

ACUAMP™ Switches and Transducers

Overview

The ACUAMP series is a family of high performance current sensors offering outstanding features, flexibility and durability at an incredible price. Choose from a wide selection of Current Transducer and Current Switch models, all designed in a rugged industry standard feed-through package, consisting of both fixed core and split core models. Each model

has multiple input ranges (set by movable jumpers) for maximum flexibility across many current ratings. The current transducer output choices include 4-20 mA, 24 VDC loop-powered and 0-10 volt self-powered analog outputs. The Current Switch outputs are isolated solid state switches and are available in Normally Open configurations. A unit featuring

field adjustable time delay is also offered in the Current Switch series. All models are panel-mountable as standard, and convenient DIN-rail adapter accessories are available. Use the selection guide to find the best sensor module for your requirements.



ACUAMP Specifications by Model Type					
Specifications	Transducer	Transducer with True RMS	Switch	Switch	Switch
Model	ACT	ACTR	ACS150	ACS200	ACSX
Input Range	Jumper selectable: ACT005: 0 to 2 A, 0 to 5 A ACT050: 0 to 10 A, 0 to 20 A, 0 to 50 A ACT200: 0 to 100 A, 0 to 150 A, 0 to 200 A	Jumper selectable: ACTR005: 0 to 2 A, 0 to 5 A ACTR050: 0 to 10 A, 0 to 20 A, 0 to 50 A ACTR200: 0 to 100 A, 0 to 150 A, 0 to 200 A	-F core: 1 to 150 A -S core: 1.75 to 150 A	Jumper Selectable: -F core: 1 to 6 A, 6 to 40 A, 40 to 175 A -S core: 1.75 to 6 A, 6 to 40 A, 40 to 200 A	Jumper Selectable: -F core: 1 to 12 A, 12 to 55 A, 55 to 175 A -S core: 2 to 12 A, 12 to 55 A, 55 to 200 A
Output Range	-10 models: 0 - 10 VDC -42L models: 4 - 20 mA, loop-powered	4 - 20 mA, loop-powered true RMS	0.15 A @ 240 VAC or VDC	-AA Model: 1A @ 240 VAC -AD Model: 0.15A @ 30 VDC	-AA Model: 1A @ 240 VAC -AE Model: 0.15A @ 240 VAC/VDC
Frequency Range	-10 models: 50 to 60 Hz sinusoidal waveforms only -42L models: 20 - 100 Hz	10 to 400 Hz non-sinusoidal waveforms	6 to 100 Hz	6 to 100 Hz	50 to 100 Hz
Response Time	-10 models: 100 ms -42 models: 300 ms	600 ms	120 ms	40 to 120 ms	Field adjustable time delay: 0.2 to 15 seconds
Sensing Aperture	-F core: 0.75" (19mm) dia. -S core: 0.85" (21.6mm) sq.	-F core: 0.75" (19mm) dia. -S core: 0.85" (21.6mm) sq.	-F core: 0.75" (19mm) dia. -S core: 0.85" (21.6mm) sq.	-F core: 0.75" (19mm) dia. -S core: 0.85" (21.6mm) sq.	-F core: 0.75" (19mm) dia. -S core: 0.85" (21.6mm) sq.

ACUAMP™ ACS150 Series Switches



ACS150 Series current operated switches combine a current transformer, signal conditioner and limit alarm into a single package for use in monitoring or proof of operation applications. Offering an adjustable setpoint range of 1 to 150 amps and universal, solid-state outputs, the self-powered ACS150 can be tailored to provide accurate and dependable digital indication of over-current conditions across a broad range of applications. The ACS150 is available in fixed-core and split-core models.

Applications

Electronic Proof of Flow

- Current operated switch eliminates the need for multiple pipe or duct penetrations
- More reliable than electromechanical pressure or flow switches

Conveyors

- Detect jams and overloads; useful when interlocking multiple conveyor sections

Heating Circuits

- Detect ON/OFF status; faster response times than with temperature sensors

Loss of Load Detective

- Detect belt or coupling breaks with fast response times

Lighting Circuits

- Easier and faster than photocells

Features

- Five-year warranty
- N.O. Universal Outputs 0.15 A @ 240 VAC/VDC
- Status LED provides visual indication of setpoint trip and contact action
- Self-powered operation cuts installation time and operating costs
- Field-adjustable trip points speed start-up and allow for tailored operation
- Choose either split-core or fixed-core enclosure style. Split-core packages allow easy installation on existing systems ; fixed-core enclosures offer more compact package for OEM or new installations
- Integral mounting feet offer secure mounting

Agency Approvals

UL, cUL, CE approvals accepted worldwide

ACS150 Current Operated Switches				
Part Number	Description	Pcs/Pkg	Wt/lb	Price
ACS150-AE-F	N.O. AC/DC adjustable current switch in fixed core enclosure	1	0.30	<--->
ACS150-AE-S	N.O. AC/DC adjustable current switch in split core enclosure	1	0.35	<--->
Accessories				
DRA-2	DIN rail adapters, 1.69"x0.39"x0.75" (43x10x19 mm)	2	0.40	<--->

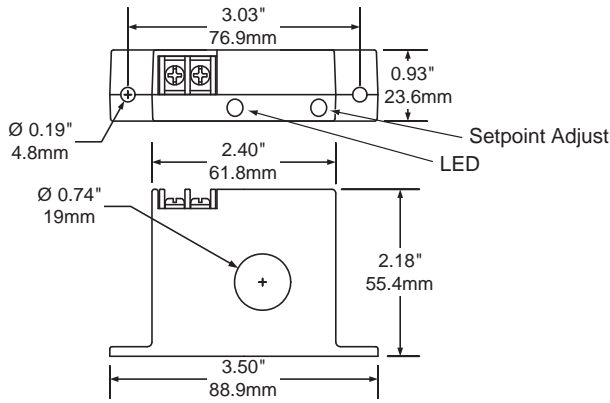
ACS150 Maximum Input Ranges				
Type	Range - Adjustable	Maximum Input Amps		
		Continuous	6 Sec max	1 Sec max
Fixed Core	1 - 150 A	150	400	1000
Split Core	1.5 - 150 A	150	400	1000

ACS150 Series Specifications	
Power Supply	None - Self-powered
Output	Isolated solid-state switch
Output Rating	N.O. 0.15 A @ 240 VAC or VDC
Response Time	120 ms
Off State Leakage	< 10 µA
Input Ranges	Fixed-core: 1 to 150 A. Split-core: 1.75 to 150 A
Hysteresis	5% of Setpoint
Overload (1 second duration)	1,000 A
Isolation Voltage	UL listed to 1,270VAC. Tested to 5,000 VAC (1 minute max)
Frequency Range	6 to 100 Hz
Case	UL 94V-0 flammability rated
Environmental	Temperature
	Humidity
Agency Listings	UL listed 508, UL file E222847, CE approved

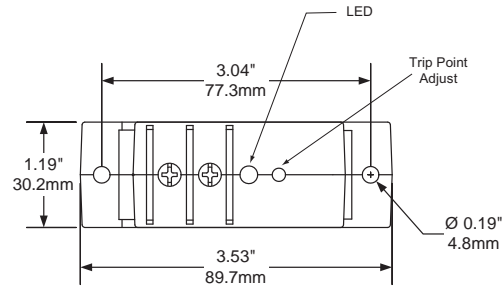
ACS150 Minimum Load/MTBF	
Minimum Load Operating Current	MTBF (Mean Time Between Failure) x 10 ⁶
**	4.33 hours
**	4.33 hours
** The AC/DC switch output has no specified minimum load required to operate the output. There is a maximum resistance of 5 ohms across the output when the switch is "on"	

ACUAMP™ ACS150 Series Switches

Dimensions (in/mm)



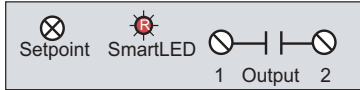
-F Style



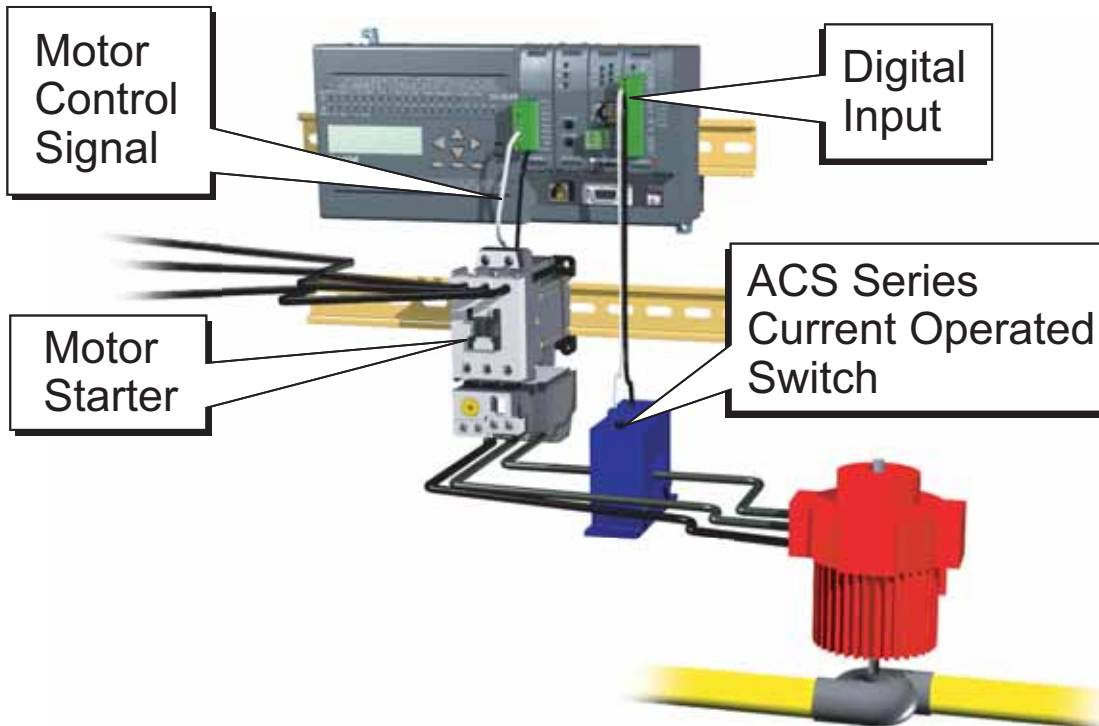
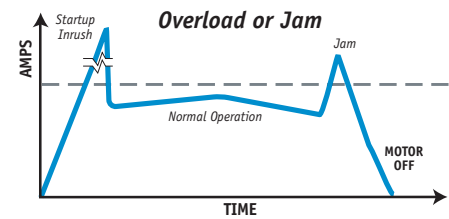
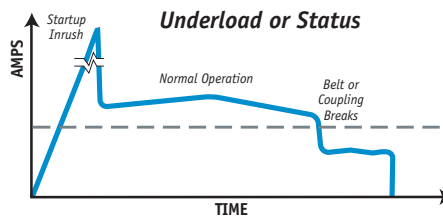
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Connections

Typical of Models with LED



Terminals are #6 screws.
Use up to 14 AWG copper wire



- PLC Overview
- DL05/06 PLC
- DL105 PLC
- DL205 PLC
- DL305 PLC
- DL405 PLC
- Field I/O
- Software
- C-more HMI's
- Other HMI
- AC Drives
- Motors
- Steppers/Servos
- Motor Controls
- Proximity Sensors
- Photo Sensors
- Limit Switches
- Encoders
- Current Sensors**
- Pushbuttons/Lights
- Process
- Relays/Timers
- Comm.
- TB's & Wiring
- Power
- Circuit Protection
- Enclosures
- Appendix
- Part Index