



## BT 320

### Comprehensive reefer management.

Two-way temperature control and alerts, accurate asset tracking, live and historical status updates for refrigerated trucks and trailers.

The BT 320 delivers an extensive temperature, reefer fuel and maintenance management solution for refrigerated vehicles with two-way reefer controls, temperature compliance data, accurate location tracking, EBS connectivity and real-time alerts. Integrated with FleetManager, the BT 320 allows customers to continuously monitor and maintain the integrity of temperature-sensitive cargo out on the road.

#### Compatible with any Reefer Unit

Interfaces directly with any reefer unit from Carrier, Thermo King and other industry-leading controllers and dataloggers.

#### Two-way Controls

Initiate trailer pre-cooling and defrost, change the reefer state and adjust the temperature of reefers on the road—all from the back office—with two-way controls.

#### Alerts and Notifications

Real-time monitoring provides instant alerts and notifications for hardware malfunctions, temperature variations from set points, rapid fuel loss, arrivals/ departures from geofences, and when assets have a prolonged dwell time in a specific location.

**Two-way temperature monitoring and control**

**Intelligent alerts and notifications**

**Reefer fuel and maintenance management**

**Connectivity to EBS braking systems**

**Integrates with third-party**

**TMS systems**

**Built to operate in harsh environments**

**Faster, more reliable data**

## EBS Brake Systems Data

Improve yard management and asset utilization with trailer weight data showing if trailers are empty or full. Fault codes and "actual distance covered" data improves maintenance management.

## Fast, Reliable Data

Take advantage of the higher performance and reliability of 4G LTE networks.

## Advanced Sensors

Add door switches, additional temperature sensors and fuel level sensors through multiple inputs and outputs.

## Built Tough

The BT 320 is extremely ruggedized and has been tested under extreme conditions to ensure its ability to withstand even the harshest of working environments. It can operate within temperature ranges of  $-40^{\circ}\text{F}$  to  $+185^{\circ}\text{F}$ .

# Specifications

## Direct interface to all refrigeration transportation units

- Carrier Transicold Vector, APX, standard, advance
- Carrier Transicold Multi-Temp (standard, vector)
- Carrier Solaris
- Thermo King SR3, SR2,  $\mu$ PIV,  $\mu$ PV,  $\mu$ PVI
- Thermo King  $\mu$ PT straight truck/multi-temp
- Thermo King Multi-Temp (Spectrum  $\mu$ PIV, SR2)
- Thermo King TGV, TGVI (Standalone)
- Mitsubishi TU Series

## Event response time

- < 1 second typical

## Sensors/optional sensors

- GPS, fuel, door open/closed, tethered
- Remote or independent temperature probes,
- movement/stationary, virtual mileage, engine hours
- Door lock/unlock, shock/tri-axial impacts
- EBS braking modules

## Monitoring and control functions

- Monitors all microprocessor alarms (critical, non-critical)
- Change set point
- Remote on/off (if equipped)
- On/off event reporting
- Change mode of operation
- Change controlling sensors
- Clear alarms
- Run pre-trip
- Preventative maintenance settings
- Intellisets
- Temperature profile graph
- Independent temperature alerts

## Mechanical

- 89 mm x 25 mm x 127 mm
- 9.9 oz

## Electrical

- Input voltage: 9 VDC to 36 VDC
- Power: < 2W average
- Load dump protected
- 3000 mA internal battery
- Power management

## Certification

- FCC: CFR 47 and 15
- CE: EN 301 721, EN301 489-20, EN300 832
- PTCRB
- RoHS

## Environmental

- Operating:  $-40^{\circ}\text{F}$  to  $+185^{\circ}\text{F}$
- IP69K Rated

## External Interfaces

- Bluetooth 5
- Digital I/O: 1 x I/P, 2 x I/O
- Serial I/O: 2 x RS232
- GNSS: GPS, Galileo, Glonass, SBAS, QZSS, 72-ch
- CAN: 2 x ISO 11898-2/5
- 1 x J1708
- 1 x ADC

## Motion

- Accelerometer 3 axis  $\pm 8g$
- Gyroscope 3 axis  $\pm 2000^{\circ}/\text{s}$

## Communications

- Cellular (NA)
  - ▶ LTE Bands 2, 4, 5, 12
  - ▶ 3G HSPA Bands 2, 5
- Cellular (EU)
  - ▶ LTE Bands 3, 7, 20
  - ▶ 2G Edge Bands E-GSM, DCS
- Cellular (AUS / NZ)
  - ▶ LTE Bands 3, 8, 28
  - ▶ 3G HSPA Band 1

## Integration partners

- Innovative Computing Corp
- TMW System (Suites, ICC)
- McLeod Software
- Add On Systems
- SSI
- Prophesy
- TMS Connect - kasasi
- Schmitz Cargobull

*Although we strive to ensure accuracy in all of our published specifications, actual field performance can vary depending on a variety of environmental, installation and usage factors, as well as third-party factors such as cellular providers. The specifications listed are approximations, and do not constitute binding statements or modify the terms and conditions of purchase or lease including, but not limited to, product operational limitations and warranties. All specifications are subject to change without notice. Please check [www.viachain.io](http://www.viachain.io) to ensure you have the latest version of these specifications.*

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