

M=BUS InDummy Logger for Ratiometric Transducers

Miniaturized shockproof data logger for signal conditioning, processing and data storage that can be integrated in any common crash dummy or pedestrian safety impactor.

- Smallest and lightest
- Data loggers for 3 or 6 analog channels
- One-wire bus system
- Lowest heat dissipation
- Automatically activated built-in backup system
- Compliant to SAE J211 / ISO 6487



TECHNICAL SPECIFICATIONS

Supported channels	3 or 6
Power consumption (unloaded)	0.65 W
Supported instrumentation	Ratiometric sensor
Sensor excitation voltage	3.3 VDC
Signal accuracy	0.1 %
Max. output current per channel	All sensors max. 66 mA
Sensor input voltage	$\pm 825 \mu\text{V} \dots \pm 38 \text{ mV}$
Trigger	M=BUS system trigger via gateway Autotrigger at cable disconnect
Conformity	SAE J211 / ISO 6487
Analog bandwidth (-3 dB)	2.4 kHz, Bessel 6-pole
Resolution	16 bit
Sampling rate	20 kHz
Max. recording time	17 s per channel (349.520 samples per channel)
Internal shunt	Yes (100 k Ω)
Offset adjustment	Full range sensor input voltage, 8 bit
Sensor-ID	1-Wire [®] compatible (Dallas)
Battery capacity	50 mAh, 3.7 VDC (Lithium-Polymer) Yearly maintenance mandatory
Data storage	SRAM 4 MB
Battery data storage time	2 weeks (battery buffered)
Dimensions (L x W x H)	40 mm x 25 mm x 14 mm
Weight	16 g
M=BUS connectors	MMCX female
Sensor connectors	Adapter-PCB

Operating temperature	0...50°C
Shockproof	200 G @ 10 ms 1000 G @ 1 ms
Humidity range	10...70 % RH

- Scope of supply**
 - M=BUS InDummy Logger for Ratiometric Transducers
 - Adapter-PCB
 - Calibration certificate
- Required equipment**
 - M=BUS Ethernet Gateway or M=BUS USB Gateway
 - M=BUS InDummy Active Terminator (per Line)
 - M=BUS system cable
- Optional equipment**
 - M=BUS Toolset

ADAPTER-PCB

Pad name	Description	Default cable color
Ub +	Positive excitation voltage (3.3 V)	White
Ub -	Negative excitation voltage (ground)	Brown
Sig +	Positive sensor input for channel x	Green
Sig -	Negative sensor input for channel x	Yellow
IDx	1-Wire® (Dallas)	Orange

Table 1: Adapter-PCB with cable

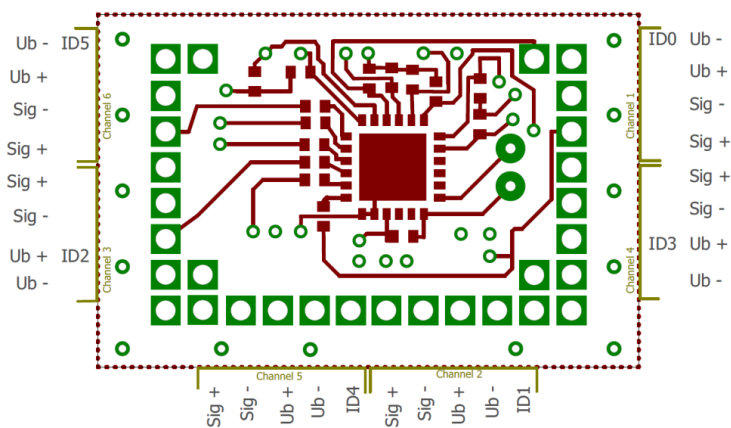


Figure 1: Layout of the Adapter-PCB