

NEW



1810+™

*Affordable, High Contrast,
Compact and Easy to Use*

1/8 DIN Indicator with Alarm

DESCRIPTION

The Partlow 1810+ is a new digital panel indicator providing a high contrast, high visibility display, designed for optimal ease of use in a wide variety of temperature and related process applications.

The 1810+ is fast, accurate and easy to read with a jumperless configuration, plug in output boards and an improved PC configurator for quick and simple setup. The new generation 1810+ further provides a new user-selectable dual color display option with fixed red or green displays or a green to red color change when an alarm condition occurs.

In addition, plug-in modules allow PV retransmission or transmitter power supply and up to 5 alarm relays (latching or non-latching).

The 1810+ indicator is affordable, full featured, easy to use and compact with performance features characteristic of the + Series product line that work for you making temperature and process display simple.

The 1810+ digital indicator like its predecessor, the 1810, remains an easy to use low cost solution for temperature and process display applications - providing excellent visibility and high accuracy all within an affordable and ultra compact housing.

APPLICATIONS:

The Partlow 1810+ digital indicator like its predecessor, the 1810, remains an easy-to-use, low cost solution for indication and display within industrial temperature and process measurement applications – providing high visibility and excellent accuracy in a compact size.

INDUSTRIES

- Industrial and lab ovens/furnaces
- Plastics and thermal forming
- Packaging applications
- And any other display of temperature or other process measurement especially where an out-of-range alarm condition is a requirement

FEATURES/BENEFITS

- **NEW** 10V SSR driver output allows drive of up to 3 typical SSR/SCR inputs
- **NEW** Plug-in Output Modules for SSR driver, Triac, Relay and linear outputs – easily field changeable
- **NEW** Common HMI and styling with other Partlow + Series products promoting uniform system appearance and operation
- **NEW** Latching Alarms - Included as standard.
- **NEW** Improved PC Configurator with easy to use “wizard” suits both novice and experienced users
- **NEW** Jumperless configuration with self-recognition of optionboards – promotes simple, error free set-up
- **NEW** Multi-point Scaling and Tare features included as standard.

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Indicators

SPECIFICATIONS*

STANDARD FEATURES

4 per second input sample rate
Universal input
NEW Improved HMI, 3 button operation, 4 digit 13mm high red, green or red/green display (color change on alarm), indicators for °C/°F, set-up, alarms (5) and max. & min. indicators. Labels for 27 common units provided for mount behind clear window
NEW Plug-in output modules – install just the function needed
NEW Multipoint scaling & Tare functions
NEW Jumperless input configuration
NEW Auto-detection of installed output modules
NEW Improved PC configuration software
Process alarms (**NEW** standard latching alarm)
Rugged ABS Plastic housing

ENVIRONMENTAL CHARACTERISTICS

Operating Temp: 32° to 131°F (0° to 55°C)
Storage Temp: -4° to 176°F (-20° to 80°C)
Humidity: 20% to 95% non-condensing RH

ELECTRICAL

Supply Voltage: 100-240V, 50/60Hz, Optional 20-48VAC 50/60Hz / 22-65VDC
Power Consumption: 5W / 7.5 VA Maximum

DISPLAY

Type: Red/Green, 7 segment LED, 4 digit primary display, single digit secondary display
Height: 0.53" (13mm) primary display, 0.39" (10mm) secondary display
Annunciators: LED indicators for output and status

INPUTS

T/C's: J, T, K, L, N, B, R, S, C; Pt Rh20% vs. Pt 40% Rh
RTD: 3-wire, PT100
DC Linear (Scalable –1999 to +9999)
Volts: 0-5V, 1-5V, 0-10V, 2-10V
DC milliamps: 0-20mA or 4-20mA
DC millivolts: 0-50mV, 10-50mV

OUTPUTS

All outputs are user-selectable and customized based on desired application; choose from the following output types
Max # of Outputs: 5 for alarm, 24 VDC transmitter power supply or retransmit of process value
Single Alarm Relay: Optional SPDT; 240VAC 2A resistive; Lifetime >500,000 operations at rated voltage/current
Dual Alarm Relays: Optional, Two x SPST contacts with shared common. 2 Amp resistive at 240V AC, >200,000 operations. Latching or non-latching
SSR Drive: Optional drive capability: >10 VDC nominal into 500 ohm minimum
DC Linear: Optional 0-20mA, 4-20mA into 500 ohm max; 0-10V, 1-5V, 2-10V, 0-5V into 500 ohm min; Outputs have 2% over/under drive applied; Accuracy +0.25% (mA into 250 ohm load, V into 2k ohm load); degrading linearity to +0.5% for increasing burden to specified limits
Triac: Optional 0.01 to 1A AC, 20 to 280Vrms, 47-63 Hz (Limit 2)
Transmitter Power Supply: Optional 24 VDC (Limit 1)

OUTPUT FUNCTIONS

Process Alarm: (reverse or direct)
Alarm Modes (Alarm 1 through 5): High/Low, Band, Deviation, logical OR/AND
Retransmit: Process value

ELECTRICAL PERFORMANCE

Accuracy: ± 0.1% of input range ±1 LSD (T/C CJC better than 1 degree C)
Input sample rate: 4 per second, 14 bit resolution
Impedance: >10M ohm for the thermocouple and mV ranges, 47k ohm for V ranges and 5 ohm for mA ranges
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

COMMUNICATIONS INTERFACE

User-selectable: 2-wire, RS-485 serial communications option with choice of Modbus RTU or West ASCII protocol; 1200 to 19200 baud
PC Configuration: Offline configuration from serial port to dedicated configuration socket (comms option not required)

RATINGS/AGENCY APPROVALS

Conformance: CE, UR, cUR UL File # 67237
Safety: EN61010
EMC: EN61326

PROTECTION

IEC IP66 (NEMA 4X) front panel
IEC IP20 (behind the panel protection)

PHYSICAL DIMENSIONS

Panel Cutout: 1.77" x 3.62" (45mm x 92mm)
Width: 3.78" (96mm)
Height: 1.89" (48mm)
Depth: 3.93" (100mm)
Weight: 0.46 lbs (0.21 kg)
Mounting: Plug in panel with fixing strap

OPTIONS/ACCESSORIES

Digital Input 1: Selects volt-free or TTL input
NEW Faster RS-485 serial communication speeds and user-selectable (Modbus/RTU or West ASCII) option
NEW 24VDC transmitter power supply option
Choice of Led colors: red or Green
Drive output: 10VDC SSR

WARRANTY

3 Years

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Partlow Brand 1810+ Data Sheet (7/05)



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PARTLOW™ brand

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Indicators

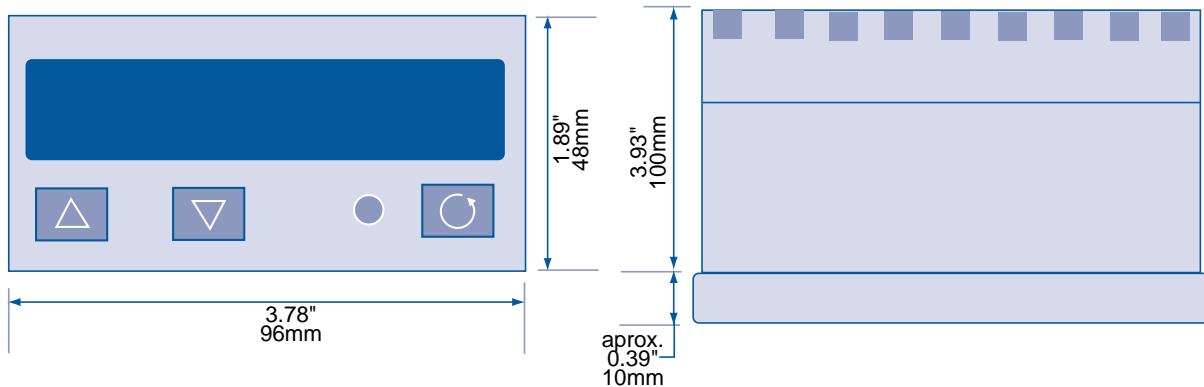
1/8 DIN Indicator with Alarm

MODELS

Code 1: Model #	Code 2: Option Slot 1	Code 3: Option Slot 2	Code 4: Option Slot 3	Code 5: Option Slot A	Code 6: Power Supply
P1810	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
1/8 DIN Indicator with Alarm Function	0 Not Fitted 1 Relay 2 DC for SSR 3 Linear 8 Triac*	0 Not fitted 1 Relay 2 DC Driver for SSR 3 Linear 8 Triac* 9 Dual Relay	0 Not fitted 1 Relay 2 DC Driver for SSR 3 Linear 4 Transmitter Power Supply 8 Triac* 9 Dual Relay	0 Not fitted 1 RS-485 Serial Communication 2 Digital Input 3 Green Display 4 RS-485 & Green Display 5 Digital Input & Green Display 6 Red/Green Changable Display 7 RS-485 & Red/Green Changable Display 8 Digital Input & Red/Green Changable Display	00 100-240 AC 02 24-48 AC or DC

* Maximum of two Triac outputs per unit

DIMENSIONS - 1/8 DIN



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Process Automation Worldwide Brands: LFE™ • Partlow™ • PMA™ • Rustrak™ • West™

Process Automation Worldwide Brands:

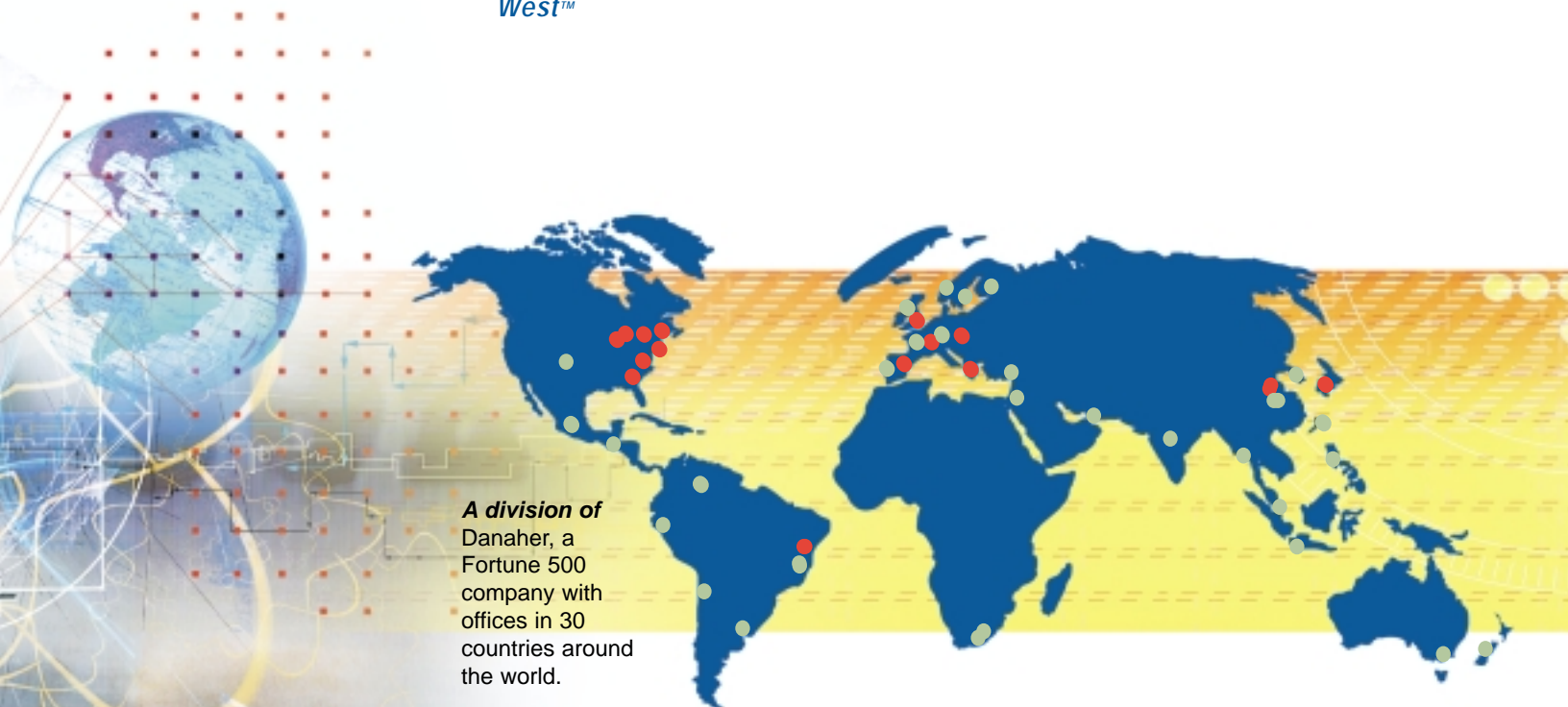
LFE™

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A division of
Danaher, a
Fortune 500
company with
offices in 30
countries around
the world.

More Available. With factories around the world, global sales and applications support, and an expansive network of distributors, we stay close to our customers - shortening lead times and fostering responsiveness. Three-day lead time is standard, with same-day shipments available on many of our products.

More Selection. We have a broad selection of controllers to meet application requirements in a variety of industries. User-configurable, accurate and flexible, with low, mid, or high level performance ranges, our controller products meet your system and budgetary requirements.

More Reliable. Our experience with more than 25,000 customers has taught us to design controllers that are reliable and durable, with quality standards that meet six sigma requirements.

For additional information or a full-line catalog, contact DICG Customer Service or visit our web site.

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