

# 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.



Digital Setpoint Display (patent pending)

### 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.

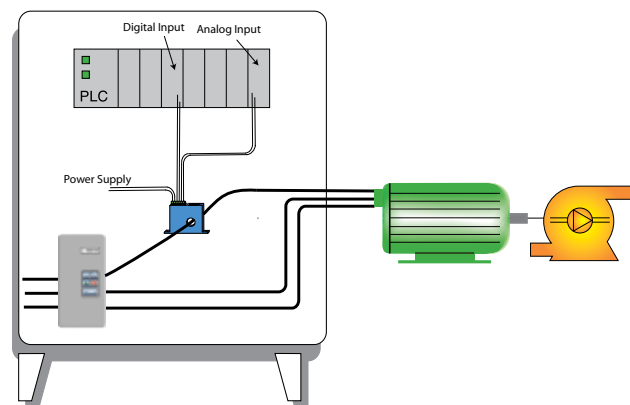
#### Pump Control

- 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 240 VAC.
- 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.

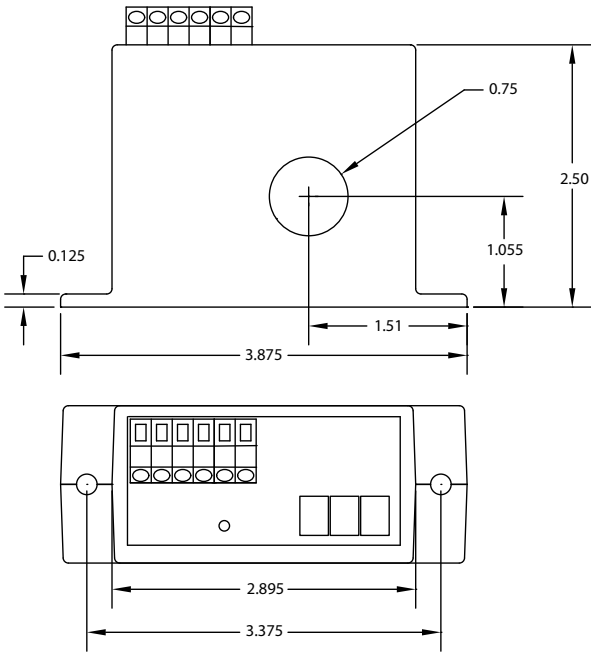
#### Designed for UL, CUL and CE Approval

- Accepted worldwide.



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

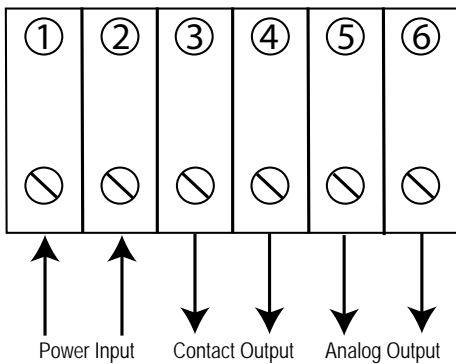
**AC Current Transducer Dimensions**



**AC Current Transducer Specifications**

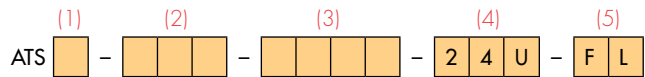
Power Supply	18–30 VAC/DC (40–70 mA consumption)		
Digital Output	Magnetically Isolated Solid-State Switch		
Contact Rating	• 1.0 A up to 240 VAC max. (AC only)		
Off-State Leakage	• <10 µA Normally Open • 2.5 mA Normally Closed		
Contact Response Time	• <500 ms (5% above setpoint) • <200 ms (50% above setpoint) • <150 ms (100% above setpoint)		
Setpoint Range	• ATS1: 1–50 A (adjustable) • ATS2: 4–200 A (adjustable)		
Hysteresis	5% of Setpoint		
Analog Output	• ATS1: 0–50 A    • ATS2: 0–200 A		
Analog Signal Loading	• 4–20 mA: 500 ohm max. • 0–5 or 0–10 VDC: 5K ohm min.		
Analog Response Time	• <300 ms (90% step change) • <400 ms (100% step change)		
Overload	MODEL	6 SEC	1 SEC
	• ATS1 • ATS2	• 400 A • 800 A	• 600 A • 1200 A
Isolation Voltage	Tested to 5000 VAC		
Frequency Range	40–400 Hz		
Sensing Aperture	-FL Case: 0.74" (19 mm) 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)		

**AC Current Transducer Connections**



**AC Current Transducer 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	4–20 mA (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	24 VAC or DC
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**(5) Case Style**

FL	Solid-core
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