

PRODUCT UPDATE MEMO MINIATURE THERMAL CUTOFF DEVICES



Bourns® AEC-Q200 Compliant Model SD and AD Series Mini-breakers

Automotive Grade and AEC-Q200 Compliant

Riverside, California – *July 27, 2023* – The AEC-Q200 compliant Model \underline{SD} and \underline{AD} Series Mini-breakers are now standard Automotive Grade components. The Model SD and AD Series feature high current and low resistance (less than 4 m Ω) overtemperature protection. A list of affected part numbers is included on the following page.

These devices are available in either a surface mount (Model SD Series) or axial leaded / weldable (Model AD Series) package. Both series also offer the option for the Thermal Cutoff (TCO) device to be either non-automatically resettable (self-hold function) or automatically resettable (non-self-hold function).

The Model SD and AD Series feature the industry's widest range of mini-breaker trip temperatures, from 55 °C to 150 °C, and provide a trip temperature tolerance of ± 5 °C. Both series are RoHS compliant* and are designed using the highest-rated corrosion resistant bimetal mechanism for better endurance in humid environments compared to standard TCO devices.

Their advanced overtemperature protection technologies make the Model SD and AD Series ideal solutions for a broad variety of applications such as automotive heaters (seats, steering wheel, doors, panels, camera, sensors, etc.), actuator motors, charging cables, connectors, and printed circuit board components.

Features

- Resettable overtemperature and overcurrent protection
- Can be used as an overtemperature sensor
- Trip temperature range of 55 °C to 150 °C
- High trip temperature accuracy of just $\pm 5\,^{\circ}\text{C}$
- Highly repeatable up to 10,000 cycles
- Surface mount (Model SD Series) or axial leaded/ weldable (Model AD Series)
- Option for either non-automatically resettable (self-hold function) or automatically resettable (non-self-hold function)
- Very low resistance values of just 4 m Ω max.
- Tested to AEC-Q200 equivalent test standards
- RoHS compliant* and halogen free**
- **AUTOMOTIVE**GRADE

Automotive Applications

- Electric vehicle charging plugs
- · Automotive (ICE & EV) heaters such as:
 - Seat heaters
 - Steering wheel heaters
 - Panel/armrest heaters
 - Mirror heaters
 - Heads-Up Display (HUD) heaters
 - Sensor heaters (e.g., Lidar, cameras, etc.)

KLM2311



	Affected Part Numbers	
AD55ABB	AD85WBB	SDC5ABB
AD60ABB	AD90WBB	SDDOABB
AD65ABB	AD95WBB	SDD5ABB
AD70ABB	ADAOWBB	SDEOABB
AD72ABB	ADA5WBB	SDE5ABB
AD75ABB	ADBOWBB	SDFOABB
AD77ABB	ADB5WBB	SD55WBB
AD82ABB	ADCOWBB	SD60WBB
AD85ABB	ADC5WBB	SD65WBB
AD90ABB	ADDOWBB	SD70WBB
AD95ABB	ADD5WBB	SD72WBB
ADAOABB	ADEOWBB	SD75WBB
ADA5ABB	ADE5WBB	SD77WBB
ADBOABB	ADFOWBB	SD82WBB
ADB5ABB	SD55ABB	SD85WBB
ADCOABB	SD60ABB	SD90WBB
ADC5ABB	SD65ABB	SD95WBB
ADDOABB	SD70ABB	SDAOWBB
ADD5ABB	SD72ABB	SDA5WBB
ADEOABB	SD75ABB	SDBOWBB
ADE5ABB	SD77ABB	SDB5WBB
ADF0ABB	SD82ABB	SDCOWBB
AD55WBB	SD85ABB	SDC5WBB
AD60WBB	SD90ABB	SDDOWBB
AD65WBB	SD95ABB	SDD5WBB
AD70WBB	SDAOABB	SDEOWBB
AD72WBB	SDA5ABB	SDE5WBB
AD75WBB	SDBOABB	SDF0WBB
AD77WBB	SDB5ABB	
AD82WBB	SDCOABB	