

M=BUS Pro Digital Logger

Shockproof data logger for signal conditioning, processing and data storage of digital events such as triggers or contact switches.

- | Data logger for 16 digital channels
- | Space saving and lightweight
- | Automatically activated built-in backup system
- | Max. 1 MHz sampling rate @ 1 bit
- | Max. 100 kHz sampling rate @ 12 bit



TECHNICAL SPECIFICATIONS

Supported channels	16 (2 inputs per LEMO connector)
Power consumption (unloaded)	2.7 W
Supported instrumentation	Digital sensors / voltage sensors
Sensor excitation voltage	Socket 1 = 12 VDC / Socket 2 - 8 = 5 VDC
Output voltage accuracy (unloaded)	1 %
Max. output current per channel	Socket 1 = 120 mA / Socket 2 - 8 = 25 mA
Sensor input voltage	Input A: 0 ...5 V (over voltage protection up to ± 48 V) Input B: 0...15 V (over voltage protection up to ± 100 V)
Trigger	M=BUS system trigger via gateway Autotrigger at cable disconnect
Conformity	SAE J211 / ISO 6487
Analog bandwidth (-3 dB)	> 700 kHz
Resolution	12 bit
Sampling rate	20 kHz @ 12 bit / 100 kHz @ 12 bit / 1 MHz @ 1 bit
Max. recording time per channel	2.1 h @ 20 kHz (155,975,680 samples per channel) 15 min @ autotrigger
Sensor-ID per socket	1-Wire® compatible (Dallas)
Battery capacity	1,000 mAh, 3.7 VDC (Li-Polymer) Yearly maintenance mandatory
Data storage	4 GB flash
Data storage time	Non-volatile
Dimensions (L x W x H)	80 mm x 34 mm x 48 mm
Weight	238 g
M=BUS connectors	MMCX female
Operating temperature	0...50 °C
Shockproof	200 G @ 10 ms / 1,000 G @ 1 ms
Humidity range	10...70 % RH

- Scope of supply** | M=BUS Pro Digital Logger
 | M=BUS cable (45 mm)
 | Calibration certificate
- Required equipment** | M=BUS Ethernet Gateway or
 M=BUS USB Gateway
 | M=BUS Pro Active Terminator (per Line)
- Options** | M=BUS Pro Mounting Plate
 | M=BUS Pro Mounting Rail

PIN ASSIGNMENT



Pin	Description	Pin	Description
1	Positive excitation (+12 VDC / 120 mA)	5	ID-module
2	Negative excitation (GND)	6	Not connected
3	Input Dig. IN A (+5 V)	7	Not connected
4	Input Dig. IN B (+15 V)		
Socket housing connected to ground.			

Figure 1: (MESSRING product code 4ADA621) Pin assignment, connector 1 (socket view, device)
 Use this plug: LEMO FGA.1B.307...



Pin	Description	Pin	Description
1	Positive excitation (+5 VDC / 25 mA)	5	ID-module
2	Negative excitation (GND)	6	Not connected
3	Input Dig. IN A (+5 V)	7	Not connected
4	Input Dig. IN B (+15 V)		
Socket housing connected to ground.			

Figure 2: (MESSRING product code 4ADA621) Pin assignment, connector 2-8 (socket view, device)
 Use this plug: LEMO FGG.1B.307...

MOUNTING

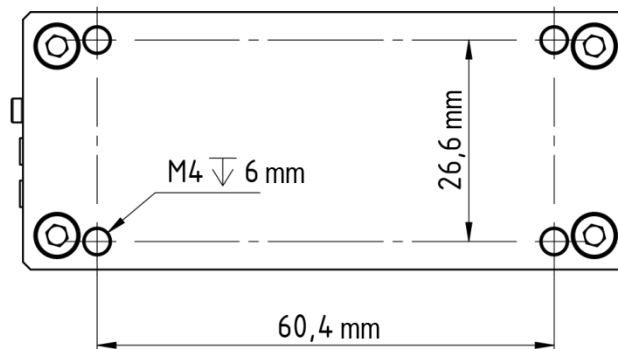


Figure 3: Hole pattern for mounting