



DIC6L (Code 3612)

6-channel ICP® module with LEMO, 200 kS/s per channel

DIC6L filter (Code 3613)

6-channel ICP® module with LEMO, 200 kS/s per channel, HP and LP filter

Overview

DIC6L and DIC6L filter are 2-channel signal modules. DIC6L filter has an HP and an LP filter.

The modules can either be used stand-alone via power supply or can be combined into a complex channel system by using a link module.

Features

- 6 ICP® channels (LEMO)
- 200 kS/s per channel
- HP and LP filter (DIC6L filter)
- Integrated amplifier
- 24 bit A/D converter
- Anti-aliasing filter
- 2 channels usable as RPM input
- Connection of TEDS sensors

- 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
- DSM (Code 3690)
Seat Mount for DATaRec 4 systems

Software (optional)

- HEAD Recorder (Code 4630)
Programmable recorder software
- ArtemiS (Code 4600)
Analysis software

Scope of Supply

- DIC6L (Code 3612)
6-channel ICP® module with LEMO, 200 kS/s per channel

or

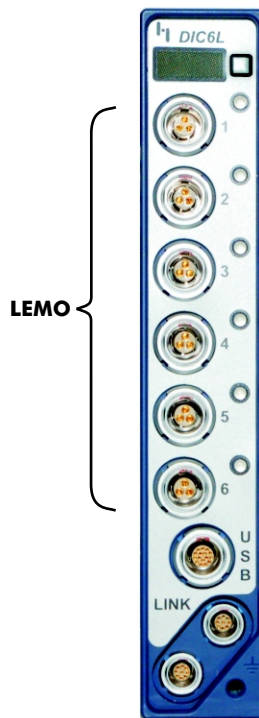
- DIC6L filter (Code 3613)
6-channel ICP® module with LEMO, 200 kS/s per channel, HP- und LP filter

Cables:

- CLU IV.2 (Code 3673-2)
Connection input module to PC (without link module)
Lemo 17-pin > USB, 2 m
- LBR 1.01 (Code 3670-01)
Link cable connecting 2 modules, for compact systems

Accessories (optional)

- PWD (Code 3651)
9 - 36 V DC power supply for the DATaRec 4 series



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 or PWAC required)

Link connections

- Connection to other modules
- Power supply

Technical data DIC6L / DIC6L filter

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 at 2 V _{peak} range in 32 bit mode with filter option > 90 dB at 2 V _{peak} range 3 kHz signal
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 optional filter)
AC accuracy	
Up to 50 kHz:	± 0.05 % or ± 1 mV, typical, max 0.1 %
50 kHz - 80 kHz:	Max. 0.2 %
DC accuracy:	± 0.1 % or ± 1 mV
Input impedance:	1 MOhm
Signal level:	± 10 mV _{peak} to ± 10 V _{peak} settable in steps
Coupling:	DC, AC (-3 dB at 2 Hz)
ICP® power:	22 V DC, 4 mA constant current
Connector:	6 x LEMO
Dimensions (W x H x D):	37.1 x 184 x 124.5 mm (1.5" x 7.2" x 4.9") incl. attachment system
Weight:	940 g (2.1 lb), typ.
Cooling:	Conduction cooled
Power consumption:	10 W, typ. (11.6 W, typ. with filter option)
Power input range:	17 - 28 V DC
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
TEDS sensor identification:	IEEE 1451.4 standard for all 6 channels
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:	Differential / single ended
Vibration resistance:	5 g
Shock resistance:	10 g
Temperature operational	
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
DIC6L filter:	
Analog high-pass filter:	22 Hz
Analog low-pass filter:	500 Hz, 1 kHz or 4 kHz