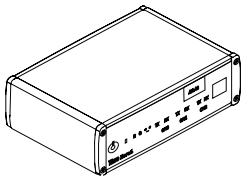
ATLAS INSTALLATION MANUAL

INDEX SECTIONS

1.1 DOTAZIONI

- ATLAS SERVER FOR RFID AND F9000 OFF-LINE DEVICES

Package:
1 server with connectors
1 power supply
1 installation manual



- Product code: 5E002010

1.2 MAIN FUNCTIONS

- Embedded Linux server
- Ethernet TCP/IP 10/100 base T connection
- n. 1 Lockbus channel to connect Stylos readers and actuators (max 8+8)
- n. 2 RS485 channels to connect F9000 on-line readers (max 2)
- Compatible with LOCKBUS and RS485 readers and actuators
- n. 2 USB Host channels (+ 1 USB channel for configuration)
- n. 1 MicroSD slot
- Desktop housing
- Power supply 12-24Vdc
- Power supply 230Vac/24Vdc 35W included
- Maximum Power Consumption 10 W (no connected devices)

2. TECHNICAL FEATURES

Communication interfaces:
- 1 Ethernet interface TCP/IP 10/100 base T
- 1 LOCKBUS channel
- 2 RS485 channels
- 2 USB channels
- 1 USB channel for configuration
- 1 serial interface (debug)

Power supply:
- 12-24Vdc
- Maximum power consumption 10W

Power Supplier:
- Input 230Vac
- Output 24 Vdc 35W
- 2 poles plug

Backup batteries:
- 1500mAh battery pack
- estimated duration 30 minutes backup

CPU and memory:
- ARM 9 based CPU module
- 200MHz CPU clock (ATMEL AT91SAM9263)
- 64MB SDRAM
- 256MB Flash
- 8GB Micro-SD

Operative system:
- Linux (Kernel 2.6.28)

Segnaling: 12 LEDs
- Power line active (green)
- Backup battery operating (yellow)
- Ethernet (orange)
- Tx/Rx channel 1 (2 orange)
- Tx/Rx channel 2 (2 orange)
- Tx/Rx channel 3 (2 orange)
- User 1 and 2 (red and green)

Push buttons:
- 1 reset
- 1 wake up
- 1 switch off

Housing:
- Desktop housing
- Black
- LxPxA 167x110x53 mm

Environmental characteristics:
- Operating temperature: 0°C ÷ +50°C;
- Storage temperature: -25°C ÷ +75°C.

3. ATLAS: PIN IN/OUT

Power connector	
J14 - 1	+ Power
J14 - 2	– Power (GND)
J14 - 3	Earth ⏚

Serial 0	Signal name
J4 - 1	SER - 0 –B
J4 - 2	SER - 0 –A
J4 - 3	GND
J4 - 4	+ Power

Serial 1	Signal name
J5 - 1	SER - 1 –B
J5 - 2	SER - 1 –A
J5 - 3	GND
J5 - 4	+ Power

Serial 2	Signal
J11 - 1	SER - 2 D –
J11 - 2	SER - 2 C –
J11 - 3	SER - 2 B –
J11 - 4	SER - 2 A –
J11 - 5	GND
J11 - 6	+ 5V

LED	Function	Colour
DL9	UART 2 RX	Orange
DL8	UART 2 TX	Orange
DL7	UART 1 RX	Orange
DL6	UART 1 TX	Orange
DL5	UART 0 RX	Orange
DL4	UART 0 TX	Orange
DL2	ETH - LINK	Orange
DL11	USER 1	Green
DL10	USER 0	Red
DL3	Battery ON	Yellow
DL12	ON line	Green

Ethernet	Signal
J17 - 1	TX +
J17 - 2	TX –
J17 - 3	RX +
J17 - 4	Not to be used
J17 - 5	Not to be used
J17 - 6	RX –
J17 - 7	Not to be used
J17 - 8	Not to be used

Serial Debug	Signal
J15 - 1	GND
J15 - 2	+ 5 Vext
J15 - 3	DEBUG-UART-RX
J15 - 4	DEBUG-UART-TX

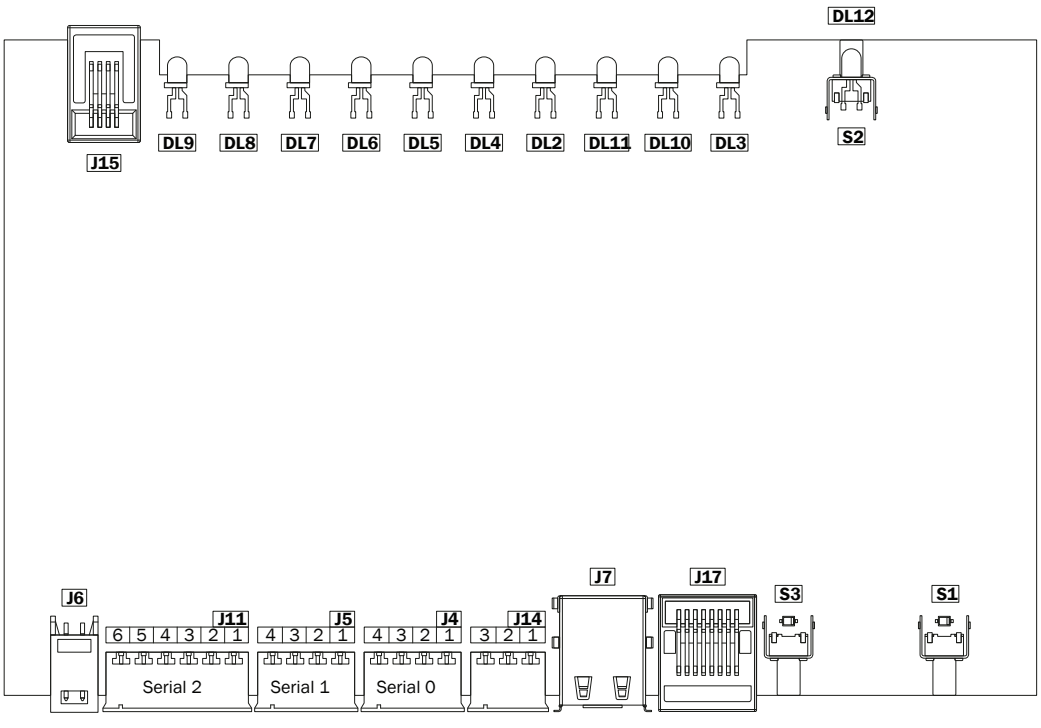
Push buttons	
S1	Reset
S2	Wakeup
S3	Switch off

3.1 ATLAS: GENERAL VIEW

To turn on the Atlas connect the supplied power supply with the Atlas J4 connector.

To turn off the Atlas proceed as follow:

- Disconnect the main power supply of the Atlas: the LED with the battery icon turns ON (LED DL3)
- Hold the S3 button on the back of Atlas until the red LED "R" on the front panel turns ON (LED DL10).
- As confirmation of the correct procedure wait for all the LEDs switching off.

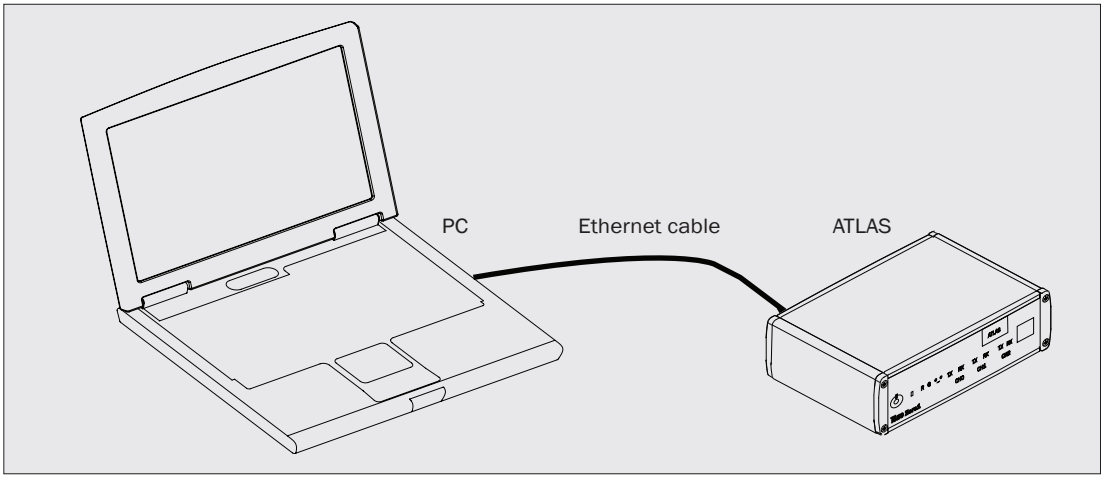


4.1 ATLAS : IP ADDRESS CONFIGURATION

- Pay close attention during the new IP address configuration of the Atlas: for security reasons this device does not allow you to restore it to the “Factory settings” if not using the appropriate login credentials via web page.
- In case you have forgotten the new IP address that you set in the Atlas, please contact an authorized Iseo Zero1 service center to get assistance.

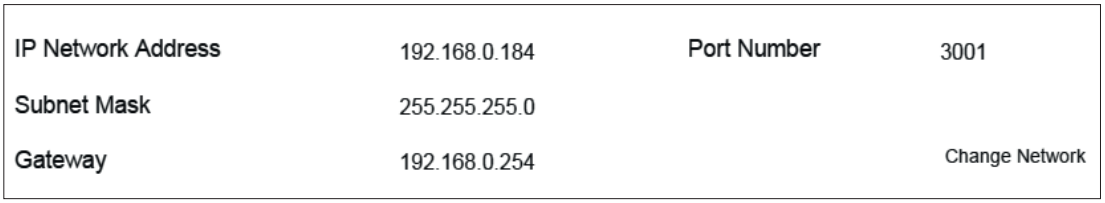
- Connect the network cable between the PC and the J17 connector Atlas (img 01)
- Set the PC's network adapter on the subnet 192.168.0.XX

img 01



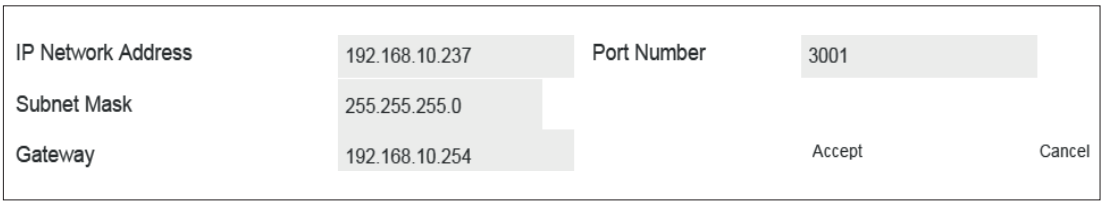
- Use the Google Chrome or Safari internet browser at 192.168.0.184
- Click on “Change Network” (img 02)

img 02



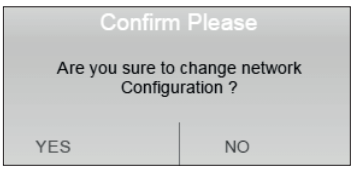
- Set the network adapter Atlas
- Click on “Accept” (img 03)

img 03



- Click on “Yes” to confirm the new settings (img 04)

img 04

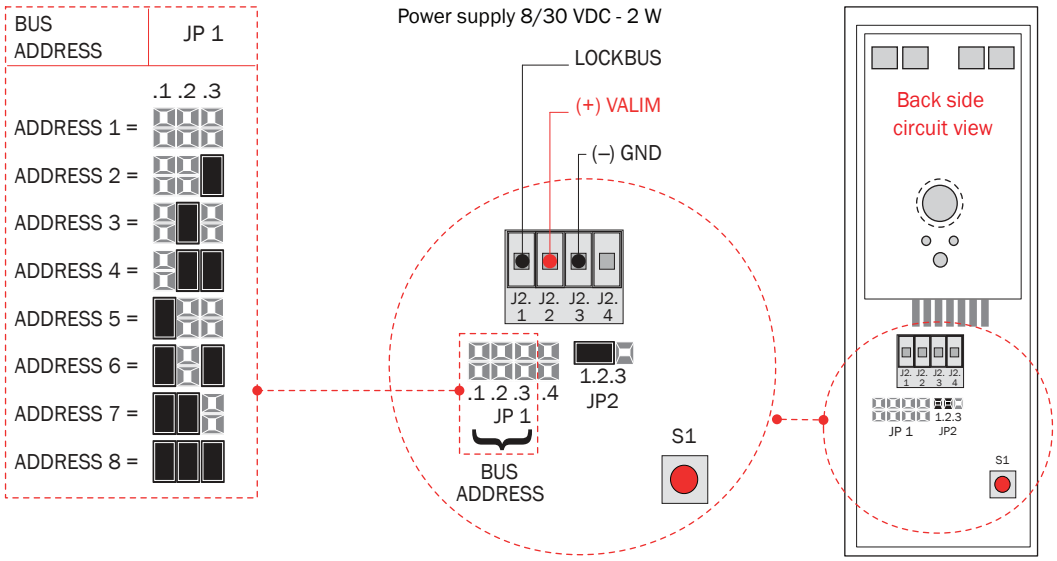


- Restart your Internet browser to access the Atlas from the new IP address

5. WARNINGS

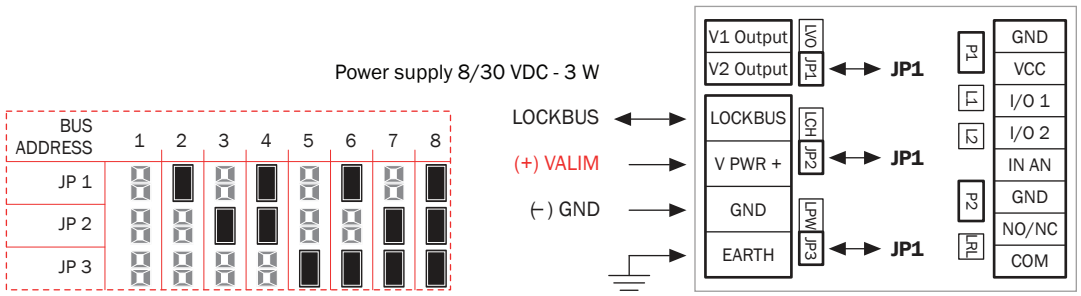
- The calculation of the cables section must be performed by qualified staff.
- Max cable length of LOCKBUS channel is 100 mt.
- Recommended voltage for LOCKBUS channel: 24 VDC.
- In case of power failure the rechargeable batteries inside the Atlas ensure power for 30 minutes max.
- Ensure full recharge of the Atlas internal batteries by running a full recharge cycle min every 3 months (see section 8).
- It is advisable to provide for an appropriate sectioning and protection switch upstream of the transformer.
- The electrical connection must be made pursuant to the laws force.
- For any technical assistance or repairs, contact only Iseo Serrature or a technical assistance centre authorised by Iseo Zero1.
- Iseo Zero1 reserves the right to make all of modifications that the same deems necessary to the product and the instruction manual, without prior notice, in order to improve the quality or for manufacturing and marketing necessities.

6.1 SETTING TABLE WITH STYLOS READERS



Note: for each LOCKBUS channel it's possible to connect max 8 Stylos readers.

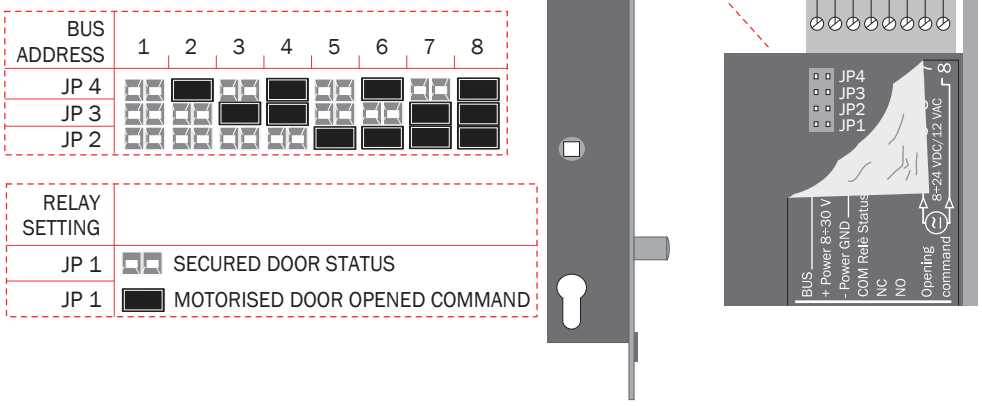
6.2 SETTING TABLE WITH STYLOS LINE SERIES' ACTUATOR



Note: for each LOCKBUS channel it's possible to connect max 8 Stylos readers.

6.3 SETTING TABLE WITH THESIS 2.0'S ACTUATOR

Note:
Take off the label to enter into configuration jumpers (JP1 / 2 / 3 / 4). After the operation replace the label.



Note: for each LOCKBUS channel it's possible to connect max 8 Stylos readers.

7.1 ACTUATORS STYLOS LINE: LOCKBUS TYPE 1 SELECTION

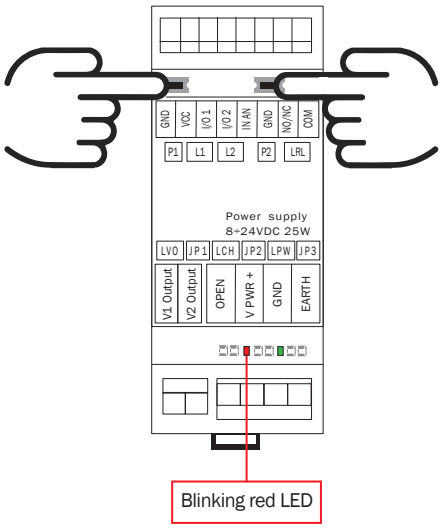
- The actuators series Stylos Line must be previously set in LOCKBUS 1 type to function properly with the Atlas

1

- Switch on the Actuator and check if red LED blinks 1 time (LOCKBUS 1)
- If at the power up the red LED blinks 2 times (LOCKBUS type 2) proceed as described at point 2

2

- Switch on the Actuator keeping pressed both buttons simultaneously for 1 sec.
- Switch on it again to check if now the red LED blinks 1 time otherwise repeat the procedure



- Product code: 5E2501

7.2 ACTUATORS THESIS LINE: LOCKBUS TYPE 1 SELECTION

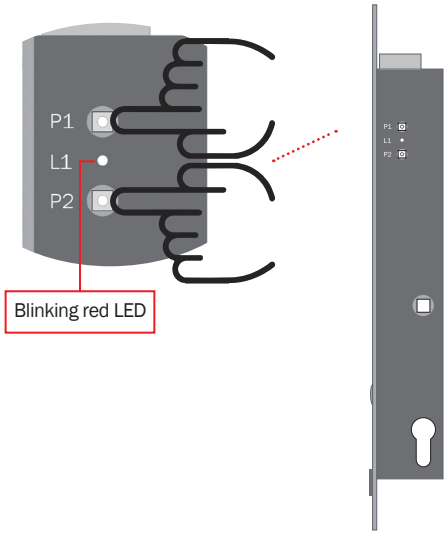
- The actuators series Thesis Line must be previously set in LOCKBUS 1 type to function properly with the Atlas

1

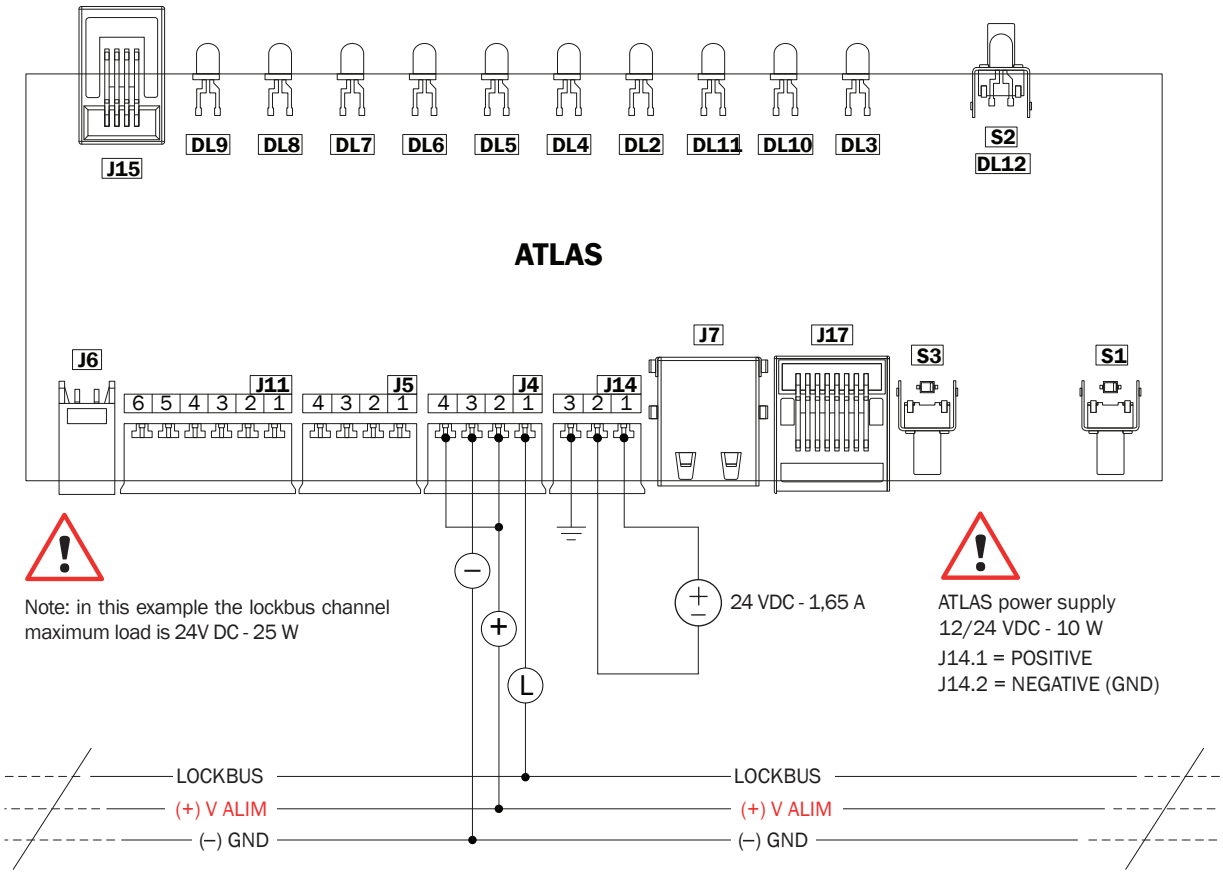
- Switch on the Thesis and check if red LED blinks 1 time (LOCKBUS 1)
- If at the power up the red LED blinks 2 times (LOCKBUS type 2) proceed as described at point 2

2

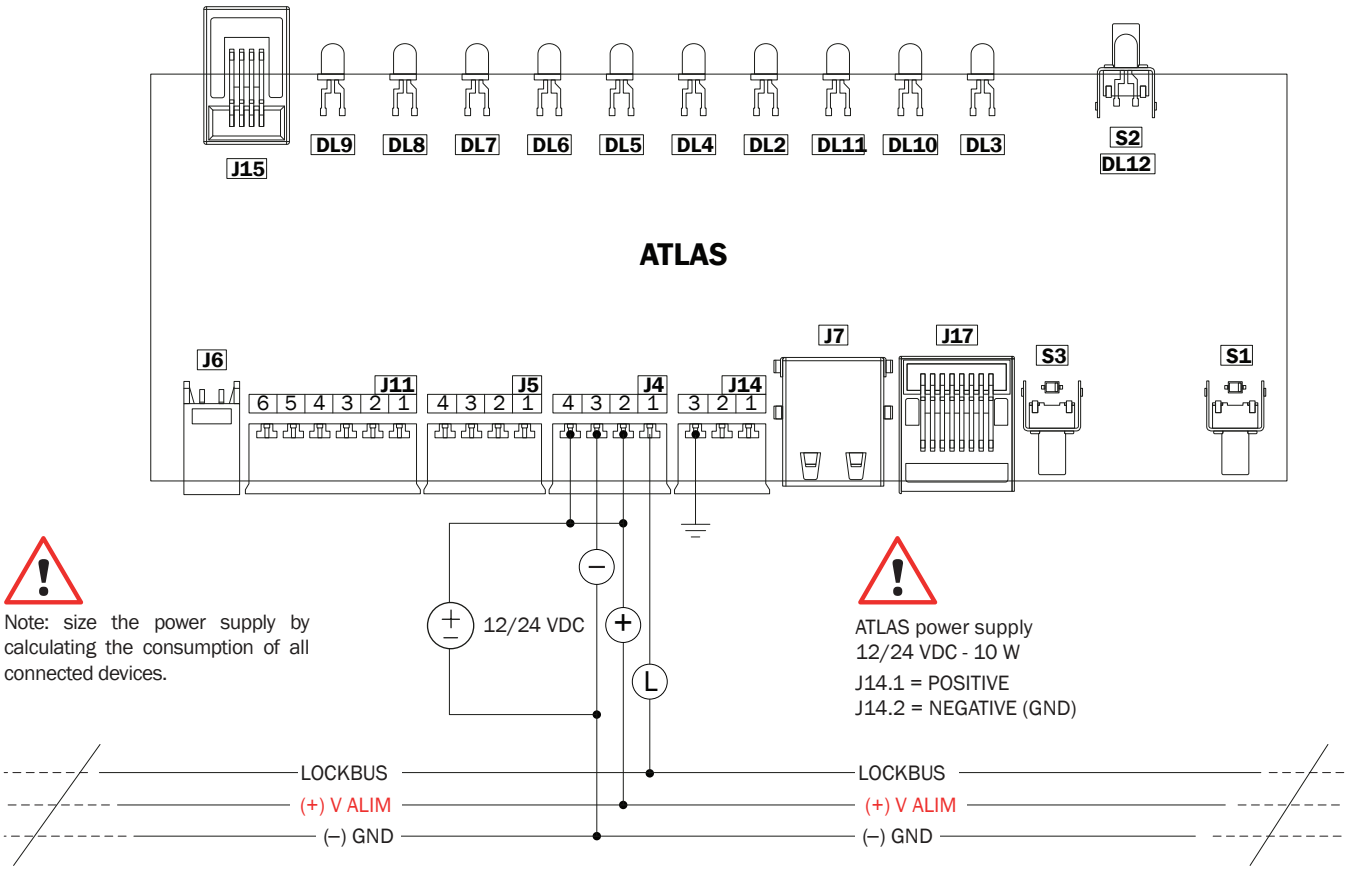
- Switch on the Thesis keeping pressed both buttons simultaneously for 1 sec.
- Switch on it again to check if now the red LED blinks 1 time otherwise repeat the procedure



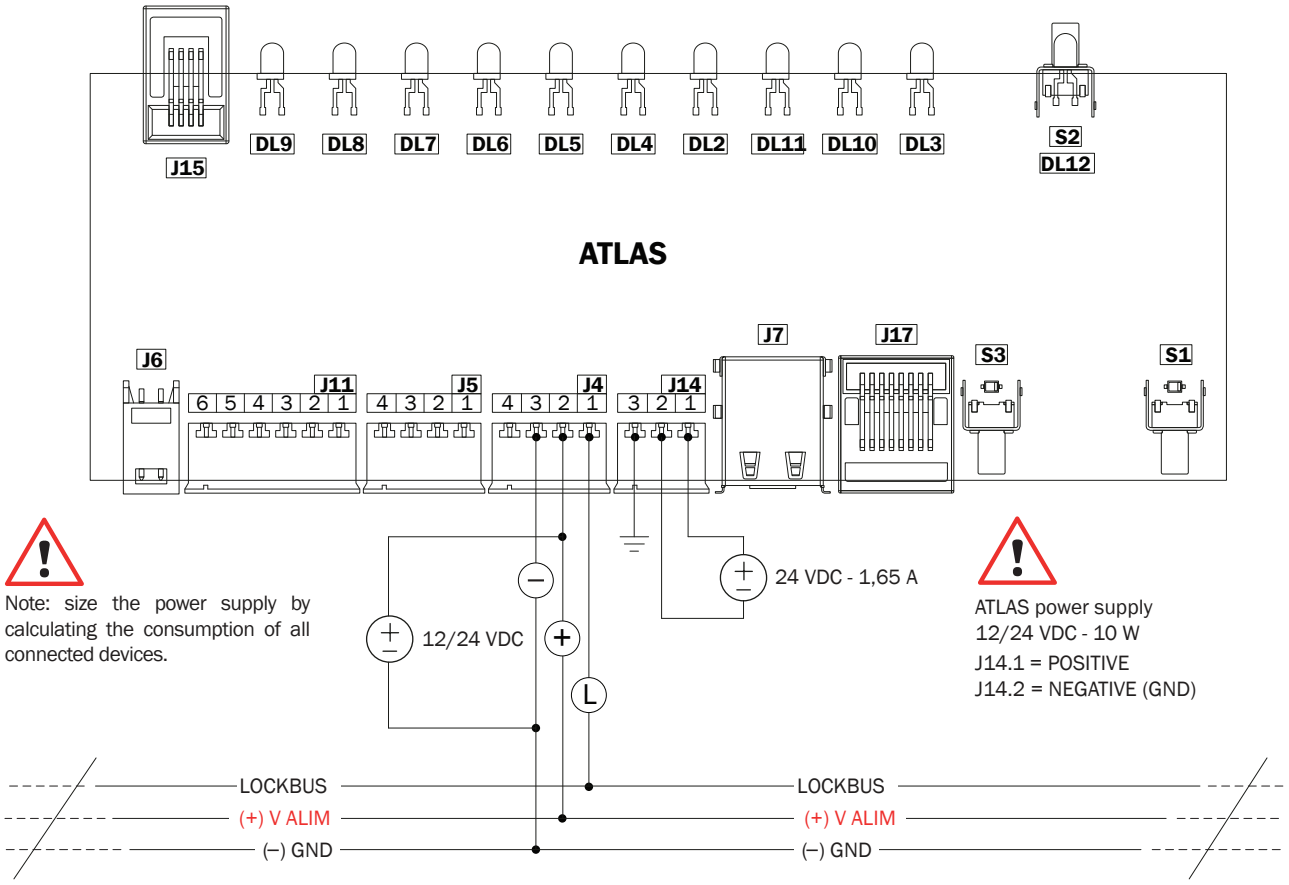
8.1 ATLAS: RFID PLANT - CONNECTION EXAMPLE (POWER SUPPLY SUPPLIED)



8.2 ATLAS: RFID PLANT - CONNECTION EXAMPLE (LOCKBUS POWER SUPPLY)



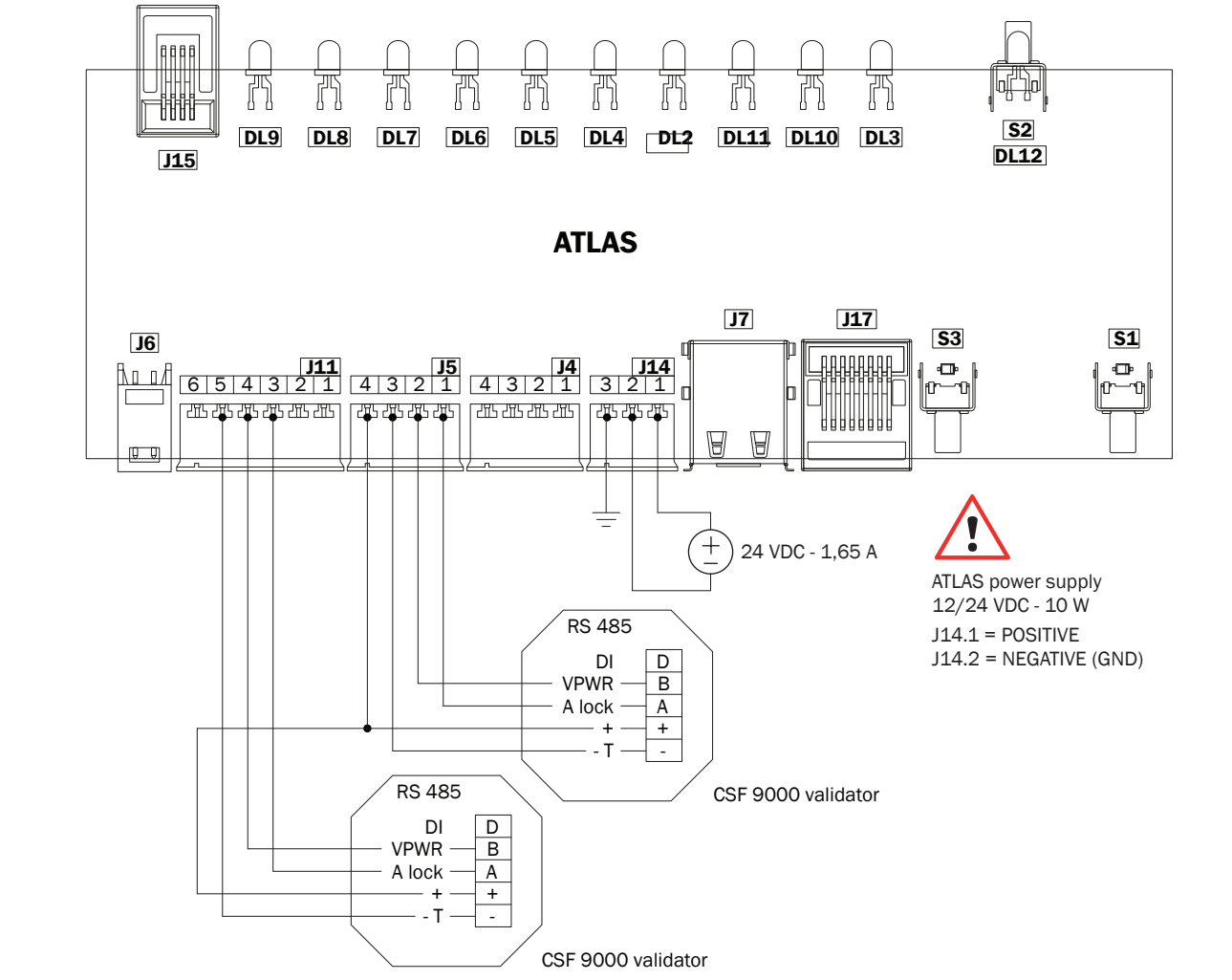
8.3 ATLAS: RFID PLANT - CONNECTION EXAMPLE (WITH 2 SEPARATED POWER SUPPLIES)



Note: size the power supply by calculating the consumption of all connected devices.

ATLAS power supply
12/24 VDC - 10 W
J14.1 = POSITIVE
J14.2 = NEGATIVE (GND)

8.4 ATLAS: F9000 PLANT - CONNECTION EXAMPLE (POWER SUPPLY SUPPLIED)



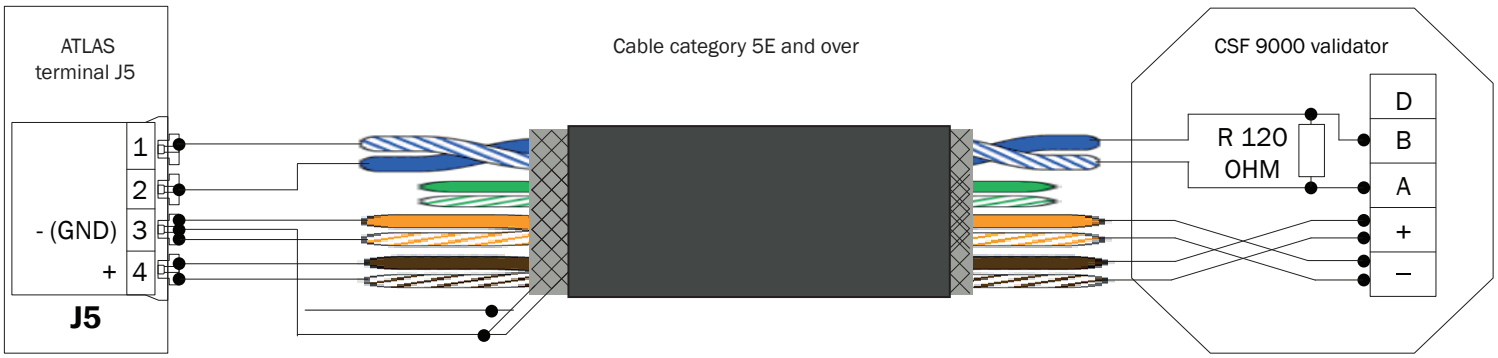
ATLAS power supply
12/24 VDC - 10 W
J14.1 = POSITIVE
J14.2 = NEGATIVE (GND)

8.5 ATLAS: EXAMPLE OF CONNECTION OF A CSF VALIDATOR THROUGH AN ETHERNET CABLE CATEGORY 5E AND OVER

- Refer to section 7.4 to connect the main power supply to the Atlas
- Connect a resistance value of 120 ohm in parallel between pins A and B of the connector only on the CSF validator side
- Connect the shield of the cable to GND only on the Atlas side in PIN 3 of J5 terminal

ATLAS side terminal J5 =
Pin 1: white/blue wire
Pin 2: blue wire } (wires of the same twisted pair)
Pin 3 (- GND): shield of the ethernet cable
orange and orange/white wires (twisted pair)
Pin 4 (+): brown and brown/white wires (twisted pair)

CSF validator side =
- (T): orange and orange/white wires (twisted pair)
+: brown and brown/white wires (twisted pair)
A: white/blue wire
B: blue wire } (wires of the same twisted pair)



9. MAINTENANCE: INTERNAL BATTERY CHARGING

Important: the charging cycle of the internal batteries should be performed if you have an Atlas not powered for long periods of time.
In this case it is mandatory to fully charge the internal batteries at least every 3 months max.
Failure to observe this warning will destroy the internal rechargeable batteries.

To perform a complete cycle of charging the Atlas internal batteries proceed as follows:

- Power on the Atlas and keep it powered for 24 consecutive hours.
- At the end of the 24 hours charging cycle power off the Atlas: the LED with the battery icon turns ON (LED DL3)
- Hold the S3 button on the back of Atlas until the red LED "R" on the front panel turns ON (LED DL10).
- As confirmation of the correct procedure wait for all the LEDs switching off.
- Note the date of the last battery charge cycle to perform a new charging cycle within 3 months max.

Atlas installation manual
GB 08/09/2016