XtendLan

RSC-P11 series

OPERATING INSTRUCTIONS

RSC-P11G -SM,-CS,-KL   Conversion between general RS-485 protocols

RSC-P11A -SM,-CS,-KL   Conversion between Machester and RS-485

RSC-P11B -SM,-CS,-KL   Conversion between BOSCH and RS-485

RSC-P11D -SM,-CS,-KL   Conversion between DALLES and RS-485

Content

1. Features

- Protocol converter mainly used in the field of convert different protocol and baud rate between Matrix , keyboard controller, DVR or other host machine and PTZ, receiver or other terminal device .
- When DVR and matrix control the terminal device, the protocol converter box can play the function of connection and convert protocol.
- Protocol converter box support multi-protocol and baud rate which it is the necessary equipment in the large system of surveillance project.

1.1. Applied Project

1. Matrix controls the different high speed dome or PTZ with different protocol.

2. Matrix and DVR controls the terminal device, like PTZ or camera.

Note:

- Installation should be carried out only by qualified personnel and in accordance with any wiring regulations in force at the time.

- Do not use any accessory not specifically designed for use with this product.

- When you use it, please do as the manual and keep the correct connection wire. The power supply, corresponding DIP position, communication Protocol, baud rate must be match your control equipment.

- Do not attempt to service or repair the protocol converter as opening or removing covers may expose dangerous voltage or other hazards.

1.2.   Technical Parameters

Adaptor	AC220V or AC110V, 9V DC in
Power supply	3W
In /Communication	RS-485 or Manchester
Out/Communication	RS-485
Work Temperature	$-40^0C \sim +70^0C$
Size (mm)	160 x 66 x 27
Weight (kg)	0.69

1.3.   The size of Protocol Converter
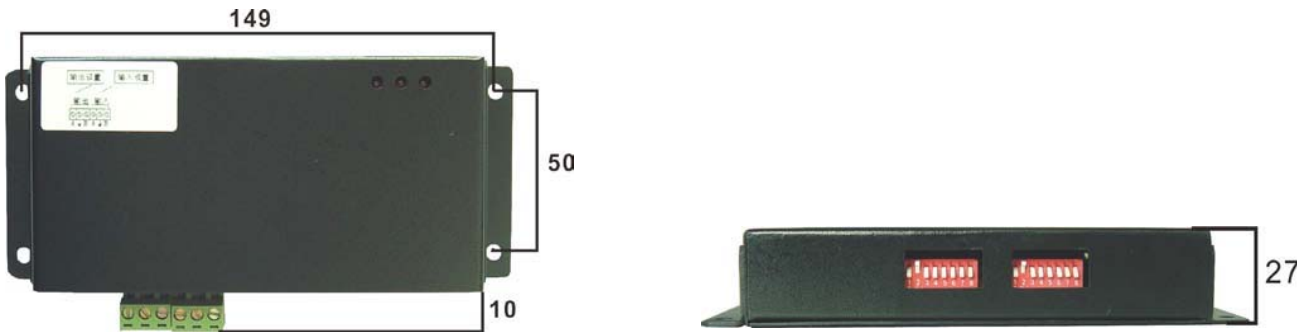
2. Protocol convertors series diferencies

Protocol converter differs by input and output interface.

- The product item number stands for the output protocols which protocol converter box support; and each product can only choose ONE of number..
- The model RSC-P11 stands for input, the -XX product stand for output.

For Example:
Model No: RSC-P11B-KL
Input Protocol is PHILIPS, BOSCH, UNIVISION
Output Protocol is KALATEL, AD, PELCO-D, PELCO-P

2.1.   Input interface differences:

RSC-P11G-XX
Input is RS-485. Generally most equipment is using this.
Output is RS-485.

RSC-P11A-XX
Input is Manchester Code which support AD, TYCO, AB, WISH and other Matrix Host
Output is RS-485

RSC-P11B-XX
Input device is PHILIPS、BOSCH or UNIVISION Matrix
Output device is RS-485.

RSC-P11D-XX
Input is DALLES protocol matrix or keyboard;
Output is RS-485

2.2.   Output interface differences:

Output protocols available by model annex code -XX:

-SM

PELCO-D, PELCO-P, VICON, PIH1016 2400, MOLYNX 9600, SAMSUNG 9600, SAE 9600, B01/TD 500 9600,

-CS

PELCO-D, PELCO-P, VICON, CS-850/860

 -KL

PELCO-D, PELCO-P, AD-DOME, KALATEL

3. Application scheme

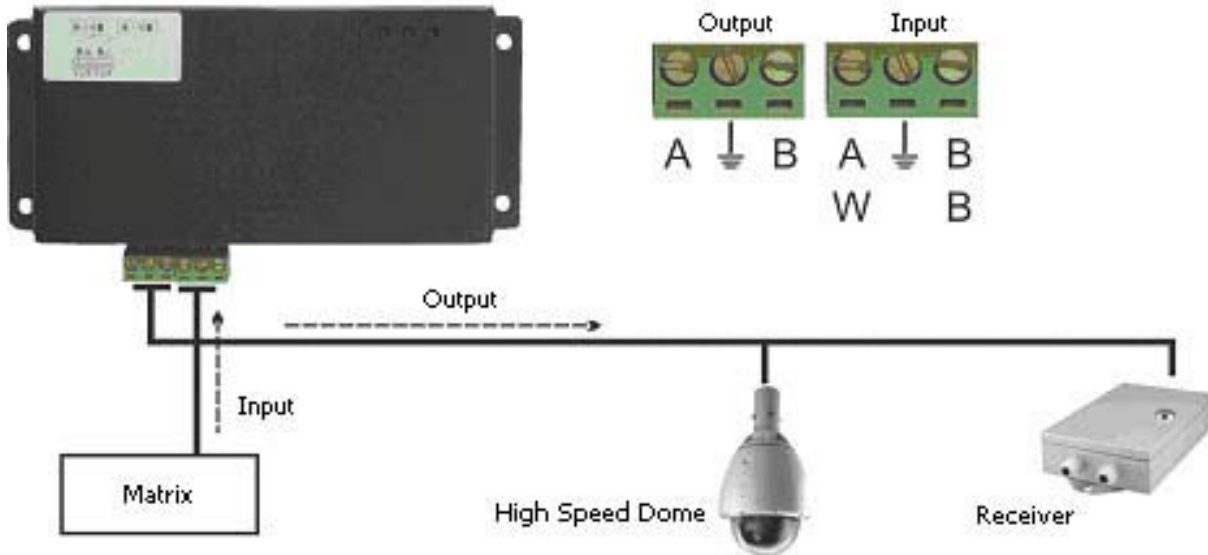●The matrix controls the high speed dome and receiver with different protocol.

●The Matrix and DVR controls the terminal device.

4. Connection scheme

- Input connects with Matrix, keyboard, DVR or other control device; Output connects with high speed dome, receiver and other terminal device.

- Output is RS485 code (A=485+ B=485-)

Note:
  a) The output of protocol convert is RS485 port the max communication distance up to 1200M
     Add a 120ohm resistance at the end of RS485 + and RS485-.
  b) Using twisted-pair cable for communication.

5. Diagnostics

- POWER LED: when the power on, the LED will be on.
- INPUT LED: when the matrix controls the PTZ, the input LED will be on or wink.(When you control the PTZ left or right, the LED will be ON and be OFF after stop)
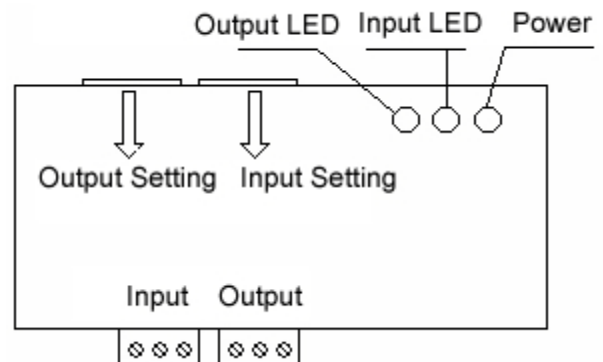
6. RSC-P11G converter: RS-485 to RS-485

Support general host with RS485 communication;
For available protocol, please see the following list in details.

Input DIP position: Both of Switch 1 and Switch 2 is baud rate setting; From Switch 3 to Switch 8 is output protocol setting.
Output DIP position: Both of Switch 1 and Switch 2 is baud rate setting; From Switch 3 to Switch 8 is output protocol setting.

Input protocol setting:
From Switch 3 to Switch 8 is input protocol setting.

Item No.	Input Protocol	Switch 8	Switch 7	Switch 6	Switch 5	Switch 4	Switch 3
0	PELCO-D	ON	ON	ON	ON	ON	ON
1	VICON Matrix V1422 / 4800	ON	ON	ON	ON	ON	OFF
2	VICON- surveyor99	ON	ON	ON	ON	OFF	ON
3	AD (RS422/485)	ON	ON	ON	ON	OFF	OFF
4	DH	ON	ON	ON	OFF	ON	ON
5	MOLYNX	ON	ON	ON	OFF	ON	OFF
6	PIH1016	ON	ON	ON	OFF	OFF	ON
7	ADT8060 ADT	ON	ON	ON	OFF	OFF	OFF
8	PELCO-P	ON	ON	OFF	ON	ON	ON
9		ON	ON	OFF	ON	ON	OFF
10		ON	ON	OFF	ON	OFF	ON
11	KODICOM -RX / KRE-301RX	ON	ON	OFF	ON	OFF	OFF
12		ON	ON	OFF	OFF	ON	ON
13		ON	ON	OFF	OFF	ON	OFF
14	V1200 Baud Rate9600 / Address begin with 0	ON	ON	OFF	OFF	OFF	ON
15	KTD348-KTD304/4800 KALATEL HOST SANTACHI-450/9600	ON	ON	OFF	OFF	OFF	OFF

Input and Output Baud rate setting:
Both of Switch 1 and Switch 2 is baud rate setting;

Item No.	Baud Rate	Switch 1	Switch 2
0	1200	ON	ON
1	2400	ON	OFF
2	4800	OFF	ON
3	9600	OFF	OFF

Output protocol setting:

From Switch 3 to Switch 8 is output protocol setting.

	Input Protocol	Product model	Switch 8	Switch 7	Switch 6	Switch 5	Switch 4	Switch 3
0	PELCO-D	-SM/-CS/-KL	ON	ON	ON	ON	ON	ON
1			ON	ON	ON	ON	ON	OFF
2	VICON	-SM/-CS	ON	ON	ON	ON	OFF	ON
3			ON	ON	ON	ON	OFF	OFF
4			ON	ON	ON	OFF	ON	ON
5			ON	ON	ON	OFF	ON	OFF
6	PIH1016 2400	-SM	ON	ON	ON	OFF	OFF	ON
7	MOLYNX 9600	-SM	ON	ON	ON	OFF	OFF	OFF
8	PELCO-P	-SM/-CS/-KL	ON	ON	OFF	ON	ON	ON
9	SAMSUNG 9600	-SM	ON	ON	OFF	ON	ON	OFF
10	SAE 9600	-SM	ON	ON	OFF	ON	OFF	ON
11	B01/TD500 9600	-SM	ON	ON	OFF	ON	OFF	OFF
12			ON	ON	OFF	OFF	ON	ON
13	AD-Dome	-KL	ON	ON	OFF	OFF	ON	OFF
14	Cs-850/860	-CS	ON	ON	OFF	OFF	OFF	ON
15	KALATEL	-KL	ON	ON	OFF	OFF	OFF	OFF

For other operation way of PTZ, matrix and dome see attached special function list - chapter 10 on page 12.

7. RSC-P11A converter: Manchester to RS-485

Input Protocol is Manchester Code and which support AD, TYCO, AB, WISH and other Matrix Host;
For available protocol, please see the following list in details.

Input DIP position: Both of Switch 1 and Switch 2 is baud rate setting; From Switch 3 to Switch 8 is output protocol setting.
Output DIP position: Both of Switch 1 and Switch 2 is baud rate setting; From Switch 3 to Switch 8 is output protocol setting.

Input protocol setting:
From Switch 3 to Switch 8 is input protocol setting.
Connfiguration table is identical as in chapter 6 on page 7

Input and Output Baud rate setting:
Both of Switch 1 and Switch 2 is baud rate setting;
Connfiguration table is identical as in chapter 6 on page 7

Output protocol setting:
From Switch 3 to Switch 8 is output protocol setting.
Connfiguration table is identical as in chapter 6 on page 7

The using way of AD/AB with compatible matrix:

AUX1	Call preset 68 is MENU ON
AUX2	Call preset 69 is MENU OFF
AUX3 is AUTO	Call preset 70 is SCAN START
Call preset 65 is PATTERN START	Call preset 71 is SCAN STOP
Call preset 66 is PATTERN STOP	Call preset 72 is ENTER (ACK)
Call preset 67 is PATTERN PLAY	

For other operation way of PTZ, matrix and dome see attached special function list - chapter 10 on page 12.

8. RSC-P11B converter: BOSCH to RS-485

Input device support PHILIPS, BOSCH or UNIVISION Matrix Host.
For available protocol, please see the following list in details.

Input DIP position: Both of Switch 1 and Switch 2 is baud rate setting; From Switch 3 to Switch 8 is output protocol setting.
Output DIP position: Both of Switch 1 and Switch 2 is baud rate setting; From Switch 3 to Switch 8 is output protocol setting.

Input protocol setting:
From Switch 3 to Switch 8 is input protocol setting.
Connfiguration table is identical as in chapter 6 on page 7

Input and Output Baud rate setting:
Both of Switch 1 and Switch 2 is baud rate setting;
Connfiguration table is identical as in chapter 6 on page 7

Output protocol setting:
From Switch 3 to Switch 8 is output protocol setting.
Connfiguration table is identical as in chapter 6 on page 7

The using way of PHILIPS MATRIX:

Connection：

Philips Matrix DB9 - 1 **=** RS485B ; DB9 - 2 **=** RS485A or WSB terminal

AUX3 ON ———PATTERN START	AUX6 ON ———AUTO ON
AUX3 OFF ———PATTERN STOP	AUX6 OFF ———AUTO OFF
AUX4 ON ———PATTERN RUN	AUX1
AUX5 ON ———SCAN START	AUX2
AUX5 OFF ———SCAN STOP	

For other operation way of PTZ, matrix and dome see attached special function list - chapter 10 on page 12.

9. RSC-P11D converter: DALLES to RS-485

Support DALLES Matrix host;
For available protocol, please see the following list in details.

Input DIP position: Both of Switch 1 and Switch 2 is baud rate setting; From Switch 3 to Switch 8 is output protocol setting.
Output DIP position: Both of Switch 1 and Switch 2 is baud rate setting; From Switch 3 to Switch 8 is output protocol setting.

Input protocol setting:
From Switch 3 to Switch 8 is input protocol setting.
Connfiguration table is identical as in chapter 6 on page 7

Input and Output Baud rate setting:
Both of Switch 1 and Switch 2 is baud rate setting;
Connfiguration table is identical as in chapter 6 on page 7

Output protocol setting:
From Switch 3 to Switch 8 is output protocol setting.
Connfiguration table is identical as in chapter 6 on page 7

The using way of special function with DS matrix（ Control Panasonic CS-850A ）

Call Preset 57 is PATTERN START	Call preset 64 is SET1 Main menu confirm
Call preset 58 is PATTERN STOP	Call preset 65 is SET2 Sub-Menu confirm
Call preset 59 is PATTERN RUN	OPEN navigate menu up
Call preset 60 is MENU ON	CLOSE navigate menu right
Call preset 61 is MENU OFF	

For other operation way of PTZ, matrix and dome see attached special function list - chapter 10 on page 12.

10. Special function list for using general PTZ, matrix and dome

This chapter describes special controll codes used when recoding is used

10.1.   Matrix VICON-V1422

- AUX - 1 ——— AUX1 ON / OFF
- AUX - 2 ——— AUX2 OFF / OFF
- AUX - 3 ——— PATTERN STAR
- AUX - 4 ——— PATTERN STOP
- AUX - 5 ——— PATTERN RUN

- AUX - 6 ———AUTO SCAN ON
- A / I ———— MENU ON
- A / P ———— AUTO PAN
- L - SPD -—— MENU OFF
- HOME—-— ENTER / ACK / HOME

10.2.   MOLYNX DOME

- CALL PRESET 57----CAMERA REST
- CALL PRESET 58----AUTO FOCUS
- CALL PRESET 59----PRESET TOUR
- CALL PRESET 60----MENU ON

- CALL PRESET 61----MENU UP
- CALL PRESET 62----MENU DOWN
- CALL PRESET 63----MENU LEFT
- CALL PRESET 64----MENU RIGHT

10.3.   KALATEL Speed dome

The output of protocol converter only supports a type of KALATEL protocol; The baud rate is 4800 and other switch is OFF.

- ;0=preset 60
- ;1=preset 61
- ;2=preset 62
- ;3=preset 63

- ;9=preset 69
- ;seq=preset 80
- ;set=preset 81
- ;alarm=preset 82

- ;4=preset 64
- ;5=preset 65
- ;6=preset 66
- ;7=preset 67
- ;8=preset 68

- ;auto focus =preset 83
- ;1 continue=preset 84
- ;menuon=preset 95
- ;menuoff=preset 94
- ;auto on=preset 99

- ;4=preset 64

- ;1 continue=preset 84

- ;menuon=preset 95

- ;menuoff=preset 94

- ;auto on=preset 99