

**MAX & VZ series Temperature Scanners**

**OVERVIEW**

The ASHE MAX series Temperature Scanners are part of a range of fully configurable micro-controller based instruments with control outputs, offered in a highly compact, rugged and reliable execution. The instrument has six keys on the front panel, with which the operator can set the parameters and configure the instrument as desired. A two-digit display indicates the channel number, while a four-digit display indicates the corresponding temperature.

The instrument has non-volatile memory. The instrument accepts input from four / eight / sixteen nos. RTD Pt-100 or Thermocouple sensors, or 4-20 mA analog signal. The instrument is calibrated as specified.

The Temperature Scanner provides four control Relay outputs configurable to any of the input channels, providing alarm or trip set-points for any channel. The set points are configured through the Membrane Keypad on the front panel. The instrument operates on universal AC power supply and is offered in ¼ DIN standard panel-mount execution.

The instrument has a MODBUS RTU output. The communication between instrument and computer can be done using RS-485 to RS-232 converter.

The temperature is factory calibrated to the desired operating range of the input sensor through the instrument software and may be changed, if specifically required. Other features include its inherent accuracy and immunity to shocks, dust, ambient temperatures, and humidity. It is also available in field-mounting (weather-proof / explosion-proof executions) and standard panel mounting enclosures.

Further, the instrument is manufactured using selected high-grade components which guarantee its functionality and long operational life. The instrument carries a performance warranty against defects in design and workmanship.

All ASHE range of instruments carry a lifetime warranty for design and workmanship.



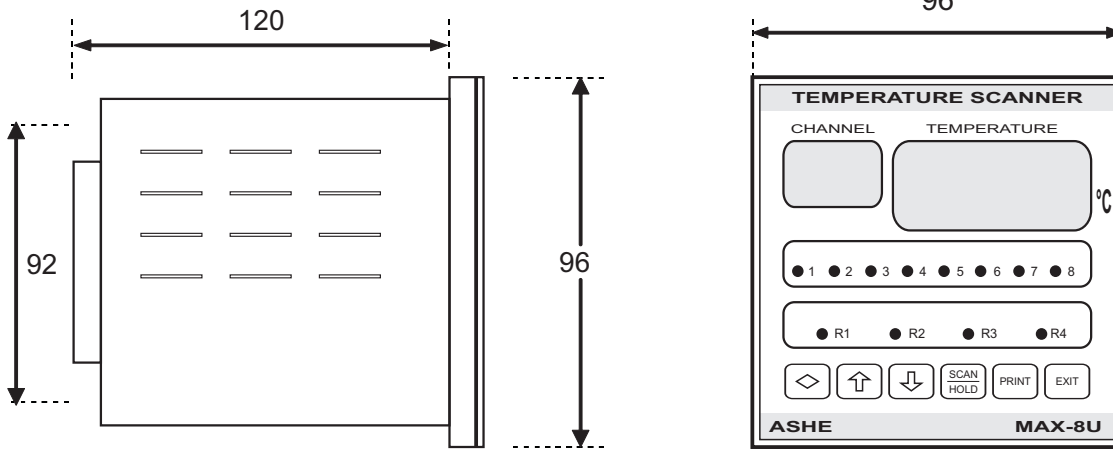
**SPECIFICATIONS**

<b>Model</b>	VZ-72 (two channel, DIN Rail mount) MAX-4U (four-channel, panel mount) MAX-8U (eight-channel, panel mount) MAX-16U (sixteen-channel, panel mount)
<b>Type</b>	Microcontroller based Multi-channel Temperature Scanner
<b>Input Signal</b>	RTD Pt-100 (three-wire), Thermocouple, Analog.
<b>Display</b>	Seven-segment, red LED displays.
<b>Indications</b>	Four-digit display for Temperature. Two-digit display for Channel number.
<b>LED Indications</b>	Yellow LEDs for Channel faults & Alarm Four Red LEDs for Relay Status
<b>Scale Range</b>	Fully configurable.
<b>Response time</b>	Typically 100 mS.
<b>Output</b>	Four control relay changeover contacts – configurable to selected channel.
<b>Contact rating</b>	10 Ampere @ 230 V AC (Resistive Loads).
<b>Retransmission</b>	4 to 20 mA DC [in MAX-4U only].
<b>Load driving capacity</b>	600 Ohms
<b>Communication</b>	RS485 on MODBUS RTU (in select models).
<b>Memory</b>	Non-Volatile (on EEPROM).
<b>Settings</b>	By Membrane Keypad on the front panel.
<b>Features</b>	Scale calibration, Alarm/Trip, Channel Faults, Channel Skip, Scan/Hold
<b>Accuracy</b>	± 0.2% FS.
<b>Power Supply</b>	90 to 270 VAC, 50/60 Hz universal AC power.
<b>Enclosure</b>	Panel mounting.
<b>Dimensions</b>	96 x 96 x 120 mm [W x H x D].
<b>Cutout Dimensions</b>	92 x 92 mm.
<b>Weight</b>	Approximately 1.0 kgs.

**FEATURES**

- Microcontroller based design.
- Several Temperature Sensors / Analog inputs
- Various channel options : 2/4/8/16
- High accuracy and linearity to input signal
- Dual 2/4-digit seven-segment LED displays
- Four Relay change-over contacts
- Very low power consumption and heat dissipation
- Fully configurable
- Retransmission option.
- Universal AC Power Supply
- RS485 MODBUS Communication
- On-Off control action options
- Rugged, industrial grade ABS enclosure
- High Noise immunity.
- Panel / Field / Hazardous-area installation in IP65 execution
- Proven record of several thousand installations
- Lifetime warranty on design and workmanship

**DIMENSIONAL DIAGRAM**



**How To ORDER**

**TEMPERATURE SCANNER**

- a. Two-channel, DIN Rail Mount, 75x55x110 mm, Two control Relays
- b. Four-channel, Panel Mount, 96x96x110 mm, Four control Relays
- c. Eight-channel, Panel Mount, 96x96x110 mm, Four control Relays
- d. Sixteen-channel, Panel Mount, 96x96x110 mm, Four control Relays

VZ-72  
MAX-4U  
MAX-8U  
MAX-16U

**1 POWER SUPPLY**

Standard Power Supply offered

- ▶ Universal AC, 90 to 270 V AC, 50/60 Hz.
- ▶ 24 V DC (±10%).
- ▶ Other (to be specified).

V  
D  
Z

**2 EXECUTION**

- ▶ Panel mounting [96 x 96 x 110 mm]  
(Extension Termination board for MAX-16U)
- ▶ Field mounting in Weather-proof execution  
(Polycarbonate enclosure, IP65 protection)
- ▶ Field mounting in Flame/Explosion-proof execution  
(Cast Aluminum Alloy LM6 enclosure, for Gas groups IIA, IIB)
- ▶ Other (to be specified)

D  
W  
X  
Z

**3 RETRANSMISSION / COMMUNICATION**

- ▶ Retransmission of 4 to 20 mA DC (available in MAX-4U only)
- ▶ RS485 on MODBUS Protocol (available in MAX-8U only)
- ▶ No Retransmission

R  
M  
O

**OUR OTHER PRODUCTS**



FLOW TOTALIZER



SIGNAL ISOLATORS & TRANSDUCERS



TEMPERATURE SCANNER



FLAMEPROOF INSTRUMENTS



STATIC POWER SWITCHES



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