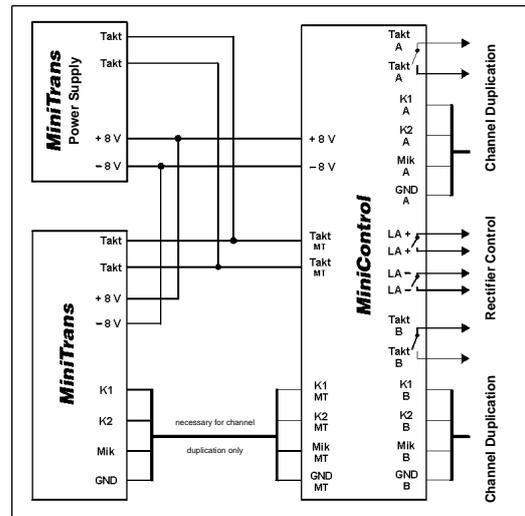


Channel Duplication and Rectifier Control



Basic Information

The supplementary **MiniControl** module extends the use of the **MiniTrans** sensor and **MiniTrans** power supply by rectifier control and channel duplication functions, when installed in rectifiers.

Installation

The **MiniTrans** power supply provides a voltage of 8 V DC to **MiniControl** and **MiniTrans**. The **MiniControl** module is driven by the switching input ("TaktMT") being connected to the **MiniTrans** switching output ("Takt").

Rectifier Control

As soon as the **MiniTrans** receives the command to control the rectifier, it will start switching in a special **MiniControl** switching sequence ("0" or "1"). The corresponding relay output, "LA+" or "LA-", will then be closed for 200 ms. A fitting rectifier control responds to the closing of the relay contacts and adjusts the output voltage accordingly to a higher or lower value.

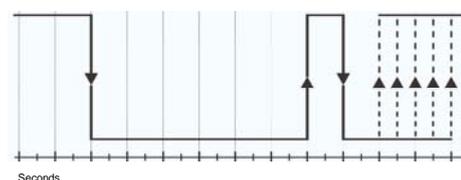
Channel Duplication

The channel duplication outputs (K1MT, K2MT, MIKMT, GNDMT) must be connected to the **MiniTrans** measuring inputs. The two electrically isolated channel sides for the channel duplication (K1A, K2A, MIKA, GNDA) and (K1B, K2B, MIKB, GNDB), respectively, have to be connected to the two pipe objects.

The switching outputs can be used either separately (TaktA and TaktB) or jointly (TaktMT) for both channel sides.

The **MiniTrans** controls the channel duplication in the **MiniControl** switching sequence ("2" or "3"). Both channel sides are measured at intervals of 5 minutes according to the programmed measuring times. The duplicated channels can be assigned independently to the corresponding pipe objects via **WinTrans**.

MiniControl - Switching Sequences: 0 1 2 3 4



Technical data

Switching Capacity:	60 Volt, 0.1 Ampere
Internal Resistance:	Approx. 30 Ohms (switching and rectifier control)
Supply:	8 Volt DC, max. 40 mA
Housing:	Phoenix, approx. 105 x 100 x 25 mm
Screw Terminals:	Phoenix (included in the delivery scope)
Weight:	120 g

1) Updating MTPara and WinTrans

To parameterise **MiniControl**, versions from "1.083" up for MTPara and from Build 144 up for *WinTrans* are required. Please refer to the following website for the current update: <http://www.weilekes.de>
Start wtupdate_e.exe and follow the given instructions to update MTPara and *WinTrans*.

2) Updating MiniTrans Firmware

A *MiniTrans* with the firmware "RAM 08.06.01" or later is required for driving **MiniControl**. Check the current RAM version of your *MiniTrans* using MTPara: In the activated parameterisation mode, the CPU and RAM versions are indicated on the upper right side of the MTPara window. Update an older RAM version as described below:

- Start the parameterisation of the *MiniTrans* with MTPara and click the "Start" button as usual.
- After having activated the parameterisation mode, double-click (!) the blue MTPara window. The buttons "Options", "Calibrate", and "Upload" appear to the left in the blue window. Click "Upload" and select the most current firmware file (e.g. "mt990629_010608.obj") from the diskette or the *WinTrans* upload directory (e.g. "C:\Programs\Wintrans\Upload") on your hard disk. The upload lasts approximately 3 minutes and is signalled by a series of numbers in the MTPara window.
- After the series of numbers have stopped for a while (about 10 s) and "OK" has appeared in the last line, the update is finished.
- Conclude the update by clicking "Finish", and re-start the parameterisation by clicking "Start".

3) Installing MiniControl and MiniTrans

Wire the **MiniControl** as illustrated on the front page. Also use the circuit diagram sticker on the **MiniControl** housing and the corresponding labelling on the **MiniControl** screw terminals for support. Both channel sides (A and B) are electrically isolated and can thus be assigned independently of each other.

4) Activating MiniControl and MiniTrans with MTPara

The following adjustments are required for a remote control operation of the **MiniControl/MiniTrans** combination:

- Mark the checkbox "MiniControl installed" in the MTPara dialog box called "Measuring". You only need to use the "Channel Selection" in the same dialog box if you operate *MiniTrans* in the diagnosis or data-logging mode. Via "Channel Selection" you set a channel side (A or B) for the diagnosis or data logging. This is necessary as a channel duplication (measurement of A and B at 5 minute intervals) cannot be performed during the diagnosis or data logging.
- Check whether the measuring inputs and the switching inputs and outputs are wired correctly by clicking the "Measure" button. If the "MiniControl installed" checkbox has been activated as described above, you can choose between channel side A or B each time you perform a measurement.

5) Assigning MiniControl test points with WinTrans

After a *MiniTrans* equipped with a **MiniControl** has sent a current office info to your office, the two channel sides (A and B) can be assigned to two different test points.

The serial number of the *MiniTrans* / **MiniControl** combination is indicated in duplicate for selection in the "Sensor" column in the "CP" directory of the CP database after the **MiniControl** has been installed correctly. This serial number is marked once with the letter "A" and once with the letter "B".
For assigning the *MiniTrans*, select the respective channel side (A or B) fitting the test point.

Please refer to the sensor database in the "Base" directory for a survey of all *MiniTrans* / **MiniControl** combinations. All *MiniTrans* sensors with an activated **MiniControl** are marked in the "MC" check box column.