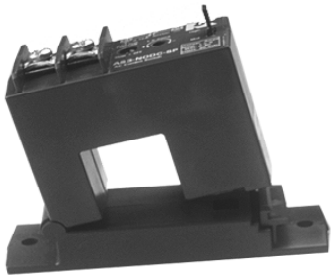
AKS 180 B -
Current Operated Switches

I_{PN} = 1.5 .. 200 A

A split core design combines a current transformer, signal conditioner and two threshold alarms into a single package. The AKS 180 Series has a jumper selected current input ranges, solid-state AC output and a wide frequency range.



Electrical data

		Low	Mid	High	
I_P	Primary current (manually selectable jumper)	1.5-6	6-40	40-200	A
I_{OC}	Overload capacity @				
	Continous	150	150	210	A
	6 sec	400	500	800	A
	1 sec	600	800	1200	A
e_H	Hysteresis (of setpoint)	0.15	0.3	0.9	A
	ON Delay	230	50	30	mS
	OFF Delay	20	20	10	mS

	Output State	Output (solid state)
AKS 180 B NCAC	Normally closed	1 A @ 240 V AC
AKS 180 B NOAC	Normally Open	1 A @ 240 V AC
AKS 180 B NCDC	Normally closed	0.15 A @ 30 V DC
AKS 180 B NODC	Normally Open	0.15 A @ 30 V DC

Off State leakage			
	- NO AC	< 10	µA
	- NO DC	< 10	µA
	- NC AC	2.5	mA
	- NC DC	1.4	mA
V_C	Supply voltage	Self Powered	
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

Accuracy - Dynamic performance data

t_r	Response time @ 90 % of I_{PN}	120	m s
f	Frequency range	50-60	Hz

General data

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

Features

- Choice of Outputs
  - Solid state switch N.C. or N.O.
  - 1A @ 240 V AC.
  - 0.15A @ 30 V DC.
- Self-powered
  Cuts installation and operating costs.
- Adjustable Setpoint
  Speeds startup.
- Split Core Case
- Selectable jumper
- Built-in Mounting Bracket
  Provides the solid installation inspectors want.

Applications

- Electronic Proof of Flow
  - No need for pipe or duct penetrations.
  - More reliable than electro-mechanical pressure or flow switches.
- Conveyors
  - Detects jams and overloads.
  - Interlocks multiple conveyor sections.
- Lighting Circuits
  Easier to install and more accurate than photocells.
- Electric Heaters
  Faster response than temperature sensors.

Option

- DIN mounting.

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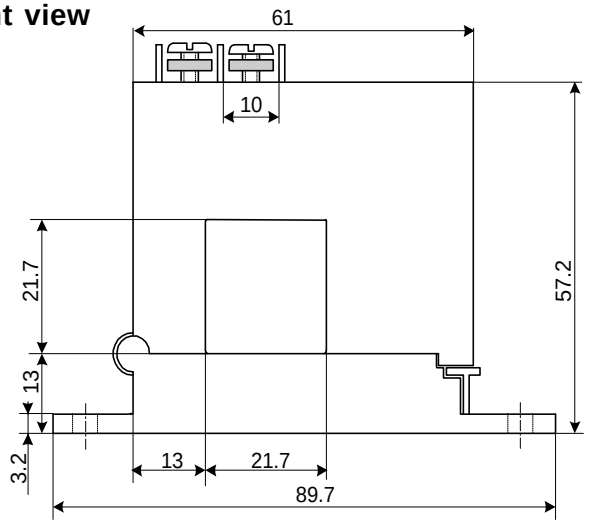
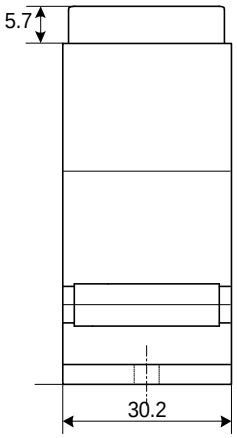
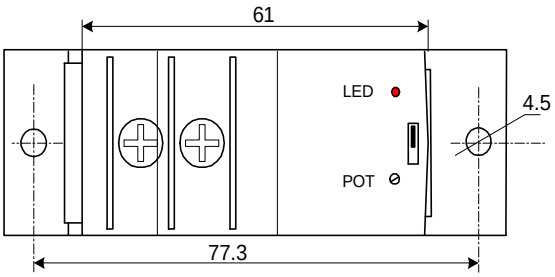
Dimensions AKS 180 B - (in mm. 1 mm = 0.0394 inch)

Front view



Left view





Secondary terminals

Terminal + : positive load
Terminal - : negative load

Connection

- Connection of secondary — 2 x UNC8 Cylindric Heads

Top view

Mechanical characteristics

- General tolerance — ± 1 mm
- Fastening — 2 holes ∅ 4.5mm
- Primary through-hole — 21.5 mm sq.

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: