Magnetic Coil Type High-precision Current Sensor

 $(0 \sim \pm 50A)$

Characteristi

Adoption of the flux gate system makes it possible to conduct high-precision current measurements. Due to the low-temperature drift, it is ideal in environments of large temperature fluctuation.

Uses

High-precision AC/DC current measurement Medical equipment High-precision current breakers High-stabilizing DC power supply units Power controllers EV rapid charging devices

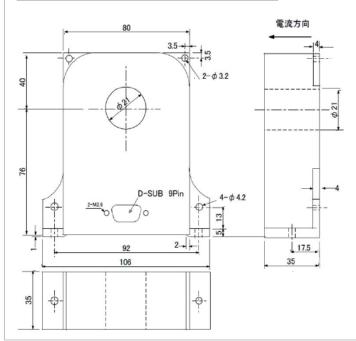
Main Electrical Characteristics Main Specifications

Ta=25℃

Parameter	Symbol	Unit	Conditions	Model
				CFC-050
Primary nominal current	If	Α	DC (Peak AC)	0∼±50A
Rated output current	Iout	mA	If max	±100mA
Load resistance	RL	Ω	Recommende d value	40Ω
			Minimum value	20Ω
			Maximum value	RL≦5500/(If)-30
Linearity limits	εL	%		<10ppm
Offset current	Iof	μА	*	≤±10μA
Supply voltage	Vcc	V		±15V ±5%
Current consumption	Ic	mA		≤±100mA + Iout
Ambient operating temp.	Та	°C		-15℃~+60℃
Ambient storage temp.	Ts	°C		-20℃~+85℃

*Includes geomagnetism + residual magnetism + impact of electrical circuit offset

CFC-050 Outline Drawing (Unit: mm)



D-SUB Pin Connections

Terminal connection numbers

Do not connect anything to 1,2,7

* 3-8 : AL terminals contact capacity (24V 10mA)

- 4:0V
- 5:-15V
- 6:OUTPUT
- 9:+15V
- 8:collector
- 3:emitter
- * Photo transistor output is closed during normal operation. When the sensor malfunctions, terminals open.



Magnetic Coil Type

High-precision Current Sensor

Characte

Adoption of the flux gate system makes it possible to conduct high-precision current measurements. Due to the low-temperature drift, it is ideal in environments of large temperature fluctuation.

High-precision AC/DC current measurement Medical equipment High-precision current breakers High-stabilizing DC power supply units Power controllers EV rapid charging devices

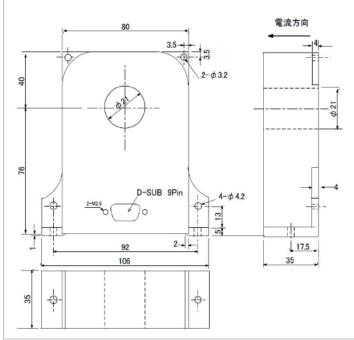
Main Electrical Characteristics Main Specifications

Ta=25℃

		•		1a=25 C
Parameter	Symbol	Unit	Conditions	Model
				CFC-100
Primary nominal current	If	А	DC (Peak AC)	0∼±100A
Rated output current	Iout	mA	If max	±100mA
Load resistance	RL	Ω	Recommen ded value	60Ω
			Minimum value	25Ω
			Maximum value	11000/(If)-17
Linearity limits	EL	%		<10ppm
Offset current	Iof	μА	*	≤±10μA
Supply voltage	Vcc	V		±15V ±5%
Current consumption	Ic	mA		≤±100mA + Iout
Ambient operating temp.	Ta	°C		-15℃~+60℃
Ambient storage temp.	Ts	°C		-20℃~+85℃

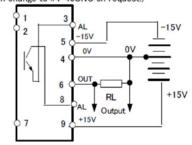
*Includes geomagnetism + residual magnetism + impact of electrical circuit offset

CFC-100 Outline Drawing (Unit: mm)



D-SUB Pin Connections

(D-SUB can change to #4-40UNC on request.)



Terminal connection numbers

Do not connect anything to 1,2,7

3-8 : AL terminals contact capacity (24V 10mA)

- 4:0V
- 5:-15V
- 6:OUTPUT
- 9:+15V
- 8:collector
- 3:emitter
- * Photo transistor output is closed during normal operation. When the sensor malfunctions, terminals open.



High-precision Current Sensor

(0~±300A)

Characte

Adoption of the flux gate system makes it possible to conduct high-precision current measurements. Due to the low-temperature drift, it is ideal in environments of large temperature fluctuation.

High-precision AC/DC current measurement Medical equipment High-precision current breakers High-stabilizing DC power supply units Power controllers EV rapid charging devices

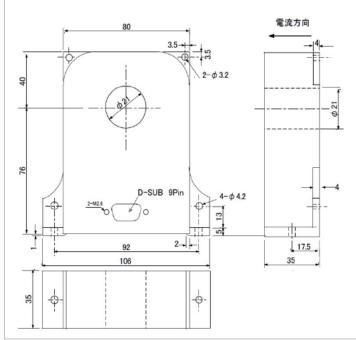
Main Electrical Characteristics Main Specifications

Ta=25°C

				14 25 0
Parameter	Symbol	Unit	Conditions	Model CFC-300
				CFC-300
Primary nominal current	If (n)	Α	DC (Peak AC)	0∼±300A
Rated output current	Iout	mA	If max	±300mA
Load resistance	RL	Ω	Recommen ded value	15Ω
			Minimum value	0.2Ω
			Maximum value	RL≦11000/(If)-17
Linearity limits	εL	%		<10ppm
Offset current	Iof	μА	*	≤±3μA
Supply voltage	Vcc	V		±15V ±5%
Current consumption	Ic	mA		≤±100mA + Iout
Ambient operating temp.	Та	°C		-15℃~+60℃
Ambient storage temp.	Ts	°C		-20℃~+85℃

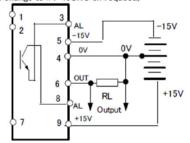
*Includes geomagnetism + residual magnetism + impact of electrical circuit offset

CFC-300 Outline Drawing (Unit: mm)



D-SUB Pin Connections

(D-SUB can change to #4-40UNC on request.)



Terminal connection numbers

Do not connect anything to 1,2,7

3-8 : AL terminals contact capacity (24V 10mA)

- 4:0V
- 5:-15V
- 6:OUTPUT
- 9:+15V
- 8:collector
- 3:emitter
- * Photo transistor output is closed during normal operation. When the sensor malfunctions, terminals open.



High-precision Current Sensor

(0~±600A)

Characte

Adoption of the flux gate system makes it possible to conduct high-precision current measurements. Due to the low-temperature drift, it is ideal in environments of large temperature fluctuation.

Uses

High-precision AC/DC current measurement Medical equipment High-precision current breakers High-stabilizing DC power supply units Power controllers EV rapid charging devices

Main Electrical Characteristics Main Specifications

				
Parameter	Symbol	Unit	Conditions	Model Model
				CFC-600
Primary nominal current	If	Α	DC (Peak AC)	0~±600A
Rated output current	Iout	mA	If max	±400mA
Load resistance	RL	Ω	Recommen ded value	10Ω
			Minimum value	0.2Ω
			Maximum value	RL≦15000/(If)-12
Linearity limits	EL.	%		<10ppm
Offset current	Iof	μА	*	≤±4μA
Supply voltage	Vcc	V		±15V ±5%
Current consumption	Ic	mA		≤±150mA + Iout
Ambient operating temp.	Ta	°C		-15℃~+60℃
Ambient storage temp.	Ts	°C		-20℃~+85℃

*Includes geomagnetism + residual magnetism + impact of electrical circuit offset

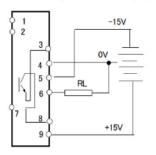
電流方向 Current direction

D-SUB 9P 8 8 8 8 8 133 8 133

CFC-600 Outline Drawing (Unit: mm)

Mounting holes

D-SUB Pin Connections
(D-SUB can change to #4-40UNC on request.)



Terminal connection numbers

Do not connect anything to 1,2,7

3-8 : AL terminals contact capacity (24V 10mA)

- 4:0V
- 5:-15V
- 6:OUTPUT
- 9:+15V
- 8:collector
- 3:emitter
- * Photo transistor output is closed during normal operation. When the sensor malfunctions, terminals open.



High-precision Current Sensor

 $(0 \sim \pm 1000A)$

Characte

Adoption of the flux gate system makes it possible to conduct high-precision current measurements. Due to the low-temperature drift, it is ideal in environments of large temperature fluctuation.

Uses

High-precision AC/DC current measurement Medical equipment High-precision current breakers High-stabilizing DC power supply units Power controllers EV rapid charging devices

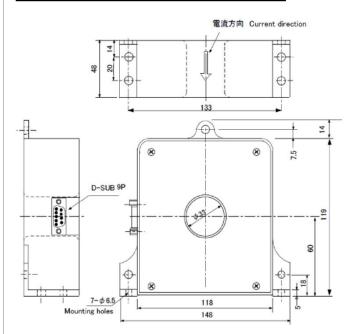
Main Electrical Characteristics Main Specifications

Ta=25℃

Parameter	Symbol	Unit	Conditions	Model CFC-1000
Primary nominal current	If	А	DC (Peak AC)	0∼±1000A
Rated output current	Iout	mA	If max	±500mA
Load resistance	RL	Ω	Recommen ded value	5Ω
			Minimum value	0.2Ω
			Maximum value	RL≦22000/(If)-14
Linearity limits	εL	%		<10ppm
Offset current	Iof	μА	*	≤±5μA
Supply voltage	Vcc	V		±15V ±5%
Current consumption	Ic	mA		≤±150mA + Iout
Ambient operating temp.	Та	°C		-15℃~+60℃
Ambient storage temp.	Ts	°C		-20℃~+85℃

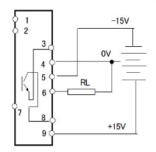
*Includes geomagnetism + residual magnetism + impact of electrical circuit offset

CFC-1000 Outline Drawing (Unit: mm)



D-SUB Pin Connections

(D-SUB can change to #4-40UNC on request.)



Terminal connection numbers

Do not connect anything to 1,2,7

- 3-8 : AL terminals contact capacity (24V 10mA)
- 4:0V
- 5:-15V
- 6:OUTPUT
- 9:+15V
- 8:collector
- 3:emitter
- * Photo transistor output is closed during normal operation. When the sensor malfunctions, terminals open.

