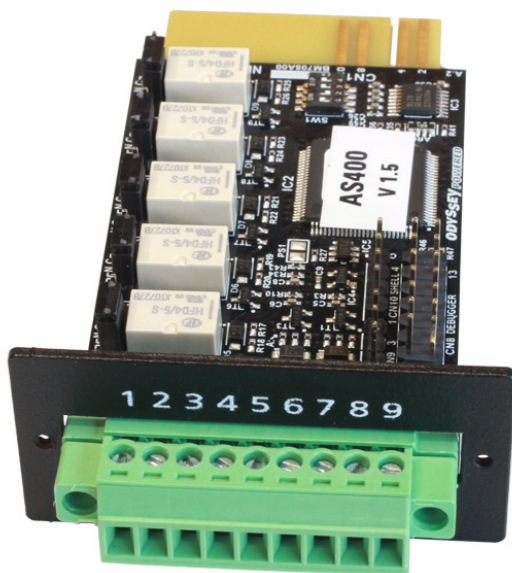


User Manual



KESSUPS-x2RT-Relaycard-v2 (KESS item number 11601023)



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1. PRESENTATION

The KESSUPS-x2RT-relaycard-v2 features potential-free contacts and has been designed to remotely monitor your UPS, allowing alarms and warnings to be handled by external systems. This card is compatible with both KESSUPS gen2 models (KESSUPS-52RT and KESSUPS-92RT) and can be easily reconfigured.

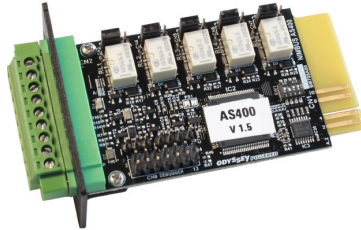


Figure 1: Overview of the KESSUPS-x2RT-relay-card-v2

2. FUNCTIONALITY

The KESSUPS-x2RT-relaycard-v2 has been designed to receive potential-free signals for the programmable controller and supervision system.

3. DOMAIN OF APPLICATION

The KESSUPS-x2RT-relaycard-v2 can be used in the following environments:

- IBM Servers, PCs & Workstations.
- Auto-control industrial equipment and communication applications.
- It allows users to design their own application program with the card's interface.

4. CONFIGURING THE CARD

4.1 MICROSWITCH TO CONFIGURE THE UNIT

KESSUPS-x2RT-relaycard-v2 features a configuration microswitch. This microswitch can be used to configure the different units, as shown in the figures below:

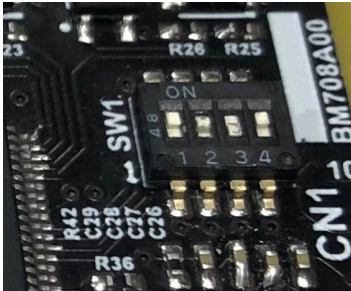


Figure 2: Microswitch

KESSUPS-52RT	✓
KESSUPS-92RT	✓

Figure 3: Configuration of the unit using the microswitch

4.2 JUMPERS USED TO CONFIGURE THE RELAYS

Likewise, the KESSUPS-x2RT-relaycard-v2 features a series of jumpers, which can be used to quickly and easily configure the default operation of relays, i.e., normally open (**NO**) or normally closed (**NC**).

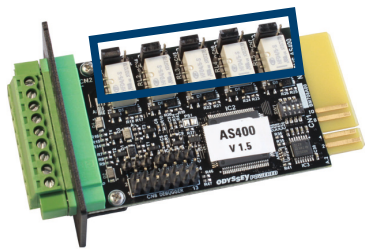


Figure 4: Relay configuration

Refer to the table below to check the pins onto which the jumper must be inserted to configure the relay output as normally open (**NO**) or normally closed (**NC**):

Relay 1		Relay 2		Relay 3		Relay 4		Relay 5	
CN3		CN4		CN5		CN6		CN7	
NO	NC	NO	NC	NO	NC	NO	NC	NO	NC
Jumper pins 2-3	Jumper pins 1-2	Jumper pins 2-3	Jumper pins 1-2	Jumper pins 2-3	Jumper pins 1-2	Jumper pins 2-3	Jumper pins 1-2	Jumper pins 2-3	Jumper pins 1-2

Figure 5 shows an example with relay 1 configured as normally closed (**NC**), i.e., with the jumper between pins 1 and 2.

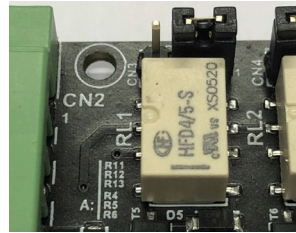


Figure 5: Relay 1 with the NC configuration

Following the example, insert the jumper between pins 2 and 3 to configure relay 1 as normally open (**NO**), as shown in Figure 6 beside:

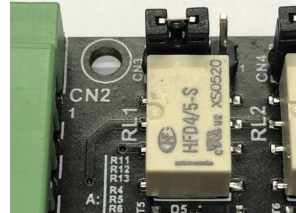


Figure 6: Relay 1 with the NO configuration

5. INSTALLATION

5.1 ACCESSING THE INTELLIGENT SLOT

Remove the cover of the intelligent slot from the rear panel.

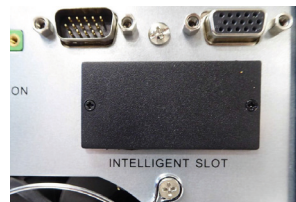


Figure 7: Intelligent slot cover

5.2 INSERTING THE CARD

Insert the KESSUPS-x2RT-relaycard-v2 into the intelligent slot.



Figure 8: Inserting the KESSUPS-x2RT-relaycard-v2

5.3 SECURING THE CARD

The KESSUPS-x2RT-relaycard-v2 must be secured close to the rear panel. Secure it with the screws supplied.



Figure 9: Secure the KESSUPS-x2RT-relaycard-v2

6. APPLICATION

Basic circuit used to implement remote monitoring and control functions.

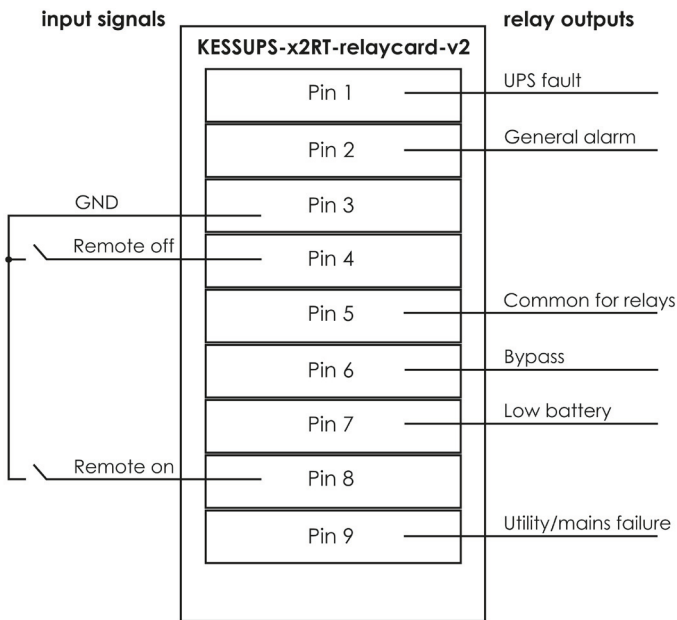


Figure 10: User interface

7. SPECIFICATION

7.1 ELECTRICAL PARAMETERS OF THE PORT

Parameter		Symbol	Max.	Unit
Relay	DC voltage	V_{DC}	24	V
	DC current	I_{DC}	1.0	A

7.2 DEFINITION OF THE PINS

Pin	Name-Pin	Reasons	I/O	NO / NC / configure jumper pin
Pin 1	UPS fault	One or more UPS faults occurred.	O/P	NO: CN3 2-3 NC: CN3 2-1
Pin 2	General alarm	Possible faults: fault, warning, active bypass, utility / mains failure.	O/P	NO: CN4 2-3 NC: CN4 2-1
Pin 3	GND	Common for pin 4 and pin 8.	I/P	
Pin 4	Shut-down / Remote Off	If the UPS receives a shutdown signal of 3 to 10s when working as a backup battery, it will shut down with a 12 s delay. Only potential-free relays must be used.	I/P	
Pin 5	Common	Common for relays	I/P	
Pin 6	Bypass	UPS on bypass; power supplied from mains; the system will shut down if mains fails (only 92RT).	O/P	NO: CN5 2-3 NC: CN5 2-1
Pin 7	Low battery voltage	The battery charge is below the default power level. If it continues to drop, the UPS will not be capable of supplying power to the system.	O/P	NO: CN6 2-3 NC: CN6 2-1
Pin 8	Remote On	If the UPS receives a Remote On signal of 3 to 10s when working as a backup battery, it will be started with a 12s delay. Only potential-free relays must be used.	I/P	
Pin 9	Utility / Mains failure	The UPS is supplying power to the system.	O/P	NO: CN7 2-3 NC: CN7 2-1



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