

Current Transducer IACT16C

For the electronic measurement of currents : AC current sensor, IACTXXC series has a good stability in high currents and has a highly insulated between primary and secondary circuit.



Features

- Closed loop (compensated) current transducer using the Hall effect
- Insulated plastic case recognized according to UL 94-V0
- Panel mounting

Applications

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

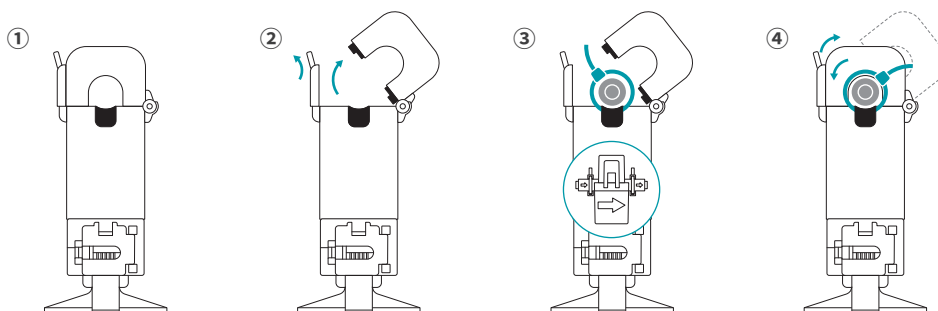
Advantages

- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.
- Excellent accuracy
- Very good linearity

Specification

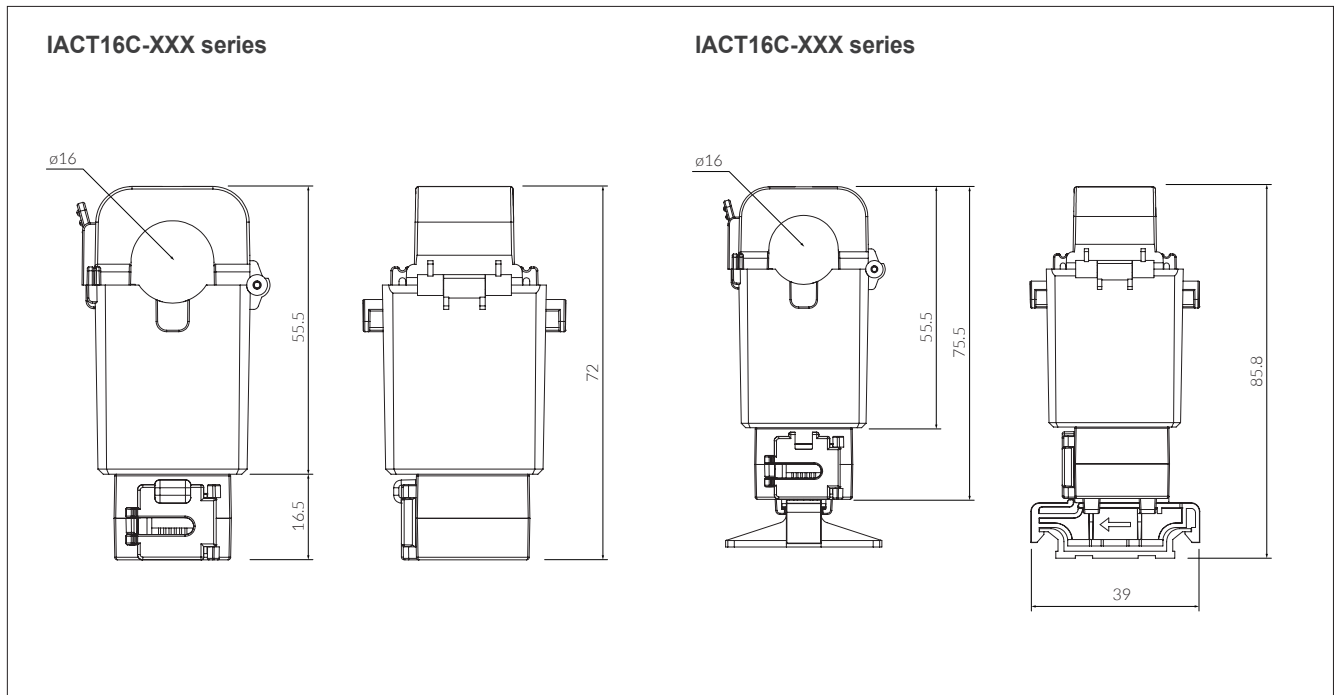
SPEC \ MODEL	IACT16C-050	IACT16C-100
Rating Current	50A	100A
Secondary Output	50mA / 100mA	
Offset Current	less than ± 0.5 mA max	
Output Linearity	$\pm 1.0\%$ rated current(F.S)	
Operating Temperature Range	-20°C to 55°C	
Power Supply	$\pm 15V$ ($\pm 5\%$) (35 mA when no load)	
di/dt Response Time	1 μ sec (Typ.) at di/dt=F.S/ μ sec	

How to use

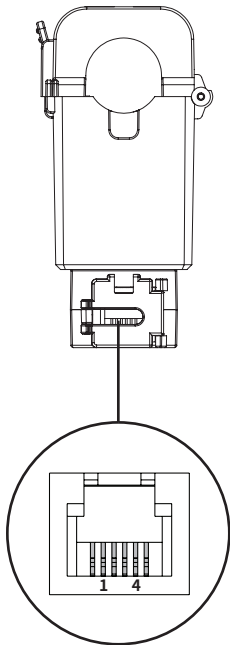


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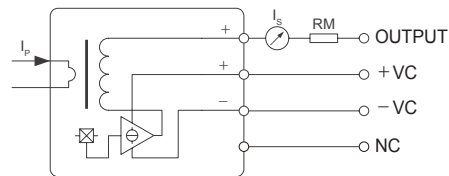
Dimensions IACT16C (in mm)



Connection Diagram



This product needs $\pm 15V$ (+15V and -15V DC bi-polar power supply) as operating power supply. Even if the case of current detection of only plus direction, it still $\pm 15V$ needs. In any case, it is not possible to operate with only +15V.

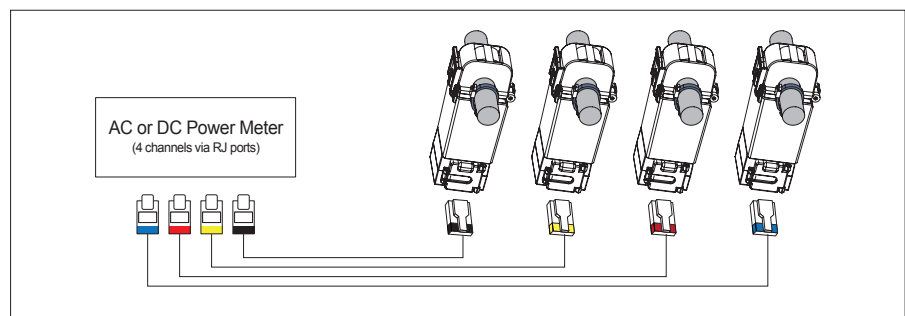


Unless otherwise specified, tolerances shall be $\pm 0.5mm$

Terminal Pin	Function
1	OUTPUT
2	+15 V
3	-15 V
4	NC

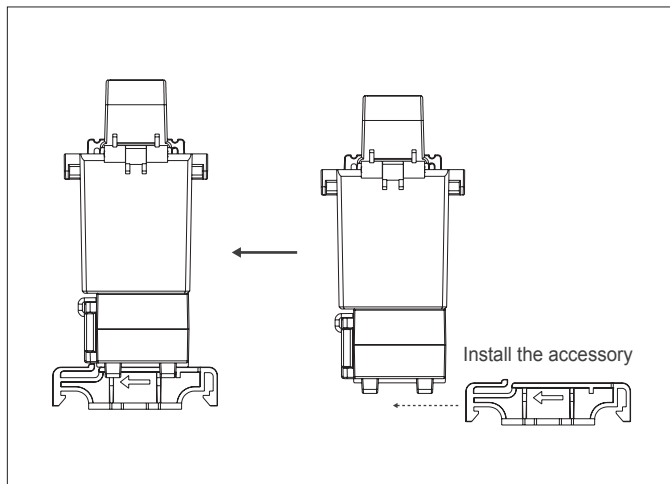
Connector

Manufacturer	Wisdom
Part Number	DS-1149-4

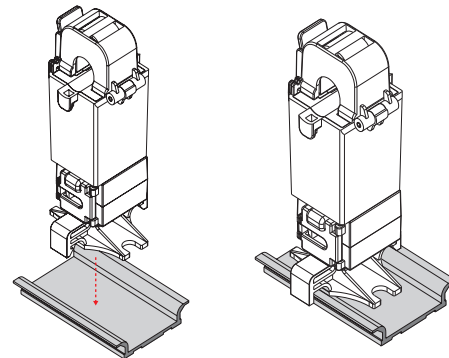


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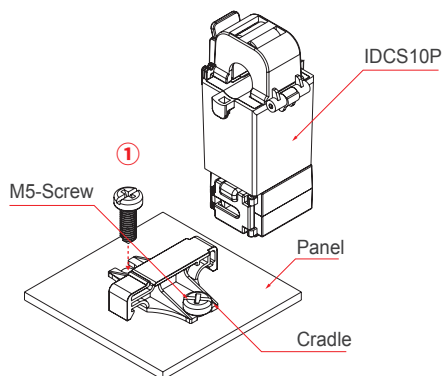
Mounting option



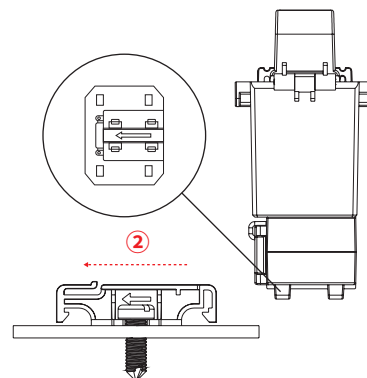
DIN rail mounting



Panel mounting

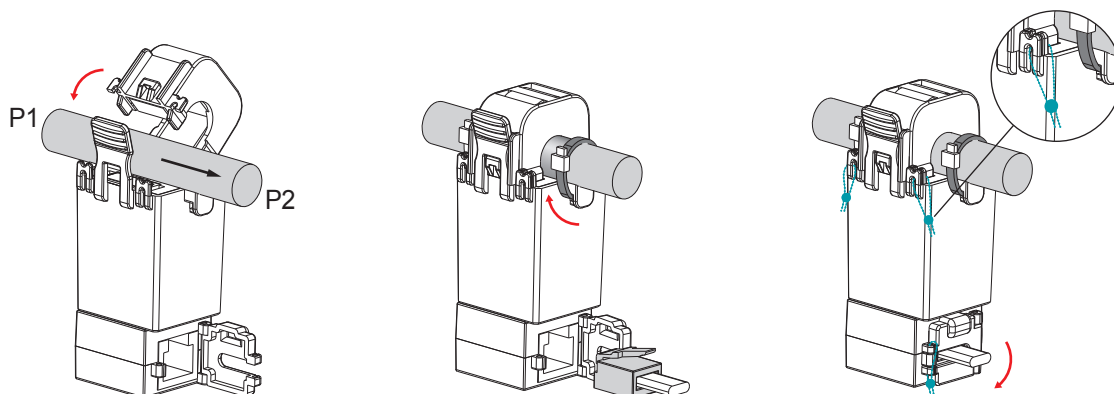


Place the cradle on the Panel and fix it via M5 screw.



Install the product on the cradle, while matching the arrow direction of cradle and indication in the bottom of the product.

Cable tie mounting



※ Sealing for metering standards
(All types are available)

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Safety

The J&D CTs are UL/EN 61010-1, CE, RoHS compliant and certified, are also conformed up to Pollution degree 2, 600Vac CAT III rated devices.



Please be sure that Failure to follow these instructions can result in serious injury and/or cause damage. The transducer shall be used in electric/electronic equipment in accordance with the operating instructions of all related systems and component manufacturers with respect to applicable standards and safety requirements.

Follow corresponding national regulations and safe electrical work practices.

This equipment must only be installed and serviced by qualified personnel. And the qualified personnel is one who has skills and knowledge related to the construction and operation of this electrical equipment and installations, and has received safety training to recognize and avoid the hazards involved.

In addition, the installation and maintenance shall be done with the main power supply disconnected except if there are no hazardous live parts in or in close proximity to the system and if the applicable national regulations are fully observed.



When operating the transducer, there may be dangerous active voltages (e.g. primary conductor) in certain parts of the module. Users should make sure to take all necessary steps to protect against electric shock. The transducer is a built-in device containing conductive parts that are inaccessible after installation.

Therefore, a protective enclosure or additional insulation barrier is necessary.

Safe and trouble-free operation of this converter can only be guaranteed if transport, storage and installation are carried out correctly and operation and maintenance are carried out carefully.

Remark

- I_o is positive when I_p flows in the direction of the arrow. (o : output, p : primary current)
- Temperature of the primary conductor should not exceed 75°C(167°F).
- Dynamic performances (di/dt and delay time) are the best with a single bar when the primary hole is completely filled.

Attention

Contact areas (air gap) must be kept clean (particle free) to ensure proper performance.