

DESCRIPTION

The RQCBOX allows the direct connection and communication of a Gimatic's RFID reader (either RAQC or RAQCN) with a computer for configuration and testing purposes.

Main characteristics:

- RS232 communication eventually using standard USB to RS232 converters from the market;
- automatic recognition of PNP and NPN reader types (RAQC and RAQCN, respectively);
- 8 embedded LED for a direct visualization of the TOOL ID memorized into the TAG;
- push button to simulate the acknowledgment signal normally provided by a sensor box for testing cycles counter functionality of the RFID system.

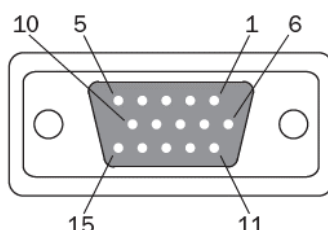


SPECIFICATIONS

| | RQCBOX |
|---------------------------|-----------------------------|
| Frame | PA12 |
| Allowed temperature range | -20÷65°C |
| Dimensions box | 45 mm x 42 mm x 15 mm |
| Weight | 30 g |
| Electrical connection | DB 15 pins female (HD) |
| Environmental degree | IP40 |
| Power supply | 24 Vdc \pm 10%, 0.15 Arms |
| Communication interface | RS232 |

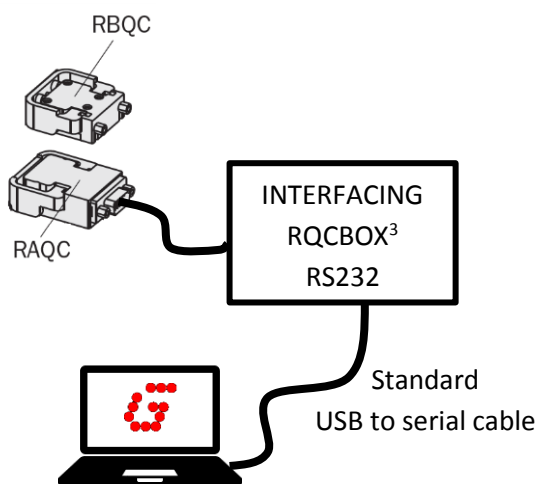
ELECTRIC CONNECTIONS

Electric connection to the reader unit (RAQC or RAQCN) is available by means of a 15 pins (high density) DB female connector according to the following schema.



| Pin # | Pin Name | Description |
|--------|----------|---|
| Pin 1 | DO_1 | Digital output #1 (bit 1 of the binary representation of tool ID) - LSb |
| Pin 2 | DO_2 | Digital output #2 (bit 2 of the binary representation of tool ID) |
| Pin 3 | RS_TX | RS232 Tx signal (only for TAG configuration – optional use) |
| Pin 4 | GND | Power Supply GND |
| Pin 5 | RS_RX | RS232 Rx signal (only for TAG configuration – optional use) |
| Pin 6 | 24 Vdc | Power Supply 24 Vdc |
| Pin 7 | DO_Count | Digital output (maintenance alarm) (when set, tool executed the predefined number of working cycles) |
| Pin 8 | DO_3 | Digital output #3 (bit 3 of the binary representation of tool ID) |
| Pin 9 | DO_Fault | Digital output (fault condition) |
| Pin 10 | DO_4 | Digital output #4 (bit 4 of the binary representation of tool ID) |
| Pin 11 | DO_5 | Digital output #5 (bit 5 of the binary representation of tool ID) |
| Pin 12 | DO_6 | Digital output #6 (bit 6 of the binary representation of tool ID) |
| Pin 13 | DO_7 | Digital output #7 (bit 7 of the binary representation of tool ID) |
| Pin 14 | DO_8 | Digital output #8 (bit 8 of the binary representation of tool ID) - MSb |
| Pin 15 | DI_Count | Digital input (cycle completed triggering signal) (the number of executed cycles is increased by one per any rising edge of this signal) |

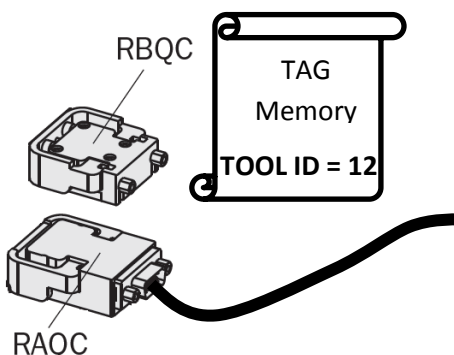
TAG INTERACTION WITH PC APPLICATION



1. Download the application software¹ "RFID TOOLS AND MANUALS" from Gimatic's website:
<http://www.gimatic.com/it/download/utility>
2. Install the software following the instructions included into the downloaded compressed file
3. If your computer/laptop doesn't have a serial port, purchase a standard USB to serial converter cable from the market and install the relative drivers
4. Connect the RQCBOX to the power supply and to the RFID reader (RAQC/RAQCN) by means of the DSUB 15 pins connectors
5. Position the TAG (RBQC) close to the RAQC in the reading configuration
6. Connect the serial cable to the computer and check that your system correctly identifies the new hardware
7. Run the Gimatic's RFID application
8. Select the correct serial port
9. Choose the reading or writing operation²

TOOL ID VISUALIZATION

The RQCBOX has 8 LED indicators on board that lights up accordingly with the ID stored into the TAG memory. Any LED is associated to a single digital output signal (DO).



| DB 15 connector (DO pin # only) | | | | | | | |
|---------------------------------|------|------|------|------|------|------|------|
| DO_1 | DO_2 | DO_3 | DO_4 | DO_5 | DO_6 | DO_7 | DO_8 |
| 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| LOW | LOW | HIGH | HIGH | LOW | LOW | LOW | LOW |

TESTING OF CYCLES COUNTER

The RQCBOX is also equipped with a push button the user can press to simulate the acknowledgment signal that in normal working conditions is provided by a sensor box. The number of cycles executed by the TOOL will be increased by one per any single press down of the button.

¹The application software is available and tested for Windows® based system only.

²A password is required to correctly access the writing operations, please inquiry with Gimatic.