Description

The 1490 is a Universal Input Indicator with single or dual configurable alarms, optional linear retransmission of Process Variable, Transmitter power supply option as well as optional Modbus communications.

Features

- Universal Input
- 2 Alarm Outputs
- Retransmission
- Min/max Value Hold
- Modbus Communications
- Transmitter Power supply
### Features

**Output Configuration:** 1 or 2 relay outputs, with optional linear retransmission

**Alarms:** 2 process high / low with adjustable hysteresis

**Viewable Values:** Process variable, maximum value, minimum value

**Human Interface**
- 3 button operation,
- 5 digit 13mm high display red,
- 2 alarm indicator

### Input

**Thermocouple:** J, K, C, R, S, T, B, L, N & PtRh20% vs PtRh40%

**RTD:** 3 Wire PT100, 50Ω per lead maximum (balanced)

**Strain Gauge:** 350 Ohm Strain Gage

**Bridge Connection:** 4 or 6 wire (6 to use internal shunt cal switch)

**Bridge Excitation:** 10V ±7%

**Bridge Sensitivity:** 1.4 to 4 mV/V

**Input Signal Span:** -25% to +125% of full scale (approximately -10 mV to +50 mV)

**Calibration:** Internal switch between CAL2 & CAL1 terminals. External resistor only

**Shunt Value:** From 40% to 100%

**DC Linear:**
- 0 to 20mA, 4 to 20mA into 500Ω max,
- 0 to 10V, 2 to 10V, 0 to 5V into 500Ω min.

**Scaleable:** -1999 to 99999 with adjustable decimal point

**Impedance:** >10MΩ for Thermocouple and mV ranges, 47KΩ for V ranges and 5Ω for mA ranges

**Accuracy:** ±0.1% of input range ±1 LSD (T/C CJC better than 1°C)

**Sampling:** 10 per second, 16 bit resolution approximately (100ms sample time)

**Sensor Break Detection:** <2 seconds (except zero based DC ranges), high alarms activate for T/C, RTD and mV ranges, low alarms activate for mA or V ranges

### Outputs & Options

**Alarm Relays:**
- Contacts Single Relay SPDT 2 Amp resistive at 240V AC, >500,000 operations.
- Latching or non-latching.
- Dual Relay SPST 2 Amp resistive at 240V >200,000 operations. Reinforced safety isolation from inputs and other outputs

**DC Linear Retransmit Outputs:**
- 0 to 20mA, 4 to 20mA into 500Ω max, 0 to 10V, 2 to 10V, 0 to 5V into 500Ω min.
- 15 3/4 bit (1 part in 52K) and updated at about 65ms intervals. (130ms settling time)
- Stability: ±76ppm

**Transmitter Power Supply:** Output 24VDC @ 60mA

**Serial Communications:** 2 Wire RS485, 1200 to 19200 Baud, Modbus

**Logic Input:**
- External reset of latched relay, stored alarm 1 elapsed time, stored min/max PV values or initiate tare function.
- Action occurs on high (3 to 5VDC) to low <0.8VDC, or Open to Closed transition

### Operating & Environmental

**Temperature & RH:** 0 to 55°C (-20 to 80°C storage), 20% to 95% RH non-condensing

**Power Supply:** 110 to 240V 50/60Hz 7.5VA (optional 20 to 48V AC 7.5VA/22 to 65V DC 5 watts)

**Front Panel Protection:** IEC IP66 (Behind panel protection is IP20)

**Standards:** CE. Pollution Degree 2, Installation Category II “UL Listed”
Ordering Guide for 1490 5 Digit 1/8 DIN Panel Indicator

1490 X X X X X

Number of Alarms
1 = Single Alarm
2 = *Dual Alarm Common Gnd
4 = Dual Alarm Independent Gnd
* Required when Transmitter Power Supply is fitted

Retransmission
0 = Not Fitted
1 = Fitted

Supply Voltage
0 = 110-240V AC Mains
1 = 24V AC/DC

Modbus Communications
0 = Not Fitted
1 = Fitted

Transmitter Power Supply
0 = Not Fitted
1 = Fitted

Dimensions

All dimensions are inches (mm) unless otherwise specified.
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Refer to www.dynisco.com for access to Operator Manual and other support documentation.