ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

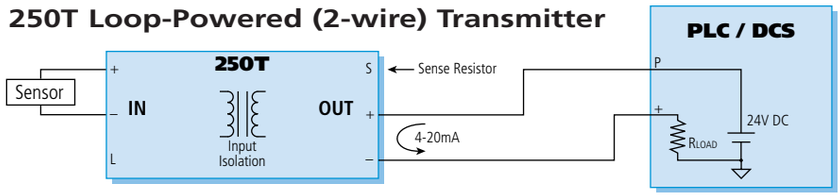
Find the *Acromag 450T-C1-Y-1-DIN-NCR* at our website: ***Click HERE***

8400100.qxp 3/20/2006 3:21 PM Page 164

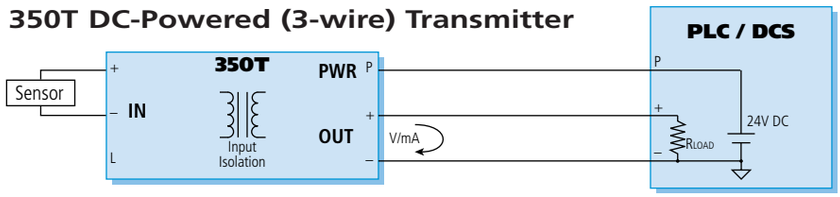
Isolated Transmitters



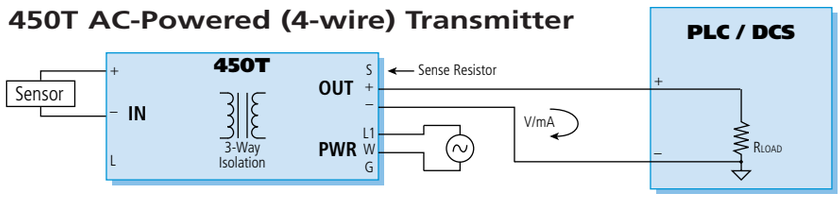
250T Loop-Powered (2-wire) Transmitter



350T DC-Powered (3-wire) Transmitter



450T AC-Powered (4-wire) Transmitter



Frequency Input

These transmitters accept periodic or pulse waveform signals such as those originating from tachometers, magnetic transducers, and turbine flow meters, and provide a proportional process current or voltage output signal.

Models

250T: Loop-powered transmitter series

350T: DC-powered transmitter series

450T: AC-powered transmitter series

Input Ranges

- Frequency,
  span ranges 0 to 25.6KHz, field-selectable, direct coupled inputs, ±25mV to 150V RMS

Output Ranges

- DC current: 4 to 20mA
- DC voltage: 0 to 5V or 0 to 10V

Power Requirements

- 250T: 12 to 50V DC @ 20mA (loop-powered)
- 350T: DC voltage source (see table below)

Output range	Power
4 to 20mA	10 to 36V DC @ 30mA
0 to 5V	10 to 36V DC @ 9mA
0 to 10V	12.5 to 36V DC @ 9mA

- 450T: 115V or 230V AC, ±10%, 50 to 60Hz

Output range	Power
4 to 20mA	115V AC @ 0.050A
4 to 20mA	230V AC @ 0.025A
0 to 5V, 0 to 10V	115V AC @ 0.020A
0 to 5V, 0 to 10V	230V AC @ 0.010A

Special Features

- Excellent accuracy and stability ensure reliable measurements in harsh industrial environments.
- RFI and EMI resistance minimize the effects of environmental noise.
- 90% span adjustment enables precise application calibration.
- Quartz crystal time-base design improves temperature performance
- Field-selectable time constants optimize output response time and ripple characteristics
- Selectable threshold circuits accept unipolar/bipolar inputs (0V bipolar, 1.5V unipolar)
- Excitation/pull-up circuit adds flexibility
- 1500V AC peak isolation (250V AC or 354V DC continuous) prevents ground loops.

  250T models:
  Input isolated from output/power.

  350T models:
  Input isolated from output and power. Output and power share a common.

  450T models:
  3-way isolation. Input, output, and power circuits are isolated from each other.

Performance

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

Accuracy
±0.1% of calibrated span. Includes repeatability, hysteresis, terminal point linearity, and adjustment resolution.

Ambient Temperature Effect
Less than ±0.01% of output span per °F (±0.018% per °C). (Specification includes the combined effects of zero and span over temperature).

Noise Resistance
RFI: Less than ±0.5% ,of output span effect.
EMI: Less than ±0.25% of output span effect.

Noise Rejection
Common Mode: 115dB at 60Hz, 100 ohm unbalance.
Normal Mode: Not applicable.

Response Time
Time for output to reach 98% of output span depends on jumper-selectable frequency range.
Range 1: 8.0 sec response time (98%).
Range 2: 5.0 sec response time (98%).
Range 3: 0.4 sec response time (98%).

Bandwidth
-3dB at 25,600Hz, typical.

Output Compliance
250T: R_{LOAD} (max.) = (V_{SUPPLY} - 12V) / 20mA.
350T: R_{LOAD} (max.) = (V_{SUPPLY} - 2.5V) / 20mA.
450T: R_{LOAD} = 600 ohms.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

8400100.qxp 3/20/2006 3:21 PM Page 165

Ordering Information

Select one option from each column. Example: 450T-V4-V0-2-DIN-NCR-C
To order factory calibration, append "-C" to end of model number. Specify ranges on order.

Base	Input	Mounting		Approval
250T	-FQ1	-DIN	-N4	-NCR
		-ST	-N12	-DT1
		-SM	-XP	

Note:
All 250Ts have 4 to 20mA output and are loop-powered.

Base	Input	Output	Mounting	Approval
350T	-FQ1	-Y	-DIN	-NCR
		-V0		
		-V5		

Note:
All 350Ts accept 10 to 36V DC power supply.

Base	Input	Output	Power	Mounting	Approval
450T	-FQ1	-Y	-1	-DIN	-NCR
		-V0	-2		
		-V5			

Input Options

-FQ1: Frequency, range 0 to 25.6KHz
Span adjust: 50 to 100% of range selected below.
Zero adjust: 0 to 20% of span.

Jumper-selectable ranges:
Range A: 25 to 50 Hz span.
Range B: 50 to 100 Hz span.
Range C: 100 to 200 Hz span.
Range D: 200 to 400 Hz span.
Range E: 400 to 800 Hz span.
Range F: 800 to 1,600 Hz span.
Range G: 1,600 to 3,200 Hz span.
Range H: 3,200 to 6,400 Hz span.
Range I: 6,400 to 12,800 Hz span.
Range J: 12,800 to 25,600 Hz span.

Input Circuit Open Response
Down-scale drive standard.

Bipolar Input Configuration
Threshold: 0.0V DC.

Input Amplitude: ±25mV to 150V RMS.

Hysteresis: Fixed: ±25mV, nominal. Switching points are -25mV and +25mV (nominal), or 0.0V ±0.025V.

Unipolar Input Configuration
Threshold: 1.5V DC. Attenuator resistors may be installed to further reduce sensitivity, consult factory.

Hysteresis: Fixed: ±25mV, nominal. Switching points are +1.525V and +1.475V (nominal), or +1.5V ±0.025V.

Input Amplitude: 0 to 2V to 150V RMS.

Unipolar Excitation Supply: For contact closure or open collector transistor switching circuits. Nominal excitation/pull-up is 5V DC through 15K ohms (0.333mA, nominal).

Minimum Pulse Width
The minimum pulse width required is 10µS.

Output Options (350T, 450T only)

-Y: 4 to 20mA DC.

-V0: 0 to 10V DC into 10K ohms or greater

-V5: 0 to 5V DC into 5K ohms or greater

Power Options (450T only)

-1: 115V AC power

-2: 230V AC power

Mounting Options

Mountings

-DIN: DIN rail G or T mount

-ST: SNAPTRACK mount [250T only]

-SM: Surface-mount [250T only]

External housings

-N4: NEMA 4, water-tight [250T only], holds two

-N12: NEMA 12, oil-tight [250T only], holds two

-XP: Explosion-proof NEMA 4 [250T only], holds one

Approval Options

CE marked [250T only].

-NCR: No certification/approval required.

-DT1†: CSA approval, Div. 2 hazardous locations: Class I; Div. 2; Groups A, B, C, D [250T only].

Ordering Notes

* Unit requires factory calibration. Append "-C" to end of model number. Specify ranges on order.

† Units are shipped separately from any optional enclosures (i.e. units are not installed in any external housing).

Accessories

Power supplies
See Power Supplies on Page 199.

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

20RM-16-DIN
19" rack-mount kit with DIN rail. Holds sixteen 250T/350Ts or ten 450T transmitters.

350T-N4-WM
NEMA 4 water-tight enclosure, wall-mount. Holds two 350Ts or one 450T transmitter.

350T-N12-WM
NEMA 12 oil-tight enclosure, wall-mount. Holds two 350Ts or one 450T transmitter.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP