

# ATS SERIES

## AC Current Transducer/Switch with Digital Setpoint Display

ATS Series AC Current Sensors combine a current operated switch and transducer into a single package. The FL model features a digital display that gives visual indication of the setpoint for greater accuracy. The sensor provides a solid-state contact which will change state when the current exceeds an adjustable level or falls below the normal running current. This means reduced installation time, plus the option to have local control of a starter coil while at the same time sending the analog signal back to a controller housed in a separate cabinet.



### Applications

#### Electronic Proof of Operation

- Current operated switches eliminate the need for multiple pipe or duct penetrations and are more reliable than electromechanical pressure or flow switches.

#### Conveyors

- Detects jams and overloads.
- Interlocks multiple conveyor sections.

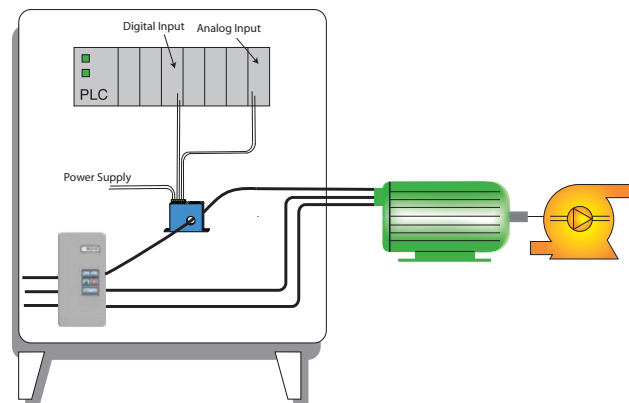
#### Pump Control

- Provides signal to measure current and shuts down the pump if the current rises over the setpoint.

#### Cooling Towers

- Analog monitors time of use and contact opens if a filter clogs.

#### Pump Jam & Suction Loss Protection



### Features

#### Solid -State Output

- N.O. or N.C. solid-state switch for control circuits up to 240VAC.
- Compatible with most automation systems.

#### Externally powered

- Allows for higher accuracy.

#### Easily Adjustable and Precise Setpoint

- Speeds startup.

#### Analog Output

- Measure the current used at all times.

#### LED Display

- Provides quick visual indication of where the contact changes.
- Easiest and most accurate setpoint adjustment available.

#### Built-in Mounting Feet

- Simple, two-screw panel mount or attach with optional DIN rail brackets.

#### Designed for UL, CUL and CE Approval

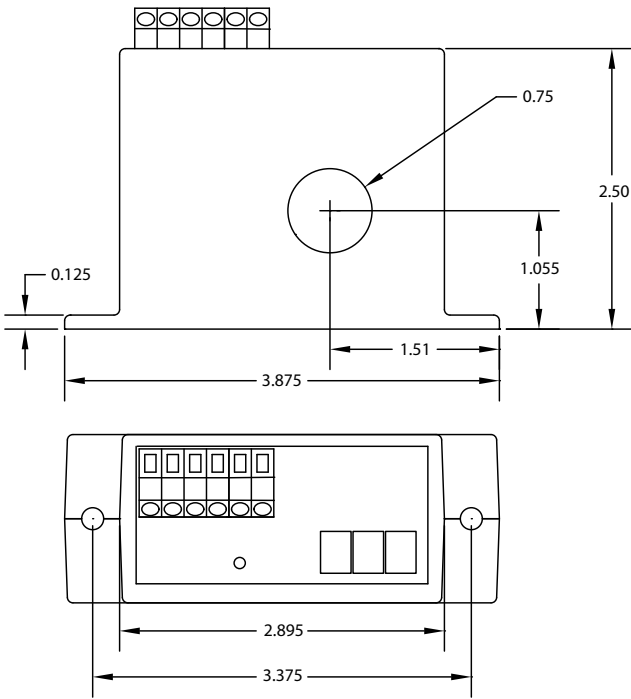
- Accepted worldwide.



Free program expedites evaluation process. See page 1 for details.



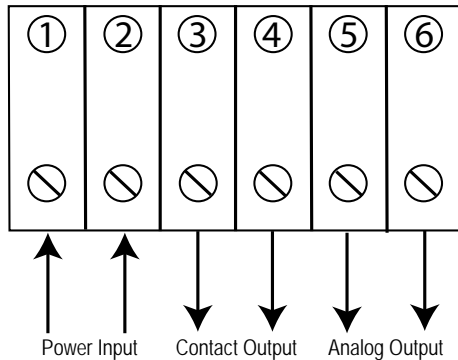
**Dimensions**



**Specifications**

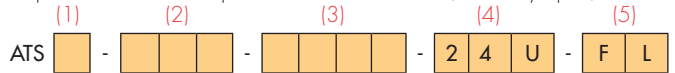
Power Supply	18–30VAC/DC (40–70mA consumption)		
Digital Output	Magnetically Isolated Solid-State Switch		
Contact Rating	• 1.0A up to 240VAC max. (AC only)		
Off-State Leakage	• <10µA Normally Open • 2.5mA Normally Closed		
Contact Response Time	• <500ms (5% above setpoint) • <200ms (50% above setpoint) • <150ms (100% above setpoint)		
Setpoint Range	• ATS1: 1–50A (adjustable) • ATS2: 4–200A (adjustable)		
Hysteresis	5% of Setpoint		
Analog Output	• ATS1: 0–50A • ATS2: 0–200A		
Analog Signal Loading	• 4–20mA: 500 ohm max. • 0–5 or 0–10 VDC: 5K ohm min.		
Analog Response Time	• <300ms (90% step change) • <400ms (100% step change)		
Overload	MODEL	6 SEC	1 SEC
	• ATS1 • ATS2	• 400A • 800A	• 600A • 1200A
Isolation Voltage	Tested to 5000VAC		
Frequency Range	40–400Hz		
Sensing Aperture	-FL Case: 0.74" (19mm) dia.		
Case	UL94 V0 Flammability Rated		
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing		
Listings	Designed to meet UL 508 Industrial Control Equipment (USA & Canada)		

**Connections**



**Ordering Information**

Sample Model Number: ATS1-420-NOAC-24U-FL  
Adjustable AC current operated switch/transducer, normally open, solid-core.



(1) Range

1	0–50 Analog, 1–50 switch adjustment
2	0–200 Analog, 4–200 switch adjustment

(2) Analog Signal Type

420	4 to 20mA (powered by sensor)
005	0–5 VDC
010	0–10 VDC

(3) Output Contact

NOAC	Normally Open, closes on current rise, AC control only
NCAC	Normally Closed, opens on current rise, AC control only

(4) Power Supply

24U	24VAC or DC
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(5) Case Style

FL	Solid-core
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Contact:  
Industrial Process Measurement, Inc.  
3910 Park Avenue, Unit 7  
Edison, NJ 08820  
732-632-6400  
support@instrumentation2000.com  
http://www.instrumentation2000.com

