DEVAR Inc.

Temperature Indicator Controller, Model 3015

- Directly accepts RTD or TC Input
- 0.54" easy-to-read 6-character
 LED display
- Easily configured using 14 segment display for true alphanumerics
- 10 Amp SPDT Relay Contact Outputs
- Optional Isolated Analog Retransmission





GENERAL DESCRIPTION

Devar indicator Model 3015 directly accepts thermocouple types T, J, E, K, N, R, S, B, and RTD inputs of 100Ω Platinum α = 0.0385, 100Ω Platinum α = 0.0392, or 120Ω Nickel α = 0.0672 resistance temperature detectors. Two, three, or four-wire RTD configuration may be used.

Configuring the 3015 is accomplished by utilizing the front panel keypad to specify operational parameters. The input is configured by selecting a desired sensor from a list and specifying the temperature scale, eirthe °C or °F. The thermocouple and RTD response is linearized to display the temperature to within ±0.2°C.

The rated operating temperature range of the unit is from 0 to 70°C. It is housed in an 1/8 DIN aluminum housing with a splash proof front panel. A 6-digit 0.54 inch high LED display provides for easy viewing under all ambient light conditions. It's 14-segment alphanumeric display provides plain English prompting during configuration.

Other selectable features include: flashing display on trip, sound internal horn on trip, trip and clear acknow-ledgment, Latch control, relay Failsafe PolarityTM, security code lockout, and signal peak (HI) and valley (LO) retention. Optional features includes 0, 2, or 4 10 Amp SPDT control contacts and analog/digital signal retransmission.

SPECIFICATIONS MODEL 3015

INPUT

TYPE	°C	٥F
TC - J	-210 to 1200	-346 to 2192
TC - K	-270 to 1372	-454 to 2501
TC - T	-270 to 400	-454 to 752
TC - E	-270 to 1000	-454 to 1832
TC - R	-50 to 1768	-58 to 3214
TC - S	-50 to 1768	-58 to 3214
TC - N	-270 to 1300	-454 to 2372
TC - B	125 to 1820	275 to 330
RTD - 100Ω Pt $\alpha = 0.0385$	-200 to 850	-328 to 1562
RTD - 100Ω Pt	-200 to 830	-328 (0 1302
$\alpha = 0.0392$	-200 to 660	-328 to 1220
RTD - 120Ω Ni $\alpha = 0.0672$	-80 to 260	-112 to 500

Thermocouple Open Input Indication:

Input goes upscale, display indicates "+OVERF"

RTD Broken Wire Indication:

Input goes upscale, display indicates "+OVERF"

Input Signal Impedance: 90 Megohms

Configuration: Input type and temperature scale

selected from keypad.

-3dB frequency: 12Hz.

Effective A/D Resolution: >16 bits

PERFORMANCE

Cold Junction Compensation: Digitally compensated

to less than 0.1°C from -40° to 85°C

Common Mode Rejection: Greater than 120 dB at 50/60 Hz

Normal Mode Rejection: Greater than 64 dB at 50/60 Hz

Temperature Effect Zero: +0.01% of reading per °C

Temperature Effect Span: +0.01% of reading per °C

Operating Temperature: 0 to 70°C

DISPLAY

Six bright red LED, 0.54 inch high, 14-segment

alphanumeric characters.

Temperature Display Resolution: 0.1°C or °F

Update Rate: 2Hz

ENCLOSURE

1/8 DIN, with polycarbonate bezel and aluminum body splash proof front panel

BULLETIN 9900xx-000x 4/02

CONTROL CHANNELS

Status Indication: Front panel LED's, flashing display, horn; flashing display and horn active or inactive, menu selectable

Points: 0, 2, or 4 independently set trip and reset points (100% hysteresis); Control action high or low determined by setting trip and reset points.

Latching: All control channels may be latching or non latching, menu selectable, reset from keypad

Audible Alarm: An audible alarm may be enabled or disabled for each channel during configuration; Options include: 1. Always sound while tripped, 2. Sounds while tripped, reset from keypad, 3. Sounds during and continues after tripping, must be reset from keypad, 4. Sounds after a trip of reset, continues sounding until acknowledged.

Contacts: SPDT (form C) relays; 10 amps, 250 VAC; 8 amps, 24 VDC resistive; 1/3 HP,120 VAC;1/2 HP,240 VAC

Failsafe Operation: Failsafe Polarity[™] feature allows the user to select whether a power failure put the alarm in either a tripped or reset condition.

POWER / VOLTAGE

Connections: 15 position, plug-in terminal block for power and relay contacts; 9 position, plug-in terminal block for external temperature sensor and retransmission; 24 to 14 AWG.

Power Requirement: 90 to 140 VAC, 50/60 Hz, 10VA

SECURITY PASSWORD

6 digit security password to enter configuration menu, user selectable, enabled or disabled by internal switch setting

WARRANTY: 2 YEARS Made in USA

ORDERING INFORMATION

3015-0 indicator only

3015-2 indicator / controller with 2 control channels

3015-4 indicator / controller with 4 control channels

OPTIONS:

-D232 RS-232 Retransmission -D485 RS-485 Retransmission -005 0 to 5 VDC Retransmission

-105 1 to 5 VDC Retransmission -010 0 to 10 VDC Retransmission -420 4 to 20mA Retransmission

-020 0 to 20mA Retransmission

-NE4C NEMA 4 Cover

-NE4S NEMA 4X Enclosure (1 Unit) -NE4D NEMA 4X Enclosure (2 Units) -NE7 Explosion Proof Housing

-NE7 Explosion Proof Housing -M36G 2" Pipe Mount Kit (NE4S,NE4D,NE7)

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