

X10612

Temperature Controllers | Sensors

ZVT-E-IF-10K3A1

Up to 65°C

Thermistor – High-Precision Temperature Control



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KEY FEATURES:

- ✓ NTC thermistor for precision temperature control
- ✓ Stainless steel probe for durability
- ✓ PTFE insulated leads for superior heat resistance
- ✓ Operates in temperatures from 0°C to 65°C
- ✓ Designed for use with ZVT-16-IF and ZVT-25-IF controllers

The **ZVT-E-IF-10K3A1** is a robust NTC thermistor designed for high-accuracy temperature measurement and control. Encased in a stainless steel probe with 1 meter of white PTFE sensor connections, this thermistor ensures long-lasting performance and reliable integration with **ZVT-16-IF** and **ZVT-25-IF** flicker-inhibited power controllers.

This thermistor is ideal for precise temperature control in industrial environments, ensuring optimal performance in various applications like heating systems, motor control, and flicker-inhibited power controllers.

TECHNICAL SPECIFICATIONS


Thermocouple Type	NTC
Operating Temperature	0°C to 65°C
Max. Current Without Heatsink	5A to 10A
Max. Current With Heatsink	Up to 16A
Mounting Type	Insertion
Material	Stainless Steel
Cable	7/0.2 PTFE, BSG210
Probe Length	50mm
Probe Diameter	6.4mm
Liquid Time Constant	14 Seconds

APPLICATIONS:

Ideal for a diverse range of applications, including:

- DC motor control
- Industrial heating systems
- Power controllers and temperature regulation systems

YOU MUST READ THIS BEFORE INSTALLATION

 ELECTRICAL SAFETY WARNING: RISK OF ELECTRIC SHOCK Always consult the Installation & Maintenance Instructions before connecting this product to the power supply. WARNING: Disconnect Power Before Servicing Ensure the electrical supply is safely disconnected before connecting to any supply, load, or control terminals.	 INSTALLATION REQUIREMENTS WARNING: Installation by Qualified Personnel Only This product must only be installed or fitted by a competent, qualified installer familiar with the relevant electrical standards and installation practices.	 USER RESTRICTIONS WARNING: Not for Use by Vulnerable Individuals This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or instructed by a person responsible for their safety.	 USAGE ENVIRONMENT WARNING: Industrial Use Only This is an industrial-grade product and is not intended for household use.	 HOT SURFACE WARNING WARNING: Hot Surfaces On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions.
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ZVT-E-IF-10K3A1

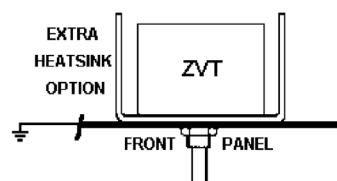
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INSTALLATION INSTRUCTIONS

1. Peel adhesive back off dial and fit over 10mm panel hole.
2. See the table below for heatsink requirements & expected ambient temperature, to calculate the maximum current rating.
3. Check that the voltage rating and sensor type are correct.
4. For ZVT-16-IF only: Apply a 'thin smear' of heatsink paste for good thermal coupling and Insert unit through 10mm panel hole. Affix dial and extra heatsink as appropriate, ensuring equipotential bonding (earth bonding) and tighten front nut.
5. Before fitting control knob, turn temperature control fully anti-clockwise to the mechanical stop.
6. Fit and align control knob to coincide with the dial mark below 0°C
7. Make wire connections to rear terminals. To monitor supply and load conditions fit neons across the relevant terminals.

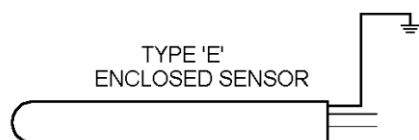
MAXIMUM OUTPUT rms CURRENT (A)			
Max unit temperature	20°C	50°C	65°C
Without extra heatsink	10	7	5
+ heatsink 100 x 100 x 3mm	14	12	10
+ heatsink 170 x 170 x 3mm	16	16	15



OPERATION

8. Note that unit will not operate or indicate correctly and triac will not latch on with loads of less than 200W.
9. Set Prop. Band (internally [25-IF] or via rear panel [16-IF]) fully anti-clockwise.
10. Switch and turn dial to required temperature and allow system to heat up to a steady state. If temperature is unstable turn prop. band clockwise in small steps over several minutes until stable conditions are obtained, characterised by a steady output On/Off ratio.
11. If output remains off, check for open or short circuit in sensor circuit, and if output stays on, check position of sensor relative to heated zone. The correct sensor temperature set points for resistance are:
 - a. 0°C @ 32.6kΩ
 - b. 25°C @ 10kΩ
 - c. 100°C @ 680Ω
12. Do not use a megger or other high voltage equipment as the voltage rating may be exceeded and damage the internal components.

DIMENSIONS AND SPECIFICATIONS

THIS UNIT MUST BE EARTHED

PROBE LENGTH	50 mm
PROBE DIAMETER	6.4mm
OVERALL LENGTH	1METRE
LIQUID TIME CONSTANT	14 SECONDS
PROBE CASE	STAINLESS STEEL
CABLE	7/0.2 PTFE, BSG210

NOTE: Good thermal bonding of the sensor is required, where appropriate, to ensure controller performance reaction time, i.e. for thermal bonding of sensor to metal heatsink, it is recommended that heatsink paste is used.

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RECOMMENDATIONS

FUSING

It is recommended to use semiconductor (fast acting) type fuses or circuit breakers (Semiconductor - MCB) for unit protection. On initial switch on some loads may need an increased Factor of Safety (F of S) for unit and/or device protection. See SRA datasheet for information.

DOCUMENTS

Other documents available on request, which may be appropriate for your application:

Code	Identity	Description
X10229	RFI	Filter recommendations: Addressing the EMC Directive
X10213	ITA	Interaction: Uses for phase angle and for burst fire control
X10255	SRA	Safety Requirements: Addressing the Low Voltage Directive (LVD) including, Thermal Data/Cooling, Live Parts Warning, Earthing Requirements and Fusing Recommendations
X10817	ZVT2-50-IF	50A, 230V Burst Fired Flicker Inhibited Temperature Controllers
X10511	ZVT1/2-16	16A Zero voltage temperature controller
X10542	ZVT1/2-25	25A Zero voltage temperature controller
P01.1	COS	UAL Conditions of Sale

It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.T. regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding the safety of electrical equipment. For International standards refer STANDARDS on D of C.

OPTIONAL EXTRAS

Product Code	Product Description
A26269	ZVT2-50-IF (0-40°C) 50A, 230V Burst Fired Flicker Inhibited
A26230	ZVT1-16-IF (0-40°C) 110V
A26231	ZVT2-16-IF (0-40°C) 230V
A26118	ZVT1-25-IF (0-40°C) 110V
A26254	ZVT2-25-IF (0-40°C) 230V

PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description
A26036	ZVT-E-IF-10K3A1 Enclosed, inhibited flicker sensor



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