

# IEEE - 488 - Interface H0880

Manual

English



### Important hints

The test instruments of the HAMEG Series HM8100 have all been designed to permit their use in automated testing environments. In order to connect them to an IEEE488 bus, the interface HO88 (option) is required. Series HM8100 instruments equipped with the IEEE488 bus interface comply with the stipulations of the IEC-625-1 and IEEE-488 standards. If the HO880 interface is ordered together with the a HM 81 .. instrument, it is installed within it at the factory. The HO880 interface is also available as a separate option for retrofitting purposes at a later time.

### Security

This instrument has been designed and tested in accordance with IEC Publication 1010-1, Safety requirements for electrical equipment for measurement, control, and laboratory use. It corresponds as well to the the CENELEC regulations EN 61010-1. All case and chassis parts are connected to the safety earth conductor. Corresponding to Safety Class 1 regulations (three-conductor AC power cable).

### Do not disconnect the safety ground either inside or outside of the instrument!

The instrument must be disconnected and secured against unintentional operation if there is any suggestion that safe operation is not possible.

### This may occur:

- if the instrument shows visible damage,
- if the instrument has loose parts.
- if the instrument does not function,
- after long storage under unfavourable circumstances (e.g. outdoors or in moist environments).

When removing or replacing the metal case, the instrument must be completely disconnected from the mains supply.

### Warranty and Repair

HAMEG instruments are subjected to a strict quality control. Prior to leaving the factory, each instrument is burnt-in for 10 hours. By intermittent operation during this period almost

all defects are detected. Following the burn-in, each instrument is tested for function and quality, the specifications are checked in all operating modes; the test gear is calibrated to national standards.

The warranty standards applicable are those of the country in which the instrument was sold. Reclamations should be directed to the dealer.

### Only valid in EU countries

In order to speed reclamations customers in EU countries may also contact HAMEG directly. Also, after the warranty expired, the HAMEG service will be at your disposal for any repairs.

### Return material authorization (RMA):

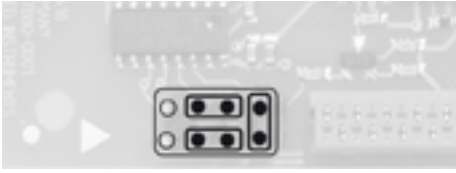
Prior to returning an instrument to HAMEG ask for a RMA number either by internet (<http://www.hameg.com>) or fax. If you do not have an original shipping carton, you may obtain one by calling the HAMEG service dept (+49 (0) 6182 800 500) or by sending an email to [service@hameg.com](mailto:service@hameg.com).

### Insert the Interface

An HM8100 instrument can be retrofitted by the user with the HO880 interface, but we recommend to do it ex factory. The first step is to remove the instrument enclosure. To do so, unscrew the 6 screws on the rear panel of the instrument and take off the plastic back cover; the enclosure can then be pulled off towards the back.

Disconnect the cable, which connects the instrument with the built-in interface, and attach it to the HO880 interface.

Depending on the instrument's connector use the micromatch connector ② or the MICS connector ③. Remove the built-in interface. According to the instrument, the jumpers ① have to be placed in one of the following ways:



### Jumper position 1

Instruments: HM8112-3 and HM7044



### Jumper position 2

Instruments: HM8115-2, HM8118, HM8123, HM8131-2, HM8134-3, HM8135, HM8143 and HM8150

The interface card is attached using the 2 supplied self-tapping screws. The enclosure is then slid back on. When doing so make sure that the edges of the metal enclosure slide exactly into the grooves of the plastic covers on the front and back. After the rear plastic cover has been replaced and fastened, the unit is again ready for operation.

**All data and signal lines are electrically isolated from ground. When the IEEE-488 cable is unconnected, there is no electrically conductive path to the instrument chassis or the grounded wire of the power supply!**

## Speciality of HM8134 / HM8135

If you wish to change or retrofit the remote interface of the **HM8134** and/or **HM8135**, you need to program the HM8134/8135 in order to activate the new interface. Please send the following command over the extra built in RS232 interface:

To activate a IEEE/GPIB (H0880) please send:  
**.813xcom2default:2'**

In order to deactivate all second interfaces please send:  
**.813xcom2default:0'**

You can use any terminal program to send the command, we suggest the Windows Hyperterminal. A installation and user guide for the Windows Hyperterminal can be downloaded from the HAMEG Website: [www.hameg.com/hyperterminal](http://www.hameg.com/hyperterminal).

## Address selection, Commands

### Address selection

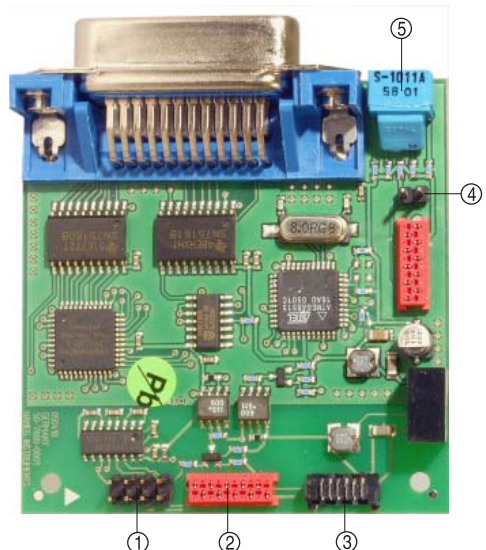
All instruments connected to an IEEE-488 bus must receive unique device addresses.

The address can be chosen by the rotary switch ⑤ next to the IEEE-488 bus interface connector. The address space includes the addresses from 0x1 to 0x1F (1-31 dec.).

It is divided into two ranges. The lower range 0x1 - 0xF (1 - 15) is selected if the jumper ④ is not placed. If the jumper ④ is placed, the upper address range 0x10 - 0x1F (16-31) is selected. You have to add 0xF (16) to the value selected at the rotary switch if the upper address range is chosen.

### Commands

To control the instrument please use the commands included in its manual.



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