

X10511

Temperature Controllers

ZVT-16-IF

16A, 110V / 230V

Burst Fired Flicker Inhibited

CONTACT US:

☎ 0044 (0) 1704-516 501

✉ enquiries@united-automation.com🌐 www.united-automation.com**KEY FEATURES:**

- ✓ **Microprocessor-Based Control** – Ensures precision sensing and stable performance.
- ✓ **Flicker Inhibited** – Reduces mains flicker and improves power quality.
- ✓ **Simple Installation** – Compact design allows for easy mounting with or without heatsink.
- ✓ **Dual Voltage & Temperature Ranges** – Available in **110V AC** and **230V AC** versions with control ranges of **0–40°C** or **0–150°C**.
- ✓ **High Reliability** – Discrete component design provides durability and long service life.
- ✓ **Supplied with Control Knob & Dial** – Linear adhesive-backed scale for user-friendly operation.

APPLICATIONS:

The ZVT-16-IF is suitable for a wide range of **single-phase resistive heating applications**, including: Ovens, Dryers, Hot plates, Flexible heater mats and General temperature control of single-phase resistive heaters.

The **ZVT-16-IF Burst Fired Flicker Inhibited 16A Temperature Controller** is an economical, energy-saving OEM controller designed for precision temperature management. It combines advanced microprocessor-based control with powerful output in a **compact single-hole fixing enclosure**. Unlike conventional thermostats, it switches energy down to half mains cycle packets at **zero voltage**, significantly reducing mains-borne **RFI interference** and **flicker**.

With proportional self-adjustment, the ZVT-16-IF ensures accurate temperature control of loads up to **16A**, provided the installation uses appropriate heatsinking (see cooling requirements). Supplied with a **control knob and ZVT scaled dial** (0–40°C or 0–150°C), it offers reliable performance for demanding OEM heating applications.

⚠ **Note:** The NTC temperature sensor is ordered separately and must always be installed with a bonded earth for safe operation.

TECHNICAL SPECIFICATIONS

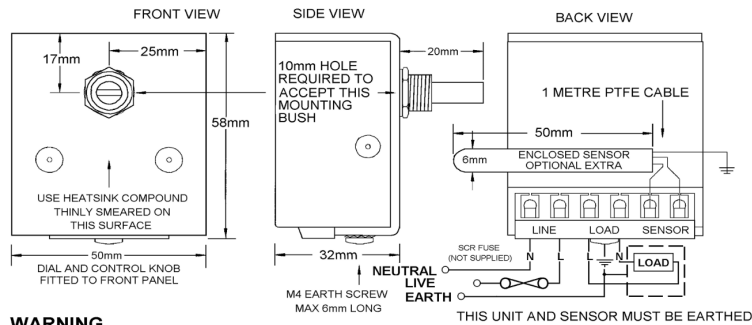
Maximum RMS On-State Current	16A
Peak Single Cycle Surge Current	200A
I²t for Fusing	128 A ² s
Maximum Line Voltage (ZVT1)	110V AC ±10% @ 50/60Hz
Maximum Line Voltage (ZVT2)	230V AC ±10% @ 50/60Hz
Maximum Power Consumption	6W
Temperature Control Range	0–40°C / 0–150°C
Isolation Voltage (Typical)	2500V rms
Proportional Band (Rear Screw Adjust, Typical)	1–15%
Operating Temperature Range	0°C to +65°C
Storage Temperature Range	0°C to +65°C
Control Stability (Typical)	1%
Weight	125g
NTC Sensor	Must be earthed
<i>Further Dimensions</i>	
Shaft Diameter	6.3mm (1/4 inch)
Shaft Projection from Bush	13.0mm
Bush Length	7.0mm
Fixing Hole Diameter	10.0mm
Maximum Cable Entry (c.s.a.)	2.5mm ²
Scale Label Dimensions	54 x 46mm (linear, adhesive-backed)

YOU MUST READ THIS BEFORE INSTALLATION

ELECTRICAL SAFETY	INSTALLATION REQUIREMENTS	USER RESTRICTIONS	USAGE ENVIRONMENT	HOT SURFACE WARNING
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.	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.	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.	WARNING: Industrial Use Only This is an industrial-grade product and is not intended for household use.	WARNING: Hot Surfaces On certain models, surfaces marked with this symbol become hot during use. Avoid direct contact and follow all thermal safety precautions.

INSTALLATION INSTRUCTIONS

DIMENSIONS AND CONNECTION

**WARNING**

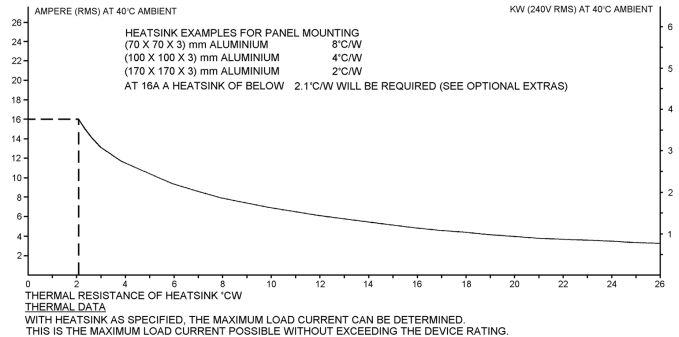
LIVE TERMINALS - SWITCH OFF SUPPLY BEFORE COMMENCING ANY SERVICE WORK. THE SENSOR IS NOT ISOLATED FROM THE MAINS SUPPLY. ADDITIONAL MEASURES SHOULD BE TAKEN TO ENSURE SAFETY IS MAINTAINED UPON INSTALLATION AND COMMISSIONING.

NOTE FOR HEATSINK MOUNTING.

A 10mm HOLE IS REQUIRED TO ACCEPT MOUNTING BUSH. USE HEATSINK COMPOUND FOR EFFECTIVE THERMAL COUPLING.

COOLING REQUIREMENTS:

Stainless steel typically 15 times less thermally conductive and mild steel which is typically 5 times less thermally conductive

**RECOMMENDATIONS****FUSING**

A semiconductor, fast acting type fuse, is supplied as standard for unit protection. On initial operation, some loads may need an increased Factor of Safety (F of S) for unit and/or device protection. For spares or replacements contact our sales desk.

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
X10612	ZVT-E-IF-10K3A1	ZVT enclosed flicker inhibited NTC sensor installation sheet
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
A26036	ZVT-E-IF-10K3A1 Enclosed, inhibited flicker sensor
Z01062	Heatsink compound

PRODUCT CODE AND RELATED PRODUCT CODE

Product Code	Product Description
A26227	ZVT1-16-IF (0-150°C) 110V Burst fire, Flicker inhibited, Temperature Controller
A26228	ZVT2-16-IF (0-150°C) 230V Burst fire, Flicker inhibited, Temperature Controller
A26230	ZVT1-16-IF (0- 40°C) 110V Burst fire, Flicker inhibited, Temperature Controller
A26231	ZVT2-16-IF (0- 40°C) 230V Burst fire, Flicker inhibited, Temperature Controller