

CSNX1000M Series Current Sensor

Description

CSNX1000M is a current sensor, based on MR technology and close loop principle. It can be used to measure 1000A rated current and 1500A peak current, the key component MR is patentable magnetic sensor made by Honeywell, it makes current sensor temperature drift not exceed 0.1% totally, thus end user's device accuracy will be promoted and saving money for end user.

Key Features and Benefits

- Temperature drift not exceed 0.1%, higher accuracy of current sensor makes user's device higher effective and win more money.
- Compatible with major market player and replace major competitor's product easily.
- Bigger through hole ensure primary conductor fixture easily.
- Multi-solution for connection, customer can select different connector to match their different application.
- Good EMC performance makes the current sensor can operating under abominable electromagnetism influence.

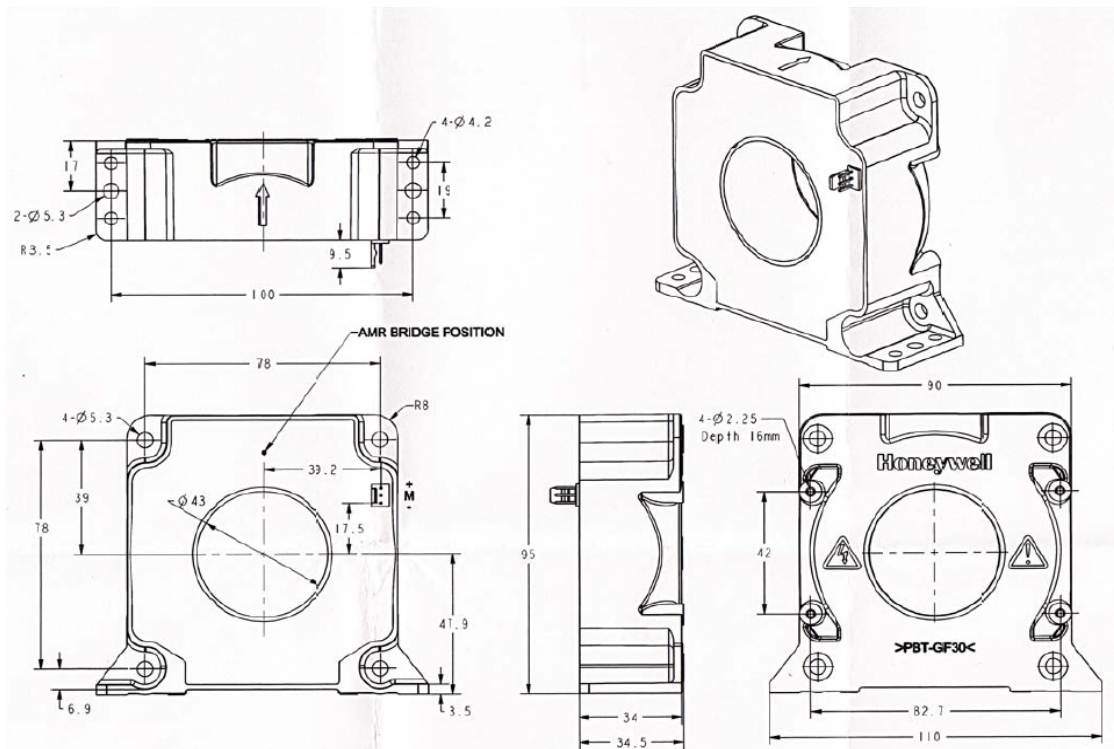
Potential Applications

- Solar and wind energy
- High power VSD
- Electrochemistry
- Electrometallurgy
- Electrical vehicle
- Electrical forklift

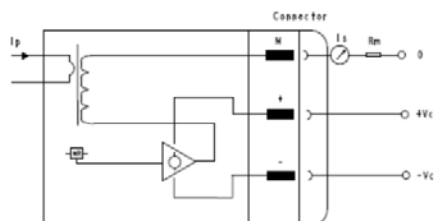
Specifications

Parameter	Specification	Unit
Primary nominal current rms	1000	A
Primary current measuring range@±24V	0...±1500	A
Conversion ratio	1:5000	
Secondary coil resistance @ Ta=70°C	48	Ω
@ Ta=85°C	51	Ω
Measure resistance @ Ta=70°C	R _{Mmin} R _{Mmax}	Ω
with ±15V @1000A	0 18	Ω
with ±15V @1200A	0 7	Ω
with ±24V @1000A	5 60.5	Ω
with ±24V @1500A	5 24	Ω
@ Ta=85°C	0 15	Ω
with ±15V @1000A	0 4	Ω
with ±15V @1200A	10 57.5	Ω
with ±24V @1000A	10 21	Ω
with ±24V @1500A		
Secondary nominal current rms @ I _{pn}	200	mA
Power supply voltage	±15~24(±5%)	V
Current consumption(±1mA)	30(@±24V)+ I _s	mA
Accuracy @ I _{pn} , Ta=25°C	±0.4	%
Zero offset current at 25°C	±0.4	mA

Offset thermal drift (-40~85°C)	±0.2	mA
Linearity error	< 0.1	%
Response time to 90% of I _{pn} step with 100A/us	< 1	us
di/dt	> 100	A/us
Frequency bandwidth (-1dB)	DC..150kHz	kHz
Ambient operating temperature	-40 ~ +85	°C
Ambient storage temperature	-40 ~ +100	°C
CE mark / UL Approval	Yes	
RoHS Compliant	Yes	
Norm	EN50178:1997	



Wiring or Electrical Diagrams



Part Number Nomenclature Tree

For those products that are configurable, provide Marcom with a document which shows the nomenclature tree.

1, 2	3	4	5	-	6,7,8	9	
CS							Current Sensor
	N						Close Loop
		X					MR Principle
			1000				Rated Current
				M			Toriod Through Hole
				S			Square Through Hole
					None		Standard Type
					001		A Little Bit Difference Based on Standard Type
					100		Mini Fit Connector
					101		A Little Bit Difference Based on Mini Fit Connector
					200		JST Connector
					201		A Little Bit Difference Based on JST Connector
					300		Cable Output
					101		A Little Bit Difference Based on Cable output
						A	Special P/N
						B	Special P/N

Catalog listings

Provide Marcom with a table showing catalog listings and description.

Part Number	Rated Current (A)	Measuring Range (A)	Turns Ratio	Power Supply	Connector
CSNX1000M	1000	1500	1:5000	±15~24(±5%)	KK connector, 3-pin Molex P/N:38-00-6293
CSNX1000M-100	1000	1800	1:4000	±15~24(±5%)	Mini-Fit connector, 4-pin Molex P/N:39-29-6048
CSNX1000M-101	1000	1800	1:4000	±15~24(±5%)	VH connector, 3-pin JST P/N:B3P-VH(LF)(SN)
CSNX1000M-102	1000	1800	1:4000	±15~24(±5%)	KK connector, 3-pin Molex P/N:38-00-6293
CSNX1000M-200	1000	1500	1:5000	±15~24(±5%)	Mini-Fit connector, 4-pin Molex P/N:39-29-6048
CSNX1000M-201	1000	1500	1:5000	±15~24(±5%)	VH connector, 3-pin JST P/N:B3P-VH(LF)(SN)

Warnings for Installation Instructions

Provide the warnings and cautions needed for the installation instructions (e.g., electrical shock, condensing environments, etc.).

▲ WARNING

PERSONAL INJURY

DO NOT USE 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.

▲ 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 provided in the instructions supplied with each product.
- Failure to comply with these instructions could result in death or serious injury.