

## UDI 1500 MICRO-PRO SERIES UNIVERSAL DIGITAL INDICATOR

51-52-03-22 11/99

PRODUCT SPECIFICATION SHEET

### OVERVIEW

The UDI1500 is a 1/8 DIN horizontal (96mm\*48mm) format indicator which combines a high degree of technology and quality with a low price. Its large red display provides a very good, clear and quick legibility of the essential information you need. It is ideally suited for a large number of applications.



### FEATURES

#### **A companion for the UDC1000/1500**

Based on the same technology as the UDC1000/1500 low price controllers, the UDI1500 is the ideal companion of those controllers for application requiring performance in control and accurate indication.

#### **Moisture resistant front face**

Meets NEMA 3/IP65 front face protection against dust and water.

#### **Universal Power supply and input**

Can operate on any line voltage from 90Vac to 264Vac at 50/60Hz. A low voltage 24/48Vac/dc solution is also available. All input types like thermocouples, RTDs and linear DC are configurable as standard.

#### **Flexibility & commonality**

The option boards (alarm relay output and linear output retransmission) are plug-in for easy upgrade and low inventory.

#### **Large visibility**

A large 14 mm four digits LED display in red make the UDI1500 easy to read from a distance. A specific digit for °C or °F is provided.

#### **Alarm strategy**

Up to three soft alarms are available with or without remote relay action. The alarm types can be set on PV high or low. Alarm 1 can be latched and requires acknowledgment from the operator.

#### **Min. and Max. indication**

Maximum and Minimum values attained by the process variable since the last reset are stored for further analysis.

#### **Time elapsed**

The UDI1500 can also store the time elapsed since the alarm 1 became active. In combination with the above Max. and Min. features, it provides alarm information for more detailed analysis.

#### **Transmitter Power Supply**

Provided as an option on output 3 is 24 Volts DC power for a 2-wire transmitter.

#### **Configuration**

Easy and full configuration with straightforward menu via the instrument front face.

#### **PV retransmission**

The linear optional output 2 can be used for PV retransmission.

# SPECIFICATIONS

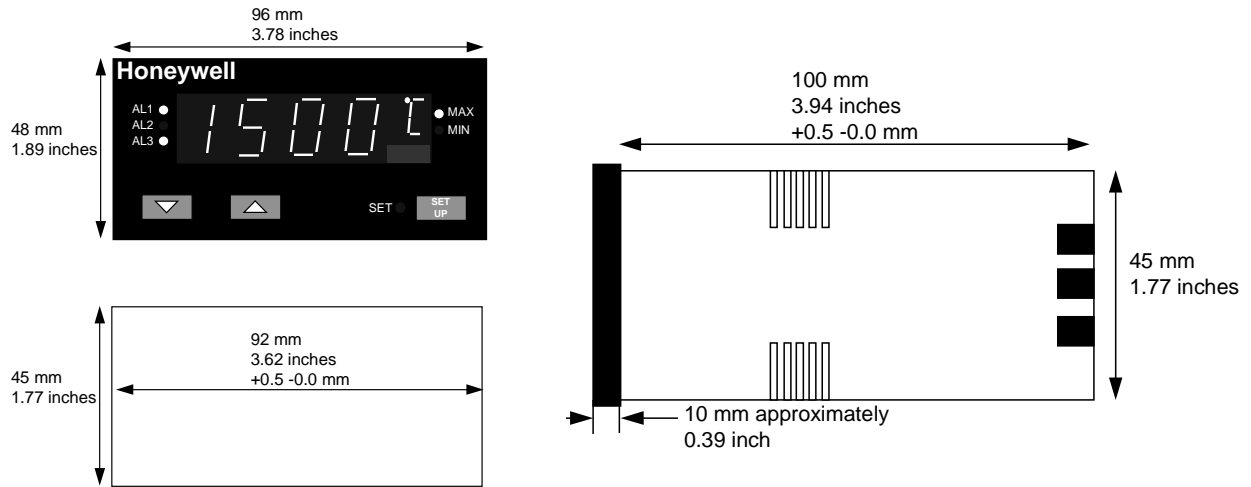
## Technical data

Accuracy	<p><i>Measurement:</i> 0.25 % of Span <math>\pm</math> 1 LSD  <i>Linearization for T/C &amp; RTD:</i>            Better than <math>\pm</math> 0.2 °C for decimal range; Better than <math>\pm</math> 0.5 °C for integer range  <i>Cold junction compensation (T/C only):</i> Better than <math>\pm</math> 0.7 °C</p>
Temperature Stability	0.01 % of span per °C
Input Signal Failure	<p>For Thermocouple and RTDs: Upscale burnout            For linear input: Downscale burnout (only applicable to 4-20mA)</p>
Input Sampling Rate	Four samples per second
Input Filter	Digital filter: 0.0 (off), from 0.5S to 100.0 seconds in 0.5s increment
Input Resolution	14 bits approximately, always four times better than display resolution
Input Isolation	Universal input isolated at 2500V from all outputs and from power supply
Stray Rejection	<p>Common mode rejection: &gt;120dB at 50/60Hz with negligible effect at 264V            Serial mode rejection: &gt;500% of span at 50/60Hz with negligible effect</p>
Approvals	UL pending and CE approved
Environmental	<p>EMI immunity: meet EN50082-2 part 2            EMI Emission: meet EN50081-2 part 2            Safety considerations: comply with EN61010-1</p>
Front Panel Sealing	IP65/NEMA3
Power consumption	4 Watts
Physical	<p>Weight: 480 grams max.            Width: 96mm/3.78 inches, Height: 48mm/1.89 inches, Depth: 100mm/3.94 inches            Wiring connection: Screw terminals on the rear of the case (combination head)</p>
Alarms	<p>Up to three soft alarms with 3 SPDT relay outputs            Alarm types: PV high or low with direct or reverse acting            Up to three alarm hysteresis: From 1 LSD to 10% of span            Combination alarms: Logical "OR" or "AND"            Alarm 1 can be latched requiring specific acknowledgment</p>
Output type	<p>Type available:            Output 1: Electromechanical relay output SPDT            Output 2: Electromechanical relay output SPDT or Linear DC for PV retransmission            Output 3: Electromechanical relay output SPDT or Transmitter power supply</p> <p><i>Linear DC output :</i> 4-20mA            Accuracy: <math>\pm</math> 0.5% (500 ohms max)            Resolution: 8 bits in 250ms (10 bits in 1 second typical, &gt;10 bits in &gt;1 second)            Load impedance: 500 ohms maximum.            Isolation: isolated 2500 V from all other inputs and outputs.            Range selection method: Jumper positioning and front panel code setting.            Temperature stability: 0.01 % / °C</p> <p><i>Electromechanical relay:</i>            SPDT contact with 2 A at 120 V or 240 V (resistive load)            Life time: &gt; 500 000 operations at rated voltage/current.</p> <p><i>Transmitter power supply :</i>            Voltage output: 20-28 Vdc with 24Vdc nominal            Minimum load impedance: 910 ohms (22 mA and 20 Vdc)</p>
Retransmission Output	Current output of output 2 can be selected to retransmit the process variable.
Remote Reset Input	<p>Voltage free or TTL compatible (External relay contact or TTL logic signal)            To reset the latched alarm output 1</p>
Communication Interface	<p>RS485: ASCII or Modbus            Baud Rate: 1200, 2400, 4800, or 9600 Baud            Link Characteristics: 32 drops maximum, ASCII protocol, two wires</p>

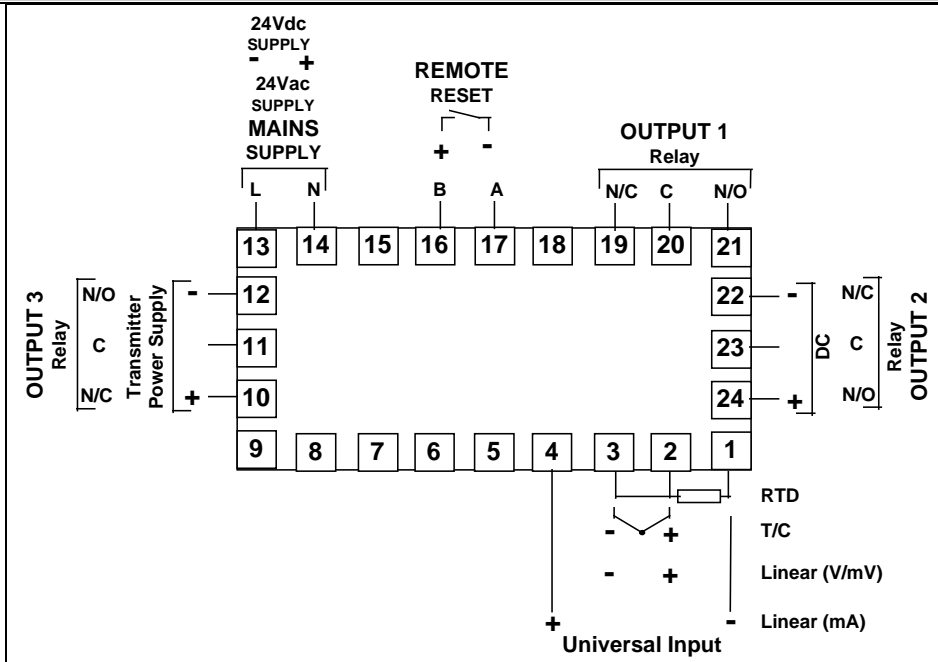


## External Dimensions and Panel Cutout

### UDI1500



## Wiring Diagram



Distributor :