DKS 100 C -
Current Operated Switches

I_{PN} = 4 .. 100 A

Combine a current transformer, signal conditioner and limit alarm into a single package. The DKS series has an extended current input range, universal solid-state outputs and a wide frequency response.



Electrical data

I_P	Primary current (with manual jumper)	4 - 20, 10 - 50, 20 - 100	A

	Output State	Output
DKS 100 C SDT	Relay SPDT	5A @ 240V AC [1] or 5A @ 30V DC
DKS 100 C NOU	Normally Open	0.15 A @ 240 V AC/DC

I_{OC}	Overload capability @	Continuous	5sec	
	For 4-20 A	40	200	A
	For 10-50 A	100	500	A
	For 15-100 A	200	1000	A

f	Frequency range	DC to 400 Hz	
V_C	Supply voltage	20-28	V AC/DC
V_b	Rated voltage (CAT III, PD2)	150	V AC
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	3	kV
I_c	Current consumption	< 0.5	A

Accuracy - Dynamic performance data

ε_H	Hysteresis (of setpoint)	± 5	%
t_r	Response time @ 110 % of $I_{P\ adj}$	100	ms
t_r	Response time @ 200 % of $I_{P\ adj}$	20	ms
	Off State Leakage	< 10	µA

General data

T_A	Ambient operating temperature	- 20 + 50	°C
T_S	Ambient storage temperature	- 50 + 70	°C
m	Mass	140	g
	Protection type	IP20	
	Safety	IEC 61010-1	
	EMC	EN 61326	

Notes : $I_{p\ adj}$: Setpoint current adjusted by the user
[1] 3A Inductive @ 240 V AC.

Features

- Compact, One-piece Design
  Fits in crowded motor starters, power supplies and control panels.
- Input Isolation
  Much safer than shunt/relay combinations.
- Output Installation
  Isolated output greatly simplifies wiring.
- Tough
  Designed to handle harsh industrial environments.
- Adaptive Hysteresis
  - Hysteresis is 5% of setpoint.
  - Allows closer control than fixed hysteresis.
- Reliable Solid state design.

Applications

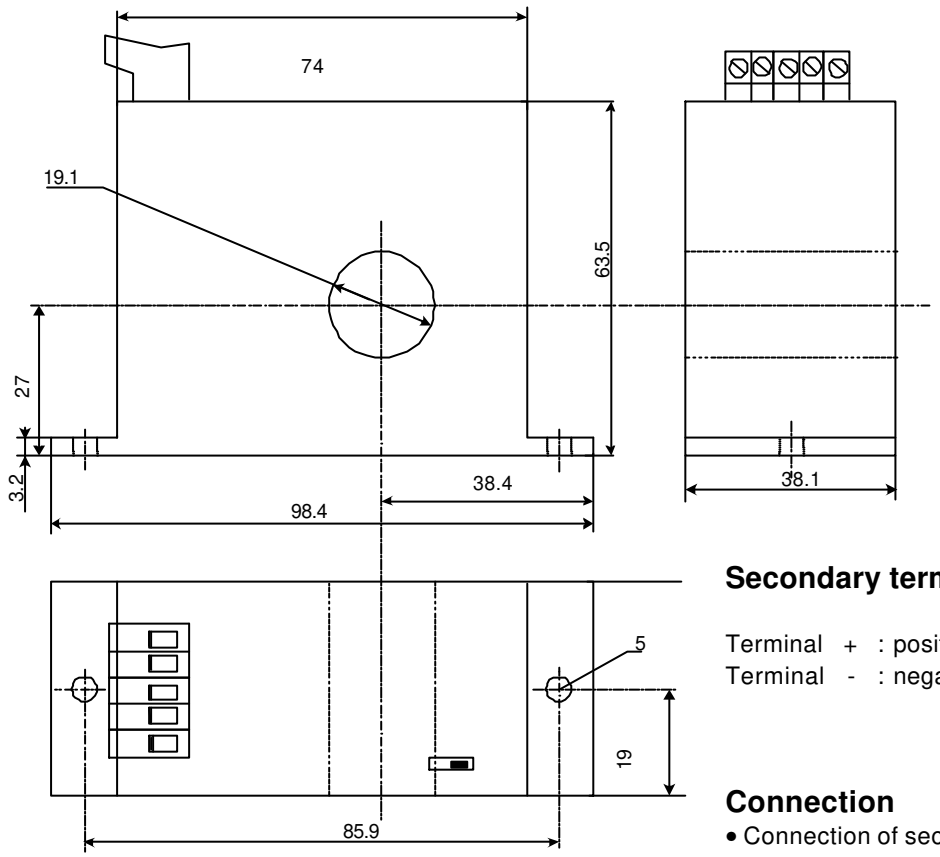
- Electric Heating Elements
  Instant indication of heater status.
- Power Supplies
  Signals over-current before equipment fails.
- Machine Operation
  Instant status of motors, lamps and other loads.
- Telecom Sites
  Monitors battery output

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Dimensions DKS 100 C - (in mm. 1 mm = 0.0394 inch)

Front view

Left view



Top view

Secondary terminals

Terminal + : positive load
Terminal - : negative load

Connection

- Connection of secondary — 2 x UNC8 Cylindric Heads

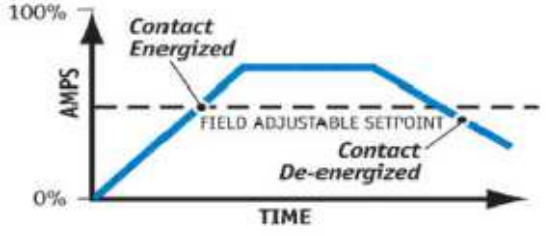
Mechanical characteristics

- General tolerance — ± 1 mm
- Fastening — 2 holes ∅ 4.5mm
- Primary through-hole — ∅ 19 mm

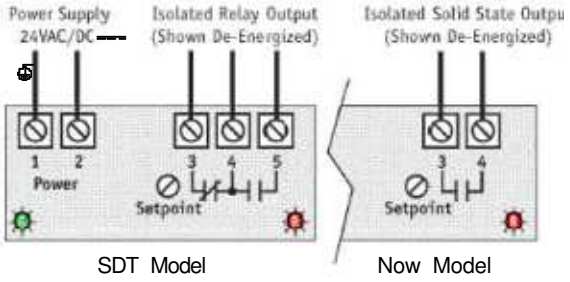
Remarks

- Temperature of the primary conductor should not exceed 60°C.
- Dynamic performances (di/dt and response time) are best with a single bar completely filling the primary hole.

Threshold Levels



Connections



SDT Model — Now Model

LEM reserves the right to carry out modifications on its transducers, in order to improve them, without previous notice.