

Legacy Series 18 and 19 Universal Temperature/Process Controller

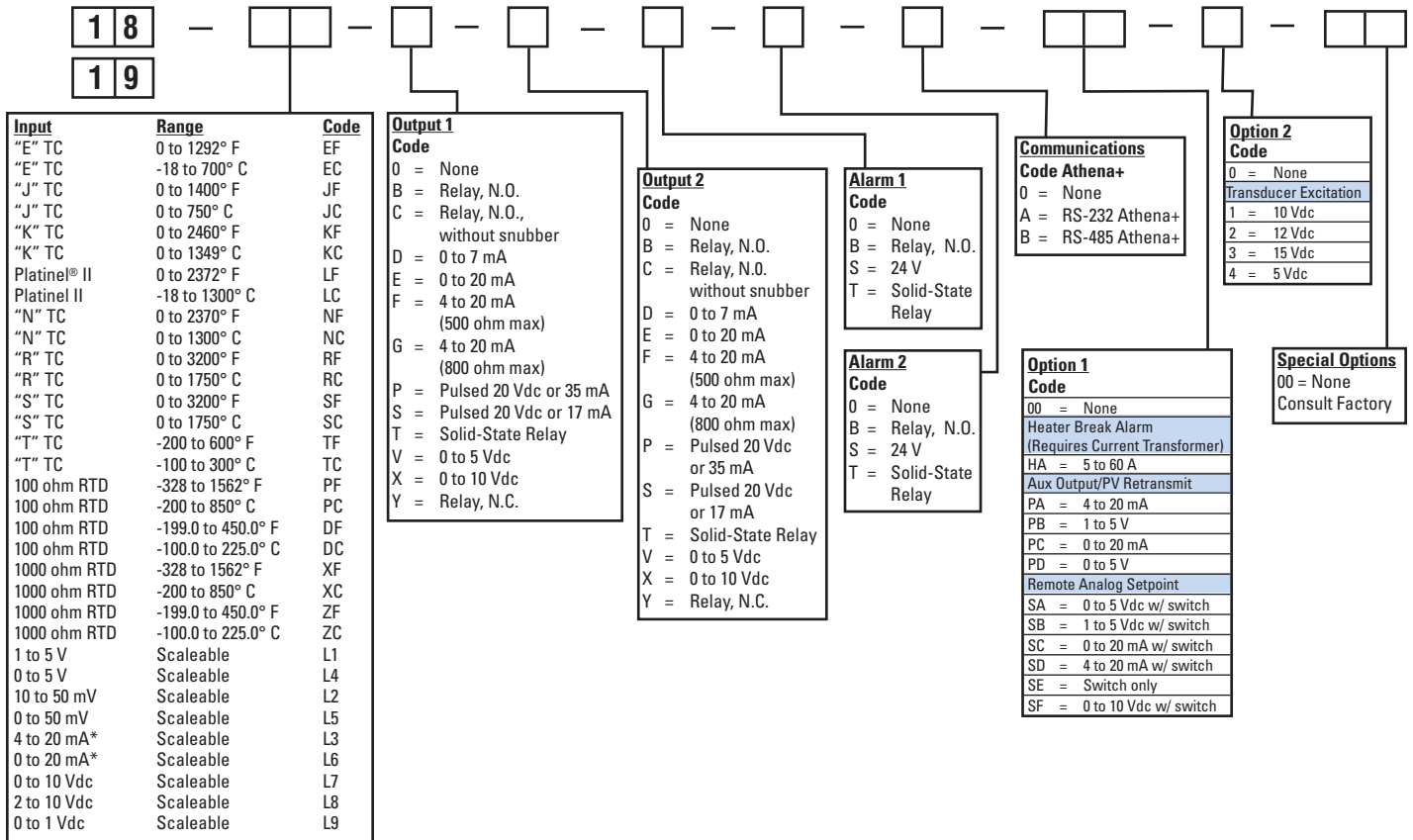


- ▲ Switch-Selectable Inputs
- ▲ User-Selectable Ramp to Setpoint
- ▲ Auto-Tuning, Heat or Cool
- ▲ Dual Output/Dual Alarm Capabilities
- ▲ On/Off Through Full PID Operation (P,PI,PD,PID)
- ▲ NEMA 4X (IP65) Dust and Splash-Proof Front Panel
- ▲ Bumpless Auto/Manual Transfer
- ▲ Adjustable Hysteresis & Heat/Cool Spread
- ▲ Field-Configurable Process, Deviation, or Latching Alarms
- ▲ Optional Process Variable Retransmission
- ▲ Remote Setpoint Select, Non-Linear Inputs, or Other Special Options
- ▲ cUL and CE Approvals

The Athena Legacy 18 and 19 Controllers are available as 1/8 DIN (18) vertical or 1/8 DIN (19) horizontal models. Both panel mounted, auto-tuning controllers can be used for precise control of a single loop with two independent outputs. The controllers accept thermocouple, RTD, voltage, or current input. RS-232 or RS-485 communications are available, and two digital LED displays provide visual indication of various controller functions.



Ordering Information



Legacy Series 18 and 19 Universal Temperature/Process Controller

Technical Specifications

Operating Limits

| | |
|-----------------------------|--|
| Ambient Temperature | 32°F to 131°F (0°C to 55°C) |
| Relative Humidity Tolerance | 90% non-condensing |
| Line Voltage | 100 to 250 Vac 125 to 300 Vdc 24 Vac/dc optional |
| Power Consumption | Less than 6 VA (instrument) |

Performance

| | |
|---------------------------|--|
| Accuracy | ±0.20 % of full scale, (± 0.10% typical), ± 1 digit |
| Setpoint Resolution | 1 count/0.1 count |
| Repeatability Temperature | ±1.0 count |
| Stability | 5 mV/°C (maximum) |
| TC Cold | |
| End Tracking | 0.05°C/°C ambient |
| Noise Rejection | 100 dB common mode 70 dB series mode |
| Process Sampling | 10 Hz (100 ms) |
| Digital Filtering | Adjustable 0.1 to 10 |

Control Characteristics

| | |
|--------------------|--|
| Setpoint Limits | Span of Sensor |
| Alarms | Adjustable for high/low, selectable process or deviation |
| Rate | 0 to 900 sec |
| Reset | 0 to 2400 sec |
| Cycle Time | 0 = 200 ms; 1 to 120 sec |
| Gain | 0 to 400 |
| Gain Ratio | 0 to 2.0 (in 0.1 increments) |
| Control Hysteresis | 1 to 100 (on/off configuration) |
| Spread (Output 2) | 0 to 100 (above setpoint) |
| Ramp to Setpoint | 1 to 100 min |
| Auto-Tune | Operator initiated from front panel |
| Manual Control | Operator initiated from front panel |

Inputs

| | |
|--------------|---|
| Thermocouple | B, C, E, J, K, N, NNM, R, S, T, Platinel II Maximum lead resistance, 100 ohms for rated accuracy |
| RTD | Platinum 2- and 3-wire, 100 ohms at 0°C, (DIN curve standard 0.00385) |
| Linear | 0-50 mV/10-50 mV, 0-20 mA/4-20 mA, 0-10 mV/0-50 mV, 0-100 mV, 0-1 V/0-5 V, 0-10 V, 1-5 V |

Outputs

| | |
|------------------------------------|---|
| Output #1 Reverse Acting (heating) | |
| Output #2 Direct Acting (cooling) | |
| B | 5 A /3 A (120/240 Vac), normally open |
| E | 0 - 20 mA |
| F | 4-20 mA, full output to load 500 ohm impedance max. |
| G | 4-20 mA, full output to load 800 ohm impedance max. |

Outputs

| | |
|---|-----------------------------|
| P | 20 Vdc or 35 mA |
| S | 20 Vdc or 17 mA |
| T | 1 A , Solid-state relay |
| V | 0 to 5 Vdc |
| X | 0 to 10 Vdc |
| Y | 1 A , normally closed relay |

Alarm Outputs

| | |
|---|--|
| B | 5 A /3 A (120/240 Vac), mechanical relay |
| S | 24 V, 20 mA |
| T | SSR, NC, 24-240 Vac |

Mechanical Characteristics

| | |
|--------------------|--|
| Display | Dual, 4-digit 0.36" (9.2 mm) LED Display Process Value: Orange Setpoint Value: Green |
| Numeric Range | -1999 to 9999 |
| Front Panel Rating | NEMA 4X, (IP65) |
| Front Panel Cutout | 3.622" x 1.771" (92 mm x 45 mm) |
| Connections | Screw Terminals |

Specifications subject to change without notice.

