

Brief description

DiLiCo cell voltage 36/72



DiLiCo cell voltage 36



DiLiCo cell voltage 72

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1. Brief description

DiLiCo cell voltage measures the single cell voltage in the range of -4.5 V to +4.5 V of up to 36 or 72 galvanic elements connected in series per device.



Figure 1: DiLiCo cell voltage 36 with 37-pin D-Sub connector for connecting 36 cells (130 x 110 x 40 mm³) on the left and DiLiCo cell voltage 72 for connecting 72 cells (130 x 110 x 60 mm³).

DiLiCo cell voltage 36/72 consists of two connection sides. Side A consists of the connection for the 24 VDC power supply, the communication interface (male), the power switch, a dry contact output, a switch for CAN-Termination and a reset button.

Terminal B consists of one or two 37-pin D Sub connector (male) for DiLiCo cell voltage 36/72.

Connections of DiLiCo cell voltage 36/72

Connection side	Designation on the device DiLiCo cell voltage	Note
A	15 - 36 VDC	External power supply
	COM	Communication for CAN (9-pin D-sub)
	POWER	Power switch
	Reset-button	Configuration of the communication and factory settings
	DCO	Dry contact out
	CTM	CAN-Termination switch
	B	CELL CONNECTION 0-36
CELL CONNECTION 37-72		

The DiLiCo cell voltage connection sides are shown in the following pictures. The left pictures show the POWER, COM and 24 VDC power connections. The right pictures show the 37-pin D-sub connections.



Figure 2: Connection side A (left) and B (right) of DiLiCo cell voltage 36.



Figure 3: Connection side A (left) and B (right) of DiLiCo cell voltage 72.

Parameter of DiLiCo cell voltage 36/72

Measurement	Value	Note
Supply voltage	15 to 36 VDC	External power supply
Current consumption	ca. 100 mA	
Measuring range	-2.5 ...+2.5 V (low range mode) -4.5 ...+4.5 V (high range mode)	Per channel
Voltage range	- 80 V...+ 150 V for 36 cells	
Channels	36 or 72	
Total measurement error at 25°C	± 15 mV (low range mode) ± 30 mV (high range mode)	
Resolution	1,5 mV (low range mode) 3,0 mV (high range mode)	
Applications	Fuel cell, battery, electrolyzer, redox flow battery	
Interfaces	CAN, RS232	USB via adapter
Measuring interval	up to 25 ms for 36 cell up to 50 ms for 72 cells	Timing depends on CVM setup

2. Scope of delivery

- DiLiCo cell voltage 36 or 72
- External 24 VDC power supply with DC voltage supply connector (right-angled)
- User manual
- (optional) 37-pin D-SUB (female connector) connection cable with separated cable ends and wire end ferrules
- (optional) software
- (optional) PCAN USB adapter

3. Optional accessories

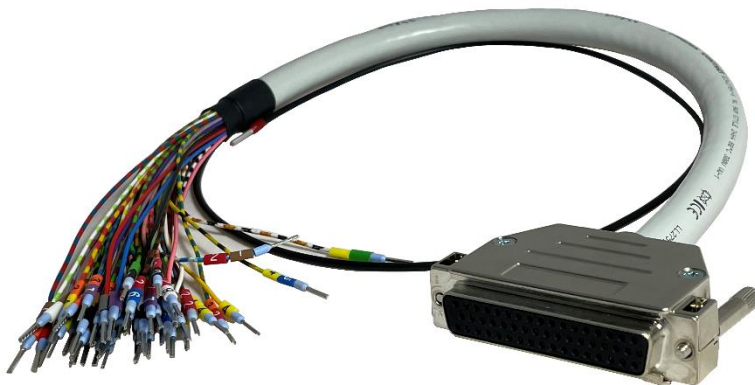
Measuring cable

D-SUB connection cable with separated cable ends and wire end ferrules for connecting the individual cells to the measuring device. Connection between DiLiCo cell voltage and galvanic cell by the user.

1 Cable required for DiLiCo cell voltage 36

2 cables required for DiLiCo cell voltage 72

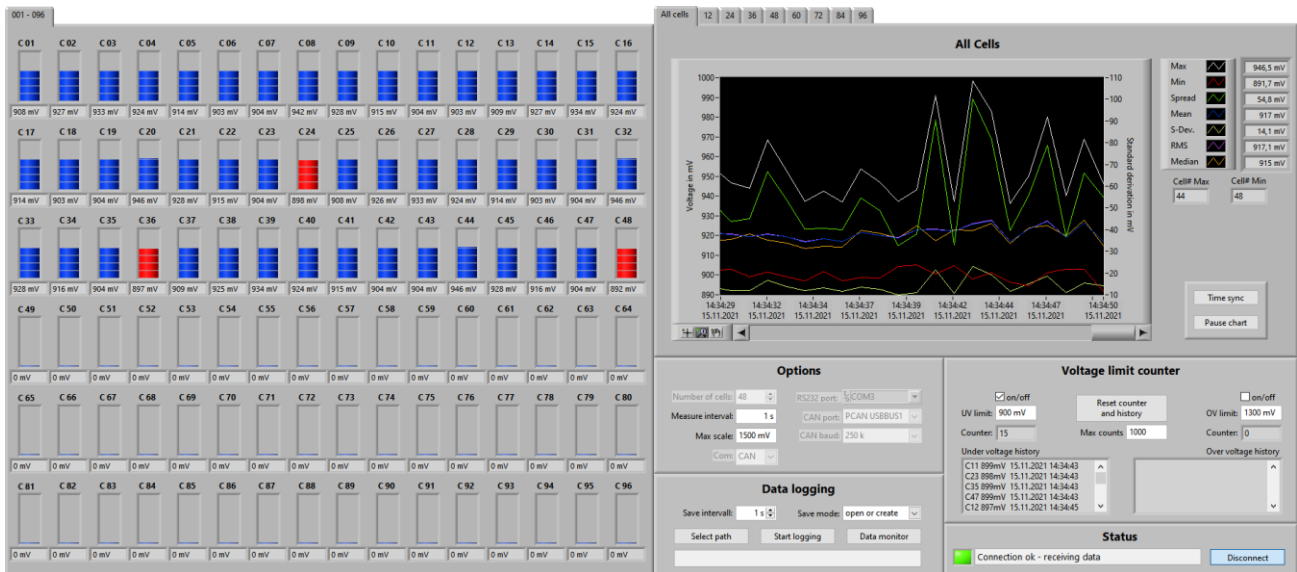
Single wires 0.25mm²/ shield 1mm²



Available lengths: 0.5 and 2 metres. Other lengths on request.

DiLiCo cell voltage data monitor" software

Software for evaluation of 36 or 72 measured values provided by DiLiCo cell voltage. Software for the evaluation of cell values greater than 72 are optionally available. Executable file (LabView exe) for visualisation and storage of cell voltages. To use the software, only the optionally available CAN-USB adapter is required to connect the measuring device to the measuring computer.



CAN-USB adapter

For connecting the DiLiCo cell voltage measuring device to the measuring computer via USB.
 Required for the use of the DiLiCo cell voltage data monitor.
 Length of connection cable: approx. 75 cm.

