Programmable relay card

AEG
POWER SOLUTIONS

CONTENTS

INFORMATION ABOUT THESE OPERATION INSTRUCTIONS

DUTY TO PROVIDE INFORMATION

These operating instructions will help you to install and operate the programmable relay card safely and properly, and for its intended purpose. These operating instructions contain important information necessary to avoid dangers during operation. **Please read these instructions carefully prior to commissioning!**

WARRANTY AND LIABILITY

We reserve the right to alter any specifications given in these operating instructions, especially with regard to technical data and operation, prior to start-up or as a result of service work. Claims in connection with supplied goods must be submitted within one week of receipt, along with the packing slip. Subsequent claims cannot be considered.

The warranty does not apply to damage caused by non-compliance with these instructions (such damage also includes damaging the warranty seal). AEG will accept no liability for consequential damage. AEG reserves the right to rescind all obligations such as warranty agreements, service contracts, etc. entered into by AEG and its representatives without prior notification in the event of maintenance and repair work being carried out with anything other than original AEG spare parts or spare parts purchased by AEG.

HOTLINE

If you still have questions after having read these operating instructions, please contact your dealer or our "Hotline":
Tel: +49 2902 763100
Internet: www.aegps.com

COPYRIGHT

No part of these operating instructions may be transmitted, reproduced and/or copied by any electronic or mechanical means without the express prior written permission of AEG.

© Copyright AEG 2016. All rights reserved.

GENERAL INFORMATION

The relay card is an option for the UPS series starting from Protect C. It provides potential-free contacts at the outputs, which can be configured optionally as N/O or N/C contacts and which can be used as binary input for the SPS or building control systems.

Tapping occurs via a clamping block designed for supply voltage potential.

The relay card is pre-configured ex works and has the technical data as followed:

1.1   SPECIFICATION

Segment	PIN NO (Normal Open)	Specification / Function	remark
Dry contact (EK381V4L, PIN 14)			
1	Pin 9 & Pin 2	240 VAC / 1A (max.) or 30 VDC / 1A (max.)	Output signal, NO or NC
2	Pin 10 & Pin 3	240 VAC / 1A (max.) or 30 VDC / 1A (max.)	Output signal, NO or NC
3	Pin 11 & Pin 4	240 VAC / 1A (max.) or 30 VDC /1A (max.)	Output signal, NO or NC
4	Pin 12 & Pin 5	240 VAC / 1A (max.) or 30V DC / 1A (max.)	Output signal, NO or NC
5	Pin 13 & Pin 6	240 VAC / 1A (max.) or 30 VDC / 1A (max.)	Output signal, NO or NC
6	Pin 8 & Pin 1	NA	Input signal (The external contact must be closed between pin8 & pin1)
7	Pin 14 & Pin 1	NA	Input signal (The external contact must be closed between pin14 & pin1)
8	Pin 7 & Pin 1	NA	Input signal (The external contact must be closed between pin7 & pin1)
RS232 (RJ45 to DB9F)			
TXD2	RJ45, Pin 3	12 VDC / 3mA (max.)	
RXD2	RJ45, Pin 6	12 VDC / 3mA (max.)	
GND	RJ45, Pin 4	GND	Power system GND

Interface UPS side

PIN	Specification / Function
1	GND
2	SNMPPOW
3	RXDUPS
4	TXDUPS
5	*UNUSED*
6	*UNUSED*
7	-VCC
8	SNMPSIG
9	GND
10	+VCC
11-26	RESERVE

1.2 DETAILED VIEW
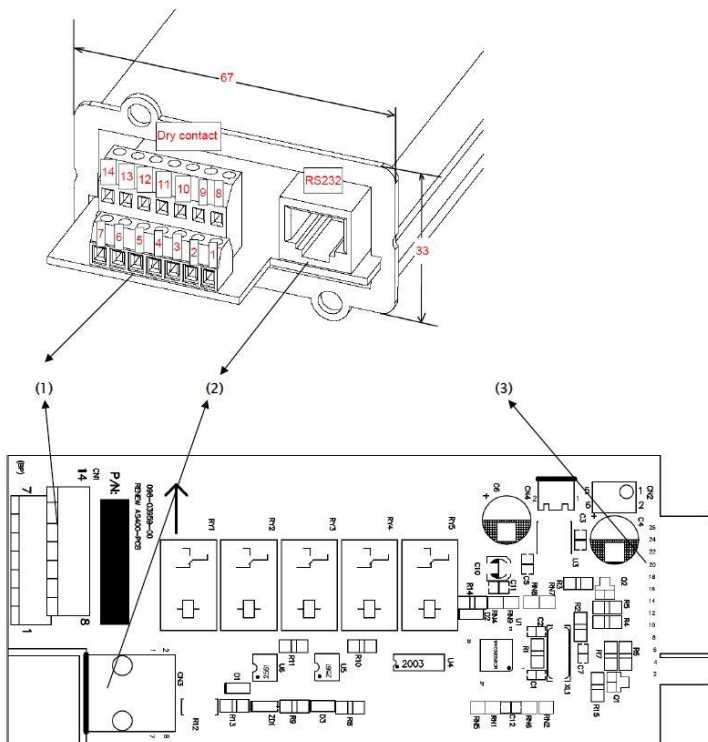
PCBA Size: 146.2*60*1.6 mm
1. EK381V4L Dry contact
2. RJ45 connector for RS232
3. Gold Finger interface UPS side

1.3   CONTACTS EX WORKS

Pin 1 & 8	UPS shutdown during battery operation
Pin 2 & 9	Mains failure / mains outage
Pin 3 & 10	Indication for „battery low" voltage level
Pin 4 & 11	Internal UPS fault
Pin 5 & 12	UPS bypass active / in operation
Pin 6 & 13	Summary alarm
Pin 7 & 1	UPS OFF remotely
Pin 1 & 14	UPS ON remotely
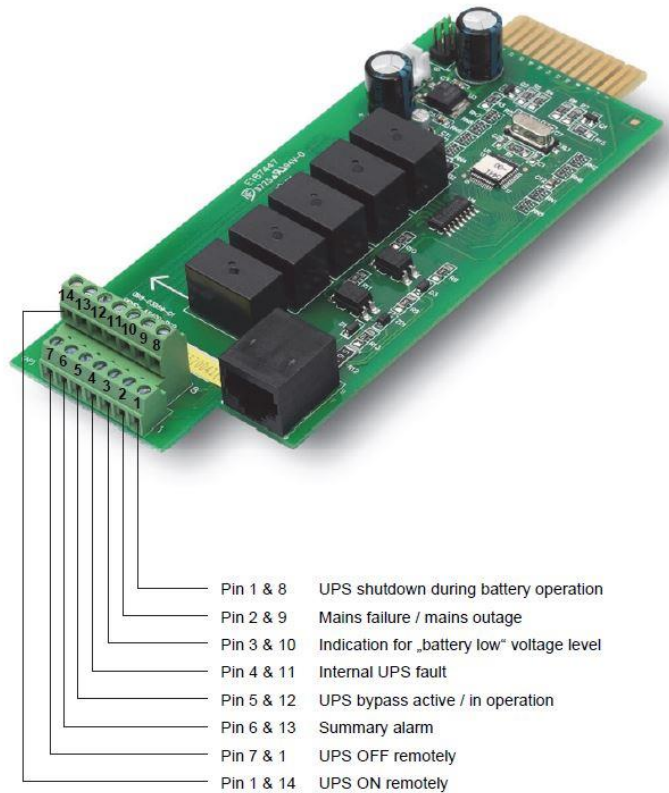
All relay contacts are preconfigured ex works as NO „normally open ".
Please only connect momentary switches to the contacts.
The assignment of some contacts can be customized by using the serial
interface (RS232 cable included).

SETUP AND OPERATION

1.4 HARDWARE SETUP

First unscrew the cover of the „Intelligent Slot "on the backside of your UPS.
Next switch on the UPS and insert the relay card AS400 in the slot.
Connect the COM-Port of your computer with the relay card, use the delivered cable.

1.5 OPERATION

Open Hyperterminal programm via Windows OS run dialog.
Insert a name (e.g. AS400 Card).

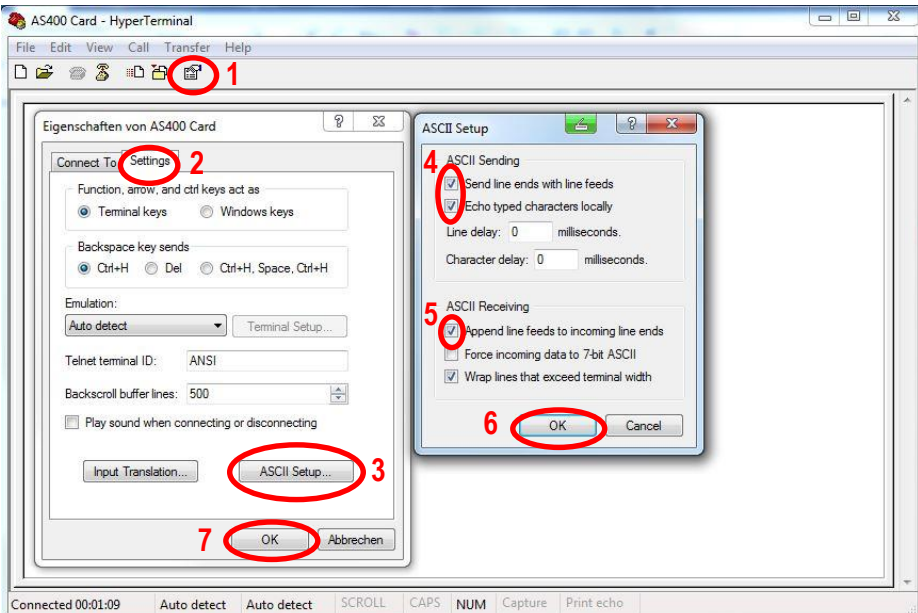Choose your COM-Port.

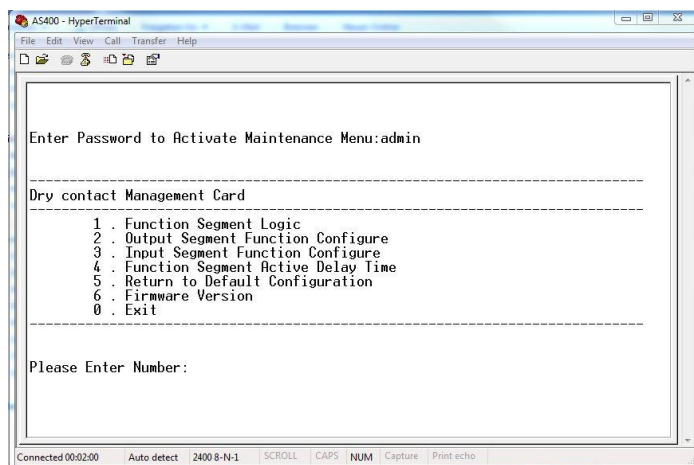Define your COM-Port settings as followed.
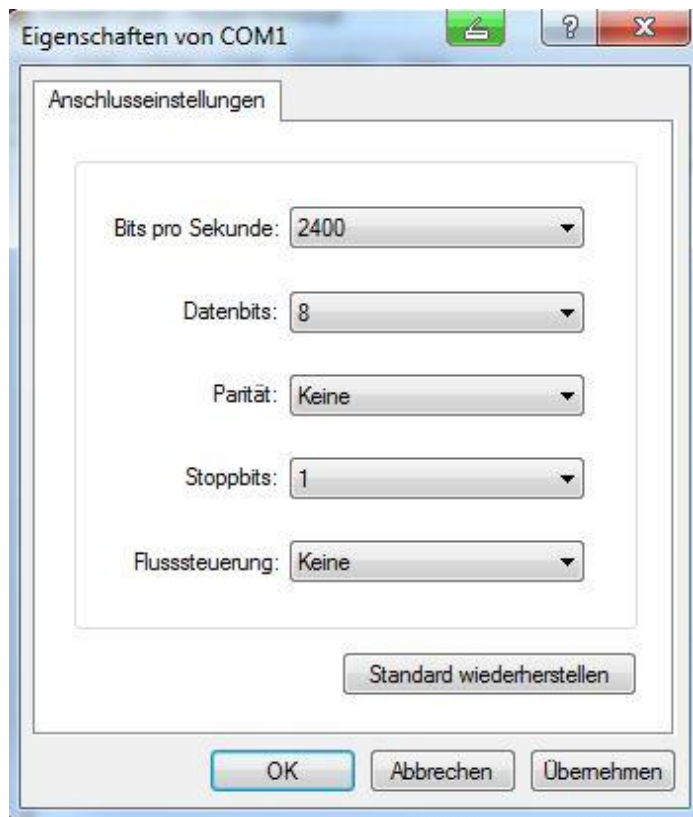
Advanced settings. Follow steps 1-7.

1.6 PROGRAMMING STEPS

Please enter the standard password „admin" in the hyperterminal to get into the main menu.

Please enter the number of your wished menu you want to open.

If you choose no. 1 you can change the logic of the segments 1-8.
The segments can be defined as NO (normal open) or as NC (normally closed).

```
-----------------------------------------------------------------
Function Segment Logic
-----------------------------------------------------------------
        1. Segment 1 Logic, Current Setting(Normal Open)
        2. Segment 2 Logic, Current Setting(Normal Open)
        3. Segment 3 Logic, Current Setting(Normal Open)
        4. Segment 4 Logic, Current Setting(Normal Open)
        5. Segment 5 Logic, Current Setting(Normal Open)
        6. Segment 6 Logic, Current Setting(Normal Open)
        7. Segment 7 Logic, Current Setting(Normal Open)
        8. Segment 8 Logic, Current Setting(Normal Open)
        0. Exit
-----------------------------------------------------------------

Please Enter Number:
```

If you choose no. 2 you can define the events for the segments.

```
-----------------------------------------------------------------
Output Segment Function Configure
-----------------------------------------------------------------
        1. Segment 1 function, Current Setting(Utility Failure)
        2. Segment 2 function, Current Setting(Battery Low)
        3. Segment 3 function, Current Setting(General Alarm)
        4. Segment 4 function, Current Setting(Bypass Status)
        5. Segment 5 function, Current Setting(Summary Alarm)
        0. Exit
-----------------------------------------------------------------

Please Enter Number:
```

1. Utility Failure – UPS input mains voltage or frequency out of range.

2. Battery Low – UPS Battery voltage level is low.

3. General Alarm – UPS fail condition.

4. Bypass Status – UPS under Bypass mode.

5. Summary Alarm – Any one of AS400 listed faults active will send this signal.

6. Battery Testing – Battery Testing is in progress.

7. Shutdown Processing – UPS doing shutdown after received shutdown command via communication port.

8. Over Load Warning – UPS load over spec definition.

```
--------------------------------------------------------------
Segment 1 Function
--------------------------------------------------------------
            1. Utility Failure
            2. Battery Low
            3. General Alarm
            4. Bypass Status
            5. Summary Alarm
            6. Battery Testing
            7. Shutdown Processing
            8. Over Load Warning
            0. Exit
--------------------------------------------------------------

Please Enter Number:
```

If you choose no. 3 have access to the input segments. Please note that you can only change segment 6. Segments 7 and 8 can not be changed.

```
-------------------------------------------------------------------------
Input Segment Function Configure
-------------------------------------------------------------------------
        1. Segment 6 function, Current Setting(Battery Mode Shutdown)
        2. Segment 7 function, Current Setting(UPS On)
        3. Segment 8 function, Current Setting(UPS Off)
        0. Exit
-------------------------------------------------------------------------

Please Enter Number:
```

For segment 6 you can choose events as followed.

```
-------------------------------------------------------------
Segment 6 Function
-------------------------------------------------------------
        1. Battery Mode Shutdown
        2. Any Mode Shutdown
        3. Emergency Power Off
        4. Remote On/Off
        0. Exit
-------------------------------------------------------------

Please Enter Number:
```

1. Battery Mode Shutdown – If signal is active and UPS is under battery mode, UPS will cut off output.

2. Any Mode Shutdown – If signal and UPS is under any mode, UPS will cut off output.

3. Emergency Power Off – If signal is active and UPS is under any mode, UPS will cut off output, give out EPO warning and pressing any button on UPS LCD panel cannot turn on UPS.

4. Remote On/Off – If signal is active (close Pin 8 & Pin 1 when segment 6 is configured to normal open; or open Pin 8 & Pin 1 when segment 6 is configured to normal close) and Ups is under any mode, UPS will cut off output.
If signal is not active (open Pin 8 & Pin 1 when segment 6 is configured to normal open; or close Pin 8 & Pin 1 when segment 6 is configured to normal close) and UPS is under any mode, UPS will turn on.

If you choose no. 4 (Function Segment Active Delay Time) you can change active delay time and current settings.

00 means immediately. 01 means 1 second delay.

```
-----------------------------------------------------------------
Function Segment Active Delay Time
-----------------------------------------------------------------
        1. Segment 1 Active Delay Time, Current Setting(Immediately)
        2. Segment 2 Active Delay Time, Current Setting(Immediately)
        3. Segment 3 Active Delay Time, Current Setting(Immediately)
        4. Segment 4 Active Delay Time, Current Setting(Immediately)
        5. Segment 5 Active Delay Time, Current Setting(Immediately)
        6. Segment 6 Active Delay Time, Current Setting(Immediately)
        0. Exit
-----------------------------------------------------------------

Please Enter Number:
```
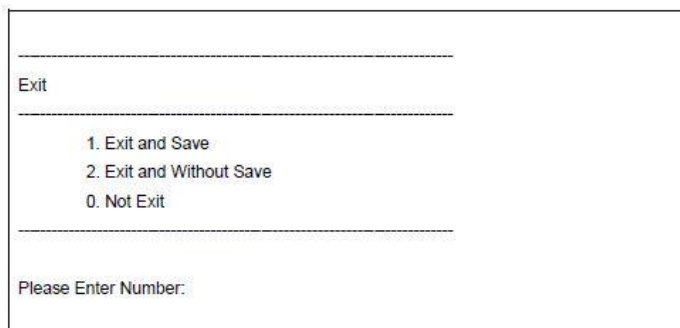
If you choose no. 5 you can reset the card to factory settings.

If you choose no. 6 the firmware version is displayed.

```
-----------------------------------------------------------------
Please Enter Number:6

-----------------------------------------------------------------
Firmware Version
-----------------------------------------------------------------
        Firmware Version:00.07 2012/10/31
        0 . Exit
-----------------------------------------------------------------

Please Enter Number:_
```
Connected 00:05:09   Auto detect   2400 8-N-1   SCROLL   CAPS   NUM   Capture   Print echo

After you are done with all settings choose no. 0 followed by 1 to exit and save the settings. If you don't want to save the settings but just exit choose no. 2. Choose no. 0 again and you will be back in the main menu.

```
-----------------------------------------------------------------
Exit
-----------------------------------------------------------------
        1. Exit and Save
        2. Exit and Without Save
        0. Not Exit
-----------------------------------------------------------------

Please Enter Number:
```

Important!: Please disconnect the cable once you finished programming and pull the card out of the slot before operating.

NOTES

Certificate of guarantee

TYPE: _____

DEVICE NO.: _____

PURCHASED DATE: _____

DEALER`S STAMP/SIGNATURE

ERRORS EXCEPTED; SUBJECT TO CHANGE WITHOUT NOTICE

OPERATING INSTRUCTIONS
BAL 8000061679, EN

Emil-Siepmann-Str. 32
59581 Warstein-Belecke – Germany
Tel.: +49 2902 763100
www.aegps.com

AEG
POWER SOLUTIONS