



Features

- 6-channel input module for connecting up to six thermocouples type K and RTD (PT100, PT1000)
 - Selectable channel by channel: thermocouple type K and RTD
 - Module equipped with a measurement curve linearization
 - Cold Junction Compensation for each channel (in thermocouple mode)
 - Automatic sensor failure detection/cable break detection
 - DC coupling
 - 16 bit ADC resolution
 - 100 Hz max. sampling frequency
 - >500 k Ω input impedance
 - Electrical isolation of *labT6* inputs with each other and to inputs of other HEAD*lab* modules and the PC interface
 - Low power consumption (2 W)
 - Silent (no fan), rugged design
 - Integrated locking mechanism (the modules can easily be mated to a system)
- *labCOMPACT12-V1* / *labCOMPACT24-V1* (compact systems)
 - SQuadriga III (mobile 8-channel recording and playback system)
 - HMS V (artificial head measuring system)

Scope of supply

- *labT6* (Code 3726)
6-channel input module for connecting up to six thermocouples type K and RTD (PT100, PT1000)

Optional

- CLL X.xx (Code 3780-xx)
Cable HEAD*link*
LEMO 8-pin \leftrightarrow LEMO 8-pin

Connections to frontends from HEAD acoustics

- *labCTRL II.1/labCTRL I.2* (HEAD*lab* Controller)
- *labHSU*
High-end dual-channel data acquisition system

labT6 (Code 3726)

6-channel input module for connecting up to six thermocouples type K and RTD (PT100, PT1000)

Overview

The *labT6* is a multi-channel input module for connecting up to six thermocouples types K and RTD (PT100, PT1000).

The high reliability and efficiency as well as some special features of the module allow recordings to be made very easily. If a sensor or cable is damaged, the sensor failure detection feature provides a feedback, which allows to detect a failure immediately and without time-consuming search. In addition, each channel has a measurement curve linearization with a Cold Junction Compensation (CJC) inclusive.

The *labT6* module can be easily connected to other modules and forms a stable and easily-manageable unit.

Together with a Controller and a Power Box up to 10 *labT6* can be assembled forming a system with 60 channels.

Depending on the processing power of the PC and the network utilization, larger systems with several Controllers, Power Boxes, and *labT6* modules can record up to 300 channels at 24 kHz simultaneously.

Technical Data

General

Number of channels:	6
Sampling frequencies (Fs):	1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz, 50 Hz, 100 Hz
Coupling:	DC
Power supply:	9 V to 36 V
Electric strength (In+ ↔ In-):	max. +3.7/-0.7 V
Electric strength common mode:	85 V
Resolution:	16 bit
Digital filter:	yes
Power consumption:	2 W (max.), at 25 °C
Electrical isolation:	yes
Maximum cable length to the controller:	60 m (with cable CLL X)
Cooling:	convection, no fan
Dimensions:	140 x 173 x 42 mm (W x D x H)
incl. locking mechanism and rubber pads:	148 x 173 x 48 mm (W x D x H)
Weight:	610 g
Operating temperature:	-10 °C to 60 °C
Storage temperature:	-20 °C to 70 °C

Temperature Inputs

Number of channels:	6 (thermocouple inputs with miniature type plugs)
Mode of operation	
Thermocouple type K:	-100 °C to 1200 °C
PT100:	-200 °C to 850 °C
PT1000:	-200 °C to 850 °C
Input impedance	
Thermocouple type K:	>500 kΩ
PT100:	>2.2 MΩ
PT1000:	>6,5 MΩ
Power supply PT100/PT1000:	370 μA, ±0.5%
Accuracy:	±2 °C (-200 °C to 400 °C) ±0.5 % of measured value (400 °C to 1200 °C)

HEADlink Interface (HEAD acoustics standard))

Controlling/data transfer via controller:	LEMO 8-pin
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