, deg C, mV, mA
Trip A Type:	High / Low
Trip A Setpoint:	(set in units)
Trip A Hysteresis:	(set in units)
Trip B Type:	High / Low
Trip B Setpoint:	(set in units)
Trip B Hysteresis:	(set in units)



WARNING: These connection details are provided for pre-sales information only. Installation must be carried out in accordance with the D16-T User Guide.

SPECIFICATION

INPUTS

INPUT	RANGE	ACCURACY (Note 1)	STABILITY	O/C	CJ (Note 3)	Sensor excitation (Note 4)	INPUT IMPEDANCE
TC type K	(-200 to 1370) °C	0.1 % of FSR ±0.5 °C (type T 0.2 % FSR. ± 0.5 °C)	± 0.01 % of FSR	Yes	Yes	-	1 MΩ **(Note 5)**
TC type J	(-100 to 1200) °C						
TC type E	(-100 to 1000) °C						
TC type N	(-180 to 1300) °C						
TC type T	(-100 to 400) °C						
TC type R	(-10 to 1760) °C	± 0.5 °C ±0.1 % of FSR **(Note 2)**					
TC type S	(-10 to 1760) °C	± 0.5 °C ±0.1 % of FSR **(Note 2)**					
mV	(-40 to 75) mV	± 0.04 mV			-		
PT100	(-200 to 850) °C	± 0.1 °C / ±0.05 % of rdg	± 0.005 % of FSR		-	<450 uA	-
mA	(-10 to 25) mA	± 0.008 mA	± 0.01 % of FSR	-	-	-	2.7 R **(Note 6)**

Key Rdg = Reading ; FSR = Full Scale Range ; O/C = programmable open circuit sensor detect;
CJ = Cold junction compensation

Notes

1. Accuracy for PT100 and T/C do not include sensor and cold junction errors.
2. Only over the range 800 to 1600 °C
3. Cold junction range -20 to 70 °C, Accuracy ± 0.5 °C , Tracking ± 0.05 °C
4. PT100 input Maximum lead resistance 20 R, Lead effect 0.015 °C / Ω.
5. Impedance – not including 0.2 uA open circuit detect bias current effect.
6. Maximum current over load ± 100 mA.

OUTPUT

Type	Form C (changeover) relay contact for each set-point
Supply	24 V DC ± 5%
Response time	< 500 ms to reach 95 % of final value ; Start up time < 3 s
Contact rating	1 A @ 250 VAC, 1 A @ 30VDC resistive load
Trip type	Each trip may be set to trip at high or low level, full range set-point plus adjustable hysteresis
Ranges	Set-point programmed in units covering full range of input
Hysteresis	Set in units
Protection	Reverse connection and over-voltage protection. Max. over voltage current 100 mA.

GENERAL

Isolation	Input to output tested at 500 V dc.
Ambient	Temperature: Operating -20 to 70°C, Storage -40 to 85°C; Humidity: 10 to 95% RH non condensing.
Approvals	CE tested to BS EN 61326

DIMENSIONS 90 (H) x 17.5 (W) x 56.4 (D)

MECHANICAL

Weight	55g
Material	Polymide 6.6, self-extinguishing, grey
Terminals	Screw terminals, capacity 2.5mm max
Mounting	Fits DIN rail to EN50022

ORDERING INFORMATION

Quote type number D16-T

If pre-configuration is required:

1. Input type
2. Units
3. Trip A type (H or L)
4. Trip A set-point
5. Trip A hysteresis
6. Trip B level (H or L)
7. Trip B set-point
8. Trip B hysteresis

Accessories

USB cable
Configuration software

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