

IQ023 - Installation and Maintenance manual



Dear Customer,

Thank you for purchasing this product. RosettaCNC Board B is developed and manufactured with high standards to give high quality performance, ease of use and installation. In case of difficulty during installation or use of the product, We recommend that you first consult the instructions or information on the www.rosettacnc.com site.

Need help?

Write in the forum on the www.rosettacnc.com site or send an email to the following address: support@rosettacnc.com, the RosettaCNC development team will be happy to answer you in a short time.

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Informations

				
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1. Introduction

1.1 General description

The IQ023 makes available on the Personal computer side 24 digital inputs, 8 analog inputs and 4 MPG inputs. It is a USB interface connected to the PC where the control software is installed. The accessory is indicated for providing I/O for commands on the pulpit.

1.2 Symbols used in the manual



Useful Information and tips



Warnings, failure to comply with these warnings may result in inappropriate operation or damage to the device



Potential danger and possible risk of injury

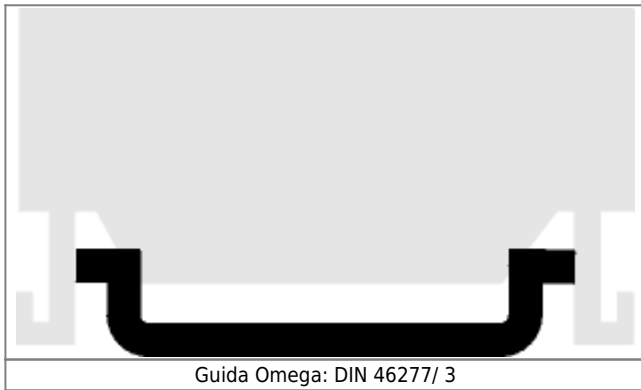
1.3 Package Contents

- n.1 IQ023
- n.1 USB micro-B cable



1.4 Mechanical installation

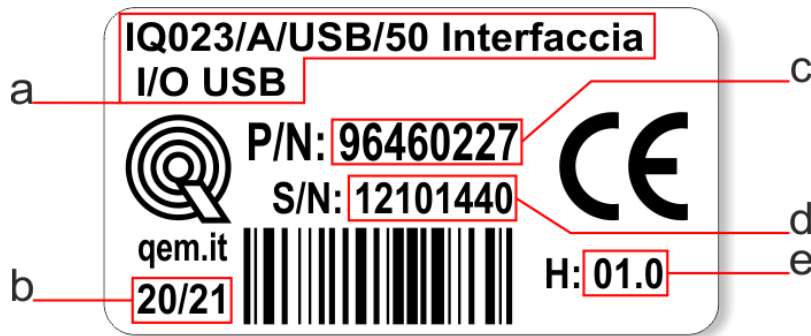
The fixing on the panel is carried out by attaching the instrument to an omega guide.



1.5 Product identification

With the product ordering code it's possible to obtain exactly the features.
Check that the product features match your needs.

1.5.1 Product label



- **a - Ordering Code**
- **b - Week made:** indicates the week and year of manufacture
- **c - Part number:** unique code that identifies an ordering code
- **d - Serial number:** product serial number, different for individual product
- **e - Hardware release:** version of hardware release

1.5.2 Ordering code

Part number	Model	Features
94460227	IQ023/A/USB/50	USB interface with 24 digital inputs, 4 MPG and 8 analog inputs.

1.5.3 Specification

Description	Value
Weight (maximum hardware configuration)	130g
Container material	PVC
Temperature range	0 ÷ 50 ° C
Transport and storage temperature	-25 ÷ + 70 ° C
Relative humidity	90% non-condensing
Altitude	0 - 2000m a.s.l.

1.6 Mechanical dimensions



Dimensions in mm



2. Connections

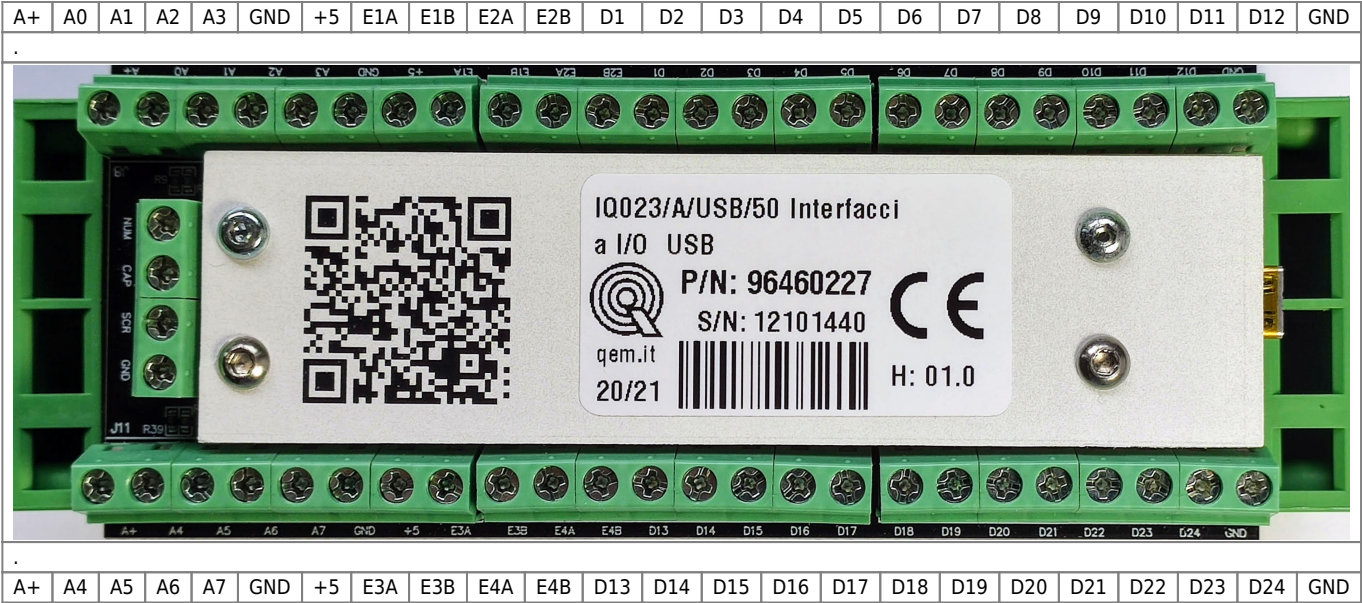
2.1 Power supply



The wiring must be carried out by specialized personnel and provided with appropriate anti-static measures.
Before handling the instrument, remove voltage and all parts connected to it.
To ensure with the CE compliance, The supply voltage must have a galvanic insulation of at least 1500 Vac.

The IQ023 is powered by the 5V of the USB port.

2.2 Terminals



2.2.1 Terminals description

Symbol	Description
D1-D24	Digital inputs NPN
E1A	Phase A of MPG 1
E1B	Phase B of MPG 1
E2A	Phase A of MPG 2
E2B	Phase B of MPG 2
E3A	Phase A of MPG 3
E3B	Phase B of MPG 3
E4A	Phase A of MPG 4
E4B	Phase B of MPG 4
A0-A7	Analog inputs 0-3.3V, 16bit
GND	0V for analog and digital inputs
A+	3.3Vdc out for analog inputs
+5	5Vdc out

2.2.1.1 Digital inputs

The digital inputs are of the NPN type and must be connected to 0V to activate them

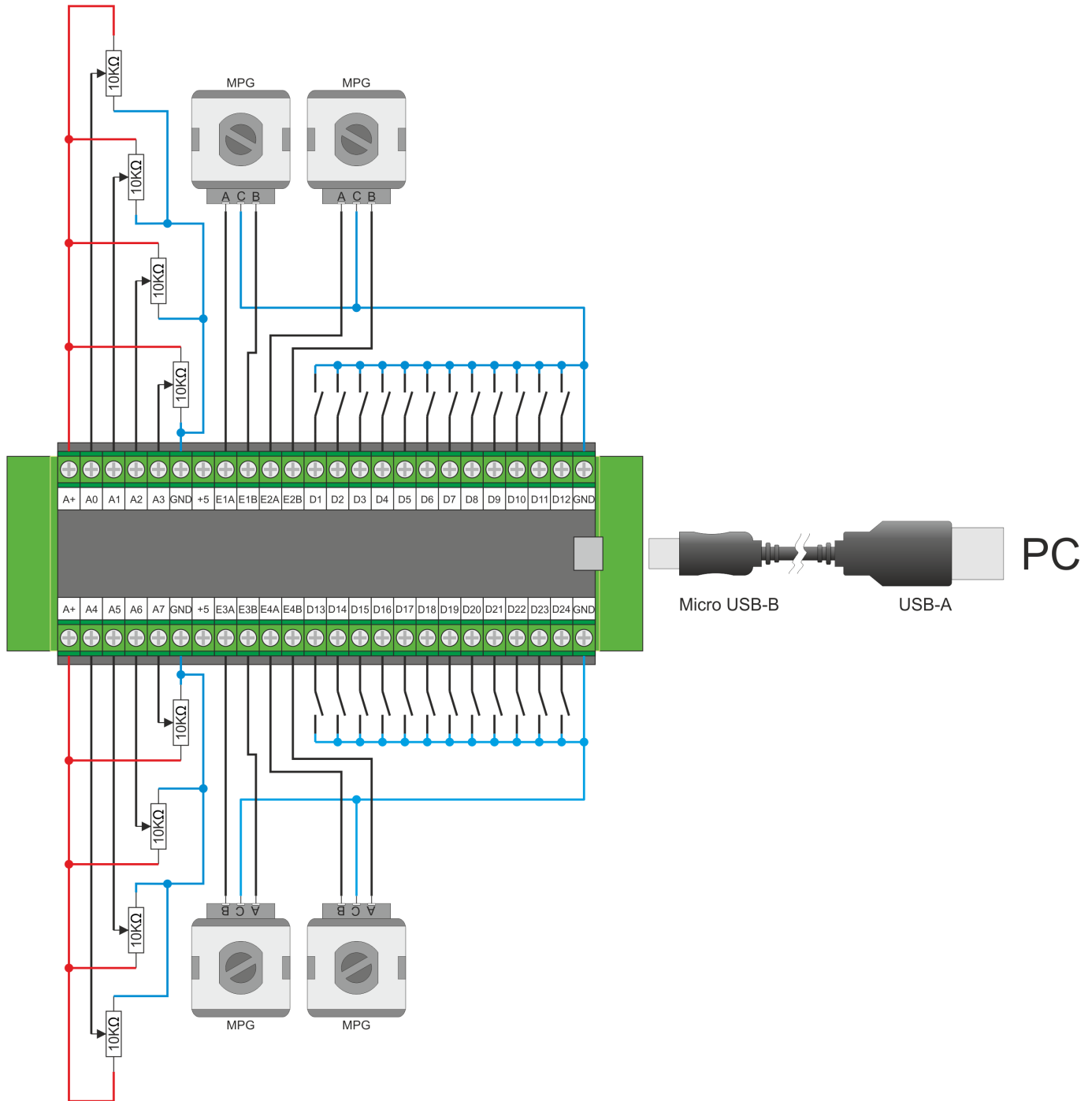
2.2.1.2 Encoder inputs

The inputs of the encoder phases are of the NPN type and must be connected to 0V to activate them

2.2.1.3 Analog inputs

Analog inputs accept a voltage range from 0 to 3.3Vdc.

2.2.2 Connection examples



2.3 Usage Notes

- For resource mapping (digital inputs, analogue inputs and MPG) refer to the documentation of the board used.
- If MPGs are not used, Phase A and B signals can be used as digital inputs.
- In the digital inputs **DO NOT** connect devices that require NC logic but only NO.

2.4 Software settings

The accessory can be used with control software version 1.9.4 or later.

To enable use in the board settings, set the parameter marked in red as shown in the figure:

Board Settings

General

Condition that Enable Settings Update: Only when axes are stopped

Action To Do if Disconnected in RUN State: Go To PAUSE State

— General Settings for Homing —

Velocity Divider: 10

Allowed Commands without Homing Done: All

Jog velocity when at least one axis of the same type has not performed the homing:

Linear Axis: 100 mm/min

Rotary Axis: 100 °/min

— Withdraw/Retract Tool at Stop Settings —

Mode: Disabled

Distance: 0.0 mm

Velocity: 10 %

— IQ023 Accessory Settings —

Mode: Enabled Accessory

Import Export OK Cancel

For resource mapping (digital inputs, analogue inputs and MPG) refer to the documentation of the board used.

3. Grants

We thank in advance all those who want to contribute to the improvement of this documentation by indicating inaccuracies or contents. Write to the address: support@rosettacnc.com

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