

# Thermocouple Interface (RLVBTC8-V2)



The Thermocouple Interface (RLVBTC8-V2) allows up to 8 K-type thermocouple channels to be logged by the Racelogic VBOX with 100 samples per second.

The RLVBTC8-V2 is linked via CAN bus to the VBOX and can be used in conjunction with other units such as the ADC03 Analogue Interface or the CAN02 Vehicle CAN Bus Interface. The unit can also be set into stand-alone timed mode.



The range of the Thermocouple Interface is -269 to +1375 °C. The unit uses a 24 bit ADC.

The Thermocouple Interface works from any power supply from 6V up to 30V.

## Features

- 8 K-type thermocouple inputs
- 100Hz logging
- Accurate to 0.5°C between -100°C and 1000°C
- Individual channel status LEDs
- Each channel has an individual CJC sensor
- Direct K-type thermocouple connection
- Supports standard and extended CAN frames
- CAN data rate up to 1Mbit/s
- Configuration via USB
- Timer controlled transmission or polled response

## Physical Properties



Description	Values
Dimensions	85 (w) x 125 (L) x 32.6 (H) mm
Weight	352 grams
Power Supply	6-30 VDC <2W
Operating Temperature	-20°C to +70°C

# Thermocouple Interface

(RLVBTC8-V2)



## Specification

Description	Values	
<b>Input Channels</b>	8	 <p>VBTC8-V2 front</p>  <p>VBTC8-V2 back</p>
<b>Input Signals</b> Thermocouple Type K	-269.5°C to 1372°C	
<b>Sample Rate</b>	100Hz	
<b>Resolution</b>	24 bit	
<b>System Accuracy</b>	-200 to -100°C = ±0.8°C -100 to 1000°C = ±0.5°C 1000 to 1300°C = ±0.7°C	
<b>Cold Junction Compensation Accuracy</b>	± 0.2°C	
<b>Isolation Voltage</b>	500V DC isolated to chassis 500V DC isolated channel to channel	
<b>Over Voltage Protection</b>	36 VDC	
<b>Common Mode Voltage</b>	< 1.024V	
<b>CMR (50/60) Hz</b>	> 120dB	
<b>CAN</b> Type Baud Rates	CAN 2.0A or CAN 2.0B compatible 125Kbit/s, 250Kbit/s, 500Kbit/s, 1Mbit/s	

## Package Contents

Product Code	Description
VBTC8-V2	8 Channel Thermocouple Assembly
RLCAB005	Lemo 5W Plug – Lemo 5W Plug – 2m cable
RLACS165	Lemo 5W Plug with 120Ω CAN termination resistor