



POWER MONITORING & PROTECTION

CURRENT-OPERATED SWITCHES

CS1A, CS1150A-LED, SCS1.5A, SCS1150A-LED

DESCRIPTION

The **Kele Models CS1A, SCS1.5A, CS1150A** and **SCS1150A** are solid-state switches that operate when the AC current level sensed by the internal current transformer exceeds a fixed or adjustable trip point. Internal circuits are totally powered by induction from the conductor being monitored. There is zero off-state leakage current in the solid-state relay output that can switch AC or DC circuits. The Smart LED indication option eliminates the need for meters when setting the adjustable trip point of the current switch. Solid-core and split-core models are available.



SCS1150A-LED
SCS1.5A

CS1150A-LED
CS1A



FEATURES

- Models with fixed or adjustable trip point
- Switch AC or DC circuits
- Power and status LED
- Applicable for VFD applications down to 6Hz
- Powered by monitored line
- Available in solid-core models or split-core models that clamp easily around cables
- Five-year warranty
- UL listed, CE certified

SPECIFICATIONS

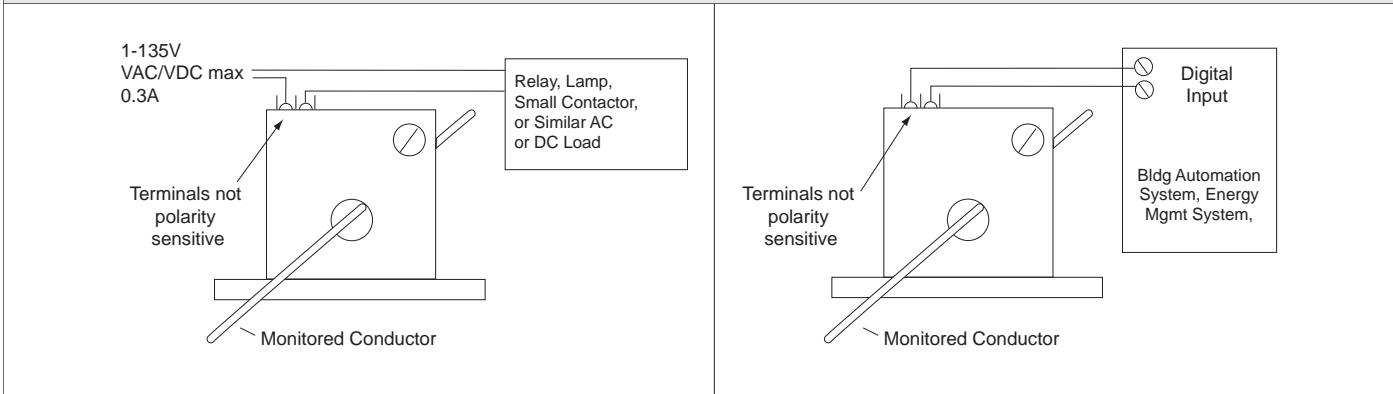
Frequency	6-100 Hz	Operating Temperature	-22° to 158°F (-30° to 70°C)
Switch Type	Normally open, solid state (SC250-NC is normally closed)	Mounting	3.5"L (8.9 cm) with 3.0" (7.6 cm) mounting centers
Rating	1-135 VAC/VDC, 0.3A (SC250-NC model 0.2A)	Dimensions	
Insulation Class	600V	CS1A, CS1150	1.9 x 3.45 x 1 (4.82 x 8.76 x 2.54 cm)
Trip Point		SCS1.5A, SCS1150A, SC250-NC	2.75 x 3.45 x 1.2 (6.98 x 8.76 x 3.04 cm)
CS1A	Fixed, 1A	Window Size	
SCS1.5A	Fixed, 1.25A	CS1A, CS1150	0.75" (1.9 cm) dia, for up to 250 MCM cable
CS1150A	Adjustable 1-200A	SCS1.5A, SCS1150A, SC250-NC	0.85" (2.2 cm) square aperture, for up to 350 MCM cable
SCS1150A, SC250-NC	Adjustable 1.25-200A	Weight	0.25 lb (0.11 kg)
Range		Approvals	UL listed, File #E320368 CE certified
CS1A, CS1150	1 - 200A, Jumper High	Warranty	1 year
SCS1.5A, SCS1150A, SC250-NC	1.25 - 200A, Jumper High		
Deadband	5% of setpoint		
Response Time	Less than 250 milliseconds		
Off State Leakage	< 25 mA		
Jumper			
None	= 0-100A		
Mid	= 0-150A		
High	= 0-200A		



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WIRING



INSTALLATION / ADJUSTMENT

Sensors can be mounted in any position or hung directly on wires. For larger mounting screws, drill out mounting holes. Use up to #14 AWG copper wire to terminals. Tighten to 7 in-lb torque.

Adjustment for CS1150A and SCS1150A

1. With the sensor wired as shown, use a voltmeter across the sensor contacts. A full voltage across the contact confirms the switch is open. Turn on the motor or other load being monitored.
2. The sensor is shipped with the multiturn adjustment set to the most sensitive position. If the sensor now operates, turn the adjustment counter-clockwise (CCW) until the operation reverses. The meter will indicate this action.
3. Now, turn the adjustment clockwise (CW) until the sensor just operates its controlled circuit. It is desirable to turn the adjustment slightly beyond this threshold point to provide a margin for normal current variations.

Status LED Indicator

1. **Light:** Sufficient current is **flowing** to opposite device.
2. **No light:** Current is either **OFF** or **below the bottom of the range**.

Application Notes

1. Make sure that switched current (connected to terminals) is limited to 0.3A continuous. Switched voltage should be no higher than 135 VAC/VDC.
2. **Important!** Monitoring excessive current can damage the sensor. Make sure monitored currents do not exceed maximum ratings.
3. For proper operation of the split-core model, make certain that the mating surfaces of the magnetic core are clean.

Troubleshooting

Problem

1. **Sensor does not switch at all, regardless of current level.**
2. **Adjustment has no stops; keeps turning.**

Probable Causes and Corrections

Adjustment pot is probably backed off completely, which disables the sensor. See Installation/Adjustment immediately above for instructions. Verify that mating surfaces of the split core are free of foreign particles. The multiturn adjustment pot has a slip-clutch that prevents damage at either end of its rotation.

ORDERING INFORMATION

MODEL	DESCRIPTION
CS1A	Solid-core current switch, fixed 1.0A trip, normally open
SCS1.5A	Split-core current switch, fixed 1.25A trip, normally open
CS1150A-LED	Solid-core current switch, adjustable, normally open with LED
SCS1150A-LED	Split-core current switch, adjustable, normally open with LED
SC250-NC	Split-core current switch, adjustable, normally closed with LED