

## Remote Control

## General

The HM7044 is supplied with a serial interface ex factory. As optional accessories an USB interface (HO870), an IEEE interface (HO88) or a serial interface (HO890), all galvanically isolated, are available.

The communication parameters of the interface are 9600 baud, 8 N 2, command termination CR [0x0D].

After every accepted command the instrument answers with a corresponding answer.

## Command reference

## 1. SELECT

Format: SEL(ECT) [1,2,3,4] [A(LL)] [N(ONE)] [?]  
Selection of one, several or all channels.

## Examples:

Command	Answer
Selection of channels I and II SEL 1,2	channel 1,2 selected
Requesting the selection SEL?	channel 1,2 selected
Selecting all channels SEL ALL	channel 1,2,3,4 selected
Selecting no channels SEL NONE	unselected

## 2. SET

Format: SET value [V] [A]  
Setting the parameters V and A of the channels selected. If no channels were selected, all channels will be changed.

## Example:

Command	Answer
Setting channels I and II to 12.1V / 2.1A: SEL 1,2	channel 1,2 selected
SET 12.1 V	channel 1,2 set to 12.10 V
SET 2.1 A	channel 1,2 set to 2.100 A

## 3. FUSE

FORMAT F(USE) [(1)(2)(3)(4)] [ON] [OFF]  
Activating the electronic fuse for the channels selected. If no channels were selected, the electronic fuses of all channels will be activated. The electronic fuses of up to 4 channels can be linked together.

## Example:

Command	Answer
Setting the electronic fuse for channels I and II: SEL 1,2	channel 1,2 selected
FUSE ON	channel 1,2 fuse activated

Coupling the electronic fuses of channel I and IV and additionally of channels II and III  
FUSE 1,2,2,1 fuse set to 1,2,2,1

## 4. READ

Format: READ (READOUT/READVALUES)  
This command reads back the actual values and states of the several channels.

The answer consists of the output voltages set, the current limits set and the states of the channels I - IV.

## Example:

Command: READ

Answer: 00.01V 12.00V 13.22V 14.70V; 2.787A 0.000A 0.000A 3.000A; CC-1 CV-2 CV F3 OFF F4

that means:

channel I:	0.01 V, 2.787 A, CC, electronic fuse 1
channel II:	12.00 V, 0.000A, CV, electronic fuse 2
channel III:	13.22V, 0.000 A, F3, OFF
channel IV:	14.70 V, 3.000 A, F4
OFF:	The channel is off.
CV:	The channel is in voltage regulation mode (constant voltage)
CC:	The channel is in current regulation mode (constant current)
F/-:	F = fuse is active - = fuse is inactive
1,2,3,4:	Parameter for the electronic fuse

## 5. LOCK

Format: LOCK [ON] [OFF]  
Lock / Unlock keyboard entries.  
If the keyboard is locked, the PROG. LED ④ blinks.

## Example:

Command	Answer
LOCK ON	keyboard locked
LOCK OFF	keyboard unlocked

## 6. ON

Format: ON  
Activates the channels selected. If no channel is selected, all channels are activated. The ENABLE OUTPUT command has to be sent to put the outputs on.

## Example:

Command	Answer
SEL 1	channel 1 selected
ON	channel 1 on

## 7. OFF

Format: OFF  
Disactivates the channels selected. If no channel is selected, all channels are disactivated.

## Example:

Command	Answer
SEL ALL	channel 1,2,3,4 selected
ON	channel 1,2,3,4 on

## 8. ENABLE OUTPUT

Format: EN(ABLE OUTPUT)  
Puts on all channels activated with the ON command (equivalent to the OUTPUT button).

## Example:

Command	Answer
ENABLE OUTPUT	output enabled
EN	output enabled

## 9. DISABLE OUTPUT

Format: DIS(ABLE OUTPUT)  
Puts off all channels (equivalent to the output button)  
Example:

Command	Answer
DISABLE OUTPUT	output disabled
DIS output	disabled