

Product:	IC-KP2-1HB6-V15B IC-KP2-2HB6-V15B
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Description

This documentation describes the control and functionality of the diagnosis interface of the IDENTControl.

Required hardware:

Connector adapter from M12 to SUBD

V1S-0,15M-PUR-ABG-SUBD #218823

http://files.pepperl-fuchs.com/selector_files/navi/productInfo/edb/218823_eng.pdf

Null modem cable

IVZ-K-R2 #032765

http://files.pepperl-fuchs.com/selector_files/navi/productInfo/edb/032765_eng.pdf

Required software:

RFIDControl Software

http://www.pepperl-fuchs.de/germany/de/classid_1805.htm?view=productdetails&prodid=11127

Alternatively it is possible to use any terminal program which is able to communicate over the serial interface of the PC.

Adjustment of the diagnosis interface:

Baud rate: 38.400

Data bits: 8

Stop bit: 1

Parity: none

Format of the command telegram:

The command telegram consists of 2 characters command code. After this 1 character of channel number could follows.

The command telegram is finished by 2 characters of termination. These characters are #<CR>.

Example 1: VE#<CR>

Example 2: GS#<CR>

Format of the response telegram:

The response telegram has following structure:

<Status> 0 <Command code> <Channel> <Data length> (<Data>)

<Status> : execution condition of the command; 1 Byte
0 : filling Byte 0; 1 Byte
<Command code> : command signs; 2 Byte
<Channel> : channel number; 1 Byte
<Data length> : number of following user data; 3 Byte
<Data> : user data; <Data length> of Bytes

Example 1: 00030044(C) P+F IDENT etc.

Example 2: 00950031 TO:0 BD:38400 etc.

Command "VE" for readout version information:

With the command "VE" it is possible to readout the device designation and the firmware version of the IDENTControl unit and the connected RFID heads.

Command: VE#<CR>

Response: 00030044(C) P+F IDENT

IC-KP2-2HB6-V15B	à device designation IDENTControl unit
#200875	à article number
1831418	à firmware number
11.06.10 #	à release date of the firmware
0003102C ISH-FP-V1	à device designation read head channel 1
#181882	à article number
1830597	à firmware number
03.06.08 #	à release date of the firmware
0003202C ISH-FP-V1	à device designation read head channel 2
#181882	à article number
1830597	à firmware number
03.06.08 #	à release date of the firmware

Command “GS” for readout of device settings:

With the command “GS” it is possible to readout the actual settings of the IDENTControl unit and the connected RFID heads.

Command: GS#<CR>

Response: 00950031 TO:0 BD:38400 HD1:052 HD2:050 MM:0 TM1:00 TM2:00

TO:0 : Timeout of the serial interface = 0
BD:38400 : Baud rate of the serial interface = 38400
HD1:052 : TagType of channel 1 = “52”
HD2:050 : TagType of channel 2 = “50”
MM:0 : adjustment of Multiplex Mode (0 = off; 1 = on)
TM1:00 : Adjustment of Trigger Mode channel 1
TM2:00 : Adjustment of Trigger Mode channel 2

Command “GL” for readout telegram listing:

With the command “GL” it is possible to read out a list with telegrams which transmit over the bus interface at last. Thereby the analysis of error messages will be simplified. The numbers of readable list entries is variable and has got maximal 250 entries.

Command: GL0250#<CR>

Response: <0>00AD00DC0000024.555 DIA req SYS AD
0000024.258 CH1 rsp PDP 10 s:0 d:0000:0002 l:0008 a«a«a«a«
0000024.209 PDP req CH1 10 d:0000:0002
0000024.209 SYS rsp PDP 10 s:a
0000021.261 CH2 rsp PDP 10 s:0 d:0000:0002 l:0008 a«a«a«a«

00AD00CC0000021.213 PDP req CH2 10 d:0000:0002
0000021.212 SYS rsp PDP 10 s:a
0000019.267 CH1 rsp PDP 10 s:0 d:0000:0002 l:0008 a«a«a«a«
0000019.218 PDP req CH1 10 d:0000:0002
0000019.218 SYS rsp PDP 10 s:a

00AD00E80000017.234 CH2 rsp PDP 04 s:0
0000017.201 PDP req CH2 04
0000017.201 SYS rsp PDP 04 s:a
0000017.195 CH1 rsp PDP 04 s:0
0000017.163 PDP req CH1 04
0000017.162 SYS rsp PDP 04 s:a

Etc.

The entry of the list has following structure:

0000019.218 PDP req CH1 10 d:0000:0002
<Time stamp> <Source> <Telegram type> <Destination> <Command code>
<Parameter>

0000019.267 CH1 rsp PDP 10 s:0 d:0000:0002 l:0008 a«a«a«a«
<Time stamp> <Source> <Telegram type> <Destination> <Command code>
<Status> <Parameter> <Data>

<Time Stamp> :0000019.218

The system time starts with the start-up of the system after reconnection the power supply. The declaration of the time is in milliseconds.

<Source> and <Destination> : PDP; SYS; CH1; CH2; DIA

Dies parameter marks the sender and the receiver of the telegram. Following entries are possible:

PDP : Bus interfaces (respectively PLC); in this case Profibus-DP
SYS : Evaluation unit respectively system
CH1 : Channel 1
CH2 : Channel 2
DIA : Diagnosis interface

<Telegram type> : rsp; req

This parameter signalise if the telegram is a command (req) or a response (rsp) of the parameter <Source>.

<Command code> : 04; 10; 01 etc.

This parameter shows the hexadecimal coding of the executed command.

02 : Start-up message
04 : Change Tag
01 : Single Read Fixcode
1D : Enhanced Read Fixcode
10 : Single Read Words
19 : Enhanced Read Words
40 : Single Write Words
1A : Enhanced Write Words

Further command codes can be seen in the manual of the evaluation unit.

<Status> : 0; 5; a

This parameter shows the state of the command execution.

0 : Command successfully executed
5 : no tag inside the detection range
a : Command in processing

<Parameter> : d:0000:0002

With <Parameter> the command parameters are shown. Therby the paramters has the structure <Address> : <WordNum>.

0000 : Address 0 (memory address 0 of the data carrier)
0002 : block number 2 (number of addressed memory blocks)

<Data> : l:0008 a«a«a«a«

This parameter shows the length and a partial range of the transferred user data.

0008 : 8 Byte user data
a«a« : User data