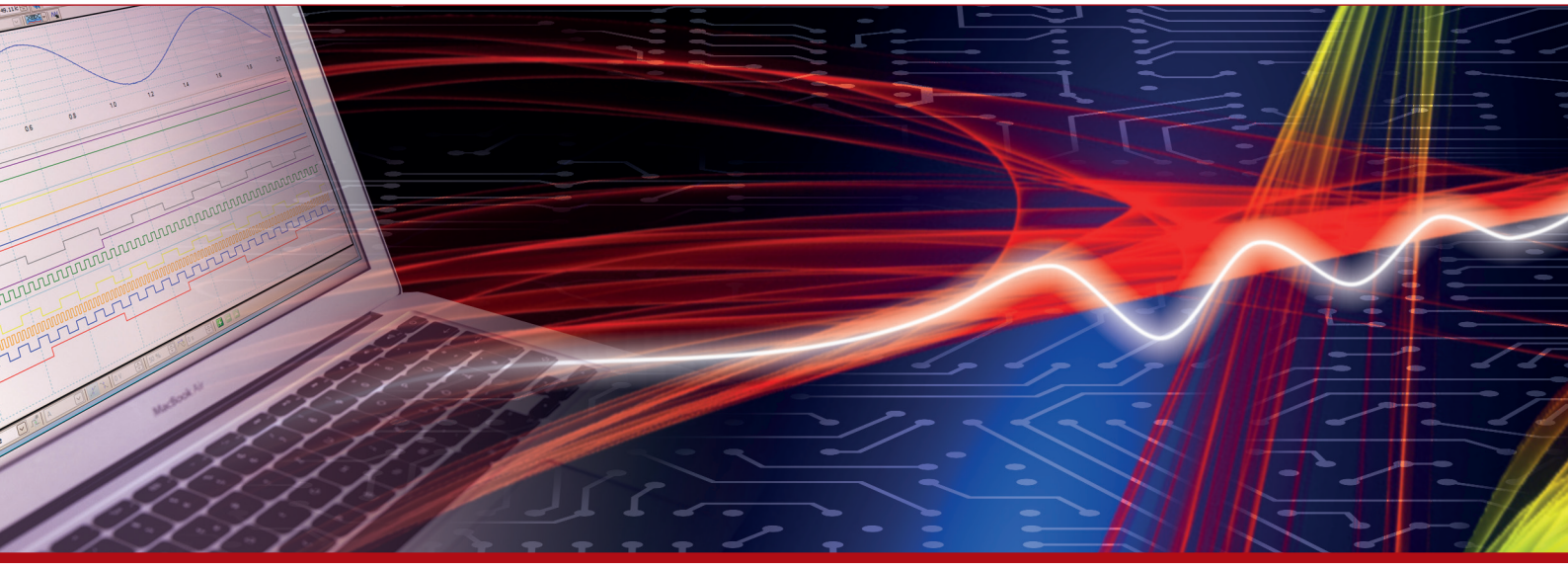
Product Datasheet - Technical Specifications



More information in our Web-Shop at ▸ **www.meilhaus.com** and in our download section.

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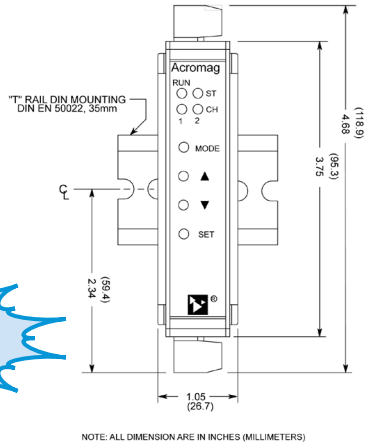
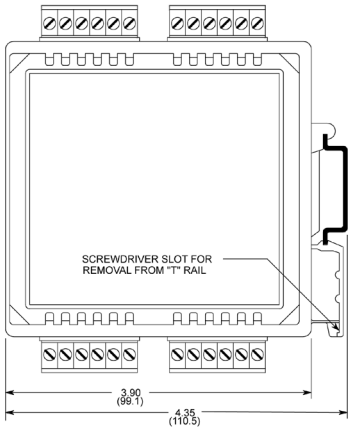
Isolated Transmitters: 600T Series

611T, 612T Multi-Channel, Universal DC I/O





NOTE: ALL DIMENSION ARE IN INCHES (MILLIMETERS)

DC current or voltage input ◆ Single/dual-channel DC-powered transmitters

Description

Models

611T: Single I/O channel
612T: Dual I/O channel

These units receive DC current or voltage input signals, provide isolation, and output proportional DC current or voltage signals. With support for universal DC I/O ranges, 610T series transmitters provide a solution for a wide variety of isolation and signal conversion tasks. The single-channel 611T and dual-channel 612T are ideal for panel shops and end-users who require a high-density signal conditioner that can accommodate a broad range of instrumentation applications.

Installation is fast and simple with Acromag's built-in auto-configuration feature. Using your standard calibrator, the 610T's internal microcontroller automatically senses the input source type (voltage or current) and selects the optimum performance range for your zero and full-scale input values. To adjust your output values, simply push the up or down buttons on the front panel until you read the desired output signal on your meter.

Both models provide high-voltage isolation between the input, output and power (3-way). On dual channel units, each channel operates independently, with inputs isolated from each other, to prevent interaction between channels.

For easy troubleshooting, each channel has diagnostic LEDs to identify input over/under range conditions. An additional status LED indicates the unit is operating properly or that the front panel push button lockout feature has been invoked.

Input Ranges

Universal input with automatic configuration
±100mA (self-ranging),
±100V DC (self-ranging),
0 to 20 amps AC (with optional sensor)

Output Ranges

Universal output (user-configured ranges)
0 to 20mA (full range capability),
0 to 10V DC (full range capability)

Power Requirement

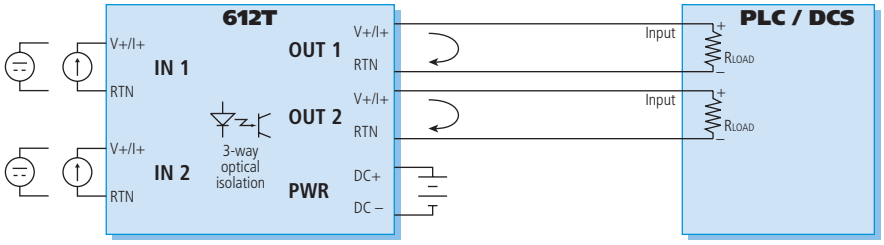
10 to 36V DC

Approvals

CE marked. UL, cUL listed.

Key Features & Benefits

- Universal DC input and output ranges offer flexibility to fit many applications.
- Auto-configuration and self-ranging technologies speed installation without pots, switches, jumpers, or software.
- Optical isolation eliminates ground loops, reduces noise, and blocks transient signals.
- Push-button calibration simplifies field adjustments for faster and easier maintenance.
- Configuration lockout safety feature prevents tampering and accidental changes.
- Reverse-acting output capability enables inverse proportional control signals.
- Each input channel can drive two outputs (a voltage and a current output signal).
- Dual channel model saves space and reduces equipment costs.
- High-resolution Σ–Δ A/D converters deliver superior accuracy for reliable measurements.



Acromag
THE LEADER IN INDUSTRIAL I/O

Isolated Transmitters: 600T Series

Performance Specifications

◆ General Input

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

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

Input Overvoltage Protection
Bipolar Transient Voltage Suppressors (TVS).

◆ DC Current Input

DC Current Input Range
±100mA DC with full range capability.
Minimum recommended span is ±4mA.

DC Current Input Impedance
10 ohms.

DC Current Input Accuracy
Better than ±0.1% of output span.

◆ DC Voltage Input

DC Voltage Input Range
±100V DC with full range capability.
Minimum recommended span is ±40mV.

Input impedance
±1V to ±100V input: greater than 100K ohms.
±40mV to ±1V input: 1K ohm

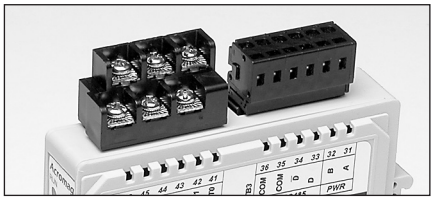
DC Voltage Input Accuracy
Better than ±0.1% of output span.

◆ 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 ±0.5% of output span.



Optional terminal blocks: barrier strip (left) and spring clamp (right). Cage clamp terminal is standard.

◆ Output (DC V/mA)

Current Output
Range: 0 to 20mA maximum (user-configured range).
Compliance: 11V DC typical.
Load resistance range: 0 to 550 ohms.

Voltage Output
Ranges: 0 to 10V maximum (user-configured range).
Compliance: 10mA max. with short circuit protection.
Output impedance: 1 ohms.

Accuracy (overall input to output)
Better than ±0.1% of span for nominal output ranges of 0 to 10V or 0 to 20mA.

Ambient Temperature Effect
Better than ±0.018% of output span per °C or ±1µV, whichever is greater.

Output Response Time (for input step change)
800mS typical to 98% of final output value.

◆ 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%, noncondensing.

Power Requirements
611T: 10 to 36V DC. 24V DC @ 55mA.
612T: 10 to 36V DC. 24V DC @ 75mA.

Isolation
3-way (input/output/power). 1500V AC for 60 seconds or 250V AC continuous. Dual channel model includes input-to-input isolation and outputs share a common.

Radiated Field Immunity (RFI)
Complies with EN61000-4-3 Level 3 and EN50082-1.

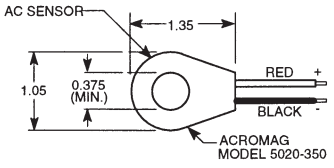
Electromagnetic Field Immunity (EMI)
Less than ±0.25% of output span effect.

Electrical Fast Transient (EFT)
Complies with EN61000-4-4 Level 3 and EN50082-1.

Surge Withstanding Capability (SWC)
Complies with EN61000-4-5 Level 3 and EN50082-1.

Electrostatic Discharge (ESD)
Complies with EN61000-4-2 Level 3 and EN50082-1.

AC Current Sensor



Radiated Emissions
Meets or exceeds EN50081-1 for Class B equipment.

Approvals
CE marked, UL, cUL listed (USA, Canada).
UL3121 general product safety.

◆ 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 #12-24.

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

◆ Models

611T-0500
Single channel isolated transmitter

612T-0500
Dual channel isolated transmitter
Add "-C" suffix for optional factory configuration.

◆ Accessories (see Page 21)

5020-350
AC current sensor. See Page 20 for details.

PS5R-VD24
Power supply (24V DC, 2.5A).

TBK-B02
Optional terminal block kit, barrier strip style, 4 pcs.

TBK-S02
Optional terminal block kit, spring clamp style, 4 pcs.

DIN RAIL 3.0 or DIN RAIL 16.7
DIN rail strip, Type T, 3 in.(75mm) or 16.7 in. (425mm)

20RM-16-DIN
19" rack-mount kit with DIN rail.
Holds sixteen 610T series transmitters.

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