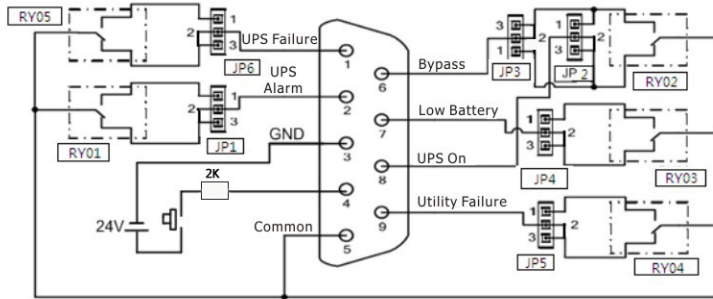


5. INTERNAL BLOCK DIAGRAM

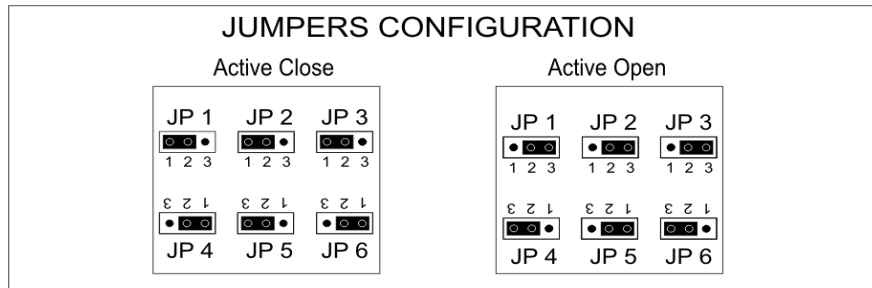
This card controls 5 internal relays according to UPS mode. Dry contact outputs can be configured to work as Active Open or Active Close by setting 6 internal jumpers located on the card as indicated in section 6 of this manual.



If energized outputs are required, board must be powered with 12VDC between points 5 (+) and 3 (-). Outputs must be read with point 3 as reference.

6. JUMPER CONFIGURATION:

JUMPER	JUMPER FUNCTION	“ACTIVE CLOSE”	“ACTIVE OPEN”
Jumper 1	Audible Alarm	Jumper 1-2	Jumper 2-3
Jumper 2	AC Input failure	Jumper 1-2	Jumper 2-3
Jumper 3	Low Battery	Jumper 1-2	Jumper 2-3
Jumper 4	UPS Failure	Jumper 1-2	Jumper 2-3
Jumper 5	BYPASS Activated	Jumper 1-2	Jumper 2-3
Jumper 6	UPS (“ON”) in Normal Mode	Jumper 1-2	Jumper 2-3

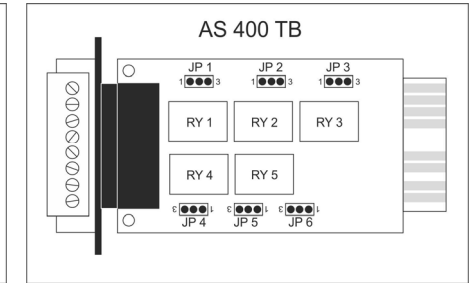
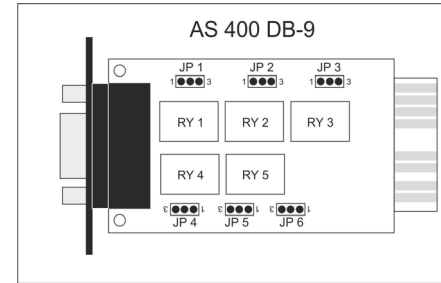


1. INTRODUCCION

This is dry contact input/output card for monitoring and controlling all online UPS of XSMART by INTEGRA. This card can be ordered in 2 different models:

AS400-DB9: With DB9 port

AS400-TB: with I/O Terminal Block



Only difference between both cards is their input/output connector.

IMPORTANT:

These cards can be powered with 12VDC or 24VDC to generate powered outputs with similar. Output voltage must be measured respect point 3 (GND). In case cards are not powered, their outputs can be read as open/close contacts (dry contact outputs) respect of point 5 (Common). Dry contact outputs can be configured as “normal close” (Active Open) or “normal open” (Active Close) by setting their related jumpers (J1 to J6).

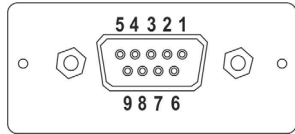
2. INSTALACION

- Remove intelligent slot cover located in rear panel of the UPS.
- Insert AS400 board into the slot and fix it by screws.
- If AS400 is DB9 connect a DB9 cable to I/O port. If it is TB type, connect I/O in the terminal connections block.

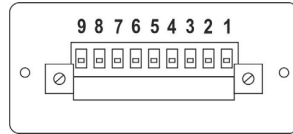
DB9 Cable: DB9 cable must be 1 to 1 pinout. It means pin 1 in side “A” of the cable must be connected to pin 1 of side “B”. Pin 2 to Pin2 and so on.

3. INPUT - OUTPUT DESCRIPTION:

AS400-DB9



AS400-TB



Pin Configuration:

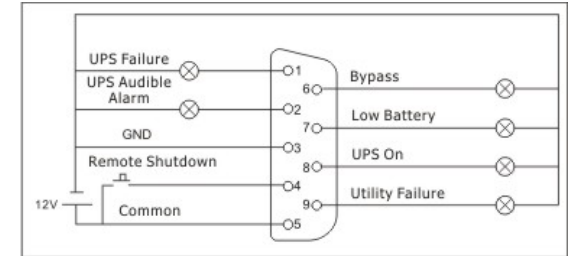
PIN NUMBER	FUNCTION	TYPE
Pin 1	UPS Failure	Output
Pin 2	ALARM Output	Output
Pin 3	GND (Ground reference for pin 4)	Tierra (GND)
Pin 4	"Remote Shutdown"	Active Input 12Vdc or 24Vdc. (** Note)
Pin 5	Positive DC Power Supply (When card is powered externally)	Common for Dry Contacts Power Supply 12Vdc/24Vdc
Pin 6	BYPASS ACTIVATED	Output
Pin 7	LOW BATTERY	Output
Pin 8	UPS "ON" IN NORMAL MODE	Output
Pin 9	AC INPUT FAILURE DETECTED	Output

** NOTE: Remote Shutdown must be a pulse type input (in PIN 4). This pulse must be applied during 10 seconds or shorter. If this input is applied during longer than 10 seconds can generate internal damages in the card because overheating. Optimum pulse time is about 3 to 8 seconds. When input is powered with 24VDC, it is required to connect input with a 2K resistor in series to limit input current. Revise figure 24VDC, point 4 of this manual.

4. TECHNICAL INFORMATION:

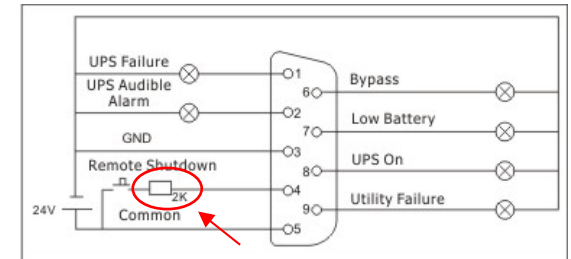
12Vdc Power Supply

Positive: Pin5
Negative: Pin 3



24Vdc Power Supply

Positive: Pin5
Negative: Pin 3



Electrical Restrictions:

1. Max. Output Current: 1 Amp dc / Max. Voltage Supply: 24 Vdc.
2. Remote Shutdown Input: It must be a pulse type signal with a recommended duration of 3 to 8 seconds. If pulse duration is longer than 10s permanent internal damage can be caused. When system is powered by 24Vdc a 2K resistor must be connected in series with Remote Shutdown signal.

Output States Description:

UPS MODE	ACTIVE CLOSE	ACTIVE OPEN
UPS Failure	Pin 1 & Pin 5 CLOSED	Pin 1 & Pin 5 open
Audible Alarm: UPS failure, Bypass, AC Input Failure, Low Batt.	Pin 2 & Pin 5 CLOSED	Pin 2 & Pin 5 open
Bypass Active	Pin 6 & Pin 5 CLOSED	Pin 6 & Pin 5 open
Low Battery	Pin 7 & Pin 5 CLOSED	Pin 7 & Pin 5 open
UPS "ON" Online Mode	Pin 8 & Pin 5 CLOSED	Pin 8 & Pin 5 open
AC Input Failure	Pin 9 & Pin 5 CLOSED	Pin 9 & Pin open