

INCCS-04K-SW

Split Core Current Switch

DESCRIPTION.

The INCCS-04K-SW Split Core Current Switch is a low cost, self-powered alternative for monitoring the operation of fans, pumps, and other equipment. The Split core allows easy installation without disconnecting cables. LED indicators provide a visual confirmation that current is flowing through the core.



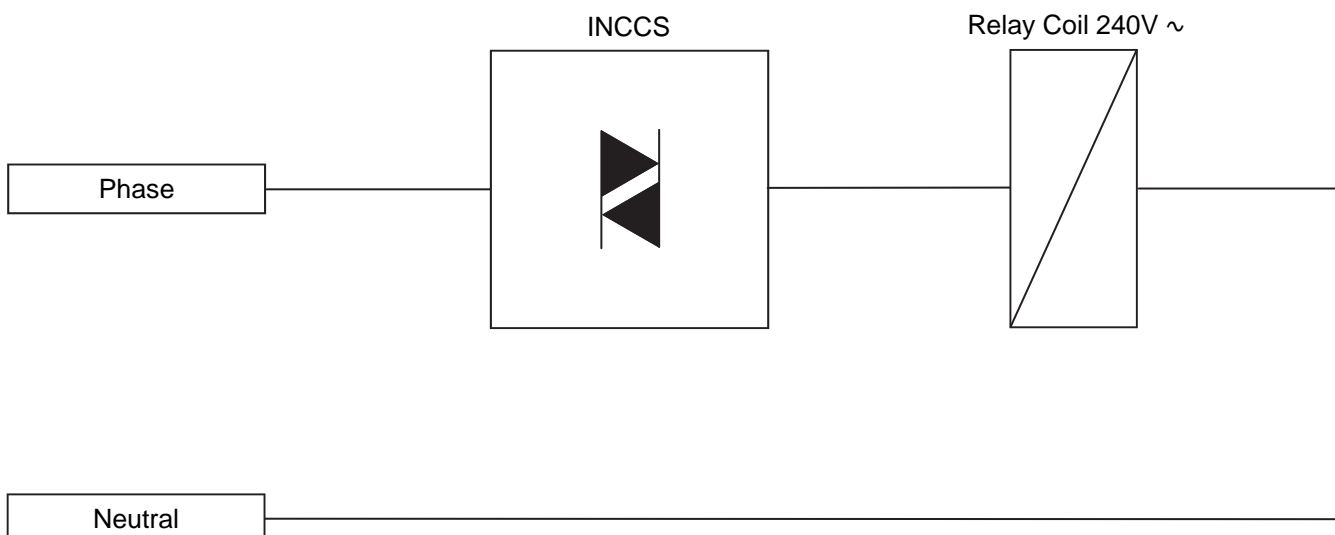
ORDERING INFORMATION.

Model: INCCS-04K-SW **Description:** Split Core Current Switch. **Adjustable Range:** 1.5~200A in 3x ranges, self powered.

SPECIFICATIONS.

Amperage Range	1.5 to 200Aac.
Maximum Switch Rating	1 A @ 240Vac. **NOTE, this unit can only switch mains AC, it cannot switch DC signals.**
Output	Triac output, normally open.
Power Requirements	Self powered from induced current.
Operating Temperature	-30~50°C, (-22~122°F).
Operating Humidity	0 to 95% (non-condensing).
Isolation Voltage	2000V.
Frequency	10~100 Hz.
Enclosure Rating	UL, 94 V-O flammability rated, ABS plastic housing.
Agency Approvals	CE, UL, RoHS.
Dimensions	Overall L=100, W=32.5, H=64mm.
	Cable Entry W=20.5, H=21.5mm.

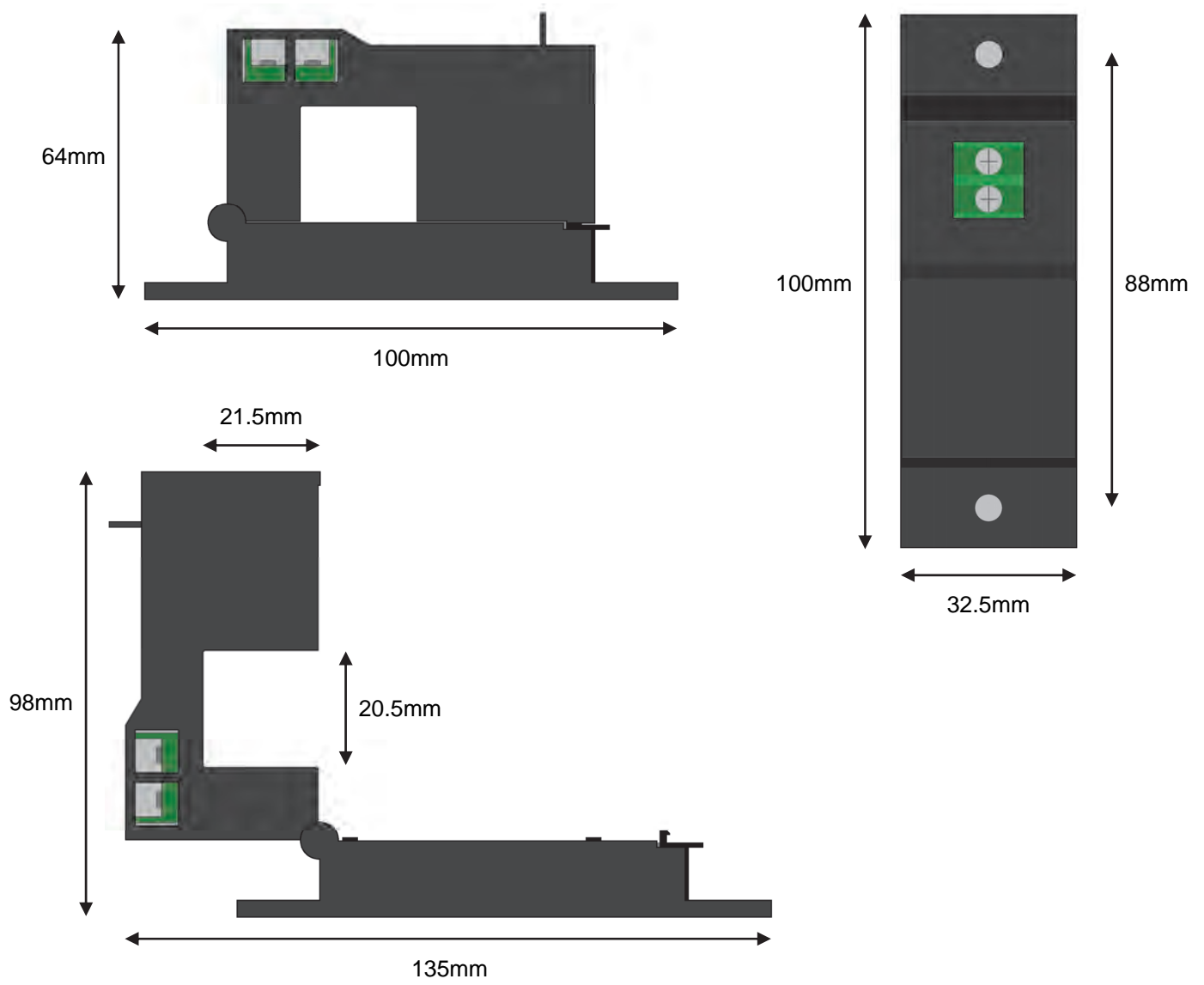
CONNECTION EXAMPLE.



Product Liability. This information describes our products. It does not constitute guaranteed properties and is not intended to affirm the suitability of a product for a particular application. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification. Regrettably, omissions and exceptions cannot be completely ruled out. No liability will be accepted for errors, omissions or amendments to this specification. Technical data are always specified by their average values and are based on Standard Calibration Units at 25C, unless otherwise specified. Each product is subject to the 'Conditions of Sale'.

Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.

INCCS Layout & Dimensions.



! DANGER! RISK OF SHOCK.

Disconnect power supply before making electrical connections. Contact with components carrying hazardous voltage can cause electrical shock and may result in severe personal injury or death.

OPERATION INSTRUCTIONS.

The INCCS-04K-SW is intended to provide an input to monitoring equipment under normal operating conditions. Where failure or malfunction of the current switch could lead to personal injury or property damage to the controlled equipment or other property, additional precautions must be designed into the control system. Incorporate and maintain other devices such as supervisory or alarm systems or safety or limit controls intended to warn of, or protect against, failure or malfunction of the INCCS-04K-SW.

INSTALLATION AND WIRING.

- Ensure that the power supply to the circuit is off.
- Press the tab toward the sensor to open.
- After placing the wire in the opening, press the hinged portion down firmly until a definite click is heard and the tab pops out fully.
- Sensor can be mounted using screw holes in any position or hung directly on wires with wire ties.
- Connect the switch circuit to the two screw terminals using ring or fork type terminals.
- Turn power supply to the circuit back on.

NOTE: Keep split core sensors clean. Be careful not to allow grit or dirt to build up on contacts. Operation can be impaired if the mating surfaces do not have a connection. Always check visually, before closing.

LED INDICATORS.

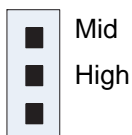
- **Green LED:** Indicates that current is passing through the core, but the set point has not been reached and the contacts are open.
- **Red LED:** Indicates that the set point has been reached and the contacts are now closed.

RANGE SELECTION.

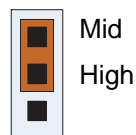
The INCCS-04K-SW has field selectable ranges:

- Determine the normal operating amperage of the monitored circuit.
- Select the range that is equal to or slightly higher than the normal operating amperage.
- Place the range jumper in the appropriate position according to selection:

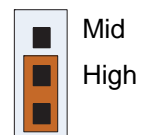
None:
1.5~50A



Mid:
50~100A



High:
100~200A



INCREASING MEASURED CURRENT.

If measured current is too low to be detected:

Wrap the conductor (wire) around the INCCS-04K-SW body multiple times to increase the measured current.

The number of wraps around can be determined by:

Measured current = Actual current x the number of times wrapped.

Note: Failure to de-rate the current capacity could result in damage to the INCCS-04K-SW when using multiple wraps to increase the measured current. The new maximum current can be determined by:

New maximum current = INCCS-04K-SW current rating / number of times wrapped.

SET POINT CALIBRATION.

The output switch is open. When the monitored current exceeds the trip value as set by the set point calibration, the switch will close. The **Red LED** light will indicate that this change has occurred.

INCCS-04K-SW are factory set at the minimum switch point (adjustment fully clockwise).

To increase the set point:

Use the potentiometer to adjust the range:

- Confirm that the monitored load is on.
- Turn the adjustment counter-clockwise, until the output turns off as indicated by the **Red LED**.
- Then turn the adjustment clockwise, until the **Red LED** comes back on indicating that the output is now on.

Note: The adjustment should be turned slightly clockwise past a certain point to ensure normal line current variations do not cause false conditions.

MAINTENANCE.

Upon final installation of the INCCS-04K-SW, no routine maintenance is required. A periodic check of system calibration is recommended. The INCCS-04K-SW is not field serviceable and should be returned if faulty (field repair should not be attempted and may void warranty).

TROUBLESHOOTING.

Problem	Solution
Output does not function.	<ul style="list-style-type: none">• Verify that the maximum amperage range has not been exceeded. Voltage or currents above the rated levels may damage the INCCS-04K-SW.
Set point potentiometer keeps turning.	<ul style="list-style-type: none">• Turn the potentiometer counter-clockwise, to return the unit to its original setting. Start the calibration procedure again.
Motor (or other equipment using current) is turned on and switch does not close.	<ul style="list-style-type: none">• Insufficient current to the load leads to reach the set point threshold. To turn the switch on, follow the instructions for if the current is too low to be detected.

Intech INSTRUMENTS LTD

www.intech.co.nz

Christchurch Ph: +64 3 343 0646

Auckland Ph: 09 827 1930

Email: sales@intech.co.nz

INCCS-04K-SW 221116