

AKS 180 B -Current Operated Switches

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.



lectrical da	ata				
		Low	Mid	High	
, Primary current (manually selectable jumper)		1.5-6	6-40	40-200) A
Overload capacity @					
	Continous	150	150	210	Α
	6 sec	400	500	800	A
	1 sec	600	800	1200	A
e _H Hysteresis (of setpoint)		0.15	0.3	0.9	Α
ON Delay		230	50	30	mS
OFF Delay		20	20	10	mS
	Output State	Outpu	t (solid s	tate)	
AKS180 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	
tate leakage					
- NO AC			< 10		μA
- NO DC			< 10		μA
- NC AC			2.5		mA
- NC DC			1.4		mA
		Self Powered			
•			150	,	VAC
R_{d} R.m.s. voltage for AC isolation test, 50 Hz, 1 mn			3		kV
ccuracy - D	Dynamic performance data	l			
Response time @ 90 % of $I_{_{PN}}$			120		ms
Frequency range			50-60		Hz
eneral dat	a				
Ambient operating temperature			- 20 +	50	°C
Ambient storage temperature			- 50 + 70 °C		
Mass			140 g		
Safety			IEC 61010-1		
EMC			EN 613	26	
	Primary cur Overload ca Hysteresis of ON Delay OFF Delay 180 B NCAC 180 B NCAC NO AC - NC AC - NC AC Supply volta Rated voltag R.m.s. voltag CCUITACY - [] Response ti Frequency i Ambient op Ambient sto Mass	Overload capacity @ Continous 6 sec 1 sec Hysteresis (of setpoint) ON Delay OFF Delay Output State 180 B NCAC Normally closed 180 B NOAC Normally Open 180 B NOAC Normally Open 180 B NOAC Normally Open 180 B NOAC Normally Open tate leakage - NO AC - NO AC - NO DC - NC AC - NC DC Supply voltage Rated voltage (CAT III, PD2) R.m.s. voltage for AC isolation test, 50 Hz, 1 mn Ccuracy - Dynamic performance data Response time @ 90 % of I _{PN} Frequency range teneral data Ambient operating temperature Ambient storage temperature Mass Safety	Primary current (manually selectable jumper) Low Overload capacity @ Continous Continous 150 6 sec 400 1 sec 600 Hysteresis (of setpoint) 0.15 ON Delay 20 Output State Output 180 B NCAC Normally closed 1 A @ 180 B NCAC Normally closed 0.15 A 180 B NCAC Normally closed 0.15 A 180 B NCAC Normally closed 0.15 A 180 B NCDC Normally closed 0.15 A 180 B NODC Normally Open 0.15 A 180 B NODC Normally Closed 0.15 A 180 B NODC Normally Open 0.15 A 180 B NODC Normally Closed 0.15 A 180 B NODC Normally Closed 0.15 A 180 B NODC Normally Closed 0.15 A	Primary current (manually selectable jumper) Overload capacity @ Continous 6 sec 1 secLow Mid 1.5-6Mid 6-40With the sec Hysteresis (of setpoint)150150150ON Delay OFF Delay0.150.323050Output State 180 B NOAC Normally closedOutput (solid s1A @ 240 V AC180 B NOAC Normally Closed0.15 A @ 30 V180 B NOAC0.15 A @ 30 V180 B NOAC Normally Closed0.15 A @ 30 V180 B NOAC0.15 A @ 30 V180 B NOAC NORAC NORMALLY OPEN0.15 A @ 30 V14 @ 240 V AC180 B NOAC NORAC NORMALLY OPEN0.15 A @ 30 V160 B NOACNO AC NO AC< 10	Primary current (manually selectable jumper) Overload capacity @ Continous 6 sec 1 secLow Mid 1.5-6Mid 6-40High 40-200Overload capacity @ Continous 6 sec 1 sec150150210Hysteresis (of setpoint) ON Delay OFF Delay0.150.30.9Output State 180 B NCACOutput State Normally closedOutput (solid state) 1 A @ 240 V AC180 B NCAC Normally Closed1 A @ 240 V AC180 B NCAC Normally Closed0.15 A @ 30 V DC180 B NCDC Normally Open0.15 A @ 30 V DC180 B NODC Normally Open0.15 A @ 30 V DC180 B NODC NORC<10

I_{PN} = 1.5 .. 200 A



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.

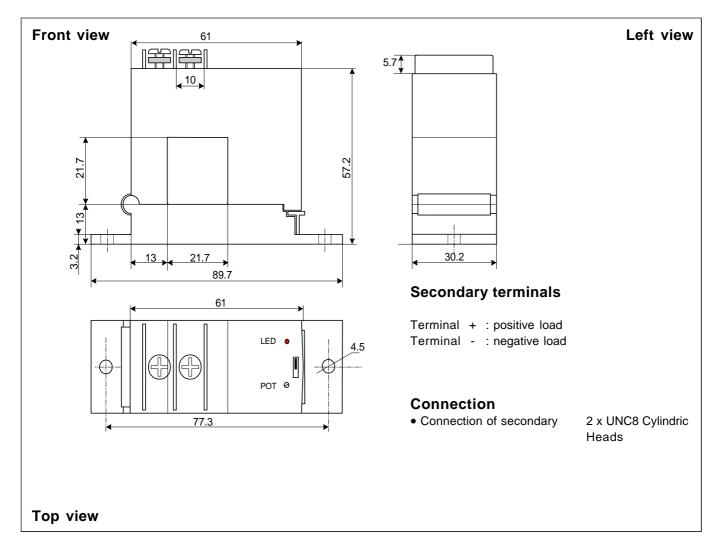
Applications

- 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.

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



Mechanical characteristics

- General tolerance
- Fastening
- Primary through-hole

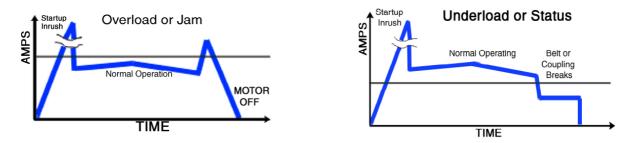
\pm 1 mm 2 holes Ø 4.5mm

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.





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