

Thermocouple Interface

(RLVBTC8 / RLVBTC8-24)



The Thermocouple Interface (RLVBTC8) allows up to 8 K-type thermocouple channels to be logged by the Racelogic VBOX.

The RLVBTC8 is linked via CAN bus to the VBOX and can be used in conjunction with other units such as the ADC02 analogue interface or the CAN01 vehicle CAN bus interface.



Features

- 8 K-type thermocouple inputs
- Supports standard & extended CAN frames
- CAN data rate up to 1 Mbit
- Configuration via CAN or RS232
- Timer controlled transmission or polled response

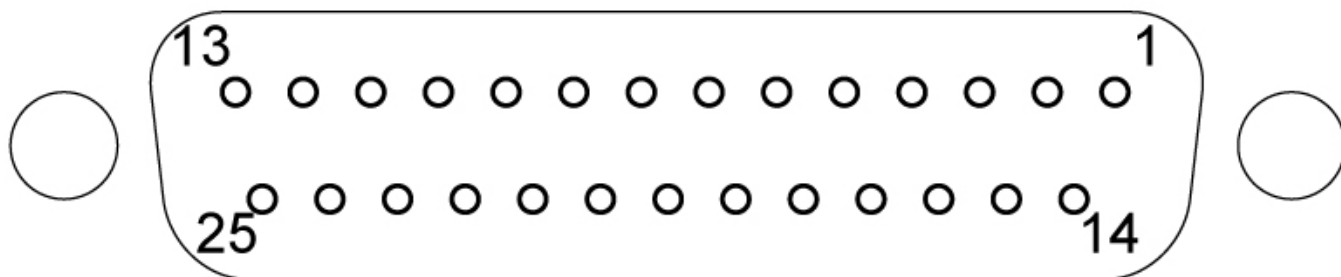
Specification	
Input Channels	8 Different input channels
Input Signals Thermocouple Type K	-270°C to 1372°C
Sample Rate	6 Hz continual update
Resolution	24 bit
Accuracy Thermocouple	CJC within 25 way D sub connector typically better than $\pm 0.3^{\circ}\text{C}$
Isolation Voltage	1000 V DC to processor
Over Voltage Protection	± 35 V DC
Common Mode Voltage	< 2 V
CMR (50/60)Hz	> 92 dB
Power Supply Voltage	+12 V DC ($\pm 10\%$) and +24 V DC ($\pm 10\%$) option available
CAN Type Baud Rates	CAN 2.0 A or CAN 2.0 B compatible 250 Kbit/s, 500 Kbit/s, 1 Mbit/s

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Signal Connections



25 Way Socket Connections

Pin	Function	Pin	Function
1	Channel 0 (+)	14	Channel 6 (-)
2	Channel 0 (-)	15	Channel 7 (+)
3	Channel 1 (+)	16	Channel 7 (-)
4	Channel 1 (-)	17	No Connect
5	Channel 2 (+)	18	No Connect
6	Channel 2 (-)	19	No Connect
7	Channel 3 (+)	20	+12 V Sensor supply
8	Channel 3 (-)	21	No Connect
9	Channel 4 (+)	22	GND
10	Channel 4 (-)	23	CJC
11	Channel 5 (+)	24	CJC
12	Channel 5 (-)	25	CJC
13	Channel 6 (+)		

Package Contents 12 V option

Description	Product Code
8 Channel Thermocouple Assembly	VBTC8
25 POL. Sub-D Connector	DE-PAD-OPT1
Lemo 5W Plug – Lemo 5W Plus – 30cm cable	RLCAB006

Package Contents 24 V option

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8 Channel Thermocouple Assembly 24 V	VBTC8-24
25 POL. Sub-D Connector	DE-PAD-OPT1
Lemo 5W Plug – Lemo 5W Plus – 30cm cable	RLCAB006