Honeywell

Interactive Catalog Replaces Catalog Pages

Honeywell Sensing and Control has replaced the PDF product catalog with the new Interactive Catalog. The Interactive Catalog is a power search tool that makes it easier to find product information. It includes more installation, application, and technical information than ever before.

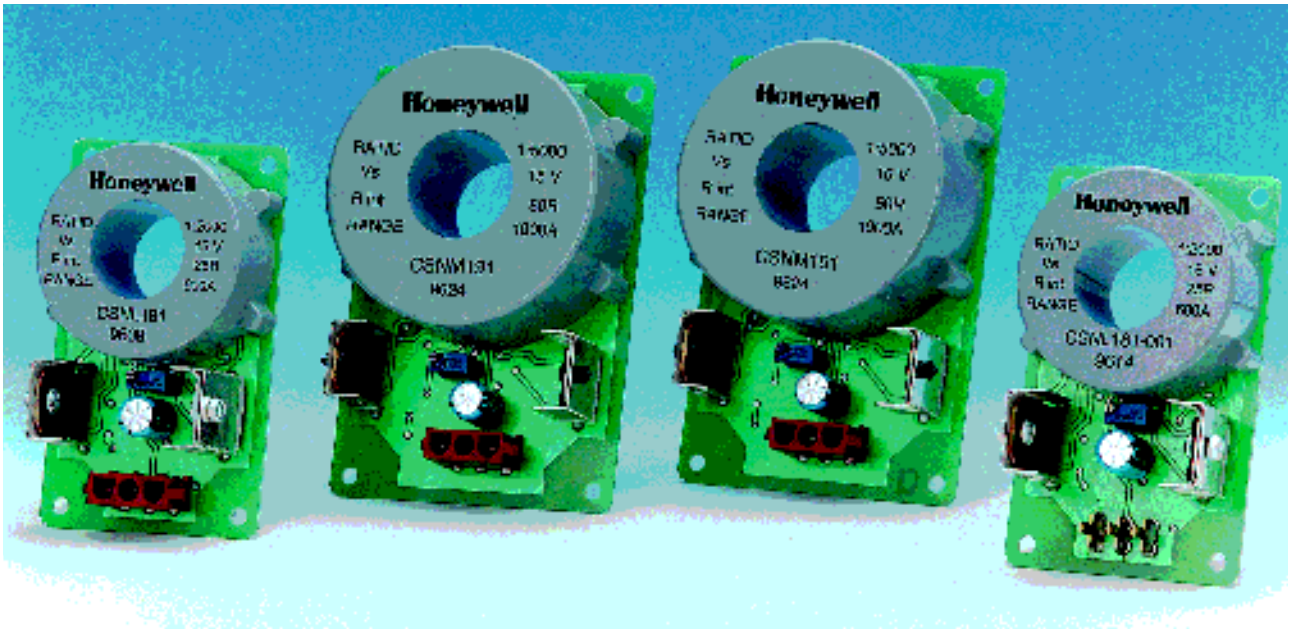


Click this icon to try the new Interactive Catalog.

Sensing and Control
Honeywell Inc.
11 West Spring Street
Freeport, Illinois 61032

Honeywell

CSN Series
Hall Effect Current Sensors



FEATURES

- Current sensing up to 1000A
- Measures DC, AC and impulse currents
- Very fast response
- High overload capability
- Extended temperature range -40°C to +85°C
- Different termination styles
- Optional conformal coating

BENEFITS

- Increased measuring range in compact package
- No restriction on input current waveform
- Output signal accurately tracks changes in input signal
- Sensor integrity unaffected
- Improved reliability
- Flexibility of connection style
- Provides additional protection to the sensors

DESCRIPTION

These new industrial current sensors extend Honeywell's closed loop current sensing capability. They offer increased current measuring capability up to 1000Aover an extended temperature range of -40°C to +85°C and are available with different terminal options.

The sensors are closed loop devices based on the principle of the hall effect and null balance method. The output from the current sensor is the balancing current which is a perfect image of the primary current reduced by the number of secondary turns at any time. This current can be expressed as a voltage by passing it through a resistor.

TYPICAL APPLICATIONS

- Variable speed drives
- Overcurrent protection
- Power supplies
- Feedback control systems
- Robotics
- Welding equipment

PERFORMANCE DATA

Definition

Acurrent transducer based on the principle of magnetic compensation. It provides electronic measurement of DC, AC, pulsed currents and their combinations with galvanic isolation between the primary (high current) and secondary circuits.

Electrical Data

		CSNL181 - XXX			CSNM191 - XXX	
Nominal current (In)		: 300 Arms			: 500 Arms	
Measuring range		: 0 to ±600 A			: 0 to ±1000 A	
Measuring Resistance (Rm)		: Rm min	Rm max		: Rm min	Rm max
with ±15V	at ±300 A.t max	: 0 ohm	50 ohm	at ±500 A.t max	: 0 ohm	50 ohm
	at ±600 A.t max	: 0 ohm	10 ohm	at ±1000 A.t max	: 0 ohm	5 ohm
Nominal analogue output current		: 150 mA			: 100 mA	
Turns Ratio		: 1/2000			: 1/5000	
Overall accuracy at +25°C		: ±0.5% on In			: ±0.5% of In	
Supply Voltage		: ±12V to 18V (±5%)			: ±12V to ±18V (±5%)	
Isolation between primary and secondary		: 7.5 kV rms/50 Hz/1 min			: 6.0 kV rms/50 Hz/1 min	
Accuracy - Dynamic Performance						
Zero offset current at +25°C		: Max ±0.3 mA			: Max ±0.2 mA	
Thermal drift of offset current, between 0°C to +70°C		: Typ ±0.3 mA; Max ±0.5 mA			: Typ ±0.2 mA; Max ±0.3 mA	
Linearity		: better than ±0.1%			: better than ±0.1%	
Response time		: better than 500nS			: better than 1µs	
di/dt accurately followed		: better than 50 A/µs			: better than 50 A/µs	
Bandwidth		: DC to 150 KHz			: DC to 100 KHz	
General data						
Operating temperature		: -40°C to +85°C (-40°F to +185°F)			: -40°C to +85°C (-40°F to +185°F)	
Storage temperature		: -40°C to +90°C (-40°F to +194°F)			: -40°C to +90°C (-40°F to +194°F)	
Current consumption		: Typ 14mA(±18V) + output current			: Typ 14mA(±18V) + output current	
Secondary internal resistance		: 25 ohm (at 70°C)			: 50 ohm (at 70°C)	
Sensor Housing		: Insulated plastic case (Bayblend FR1468)			: Insulated plastic case (Bayblend FR1468)	
Signal sense		: a positive output current is obtained on terminal O/Pwhen the primary current flows in the direction of the arrow			: a positive output current is obtained on terminal O/Pwhen the primary current flows in the direction of the arrow	
EMC		: EN50081-2, EN 50082-2			: EN50081-2, EN 50082-2	

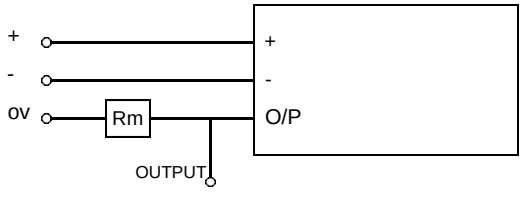
⚠ WARNING

PERSONALINJURY

- DO NOTUSE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

Electrical Connection



Termination

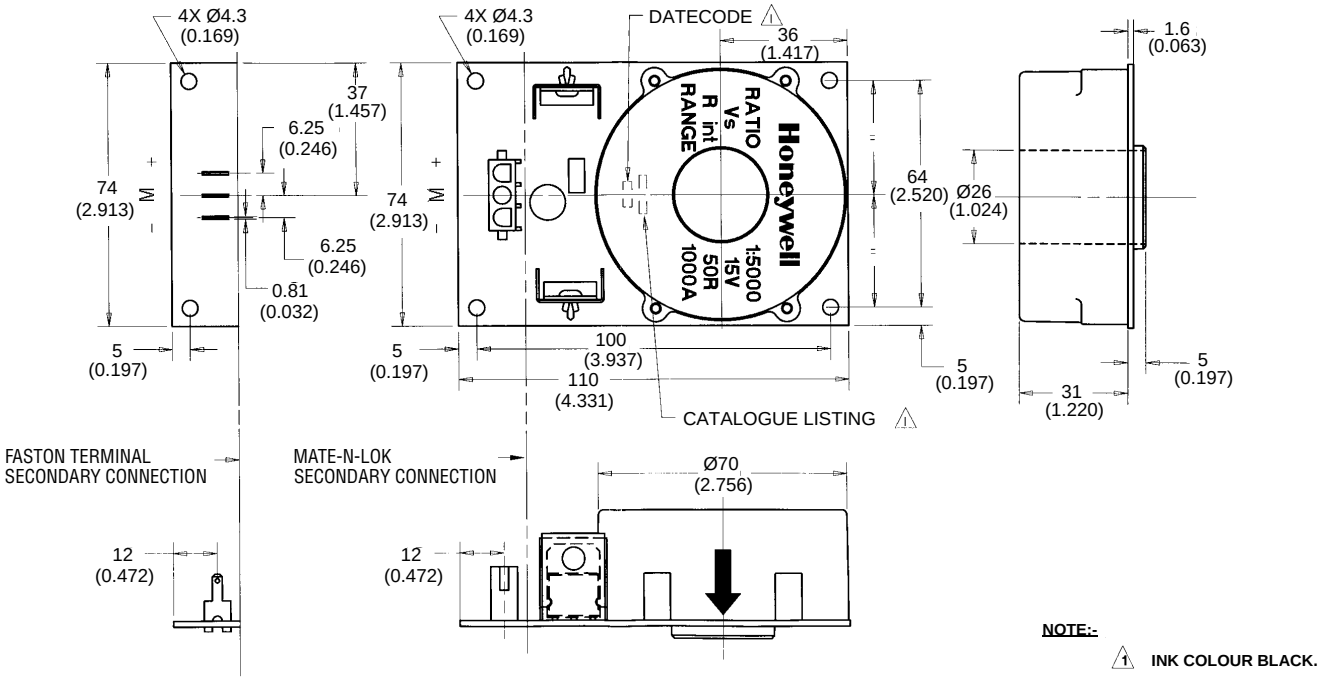
300A: Supply Voltage ±12V to ±18V

500A: Supply Voltage ±12V to ±18V

O/PMeasured output signal

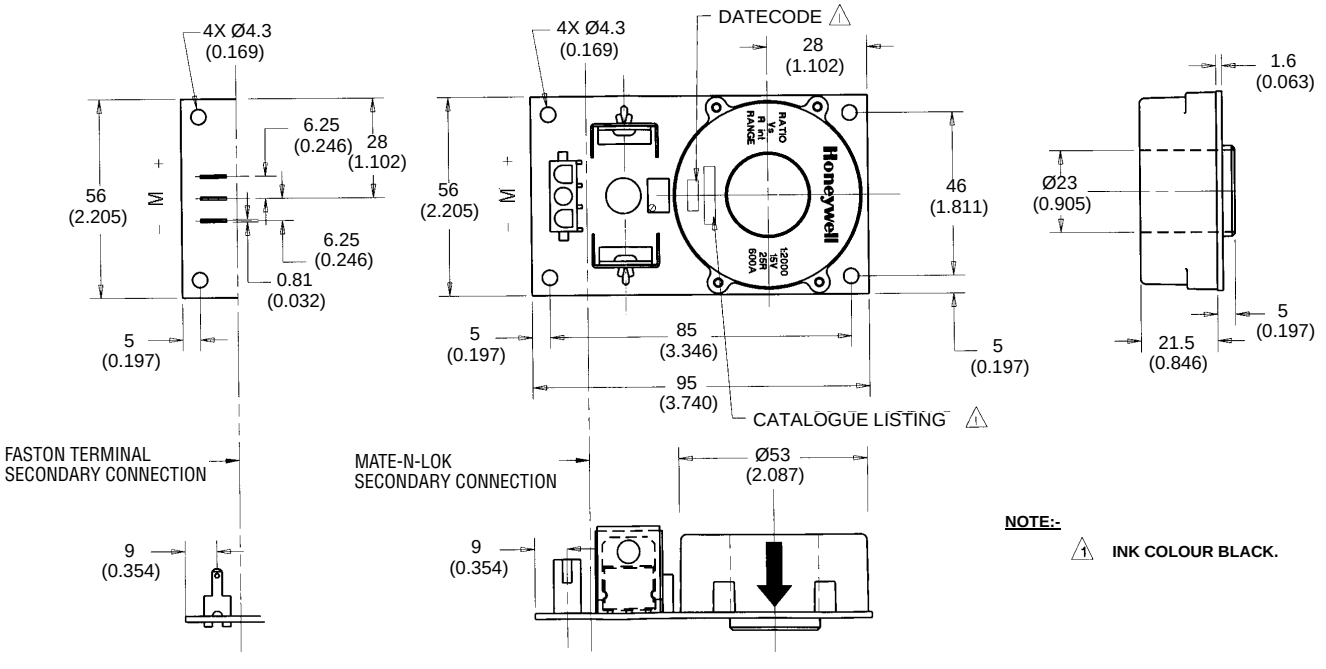
CHARACTERISTICS		
Catalogue Listing	**Secondary Connection**	**Conformal Coating**
CSNL181	**Amp 3-Way Pin Mate-N-Lok Connector**	**No**
CSNL181-001	**Amp Tab, 2.79(.110) Series Faston Terminal**	**No**
CSNL181-002	**Amp 3-Way Pin Mate-N-Lok Connector**	**Humiseal 1R32**
CSNL181-003	**Amp Tab, 2.79(.110) Series Faston Terminal**	**Humiseal 1R32**
CSNM191	**Amp 3-Way Pin Mate-N-Lok Connector**	**No**
CSNM191-001	**Amp Tab, 2.79(.110) Series Faston Terminal**	**No**
CSNM191-002	**Amp 3-Way Pin Mate-N-Lok Connector**	**Humiseal 1R32**
CSNM191-003	**Amp Tab, 2.79(.110) Series Faston Terminal**	**Humiseal 1R32**

MOUNTING DIMENSIONS IN MM AND (INCHES)



NOTE:-

1. INK COLOUR BLACK.



NOTE:-

1. INK COLOUR BLACK.

⚠ WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is to be referenced for each product.

Failure to comply with these instructions could result in death or serious injury.

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Honeywell

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