SPIDER W5-B - POWER SUPPLY 12V DC 0.7A AND COMMUNICATION CONVERTER USB/NET-RS485

The power supply and communication converter Spider W5-B is designed for use with the standalone access controllers Rex or the time & attendance controllers Rex R, Regis H and Regis T. The power supply Spider W5-B is sufficiently strong to power one standalone controller (12V DC 0.1A) and one electric strike (12V DC 0.5A) or one time and attendance controller. The communication converter provides communication between the controller and PC with installed software. Simultaneous power supply of an electric lock and time and attendance controller is not allowed. You can change settings of NET and USB interface with the enclosed Codeks Device Manager software.

TECHNICAL DATA

SPIDER W5-B	
Input voltage	110 - 230V AC
Output voltage	12V DC
Maximum load	0.7 A
Current consumption	2W
Operating temperature	From 5°C to 40°C
Communication conversion	USB - Ethernet-RS485
NET port / USB port	RJ45 / USB micro
NET cable	Standard ''straight through''
USB cable	USB A - USB micro
Communication indication	LED diodes
Humidity	10-80% non-condensing
Primary fuse	F100 = 250V 0.25 A
Secondary fuse	F101 = 16V 1.1 A
Dimensions (mm)	120x80x33 (WxHxD)

LED diodes

Nb. of blinks	Description
1	Normal operation – Power on
2	Controller search
3	Transmitting and receiving data
4	Low voltage – Battery mode
5	Overload

DESRIPTION OF CONNECTORS

LEFT CONNECTOR – for controller connection

Contact		Opis
1	+	12V DC 0,7 A output
2	-	Ground
3	CA	RS485 communication line A
4	CB	RS485 communication line B

MIDDLE CONNECTOR –USB

Kontakt		Opis
1	USB	USB micro connector

RIGHT CONNECTOR – Ethernet

Kontakt		Opis
1	NET	RJ45 ethernet connector

Power supply

The Spider can operate with a 110-230V AC input. The output power of the in-built power supply is 12V DC 0.7A. The Spider has protection against both short circuits and current overload. In the event that there is no mains power available, the Spider can be powered in two ways. Through USB port (connection to PC) or with 12V DC. Connect 12V DC to the Spider's power supply output (+ and –) on the left connector.

Communication
USB:
Connect the controllers to the computer through Spider's USB micro port. But first install a USB driver.
USB driver installation
Insert CD into PC and go to "Drivers\USB driver\usb driver - Jantar based\setup driver" and run the DriverSetup. After installation connect the Spider to PC. In Windows open "Control Panel\ System\ Device manager". Open "Ports" and find "Jantar USB". Check under which COM port number Spider is. If the number is higher than 9 change it to lover one from 1 to 9. After the change disconnect and reconnect USB cable from Spider. Use this COM port number when configuring communication line in the software.

Ethernet:
Connect the controllers to the computer through your LAN via Spider's Ethernet interface. Adjust network settings of the Spider using the Codeks Device Manager software so that it will function properly in your network. Please consult Codeks Device Manager's manual.

RS485:
The communication connectors are CA and CB. The default communication speed in Jantar systems is 19.200 baud. In order to achieve such speed of data transfer, the length of the UTP, STP or S-FTP cable from the converter to the last controller in the communication line **must not** exceed 1000 cable meters. If you want to achieve longer distances, it is recommended that communication amplifiers be used. It is also necessary to use one twisted pair for both A and B signals.
Only a serial connection of controllers in a single communication line is allowed. **Star (parallel) connection is not allowed**.
All shields of S-FTP cables must be wired together and at **one point** connected to the earth. Individual connections to earth are not allowed. Do not connect shield of cable to the ground of the device.
In the event of problems in communication, a termination resistor needs to be added. We recommend using 120-Ohm resistors on each side of the cable. Converters are, on the RS485 side, protected with slow-blow fuses and transient voltage suppressors.

Voltage drops and cable signal interferences
When you connect the standalone controller, use cable with a diameter of at least 0.22mm^2. If the cable length exceeds 25m, use one twisted pair of UTP cables for the positive (+) pole and one for the negative (-) pole. The cable length between power supply and powered controller should not exceed 50m.
Take into consideration that a 0.22mm^2 cable has a resistance of approximately 9 ohm per 100m. The power supply at the end of cable should be a minimum of 10V. If you are using el. strike, it is highly recommended that the voltage drop is calculated. At greater distances, a thicker cable of 0.5mm^2 or more should be used wherever possible.
If the load is, for example, 0.5A (with el. strike) then, on the 0.22mm^2 cable voltage drop will be 4.5V at 100m. For the device with 60mA consumption, the voltage drop is 0.5V.

Installation of Spider

A special holder, provided with Spider, is needed for its attachment to the wall. After the holder has been affixed, put the Spider onto the holder and press – after you hear the click, it is fixed.

If you want to remove the Spider from the wall, put the screwdriver under the device's casing (as close as possible to the holder's attachment points) and turn it gently.

Holder for wall installation.

OTHER

Please read through our warranty and disclaimer statements.

Connection scheme and additional support for the use of this product can be found on:
http://www.jantar.si/forum/en

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