

Modular Sensor Interface MSI 55

The MSI 55 is a high quality signal conditioning and data acquisition unit for analog and digital sensors.

The MSI 55 offers 16 configurable analog inputs. Each analog input channel features a 4th order analog prefilter, 10x oversampling and highly linear digital filtering. The cut-of frequency of the digital filters is automatically adjusted to match the acquisition rate. The latency of the digital filters is corrected during recoding, yielding zero filter delay in the recorded data. The evaluation of each MSI measurement channel is individually configurable. Data is sent via FireWire interface to the C 55 data logger.



| Mechanical Data | |
|---|------------------------------------|
| Size | 120 x 117 x 38 mm |
| Weight | 600 g |
| Aluminium housing | |
| Filtered connectors of motorsports design with high pin density | |
| Vibration damped printed circuit boards | |
| Operating temperature | -20 ... 65 °C |
| Max. vibration | 15 g sinus at 1,200 Hz for t < 5 h |

| Electrical Data | |
|---|--------------|
| Max. power consumption | 20 W at 14 V |
| 16 bit digital signal processor, 150 MIPS | |
| Required power supply | 8 ... 18 V |
| 4 differential analog inputs with switchable amplifier and switchable pullup resistor | |
| 12 single ended analog inputs with switchable pullup resistor | |
| All analog inputs offer analog and digital anti-aliasing filter and 12 bit ADC resolution | |
| 4 frequency inputs 0 ... 25.5 kHz for inductive sensor / Hall-effect sensor | |
| 2 digital I/O | |
| 2 PWM outputs 100 mA | |
| 5 V sensor power supply | |
| 3 ... 10 V configurable sensor power supply | |
| 12 V sensor power supply | |
| Freely configurable 1 Mbit CAN Bus | |

| Part Number | |
|-------------|-------------------------|
| MSI 55 | F 01T A20 024-01 |