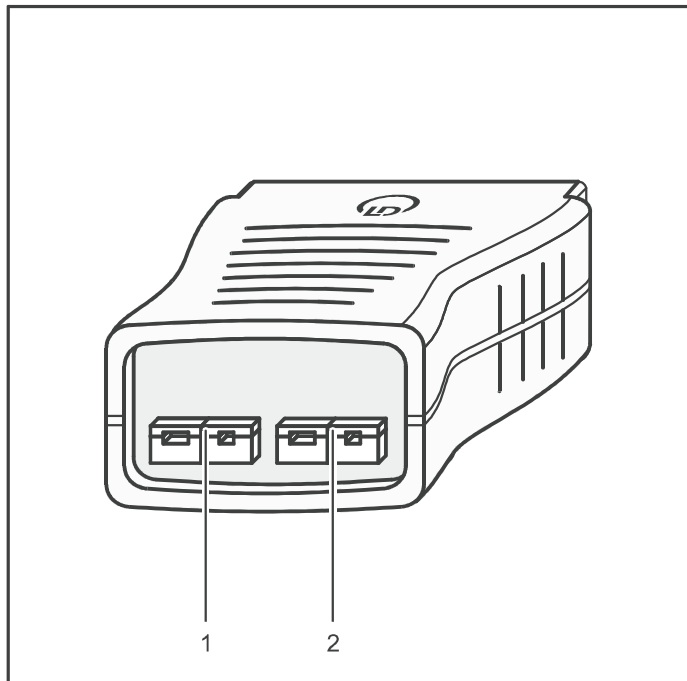


06/05-W97-Sel



Instruction sheet 524 0673

NiCr-Ni Adapter S (524 0673)

1 Input 1

2 Input 2

## 1 Description

The NiCr-Ni Adapter S is used in conjunction with the computer-aided measuring system CASSY<sup>®</sup>. It enables the connection of one or two type K NiCr-Ni thermocouples for temperature measurements. Temperature differences can be measured with a high resolution (0.01 K).

Experiment examples are found on the CD of the CASSY Lab software (524 200) or in the download version of the software under <http://www.ld-didactic.com> or in the manual of the CASSY Lab software (524 201).

## 2 Sensors to be used

NiCr-Ni temperature sensor 1.5 mm, -50...1100°C (52 9 676)

Quick gas and liquid sensor, -50...400°C (666 1261)

Immersion and penetration sensor, -50...1000°C (666 1262)

High temperature sensor for gases and liquids, -50...1150°C (666 1263)

Surface temperature sensor, -50...650°C (666 1264)

Temperature sensor for compost, -50...250°C (666 12 65)

## 3 Measurement quantities

| Quantity               | CASSY Lab <sup>/1/</sup><br>(524 200) | CASSY-Display <sup>/2/</sup><br>(524 020) | Mobile-CASSY<br>(524 009) | Measuring ranges                                   |
|------------------------|---------------------------------------|---|---------------------------|--|
| Temperature            | ∅1                                    | ✓   | ∅1                        | -200.0 ... 200.0°C<br>-200...1200°C <sup>/3/</sup> |
| Temperature            | ∅2                                    | ✓   | ∅2                        | -200.0 ... 200.0°C<br>0...1200°C <sup>/3/</sup>    |
| Temperature difference | ΔT                                    | ✓   | ΔT                        | ±20.00 K<br>±200.0 K                               |

<sup>/1/</sup> for Sensor-CASSY (524 010), Pocket-CASSY (524 006) or Mobile-CASSY (524 009) at a PC

<sup>/2/</sup> in conjunction with Sensor-CASSY (524 010)

<sup>/3/</sup> the measuring range used depends on the connected sensor.

## 4 Operation

- Plug the NiCr-Ni Adapter S onto the CASSY module.
- Connect the temperature probe and select the variable(s) to be measured.
- Place the temperature probe into the object to be measured (insert into solution to be measured); at the same time observe the maximum temperature for the temperature probe!
- Select the variable(s) to be measured.
- Read the measured value(s).

## 5 Technical data

Sensor connections: Type K miniature  
 Minimum resolutions ( $\vartheta$ ): 0.1 K  
 Minimum resolutions ( $\Delta T$ ): 0.01 K

The internal temperature measurement for the cold junction compensation of the thermocouples is carried out at socket 1. Possible temperature differences between the sockets within the adapter will not be taken into account. For this reason the measurement at input 1 is more precise.

## 6 Compatibility

Connect the NiCr-Ni Adapter S to the following CASSY modules:

|            | Sensor-CASSY<br>(524 010)   | Pocket-CASSY<br>(524 006) | Mobile-CASSY<br>(524 009)          |
|------------|---|---------------------------|------------------------------------|
| with PC    | Software CASSY Lab<br>version 1.40 or higher                          |                           |                                    |
| without PC | with<br>CASSY-Display<br>(524 020) with<br>firmware 1.15<br>or higher | —                         | with<br>firmware 1.00<br>or higher |

As a member of the CASSY family this adapter S has the following features:

- The adapter S can be plugged in at any time.
- The connected adapter S is recognized automatically.
- Measurement quantities and measuring ranges are set via menus.

## 7 Updates

If the software or firmware used is older than that given above, an update of the software or firmware is required. The current version of the CASSY Lab software is available on the internet under <http://www.ld-didactic.com>.

- Install the current version of the CASSY Lab software and start it.
- Connect all available CASSY modules to the PC one after another.
- As soon as you are prompted, bring the firmware up to date with "Update CASSY Modules" so that it matches with CASSY Lab.

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