

HX21 & HX21SP SERIES

Large Load Trending with 4 to 20 mA Output



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 ²) - 22 AWG (0.33 mm ²)
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

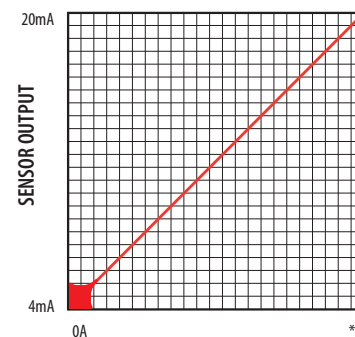
Hx21 models offer zero and span adjustments for field flexibility

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

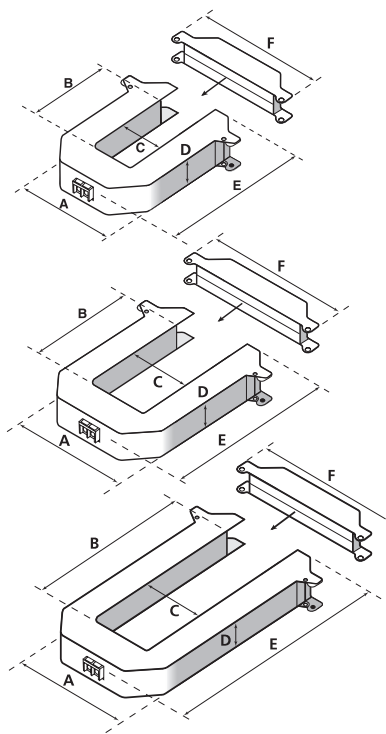


*Adjusted with Span Potentiometer for Hx21 models;
Factory-set per customer specification for Hx21SP models

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

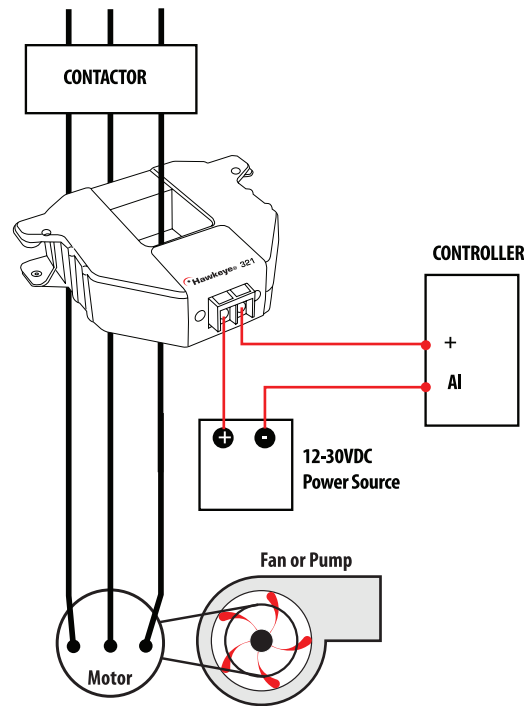


DIMENSIONAL DRAWING

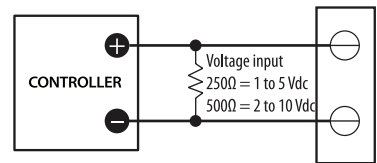


H221	H321	H421
A = 3.7" (94 mm)	A = 4.9" (124 mm)	A = 4.9" (124 mm)
B = 1.6" (40 mm)	B = 2.9" (75 mm)	B = 5.5" (141 mm)
C = 1.4" (35 mm)	C = 2.5" (63 mm)	C = 2.5" (63 mm)
D = 1.1" (29 mm)	D = 1.2" (29 mm)	D = 1.1" (29 mm)
E = 4.2" (106 mm)	E = 5.5" (140 mm)	E = 8.1" (206 mm)
F = 4.7" (120 mm)	F = 6.0" (151 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	• ¹	•	
H221SP		100, 150, 200, 250, or 300 A ²			• ¹	•	
H321		300 to 800 A			• ¹	•	
H321SP		300, 400, 500, 600, 700, or 800 A ²			• ¹	•	
H421		1000 to 2400 A					•

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).

