### 800 Series Models by Function Guide

#### 800T Intelligent Transmitters
IntelliPack transmitter units convert sensor inputs to isolated process current or voltage output signals.

#### 800A Intelligent Alarms
Alarm units monitor sensor inputs and provide relay actuation if conditions exceed user-defined limits.

#### 900M Math/Computation
IntelliPack math modules perform complex mathematical computations.

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IntelliPack® Intelligent Transmitters, Alarms, and Math Modules

The IntelliPack series is a high-performance line of multi-function I/O modules. IntelliPack units feature universal input/output ranges and an intelligent microcontroller to provide extreme flexibility and powerful signal conditioning capabilities.

Since each IntelliPack module supports many I/O configurations, you can handle a broad range of applications with only a few models. Now you can reduce your spare inventory stock and still remain covered in an emergency.

Windows® XP/Vista/7 software helps you quickly configure IntelliPacks for your application. With just a few mouse clicks, you can select your desired input/output ranges and other operating parameters from a list of available options. And if your operating requirements change, a simple reconfiguration lets you adapt in a hurry with minimal downtime.

Once configured, IntelliPacks are very easy to adjust in the field with standard calibrators (no PC required). Front panel push buttons simplify changes to setpoints, deadbands, and zero/full-scale values. LEDs clearly indicate the status and mode of operation.

Key Features & Benefits
- Universal I/O ranges cover a wide range of applications to reduce stock inventories.
- Windows XP/Vista/7 software configuration simplifies IntelliPack module setup.
- Push button field calibration makes routine maintenance easy without a PC.
- Internal microcontroller provides intelligent signal processing capabilities.
- Quick-disconnect terminals facilitate installation and removal of I/O modules.
- Field diagnostics enhanced with software minimize downtime.

Transmitters (Page xx)
IntelliPack transmitter units convert sensor inputs to isolated process current or voltage output signals. Each unit accepts a variety of input and output ranges to support a broad range of applications. An optional relay output enables local alarms. Plus, the internal microcontroller can perform many signal processing and transfer functions.

Input
- Thermocouple/RTD/ohms/DC millivolts
- DC voltage/current
- Frequency/pulse counter
- AC current

Output
- Universal DC voltage/current
- SPDT relay

Functions
All functions are standard
- Signal linearizer
- Square root computation
- Signal average computation
- Pulse counting
- Limit alarm

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## Alarms

IntelliPack alarm units monitor sensor inputs and provide relay actuation if conditions exceed user-defined limits. An internal microcontroller provides signal processing and logic functions, normally found only in expensive controllers, for a variety of intelligent alarm functions. Dual relay units support two different alarm functions at the same time.

### Inputs
- Thermocouple/RTD/ohms/DC millivolts
- DC voltage/current
- AC current

### Outputs
- One DPDT relay or two SPDT relays

### Functions
- Limit and window (band-pass) alarm
- Deviation alarm
- Rate-of-change alarm
- On/off controller
- Peak/valley signal detection

## Math Modules

IntelliPack math modules perform a variety of complex mathematical computations on up to four input signals and provide a DC or frequency output signal that represents the calculated result. Typical applications include calculating sums, deltas, averages, flow rates, volumes, and tracking minimum/maximum values. Equations are entered using a freeform format, the same as in most popular spreadsheet programs.

### Input and Output Ranges
- Universal DC voltage/current
- Frequency, pulse, PWM outputs

### Functions
- Add, subtract, multiply, divide
- Square root, exponential, logarithmic
- Absolute value, minimum/maximum
- High/low selector, track and hold
- Trigonometric (sine, cosine, tangent)
- Conditional arguments (if, then, and, or)

## Fast Installation

### Step 1
Run configuration software offline to select desired operating parameters.

### Step 2
Print configuration or save to disk.

### Step 3
Connect PC to IntelliPack and download configuration data.

### Step 4
Disconnect PC and install IntelliPack module in the field.

### Step 5
Optional. Calibrate in field using push-buttons on front panel.

## Easy Software Configuration

Acromag’s configuration software is the key to the IntelliPack’s easy-to-use operation. The software employs the friendly Windows XP/Vista/7 interface with pull-down selection menus and fill-in-the-blank fields to speed you through a few brief configuration screens. No programming is required.

An adapter plugs into the serial port of your computer. It serves as an isolated interface between the IntelliPack and the PC. A cable with RJ11 phone-style plugs at each end links the adapter to the IntelliPack’s serial port. The software, adapter, and cable are sold as a kit (Model 800C-SIP) for easy ordering.

Once connected, the software reads the IntelliPack’s non-volatile memory to determine the unit type and loads the appropriate configuration form with several property pages. As you select the input range and alarm function on the general property page, the other pages are dynamically customized to speed you through the procedure. After you select the operating parameters, the configuration is downloaded and stored in the IntelliPack’s memory. The configuration is also saved to a file for subsequent downloading to other modules or for quick modifications. This capability saves you valuable downtime and archives your settings.

After you complete the configuration, the software provides a detailed printout to document your application.

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Typical software configuration screen. Data is uploaded from the IntelliPack module.
**Software Diagnostics**

The configuration software also shows you the current status of your IntelliPack module. A test screen (shown at right) indicates the current input signal value and the averaged value. The status of the relay and output signal are also displayed.

You can override the output for 10 seconds to verify the system is responding properly. The screen’s IntelliPack diagram has representative LEDs to help you detect any bulb failures and verify proper operation.

On alarm modules, you can reset latched relays in software by clicking the screen’s reset button with your mouse.

**Software Calibration**

The IntelliPack’s configuration software makes calibrating your transmitters and alarms very easy. You can upload your IntelliPack’s current calibration and quickly verify the settings or make changes on the input, output and thermocouple reference junction calibration property sheets.

The output calibration window has a slider control that you can drag with your mouse. This slider allows you to adjust the output current or voltage signal independent of the input signal.

If a unit is miscalibrated or you make a mistake, you can instantly restore the factory calibration settings. The original values are displayed on the screen.
Simple Push-Button Field Configuration

After the initial software configuration, key functions may be reprogrammed in the field without a PC. Push-buttons let you adjust the IntelliPack’s setpoint, deadband, zero, and full scale signal values with conventional field calibrators. LEDs indicate the mode and guide you through a few short steps. Latched relays may also be reset in the field.

With IntelliPacks, zero and span adjustments are one-step operations. Unlike many potentiometer-based instruments, IntelliPack zero/span adjustments are independent and non-interactive. The internal microprocessor holds the zero setting constant while the span is adjusted for precise calibration in a single iteration.

The following tables describe push-button and LED functions for alarm and transmitter module types.

**Push-Buttons (Alarms)**
- **Mode**: Push to enter field configuration mode.
- **Set**: Accepts input data during field calibration.
- **RST 1**: Resets a latched alarm for relay 1.
- **RST 2**: Resets a latched alarm for relay 2.

**Push-Buttons (Transmitters)**
- **Mode**: Push to enter field configuration mode.
- **Set**: Accepts input data during field calibration.
- ▲: Calibrates (increases) the output signal.
- ▼: Calibrates (decreases) the output signal.

**LED Indicators (Alarms)**
- **Run (Green)** - Indicates power applied.
- **ST (Yellow)** - Status LED flashes to indicate input is out of range or a sensor break has been detected.
- **Relay 1 Alarm (Yellow)** - Constant ON indicates alarm condition for relay 1.
- **Relay 2 Alarm (Yellow)** - Constant ON indicates alarm condition for relay 2.

**LED Indicators (Transmitters)**
- **Run (Green)** - Indicates power applied.
- **ST (Yellow)** - Status LED flashes to indicate input is out of range or a sensor break has been detected.
- **Z/FS (Yellow)** - Lights or flashes to indicate the input zero or full-scale value is being calibrated.
- **RLY (Yellow)** - Lights to indicate alarm condition or relay setpoint adjustments are being made. Flashes for deadband adjustments.
IntelliPack 800 Series Signal Conditioners

Universal temperature input ◆ DC voltage/current input ◆ Frequency input

800T Models
801T: Universal temperature input (thermocouple, RTD, DC mV, and resistance)
811T: DC voltage/current input with optional AC current sensor
841T: Frequency/pulse counter input

IntelliPack transmitters isolate and convert sensor inputs to noise-free, proportional DC current or voltage output signals. An optional relay output adds a local limit alarm function.

Each unit offers a selection of input and output ranges, as well as several signal conditioning options. This flexibility enables a single IntelliPack to handle a broad range of applications. As your needs change, you can easily reconfigure the unit for different ranges or functions.

The internal microprocessor provides several computation functions. A linearizer function lets you linearize/characterize the input signal with custom break points. The averaging function outputs a signal that is proportional to the average of the previous “n” samples, where n is user-defined. IntelliPacks can also generate an output signal that is proportional to the square root of the input signal. Other functions are possible (consult factory).

Setup is very easy. IntelliPack modules are quickly configured with the user-friendly Windows software program. Field adjustments are simple with the module’s front-panel push-buttons and status LEDs. Once configured, IntelliPacks operate independent of any host computer.

Key Features & Benefits

General operation
- Advanced microcontroller has integrated, downloadable flash memory and EEPROM for intelligent signal processing.
- Windows XP/Vista/7 software configuration speeds setup and replacement.
- Push-button reprogrammability facilitates changes in the field without a host PC.
- Plug-in terminal blocks make module installation and removal easy.
- Built-in self-diagnostic routines operate upon power-up and during operation for easy maintenance and troubleshooting.
- 4-way optical isolation separates input, output, power, and relay contacts from each other.
- EMC compliant. Ruggedized circuitry meets directives to provide increased transient immunity and low emissions.
- Wide ambient temperature range ensures reliable performance from -25 to 70°C.
- Wide DC supply range with diode-coupled reverse polarity protection is useful for redundant supplies and battery backup.

Transmitter Operation
- Multi-purpose inputs accept many signal types to reduce spare stock requirements.
- User-programmable outputs let you select and change ranges to meet your needs (0-1mA, 0-20mA, 4-20mA, 0-5V, 0-10V DC).
- Intelligent signal processing functions perform mathematical computations on the input signal for customized outputs.
  - signal linearization (25 breakpoints)
  - average signal computation
  - square root computation
  - pulse counter (frequency input)
- High-resolution Sigma-Delta A/D converter delivers high accuracy with low noise.
- Relay output option provides local limit alarm capability in addition to the DC current/voltage output signal.
- High-power relays switch voltages up to 230V AC at currents up to 5A.
- User-programmable relay settings let you customize the alarm operation.
  - high or low limit setpoint
  - automatic or latching alarm reset
  - failsafe or non-failsafe operation
  - relay delay to filter transient signals
- Input excitation supply provides power for a two-wire transmitter or a relay input.

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After the initial software configuration, a PC is no longer required. Field calibration is easily handled with the IntelliPack’s push-buttons, status LEDs and a standard field calibrator.

**Intelligent Transfer Functions**

IntelliPack transmitters support the signal processing functions listed below. The functions are easily selected via the configuration software. The next page shows sample screens for the following applications.

**Signal Linearizing**

IntelliPacks let you define a transfer function where the output is a function of an equation or a complex curve. The input signal is characterized using straight line approximation with a user-defined table of up to twenty-five breakpoints. Typical applications include linearizing analyzer output, flow rates, transducer nonlinearities, tank characterization, and logarithmic equations.

**Signal Averaging**

This function provides an output signal that is a run-time average of the input signal. Input data samples are taken every 100mS. The output is computed using a user-defined number of the previous “n” samples. Applications include temperature and level measurements subject to electrical transients, air currents, agitation, and vibration.

**Square Root Computation**

IntelliPacks can also output a signal that is proportional to the square root of the input signal. A common use involves flowmeters where the flow rate equals the square root of the measured differential pressure. In this case, the IntelliPack output is equivalent to a linear flow rate signal that is ideal for interfacing to a standard display device.
**IntelliPack®: 800 Series**

**Software Configuration Examples**

**Square Root Computation**

**Linearizer/Characterizer**

**Proportional/Inverse**

Transmitter configuration property sheet.

Proportional or inverse output graph.

Square root transfer function graph.

Customizable linearizer transfer function graph.
Limit alarm property sheet.

Thermocouple reference calibration property sheet.
**IntelliPack 801T Temperature Transmitters**

**801T Transmitters**

**Thermocouple, RTD, Millivolt, and Resistance Input**

**Models**
- 801T-0500: Universal temperature transmitter
- 801T-1500: Transmitter with limit alarm

**Input Ranges**
- TC types: J, K, T, R, S, E, B, N
- Millivolt: ±15.625mV to ±1.0V DC
- RTD: 100 ohm Pt, 120 ohm Ni, 10 ohm Cu
- Resistance: 0 to 500 ohms

**Output Ranges**
- 0 to 1mA, 0 to 20mA, 4 to 20mA DC
- 0 to 5V, 0 to 10V DC

**Limit Alarm**
- SPDT electro-mechanical relay (-1500 unit only)

**Power Requirement**
- 10 to 36V DC

**Approvals**
- UL, cUL listed.

**Description**

These transmitters isolate and convert sensor inputs to noise-free, proportional DC current or voltage output signals. An optional relay output adds a local limit alarm function.

Each unit offers a selection of input and output ranges, as well as several signal conditioning options. This flexibility enables a single IntelliPack to handle a broad range of applications. As your needs change, you can easily reconfigure the unit for different ranges or functions.

Setup is very easy. IntelliPack modules are quickly configured with the user-friendly Windows software program. Field adjustments are simple with the module's front-panel push-buttons and status LEDs. Once configured, IntelliPacks operate independent of any host computer.

**Key Features & Benefits**

- High-resolution Sigma-Delta A/D converter delivers high accuracy with low noise.
- Advanced microcontroller provides intelligent signal processing power for linearization, averaging, and square root computations.
- Windows XP/Vista/7 software configuration speeds setup and replacement.
- Multi-purpose inputs and outputs reduce spare stock requirements.
- Relay output option provides local limit alarm capability.
Performance Specifications

General Input
Analog to Digital Converter (ADC)
16-bit Σ−Δ A/D converter.

Resolution
±0.005% of span or 0.1°C.

Ambient Temperature Effect
Better than ±0.005% of input span per °C or ±1µV, whichever is greater.

Noise Rejection
Normal Mode: Better than 40dB @ 60Hz.
Common Mode: Better than 130dB @ 60Hz.

Input Response Time (for input step change)
Less than 200mS typical to 98% of final output value.

Input Overvoltage Protection
Bipolar Transient Voltage Suppressors (TVS).

Thermocouple Input
Thermocouple Input Ranges
Thermocouple type user configured. Signal linearization, cold-junction compensation, and open circuit or lead break detection are included.

TC °C Range (°F Range) Accuracy

J   -210 to 760°C (-346 to 1400°F) ±0.5°C
K   -200 to 1372°C (-328 to 2502°F) ±0.5°C
T   -260 to 400°C (-436 to 752°F) ±0.5°C
R   -50 to 1768°C (-58 to 3214°F) ±1.0°C
S   -50 to 1768°C (-58 to 3214°F) ±1.0°C
E   -200 to 1000°C (-328 to 1832°F) ±0.5°C
B   260 to 1820°C (500 to 3308°F) ±1.0°C
N   -230 to 1300°C (-382 to 2372°F) ±1.0°C

Thermocouple Break Detection
TC sensor failure can be configured for either upscale or downscale.

RTD Input
RTD Input Ranges
100 ohm Platinum, 120 ohm Nickel, or 10 ohm Copper; user-configured.

RTD °C Range (°F Range) Accuracy
Pt1 -200 to 850°C (-328 to 1562°F) ±0.25°C
Pt2 -200 to 850°C (-328 to 1562°F) ±0.25°C
Ni -80 to 320°C (-112 to 608°F) ±0.25°C
Cu -200 to 260°C (-328 to 500°F) ±1.00°C

Alpha: Pt1 (a = 1.3850), Pt2 (a = 1.3911), Ni (a = 1.6720), Cu (a = 1.4272).
2, 3, or 4-wire configurations supported. Module provides sensor excitation, linearization, lead-wire compensation, and sensor break detection.

RTD Excitation Current
1mA DC typical, all types.

RTD Lead-Wire Compensation
25 ohms per lead.

RTD Break Detection
RTD sensor failure can be configured for either upscale or downscale.

Millivolt Input
DC Millivolt/Voltage Input Ranges
±1.0V ±125mV ±31.25mV
±500mV ±62.5mV ±15.625mV
±250mV

Millivolt Accuracy
Better than ±0.05% of input span.

Resistance Input
Resistance Input Range
0 to 500 ohms.

Resistance Accuracy
±0.05 ohms.

Output (DC V/mA)
D/A Converter
16-bit Σ−Δ.

Current Output
Ranges: 0-1mA, 0-20mA, 4-20mA.
Compliance: 10V minimum (500 ohm load).
Accuracy: 0.025% of span.

Voltage Output
Ranges: 0-5V, 0-10V.
Compliance: 10mA maximum with short circuit protection, 1 ohm output impedance.
Accuracy: 0.025% of span.

Accuracy (overall input to output)
0.075% of span.

Output (Relay)
Relay
One SPDT electro-mechanical relay.
Relay Ratings (CSA ratings)
25V DC @ 5A.
120/240V AC @ 5A.

Relay Time Delay
Adjustable alarm delay of up to 25 seconds.

Contact Material
Silver-cadmium oxide (AgCdO).

Expected Mechanical Life
20 million operations.

Environmental
Ambient Temperature
Operating: -25 to 70°C (-13 to 158°F).
Storage: -40 to 85°C (-40 to 185°F).

Relative Humidity
5 to 95%.

Power Requirements
10 to 36V DC. 75mA @ 24V. 120mA @ 15V.

Isolation (optical)
4-way (input/output/relay/power).
1500V AC for 60 seconds or 250V AC continuous.

Radiated Field Immunity (RFI)
EN61000-4-3, EN50082-1.

Electromagnetic Field Immunity (EMI)
Less than ±0.25% of output span effect under the influence of electromagnetic fields from switching solenoids, commutator motors, and drill motors.

Electrical Fast Transient (EFT)
EN61000-4-4, EN50082-1.

Surge Withstanding Capability (SWC)
EN61000-4-5, EN50082-1.

Electrostatic Discharge (ESD)
EN61000-4-2, EN50082-1.

Radiated Emissions
EN50081-1 for Class B equipment.

Approvals
UL listed (USA, Canada).

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THE LEADER IN INDUSTRIAL I/O
**IntelliPack®: 800T Series**

**Configuration**

**Software Configuration**
Units are fully programmable via the Windows XP/Vista/7 IntelliPack Configuration Program. Configuration downloads from PC through EIA232 serial port using Acromag 800C-SIP kit.

**Field Configuration**
Output, zero/full-scale, relay setpoint and deadband are configurable via push-buttons and a standard calibrator.

**LED Indicators**
LEDs indicate power, status, calibration, and alarm.

**Physical**

**Enclosure**
Case: Self-extinguishing NYLON type 6.6 polyamide thermoplastic UL94 V-2 NEMA Type 1 enclosure.

**Connectors (Removable Terminal Blocks)**
Wire Range: AWG #14-22 (AWG #12 stranded only).

**Printed Circuit Boards**
Military grade FR-4 epoxy glass circuit board.

**Dimensions**
1.05W x 4.68H x 4.35D inches.
26.7W x 118.9H x 110.5D millimeters.

**Shipping Weight**
1 pound (0.45 Kg) packed.

**Ordering Information**

**IMPORTANT:** All IntelliPacks require initial software configuration (order 800C-SIP).
See Note 1 below.

**801T-0500**
IntelliPack transmitter (TC/RTD/mV/resistance input).

**801T-1500**
Same as above, plus an SPDT relay output.

**800C-SIP**
Software Interface Package.
Only one kit is required for all IntelliPack models.
See diagram on Page 83 for included parts.

**5034-225**
USB-to-RS232 adapter. See page 121 for more info.

**PS5R-VD24**
Power supply (24V DC, 2.1A).
See Power Supplies on Page 199.

**TBK-801**
Optional terminal block kit, barrier strip style, 2 pcs. (Does not include terminal block for input wiring.)

**TBK-501**
Optional terminal block kit, spring clamp style, 2 pcs. (Does not include terminal block for input wiring.)

**NOTE 1:** To order factory configuration, call Acromag for a configuration form which must accompany your order. Also, append “-C” to model number (example: 801T-1500-C). 800C-SIP kit is still recommended.
IntelliPack®: 800T Series

IntelliPack 811T Universal DC Transmitters

These transmitters isolate and convert sensor inputs to noise-free, proportional DC current or voltage output signals. An optional relay output adds a local limit alarm function.

Each unit offers a selection of input and output ranges, as well as several signal conditioning options. This flexibility enables a single IntelliPack to handle a broad range of applications. As your needs change, you can easily reconfigure the unit for different ranges or functions.

Setup is very easy. IntelliPack modules are quickly configured with the user-friendly Windows software program. Field adjustments are simple with the module's front-panel push-buttons and status LEDs. Once configured, IntelliPacks operate independent of any host computer.

Key Features & Benefits

- High-resolution Sigma-Delta A/D converter delivers high accuracy with low noise.
- Advanced microcontroller provides intelligent signal processing power for linearization, averaging, and square root computations.
- Windows XP/Vista/7 software configuration speeds setup and replacement.
- Multi-purpose inputs and outputs reduce spare stock requirements.
- Relay output option provides local limit alarm capability.

DC current, DC voltage, AC current input  ◆  Limit alarm

811T Transmitters

DC Current, DC Voltage, and AC Current Input

Models
811T-0500: Universal DC input transmitter
811T-1500: Transmitter with limit alarm

Input Ranges
DC Current: 0 to 22mA
DC Voltage: ±100V DC
AC Current: 0 to 20A AC (with external sensor)

Output Ranges
0 to 1mA, 0 to 20mA, 4 to 20mA DC
0 to 5V, 0 to 10V DC

Limit Alarm
SPDT electro-mechanical relay (-1500 unit only)

Power Requirement
10 to 36V DC

Approvals
UL, cUL listed.

DC Current  ◆  DC Voltage  ◆  AC Current Sensor  ◆  2-Wire Transmitter

AC Current Sensor Model 5020-350 (ordered separately)

Tel: 248-295-0880  ■  Fax: 248-624-9234  ■  sales@acromag.com  ■  www.acromag.com  ■  30765 S Wixom Rd, Wixom, MI 48393 USA

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Performance Specifications

General Input
Analog to Digital Converter (ADC) 16-bit Σ-Δ A/D converter.

Ambient Temperature Effect
Better than ±0.005% of input span per °C or ±1µV, whichever is greater.

Noise Rejection
Normal Mode: Better than 40dB @ 60Hz.
Common Mode: Better than 100dB @ 60Hz.

Input Response Time (for input step change)
Less than 100mS typical to 98% of final output value.

Input Overvoltage Protection
Bipolar Transient Voltage Suppressors (TVS).

DC Current Input
DC Current Input Range (100% rangeable)
Input Ranges Resolution
0 to 22mA DC 757nA
0 to 5mA DC 189nA

DC Current Input Impedance
24.9 ohms.

Excitation Supply (for 2-wire instruments)
+15V DC at 24mA maximum.

DC Current Input Accuracy
Better than ±0.05% of input span.

DC Voltage Input
DC Voltage Input Ranges (100% rangeable)
Input Ranges Resolution
±100V DC 3.77mV
±50V DC 1.88mV
±25V DC 942µV
±12V DC 471µV
±6V DC 236µV
±3V DC 118µV

Input impedance
Greater than 500K ohms.

DC Voltage Input Accuracy
Better than ±0.05% of input span.

AC Current Input
AC Current Input Range (optional)
An optional external AC current sensor is required to monitor AC current signals (Model 5020-350).

AC Current Range Primary Turns
0 to 20A AC 1
0 to 10A AC 2
0 to 5A AC 4
0 to 2A AC 10
0 to 1A AC 20

AC Current Input Accuracy
Better than ±0.05% of input span.

Output (DC V/mA)
D/A Converter 16-bit Σ-Δ.

Current Output
Ranges: 0-1mA, 0-20mA, 4-20mA.
Compliance: 10V minimum (500Ω load).
Accuracy: 0.025% of span.

Voltage Output
Ranges: 0-5V, 0-10V.
Compliance: 10mA maximum with short circuit protection. 1Ω output impedance.
Accuracy: 0.025% of span.

Accuracy (overall input to output)
0.075% of span.

Output (Relay)
One SPDT electro-mechanical relay.

Relay Ratings (CSA ratings)
25V DC @ 5A.
120/240V AC @ 5A.

Relay Time Delay
Adjustable alarm delay of up to 25 seconds.

Contact Material
Silver-cadmium oxide (AgCdO).

Expected Mechanical Life
20 million operations.

Environmental

Ambient Temperature
Operating: -25 to 70°C (-13 to 158°F).
Storage: -40 to 85°C (-40 to 185°F).

Relative Humidity
5 to 95%.

Power Requirements
10 to 36V DC. 110mA @ 24V. 170mA @ 15V.

Surge Withstanding Capability (SWC)
EN61000-4-5, EN50082-1.

Electromagnetic Field Immunity (EMI)
Less than ±0.25% of output span effect under the influence of electromagnetic fields from switching solenoids, commutator motors, and drill motors.

Electrical Fast Transient (EFT)
EN61000-4-4, EN50082-1.

Surge Withstanding Capability (SWC)
EN61000-4-5, EN50082-1.

Electrostatic Discharge (ESD)
EN61000-4-2, EN50082-1.

Radiated Emissions
EN50081-1 for Class B equipment.

Approvals
UL listed (USA, Canada).

Configuration

Software Configuration
Units are fully programmable via the Windows XP/Vista/7 IntelliPack Configuration Program. Configuration downloads from PC through EIA232 serial port using Acromag 800C-SIP kit.

Field Configuration
Output, zero/full-scale, relay setpoint and deadband are configurable via push-buttons and a standard calibrator.

LED Indicators
LEDs indicate power, status, calibration, and alarm.

Optional terminal blocks: barrier strip (left) and spring clamp (right). Cage clamp terminal is standard.
IntelliPack®: 800T Series

Physical

Enclosure
Case: Self-extinguishing NYLON type 6.6 polyamide thermoplastic UL94 V-2 NEMA Type 1 enclosure.

Connectors (Removable Terminal Blocks)
Wire Range: AWG #14-22 (AWG #12 stranded only).

Printed Circuit Boards
Military grade FR-4 epoxy glass circuit board.

Dimensions
1.05W x 4.68H x 4.35D inches.
26.7W x 118.9H x 110.5D millimeters.

Shipping Weight
1 pound (0.45 Kg) packed.

Ordering Information

IMPORTANT: All IntelliPacks require initial software configuration (order 800C-SIP).
See Note 1 below.

811T-0500
IntelliPack transmitter unit (DC voltage/current input).

811T-1500
Same as above, plus an SPDT relay output.

5020-350
AC current sensor. Required for AC current inputs.
See Page 205 for more information.

800C-SIP
Software Interface Package.
Only one kit is required for all IntelliPack models.
See diagram on Page 83 for included parts.

5034-225
USB-to-RS232 adapter. See page 121 for more info.

PSSR-VD24
Power supply (24V DC, 2.1A).
See Power Supplies.

TBK-B01
Optional terminal block kit, barrier strip style, 2 pcs.
(For use with 811T-0500 model.)

TBK-B02
Optional terminal block kit, barrier strip style, 4 pcs.
(For use with 811T-1500 model with alarm.)

TBK-S01
Optional terminal block kit, spring clamp style, 2 pcs.
(For use with 811T-0500 model.)

TBK-S02
Optional terminal block kit, spring clamp style, 4 pcs.
(For use with 811T-1500 model with alarm.)

NOTE 1: To order factory configuration, call Acromag for a configuration form which must accompany your order. Also, append “-C” to model number (example: 811T-1500-C). 800C-SIP kit is still recommended.