

# Direct Current Transducers: Split-Core, 420mA Output



## H971 & EA20 Series



U.S. Pat. #6,160,697; 6,522,517; 7,242,157



### SPECIFICATIONS

<b>System Technology</b>	Exclusive Pulse Reset Technology™
<b>Amperage Range</b>	<b>H971:</b> ±200ADC; <b>EA20:</b> 0-100ADC/0-150ADC/0-200ADC
<b>Sensor Supply Voltage</b>	12-24VDC*
<b>Supply Current</b>	35mA**
<b>Insulation Class</b>	<b>H971:</b> 600VDC, <b>EA20:</b> 1000VDC
<b>Temperature Range</b>	-30° to 60°C (-22° to 140°F)
<b>Humidity Range</b>	10-90% RH non-condensing
<b>Output</b>	<b>H971:</b> Bidirectional 4-20mA (adjust. span)***; <b>EA20:</b> Unidirectional 4-20mA
<b>Terminal Block Wire Size</b>	24-14 AWG (0.2 to 2.1 mm <sup>2</sup> )
<b>Terminal Block Torque</b>	3.5 to 4.4 in-lbs (0.4 to 0.5 N-m)
<b>Response Time</b>	Less than 150 msec
<b>Agency Approvals</b>	CE: EN61010-1, CAT III, pollution degree 2, basic insulation
<b>ACCURACY</b>	
<b>Accuracy at Ranges Below 100A</b>	±0.5A (combined linearity, hysteresis, and repeatability)****
<b>Accuracy at Ranges Above 100A</b>	±0.5% full scale (combined linearity, hysteresis, and repeatability)****
<b>Withstand Current</b>	25,000ADC

Do not use the LED status indicators as evidence of applied voltage.  
 \* For currents over 120A, supply voltage must be at least 15V.  
 \*\* For H971, at zero monitored current: 35mA max.; at 200A monitored current: 55mA to 100mA depending on supply voltage and current polarity.  
 \*\*\* Unless factory set per customer specifications (H971SP only).  
 \*\*\*\* For single conductor through product (no wraps).

### DC Applications

#### FEATURES

##### All Models

- Self-gripping iris for easy installation
- Bracket can be installed in three different configurations...added flexibility
- Status LED ensures proper wiring...easy set up
- 5-year warranty

##### H971 Bi-directional Model

- Patented Pulse Reset Technology™ significantly increases accuracy...sensor is not affected by stray magnetic fields...minimize worry of magnetization from over-current faults
- User-adjustable span from ±20A to ±200A
- Range can be factory-set per customer specifications (SP model)

##### EA20 Unidirectional Model

- Patented Pulse Reset Technology™ significantly increases accuracy...sensor is not affected by stray magnetic fields...minimize worry of magnetization from over-current faults
- 100, 150, & 200A span versions available...application flexibility

#### DESCRIPTION

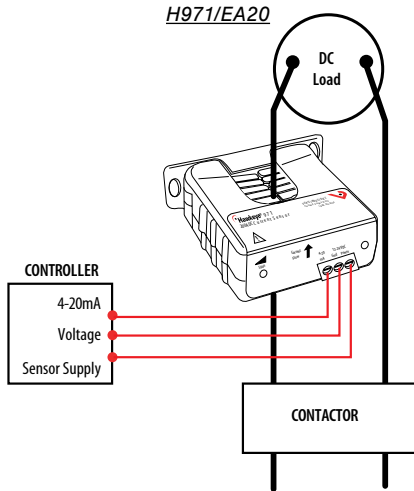
Hawkeye DC Transducers provide accurate load level monitoring of DC loads. The H971 and EA20 use Pulse Reset Technology™ with field proven circuitry to provide a superior solution for DC applications with minimal risk of permanent magnetization, providing longer life and better accuracy.

The EA20 and the H971 have 4-20mA output only. The H971 also offers bi-directional sensing capability and a user-adjustable span to allow greater application flexibility.

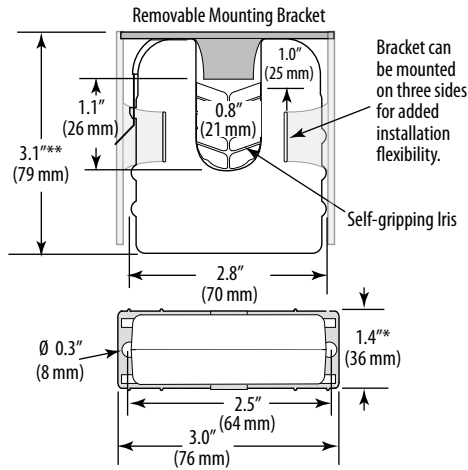
#### APPLICATIONS

- Battery chargers
- Motor armature current
- Motor field current
- Automotive loads
- Marine equipment
- Solar energy applications
- Telecom
- Electroplating

WIRING DIAGRAM



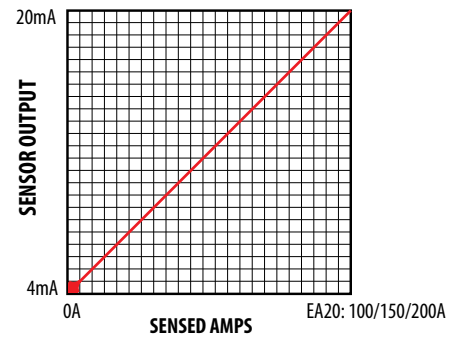
DIMENSIONAL DRAWING



\* Terminal block may extend up to 1/8" over the height dimensions shown.  
 \*\* Slide switch may extend up to 1/4" over the height dimensions shown.

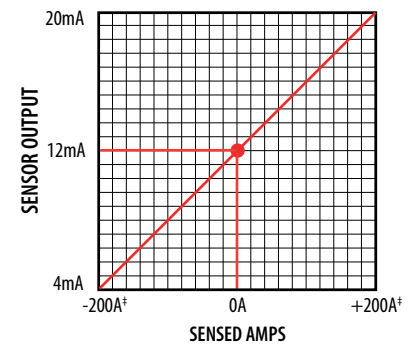
EA20 LINEAR OUTPUT

Scale software as shown



H971 BIDIRECTIONAL OUTPUT

Scale software as shown



<sup>1</sup>Field Adjustable from ±20A to ±200A  
 (not applicable to customer-specified factory scaled models)

ORDERING INFORMATION



MODEL	PULSE RESET TECHNOLOGY	AMPERAGE RANGE (DC)	SENSOR OUTPUT	HOUSING	STATUS LED	UL	CE	RoHS
<b>Hawkeye Series</b>								
H971	●	0 - 200A	Bidirectional 4-20mA	Split-core	●	●	●	●
H971SP	●	0 - 200A <sup>1</sup>	Bidirectional 4-20mA	Split-core	●	●	●	●
<b>EA Series</b>								
EA20BB010	●	0-100A	Unidirectional 4-20mA	Split-core	●	● <sup>**</sup>	●	●
EA20BB015	●	0-150A	Unidirectional 4-20mA	Split-core	●	● <sup>**</sup>	●	●
EA20BB020	●	0-200A	Unidirectional 4-20mA	Split-core	●	● <sup>**</sup>	●	●

<sup>1</sup>Range set in factory per customer specified value from 0 to ±20A through 0 to ±199A.  
<sup>\*\*</sup>UL Recognized

ACCESSORIES

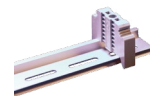
DIN Rail Clip Set (AH01)  
 DIN Rail (AV01) and DIN Stop Clip (AV02)



AH01



AV01



AV02