

THERMO12 - Thermocouple Expansion Module



THERMO12 - 12 channel K type thermocouple module for temperature measurements

- 12 channels for separate thermocouple inputs
- Serial data connection for data output and configuration
- Configurable CAN data output
- 4 status LEDs for Power, Status, CAN and Serial communication
- Stacking case, connects neatly with other Race Technology system components
- Integration with Race Technology components, aligned connectors, single power supply connector
- Reverse polarity protection with resettable fuses for all inputs



THERMO12 Configuration - v1.2.12

File Options

Input	Smoother filter time (seconds)	Map channel to	Serial output rate (Hz)	CAN output rate (Hz)	CAN address (Hex)	CAN RTR	Enabled / Disabled
01	0	Temperature 1 (Temperature 1)	20Hz	Disabled	0x610329	Disabled	<input checked="" type="checkbox"/>
02	0	Inlet pre turbo 1 (Temperature 2)	20Hz	Disabled	0x610329	Disabled	<input checked="" type="checkbox"/>
03	0	Inlet pre turbo 2 (Temperature 3)	20Hz	Disabled	0x610329	Disabled	<input checked="" type="checkbox"/>
04	0	Inlet post turbo 1 (Temperature 4)	20Hz	Disabled	0x610429	Disabled	<input checked="" type="checkbox"/>
05	0	Inlet post turbo 2 (Temperature 5)	20Hz	Disabled	0x610529	Disabled	<input checked="" type="checkbox"/>
06	0	Inlet post intercooler 1 (Temperature 6)	20Hz	Disabled	0x610629	Disabled	<input checked="" type="checkbox"/>
07	0	Inlet post intercooler 2 (Temperature 7)	20Hz	Disabled	0x610729	Disabled	<input checked="" type="checkbox"/>
08	0	Water temp (Temperature 8)	20Hz	Disabled	0x610829	Disabled	<input checked="" type="checkbox"/>
09	0	Oil temp (Temperature 9)	20Hz	Disabled	0x610929	Disabled	<input checked="" type="checkbox"/>
10	0	Gearbox temp (Temperature 10)	20Hz	Disabled	0x610A29	Disabled	<input checked="" type="checkbox"/>
11	0	Gearbox pool cooler (Temperature 11)	20Hz	Disabled	0x610B29	Disabled	<input checked="" type="checkbox"/>
12	0	Type 1 temp (Temperature 12)	20Hz	Disabled	0x610C29	Disabled	<input checked="" type="checkbox"/>

CAN settings: CAN baud rate: 1 Mbit/s Change CAN ID length: 23 bit Change Use default RT CAN addresses Generate DBC file

Communications: Serial Port 1 115200 Serial Configuration Read Configuration

Pass through RT format serial messages

Supplied with complete software suite, including unit configuration software, live data monitoring and comprehensive data analysis program.

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General	
Supply voltage	+5.5V to 24V
Power consumption	1W
Case construction	Die-cast aluminium
Dimensions	164 x 63 x 34mm
Mass	300g
IP rating	IP50
Operating temperature range	-40 to 70 °C
Mounting method	Cases stack to other RT products / Velcro / tie wraps
Outputs	RS232, CAN
CAN output	
Maximum baud rate	1 Mbit/s
Data rate	Configurable up to 20Hz per channel
Identifiers	Configurable addresses, 11 or 29 bit
RS232 (serial) connection	
Baud rate	Adjustable 4800-921600 baud
Data rate	Configurable up to 20Hz per channel
RS232 data format	RT format temperature channels
Thermocouple Inputs	
Sample rate	Variable up to 20Hz per channel
Type	K-type (grounded tip or floating)
Internal resolution	2mK
Resolution	24 bits
Typical accuracy at 25 °C ambient	0.5 degrees C
Hardware filter	RC digital low-pass
Maximum input range	-200 to +1350 degrees C

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