

ANALOG16 - Analogue Input Expansion Module



ANALOG16 - 16 channel differential analogue input module

- 16 channels for high accuracy differential measurement of analogue signals
- Serial data connection for data output and configuration
- Configurable CAN data output
- .DBC file generation with settable units and notes
- 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



ANALOG16 Configuration - v1.2.12

| Input | Smoothing filter time (seconds) | Calculus | Input equation [V] | Map channel to | Serial output rate (Hz) | CAN output rate (Hz) | CAN address (Hex) | CAN RTR | Enabled / Disabled |
|-------|---------------------------------|----------|--------------------|-------------------------------|-------------------------|----------------------|-------------------|----------|-------------------------------------|
| 01 | 0 | Disabled | x | analog 1 (analogue input 1) | 20Hz | Disabled | 0x0000 | Disabled | <input checked="" type="checkbox"/> |
| 02 | 0 | Disabled | x | analog 2 (analogue input 2) | 20Hz | Disabled | 0x0010 | Disabled | <input checked="" type="checkbox"/> |
| 03 | 0 | Disabled | x | analog 3 (analogue input 3) | 20Hz | Disabled | 0x0020 | Disabled | <input checked="" type="checkbox"/> |
| 04 | 0 | Disabled | x | analog 4 (analogue input 4) | 20Hz | Disabled | 0x0030 | Disabled | <input checked="" type="checkbox"/> |
| 05 | 0 | Disabled | x | analog 5 (analogue input 5) | 20Hz | Disabled | 0x0040 | Disabled | <input checked="" type="checkbox"/> |
| 06 | 0 | Disabled | x | analog 6 (analogue input 6) | 20Hz | Disabled | 0x0050 | Disabled | <input checked="" type="checkbox"/> |
| 07 | 0 | Disabled | x | analog 7 (analogue input 7) | 20Hz | Disabled | 0x0060 | Disabled | <input checked="" type="checkbox"/> |
| 08 | 0 | Disabled | x | analog 8 (analogue input 8) | 20Hz | Disabled | 0x0070 | Disabled | <input checked="" type="checkbox"/> |
| 09 | 0 | Disabled | x | analog 9 (analogue input 9) | 20Hz | Disabled | 0x0080 | Disabled | <input checked="" type="checkbox"/> |
| 10 | 0 | Disabled | x | analog 10 (analogue input 10) | 20Hz | Disabled | 0x0090 | Disabled | <input checked="" type="checkbox"/> |
| 11 | 0 | Disabled | x | analog 11 (analogue input 11) | 20Hz | Disabled | 0x00A0 | Disabled | <input checked="" type="checkbox"/> |
| 12 | 0 | Disabled | x | analog 12 (analogue input 12) | 20Hz | Disabled | 0x00B0 | Disabled | <input checked="" type="checkbox"/> |
| 13 | 0 | Disabled | x | analog 13 (analogue input 13) | 20Hz | Disabled | 0x00C0 | Disabled | <input checked="" type="checkbox"/> |
| 14 | 0 | Disabled | x | analog 14 (analogue input 14) | 20Hz | Disabled | 0x00D0 | Disabled | <input checked="" type="checkbox"/> |
| 15 | 0 | Disabled | x | analog 15 (analogue input 15) | 20Hz | Disabled | 0x00E0 | Disabled | <input checked="" type="checkbox"/> |
| 16 | 0 | Disabled | x | analog 16 (analogue input 16) | 20Hz | Disabled | 0x00F0 | Disabled | <input checked="" type="checkbox"/> |

CAN settings: CAN baud rate: 11520 Change CAN ID length: 11 Change Use default RT CAN addresses Generate DBC file Pass through RT format send messages

Communications: Serial Port 1: 115200 Send Configuration Read Configuration

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 | 295g |
| 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 100Hz per channel |
| Identifiers | Configurable addresses, 11 or 29 bit |
| RS232 (serial) connection | |
| Baud rate | Adjustable 4800-921600 baud |
| Data rate | Configurable up to 100Hz per channel |
| RS232 data format | RT format: analogue/temperature/pressure/aux/misc channels |
| Inputs - Analogue Inputs | |
| Input impedance | 180k between + and - inputs |
| Sample rate | Variable up to 100Hz per channel |
| Internal resolution | 3.28μV |
| Resolution | 24 bits |
| Typical accuracy at 25 °C ambient | 0.025% full scale |
| Hardware filter | RC digital low-pass |
| Maximum input range | -27 to +27V |

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