

DATA SHEET

MIC6 (Code 3618)
 6-Channel Microphone Input
 Module, with 22 Hz HP Filter



Overview

MIC6 is a 6-channel microphone module. The Lemo 7 pin interfaces can be used for connecting ICP® microphones or condenser microphones. Furthermore, MIC6 has an HP filter.

The module can either be used stand-alone (PC connection via USB) via power supply or can be combined into a complex channel system by using a link module.

Features

- 6-channels (Lemo) for ICP® / condenser microphones
- HP filter (22 Hz)
- Connection of TEDS sensors
- 24-bit A/D converter
- Anti-aliasing filter
- Two channels can be used as RPM input

Scope of Supply

- MIC6 (Code 3618)
6-channel microphone input module, with 22 Hz HP filter

Cables:

- CLU IV.2 (Code 3673-2)
Connection of the input module to the computer (without link module)
Lemo 17 pin > USB, 2 m
- LBR I.01 (Code 3670-01)
Link connection cable between 2 modules, for compact systems

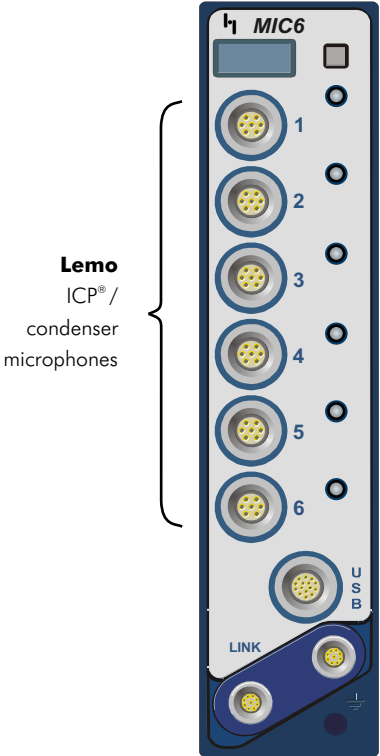
Accessories (optional)

- PWD (Code 3651)
9 - 36 V DC power supply for the DATaRec 4 series
- PWH9 (Code 3652)
12 - 36 V DC power supply for the DATaRec 4 series
- PWAC (Code 3650)
AC power supply for the DATaRec 4 series, 90 - 130 V, 180 - 260 V

- PSH I.6 (Code 3659)
Power supply (24 V), 9 pin, Lemo
- DSM (Code 3690)
Seat Mount for DATaRec 4 systems

Software (optional)

- HEAD Recorder (Code 4630)
Programmable recorder software
- ArtemiS SUITE (Code 5000ff)
Analysis software



Lemo
ICP® /
condenser
microphones

Display, Toggle button
 Display firmware
 Display input voltage
 Module calibration

Channel LEDs
 Status display: green
 Overload: red
 RPM channel: blue

USB connection
 Single operation (PWD / PWH9 / PWAC / PSH I.6 required)

Link connections
 Connection to other modules
 Power supply

Technical data MIC6

Number of channels:	6
Sampling frequency (Fs):	500 Hz to 200 kHz, settable in steps of 10 Hz. Each module can work with a dedicated sampling frequency, which is a binary divider of the overall system Fs
Bandwidth:	0.4 x sampling frequency
Dynamic range:	>96 dB at 2 V _{peak} range in 16 bit mode >102 dB at 2 V _{peak} range in 32 bit mode > 90 dB at 2 V _{peak} range 3 kHz signal with filter option
A/D converter:	24 bit
Data resolution:	16 bit or 32 bit
THD:	< -90 dB at 2 V _{peak} range
Phase accuracy:	<0.2° at 20 kHz bandwidth (without high pass filter)
AC Accuracy (up to 50 kHz):	±0.05% or ±1 mV typ., max. 0.1%
(50 kHz - 80 kHz):	Max. 0.2%
DC Accuracy:	±0.1% or ±1 mV
Input impedance:	1 Megaohm
Signal level:	±10 mV _{peak} to ±10 V _{RMS} settable in steps (10 mV, 20 mV, 50 mV, 100 mV, 200 mV, 500 mV, 1.0 V, 2.0 V, 5.0 V, 10 V)
Coupling:	AC (-3 dB at 2 Hz)
Polarisation power:	0 V or 200 V settable per channel
Pre-amplifier:	+28 V or ± 60 V settable per channel
ICP® power:	22 V DC, 4 mA constant current, settable per channel
Analogue high pass filter:	22 Hz settable per channel
Connectors:	6 x LEMO 7 pin, ECG.1B.307.CLN
Dimensions (W x H x D):	47.1 x 184 x 124.5 mm (1.85" x 7.2" x 4.9") incl. attachment system
Weight (typ.):	1240 g (2.73 lb)
Cooling:	Conduction cooled (no fan)
Power consumption:	12 W typ. at 25° C (77° F), + max. 3 W (pre-amp power) or + max. 1 W (ICP® power)
Power input range:	17 - 28 V DC
Input DC power:	low power detection
Integrated calibration unit:	1 ppm reference calibration
Galvanic isolation:	Yes
Max. isolation voltage:	Power input 48 V (digital / analog part: 48 V)
Input channel voltage safety:	±35 V
RPM channel:	Two channels can be used as RPM input
RPM sampling frequency:	16 bit mode: 16 x Fs (max. 3.2 MHz) 32 bit mode: 32 x Fs (max. 6.4 MHz)
Threshold level (RPM channel):	0 - 100 % of the selected amplifier step
Mode:	Single ended
TEDS sensor identification:	IEEE 1451.4 standard for all 6 channels (ICP® mode)
Vibration resistance:	5 g
Shock resistance:	10 g
Temperature:	
Stand-alone module:	-20° C bis +70° C (-4° F to 158° F)
Link chain system:	-10° C bis +55° C (14° F to 131° F)
Storage:	-40° C bis +85° C (-40° F to 185° F)
Humidity:	0 - 93 % relative, non-condensing