

# HX21 & HX21SP SERIES

Large Load Trending with 4 to 20 mA Output



H321



Hawkeye x21/x21SP analog current transducers provide reliable load trending information for large motor loads (up to 2400 A), with a proportional 4 to 20 mA signal. Three devices are available, each with a different amperage range. The Hx21 versions include a span potentiometer that allows each sensor to be calibrated for maximum resolution. The Hx21SP versions are factory-calibrated at a range specified by the customer.

## SPECIFICATIONS

Sensor Power	30 mA (max) @ 12 to 30 Vdc
Insulation Class	600 Vac RMS (UL), 300 Vac RMS (CE)
Frequency Range	50/60 Hz
Temperature Range	-15 to 60 °C (5 to 140 °F)
Humidity Range	10 to 90% RH, non-condensing
Accuracy	±2% from 10 to 100% of full scale
Response Time	2 sec.
Terminal Block Wire Size	12 AWG (3.3 mm <sup>2</sup> ) - 22 AWG (0.33 mm <sup>2</sup> )
Terminal Block Torque	7 to 8 in-lbs (0.8 to 0.9 N-m)

## WARRANTY

Limited Warranty	5 years
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## AGENCY APPROVALS

Agency Approvals	UL 508 open device listing, CE: EN61010-1, (H221, H321 only)CAT III, Pollution Degree 2, basic insulation
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## Split-core design

Split-core design for easy installation and fast retrofits

## No need for external CTs

No need for external CTs on large conductors

## Large openings

Large openings for heavy conductors

## Loop powered

Loop powered 4 to 20 mA output

## Two-wire design

Two-wire design reduces wiring cost

## Field flexibility

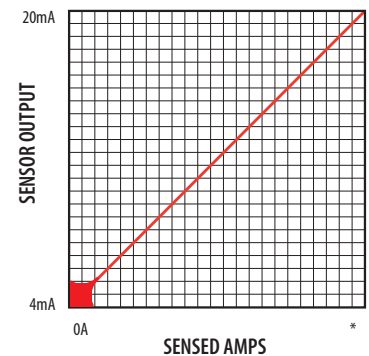
Hx21 models offer zero and span adjustments for field flexibility

## APPLICATIONS

- Load trending of large motors and other loads up to 2400 A
- Monitor critical motors (compressor, fuel, etc.)

## EXAMPLE LINEAR OUTPUT

Scale software as shown

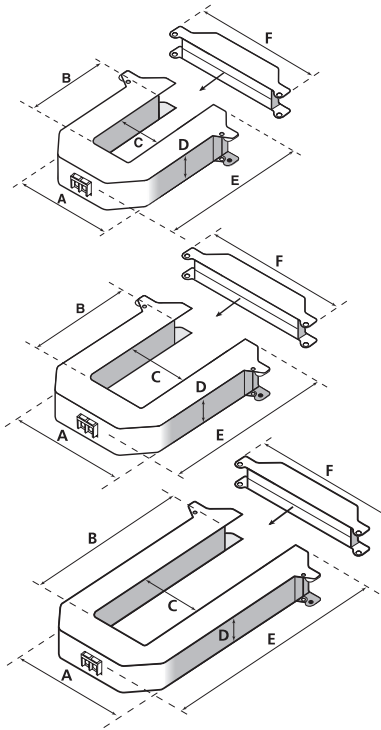


\*Adjusted with Span Potentiometer for Hx21 models;  
Factory-set per customer specification for Hx21SP models

100 to 300A (H221/H221SP)  
300 to 800A (H321/H321SP)  
1000 to 2400A (H421/H421SP)



**DIMENSIONAL DRAWING**



**H221**

A = 3.7" (94 mm)  
 B = 1.6" (40 mm)  
 C = 1.4" (35 mm)  
 D = 1.1" (29 mm)  
 E = 4.2" (106 mm)  
 F = 4.7" (120 mm)

**H321**

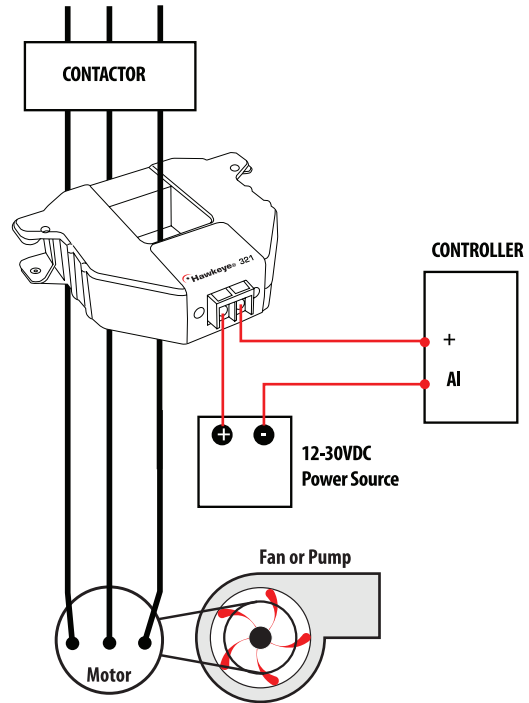
A = 4.9" (124 mm)  
 B = 2.9" (75 mm)  
 C = 2.5" (63 mm)  
 D = 1.2" (29 mm)  
 E = 5.5" (140 mm)  
 F = 6.0" (151 mm)

**H421**

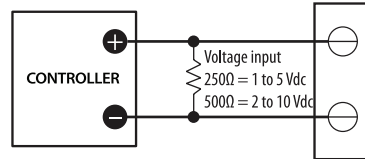
A = 4.9" (124 mm)  
 B = 5.5" (141 mm)  
 C = 2.5" (63 mm)  
 D = 1.1" (29 mm)  
 E = 8.1" (206 mm)  
 F = 6.0" (151 mm)

**MONITORING FAN /PUMP MOTORS LOADS**

Wiring Diagram



Voltage Output



**ORDERING INFORMATION**

MODEL	AMPERAGE RANGE		SENSOR OUTPUT	HOUSING	UL	CE	LEAD FREE
	4 mA (Lower Limit)	20 mA (Upper Limit)					
H221	0 A	100 to 300 A	4 to 20 mA DC	Split-core	• <sup>1</sup>	•	
H221SP		100, 150, 200, 250, or 300 A <sup>2</sup>			• <sup>1</sup>	•	
H321		300 to 800 A			• <sup>1</sup>	•	
H321SP		300, 400, 500, 600, 700, or 800 A <sup>2</sup>			• <sup>1</sup>	•	
H421		1000 to 2400 A					•
H421SP		1000, 1200, 1400, 1600, 1800, 2000, 2200, or 2400 A <sup>2</sup>					•

1. Listed for use on 75 °C insulated conductors.

2. Factory calibrated - not field adjustable.

Note: When ordering HxxxSP versions, specify upper current limit for factory calibration (device is not field adjustable).

