

# 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 <sup>1</sup> )               |
| 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 |
|------------------|---------|

## AGENCY APPROVALS

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



1. The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

## Split-core design

Split-core design for easy installation and fast retrofits

## Loop powered

Loop powered 4 to 20 mA output

## No need for external CTs

No need for external CTs on large conductors

## Two-wire design

Two-wire design reduces wiring cost

## Large openings

Large openings for heavy conductors

## Field flexibility

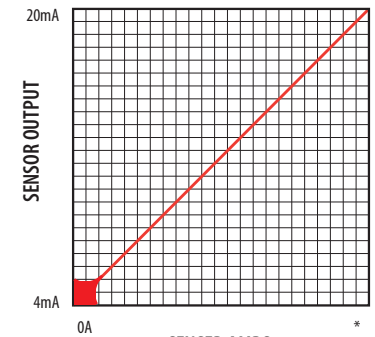
Hx21 models offer zero and span adjustments for field flexibility

## 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)

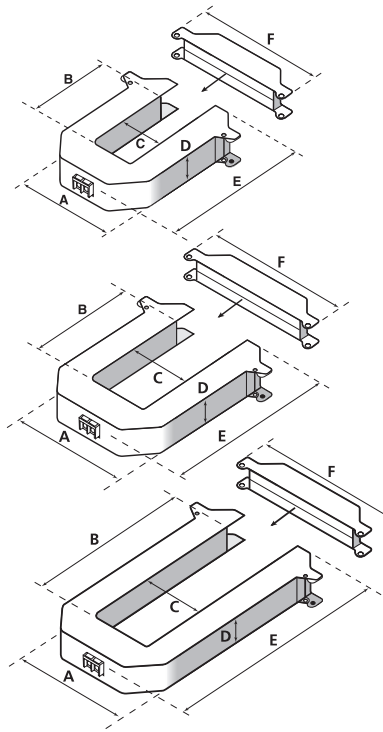


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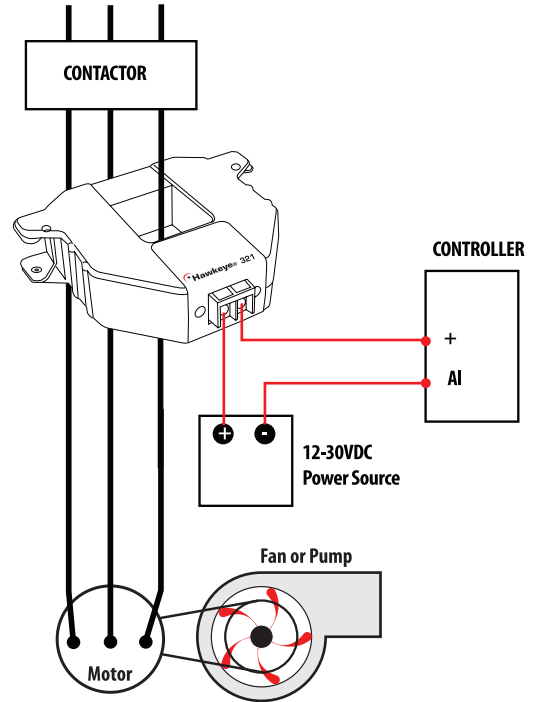
**DIMENSIONAL DRAWING**



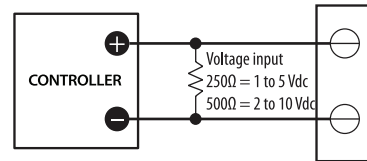
| H221              | H321              | H421              |
|-------------------|-------------------|-------------------|
| A = 3.7" (94 mm)  | A = 4.9" (124 mm) | A = 4.9" (124 mm) |
| B = 1.6" (40 mm)  | B = 2.9" (75 mm)  | B = 5.5" (141 mm) |
| C = 1.4" (35 mm)  | C = 2.5" (63 mm)  | C = 2.5" (65 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                                      | 4 to 20 mA DC | Split-core | 1  | •  |           |
| H221SP |  |               |            | 1  | •  |           |
| H321   |  |               |            | 1  | •  |           |
| H321SP |  |               |            | 1  | •  |           |
| H421   |  |               |            |    |    | •         |
| H421SP |  |               |            |    |    | •         |

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).

