BEAVER ELECTRICAL MACHINERY LTD.
7440 LOWLAND DRIVE, BURNABY, BC, CANADA

COMPACT CURRENT SENSORS

SWITCHED OUTPUT

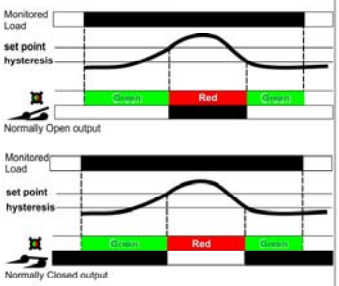
Application:
The current switch monitors all types of loads such as fans, pumps, heating elements and cables, motors, lamps, and relays.

Features:
- *Auto-ranging*
- *Status LED's*
- *Self-powered*
- *Field adjustable*
- *Built-in mounting feet*
- *Input / Output isolation*
- *True digital switching*
- *UL, cUL, CE*


Solid Core

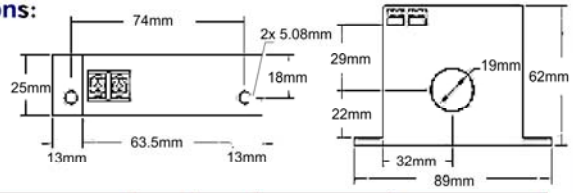
Specifications:
Power Supply: . . . . . None – self-powered
Setpoint: . . . . . fixed at 0.5A for ZSF model,
. . . . . adjustable from 1-200 Amps for ZSA models,
. . . . . adjustable from 1.5-200 Amps for ZJA models
Hysteresis: . . . . . < 2% FS max
Frequency range: . . . . 10 - 400Hz
Off-state leakage: . . . . <1mA
Operating Temp.: . . . . -30 to 50°C (-22 to 122°F)
Response Time: . . . . . < 200 mS
Housing: . . . . . UL 94V-0
Insulation Class: 600V
Wiring Connections: . . Rising clamp screw terminals (14 to 22 AWG)

Operation:
Normally Open output - when the monitored current exceeds the trip value, the switch will make and the red LED will illuminate.
Normally Closed output - when the monitored current exceeds the trip value, the switch will break and the red LED will illuminate.



The green power LED, if fitted, will illuminate whenever there is sufficient current flowing in the conductor to operate the device circuitry, typically a minimum of 1 Amp for solid-core units and 1.5 Amp for split-core devices. Extinguishes when the output is energized.

Dimensions:
Solid core



Model	Core type		Input range	Trip Point*	Output		LED Indicator (s)	
	Solid	Split			NO	NC	Red	Green
ZJA-NO3		✓	0-200 AAC	A	✶		✓	✓
ZJA-NC3		✓		A		✶	✓	✓
ZJA-NO1		✓		A	♦		✓	✓
ZJA-NC1		✓		A		♦	✓	✓
ZSA-NO3	✓			A	✶		✓	✓
ZSA-NC3	✓			A		✶	✓	✓
ZSA-NO1	✓			A	♦		✓	✓
ZSA-NC1	✓			A		♦	✓	✓
ZSF-NO3	✓			F	✶		✓	

*F = fixed A = adjustable ✶ 0.3A@135vac/dc ♦ 1A @ 240vac

ANALOG OUTPUT

Application:
Current transducers provide an analog output relative to the current sensed on the input.

Features:
- *Three ranges per unit.*
- *No field adjustment necessary*
- *Solid-state circuitry*
- *Input / Output isolation*
- *Reverse polarity protected*
- *UL, cUL, CE*

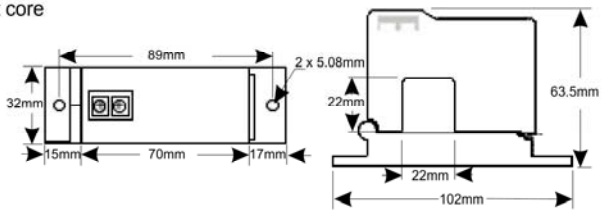
Specifications:

Split Core

Loop power: . . . . . 12 to 40 Vdc for mAdc output
Operating Temp.: . . . -30 to 70°C (-22 to 158°F)
Input Current Ranges (field selectable):
. . . . . 0-10/0-20/0-50 Amps
. . . . . 0-50/0-100/0-200 Amps
Operating Humidity: . 0 to 95% RH, non-condensing
Maximum Continuous Input Current:
. . . . . 10/20/50 Amp ranges – 80/120/200 respectively
. . . . . 50/100/200 Amp ranges – 175/300/400 respectively
Wiring Connections: Rising clamp screw terminals (14 to 22 AWG)
Frequency range: . . 10 - 400Hz
Response Time: . . . . 250 mS (0-90% step change)
Housing: . . . . . UL 94V-0
Output Signal & Accuracy:
. . . . . 4 to 20 mA represents 0 to 100% of current span.
. . . . . Better than ±1% FS for all three ranges.
Loading: 1mΩ

Operation:
Average measurement is equivalent to True RMS for pure sine waves.
No loop power is required for the 0-5 or 0-10V analog output versions. Loop power for those having a 4-20mA output can be from 12 to 40vdc.
Use the JHZ models True RMS measurement for choppy sine waves like those produced by variable frequency drives.

Dimensions:
Split core



Model	AC Input Range		DC Output			Core Type	
	10/20/50	100/150/200	0-5v	0-10v	4-20mA	Solid	Split
Z50J5	✓		✓				✓
Z50S5	✓		✓			✓	
Z50J10	✓			✓			✓
Z50S10	✓			✓		✓	
Z50J20	✓				✓		✓
Z50S20	✓				✓	✓	
Z50JHZ20	✓				✓		✓
Z200J5		✓	✓				✓
Z200S5		✓	✓			✓	
Z200J10		✓		✓			✓
Z200S10		✓		✓		✓	
Z200J20		✓			✓		✓
Z200S20		✓			✓	✓	
Z200JHZ20		✓			✓		✓

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