

# SAFE LINK with PCM Passive Cooling System

## 1 Application

Designed for installation of small devices (transmitters or electronic modules) with heat dissipation of 10 W or less to maintain the temperature of the electronics 10 K below the peak ambient temperature.

## 2 Advantages

- No energy or power supply required
- Cost effective
- Maintenance free
- IP65 up to IP68 , no fan or louvers to reduce the IP rating
- Very rugged design
- Solid state, no moving parts

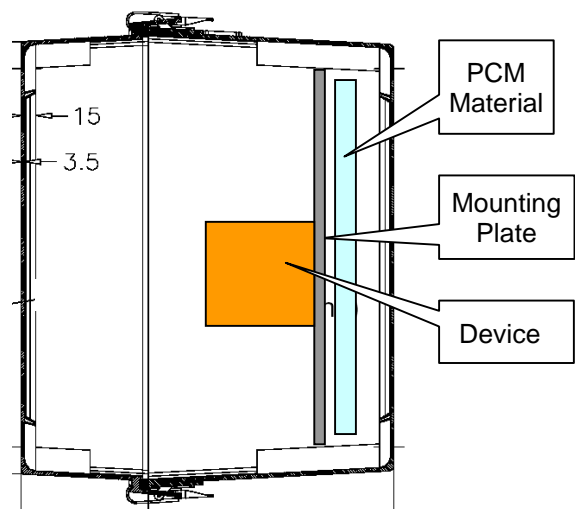
## 3 Components

All components are designed for optimal performance:

- 'Arctic PP' enclosures with excellent insulation properties and no heat sinks
- PCM ( phase change material ), a material that 'melts' and 'freezes' at 93 F/ 34°C and stores the resulting energy at this level
- Optimal installation: no heat sinks to ambient conditions, good heat transfer between instrument and PCM due to heat conduction.
- Sun shade, not only on top of the enclosure, but along sides, if necessary



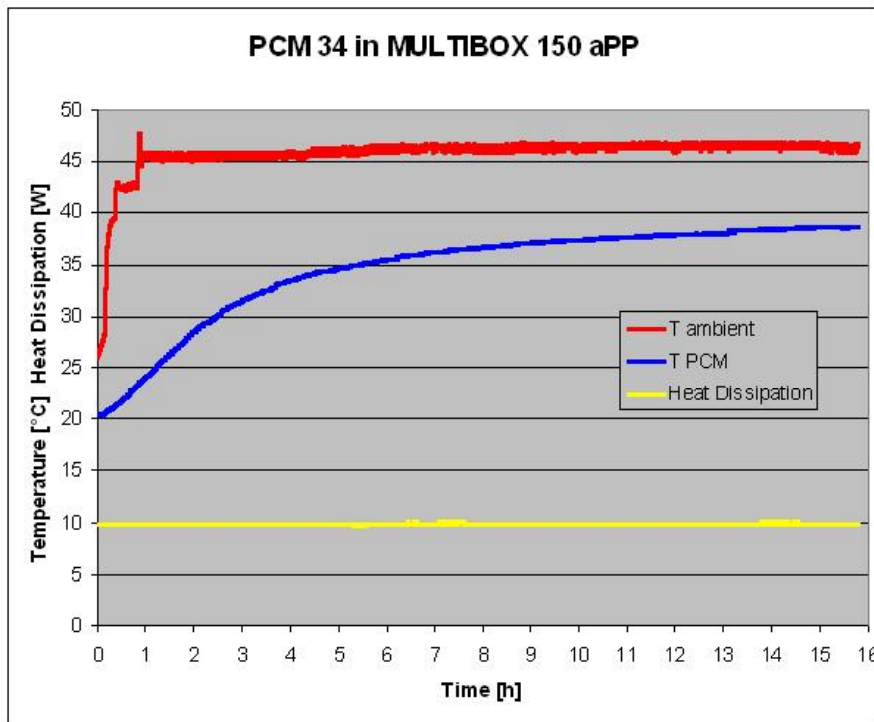
## 4 Drawing (example)



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## 5 Temperature Testing

### 5.1 Test Results: Test with 10 W heat dissipation



### 5.2 Computer Simulation, based on test results

**INTERTEC SAFE LINK with PCM passive Cooling System , 10W heat dissipation**

