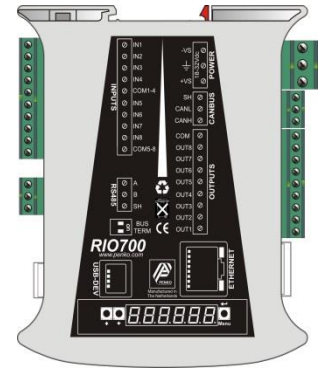


# PENKO Engineering B.V.

Your Partner for Fully Engineered Factory Solutions



How to...  
Connect and setup the RIO700  
and FLEX 2100



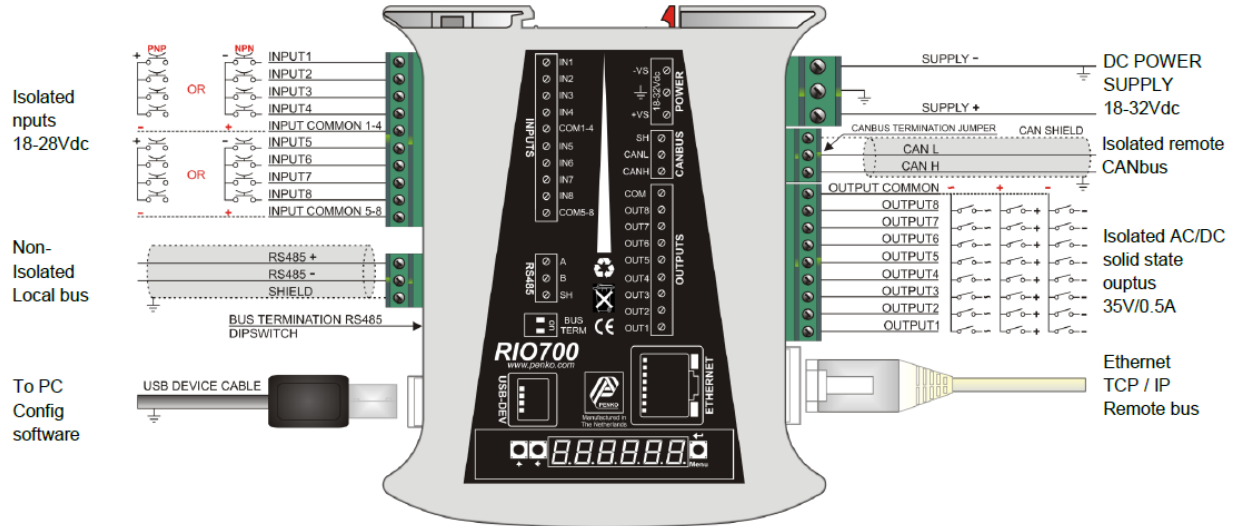
an ETC Company

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## General information

If you only connect the USB-Cable to power the RIO700, the communication ports, in- and outputs will not work. The power supply via the USB-Cable is for changing parameter only.



## Connecting the RIO700 to a FLEX 2100 with CAN bus

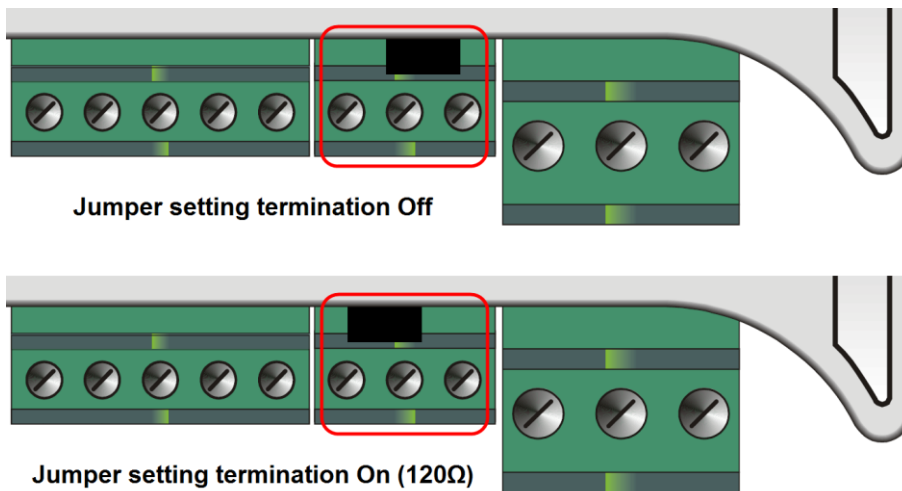
First of all you will need to connect the RIO700 to the FLEX, this can be done by connecting a cable with two wires and a shield parallel (**CanH** goes to **CanH**, **CanL** goes to **CanL** and **Shield** goes to **Shield**). Place a resistor of 120  $\Omega$  between **CanH** and **CanL** on the connector side of the FLEX.

Connect the RIO700 to a FLEX 2100

FLEX 2100		RIA700
CanH	Connect to	CanH
CanL	Connect to	CanL
Shield	Connect to	Shield

Set the jumper on the RIO700 in the termination "ON" position. This will terminate the bus. The jumper is located above the CAN bus connector.

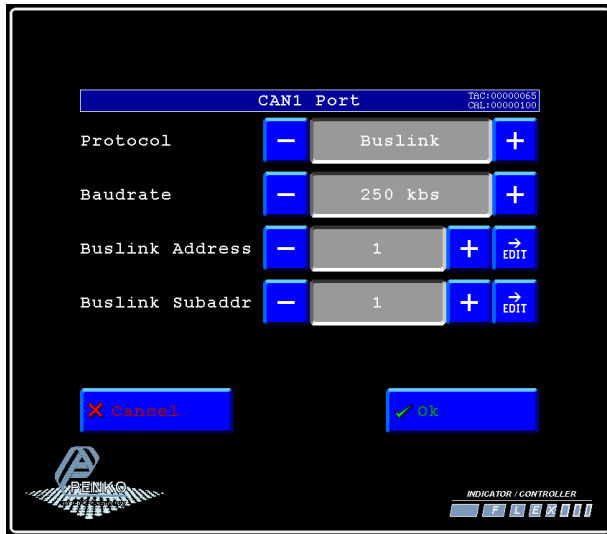
The CAN bus termination is done with a jumper:



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Connect and setup the RIO700 and FLEX 2100.

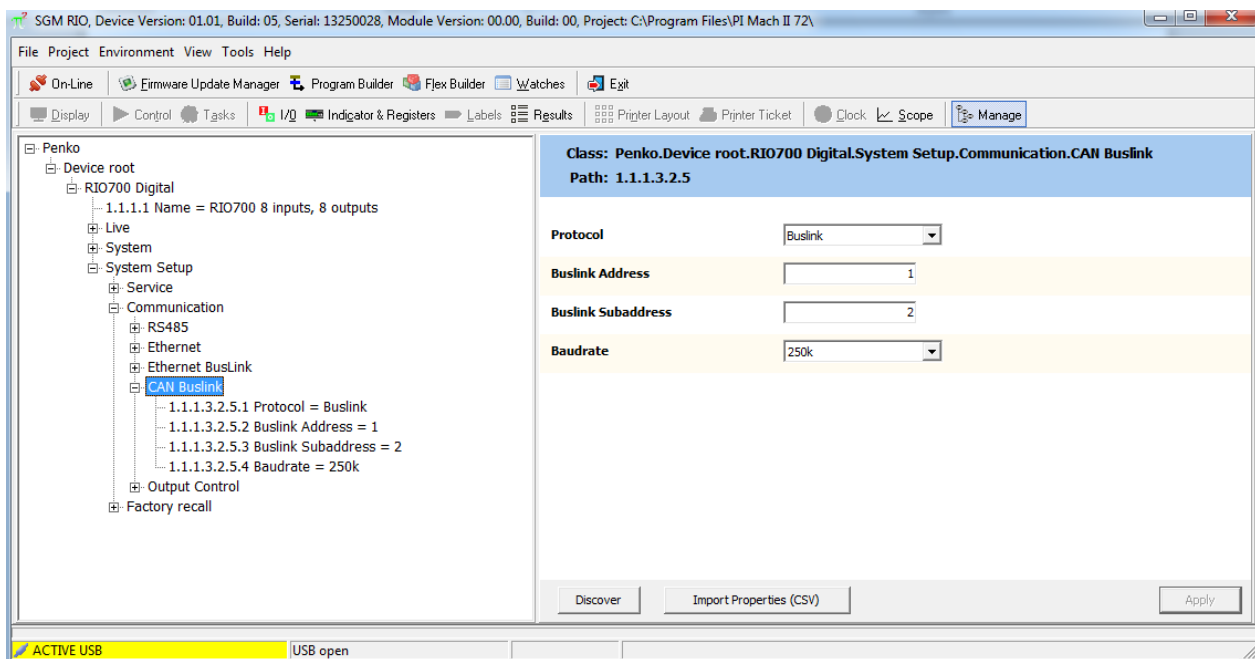
## Setup the FLEX

Go to **System settings** → **System Setup** → **Port Setup** → **CAN1 Port**. Set **Protocol** on “**Buslink**”, **Baudrate** on “**250 kbs**”, **Buslink Address** on “**1**” and **Buslink Subaddr** on “**1**”. Press **OK** to save settings. Press **Home** to return to the main screen.



## Setup the RIO700

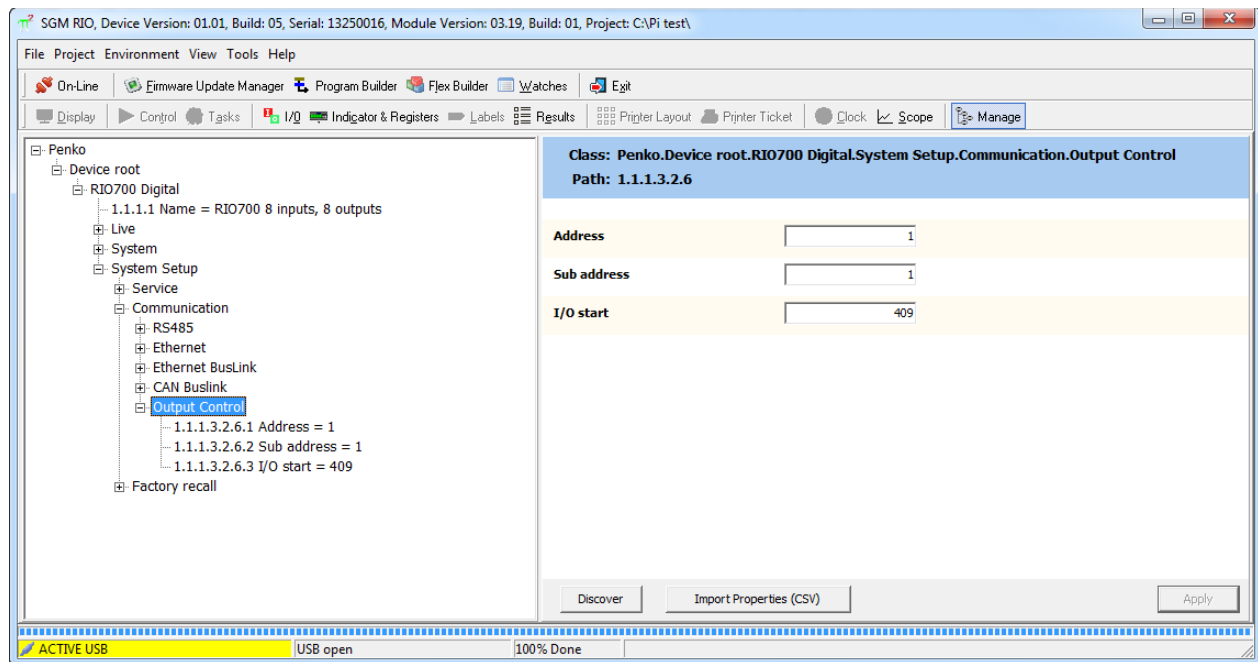
Open Pi Mach II and double click on **RIO700**, then double click on **System Setup**, then double click on **Communication**, then double click on **CAN Buslink**. Set **Protocol** on “**Buslink**”, **Buslink Address** on “**1**”, **Buslink Sub address** on “**2**” and the **Baudrate** on “**250K**”. Click on **Apply** to save settings.



## PENKO How to...

Connect and setup the RIO700 and FLEX 2100.

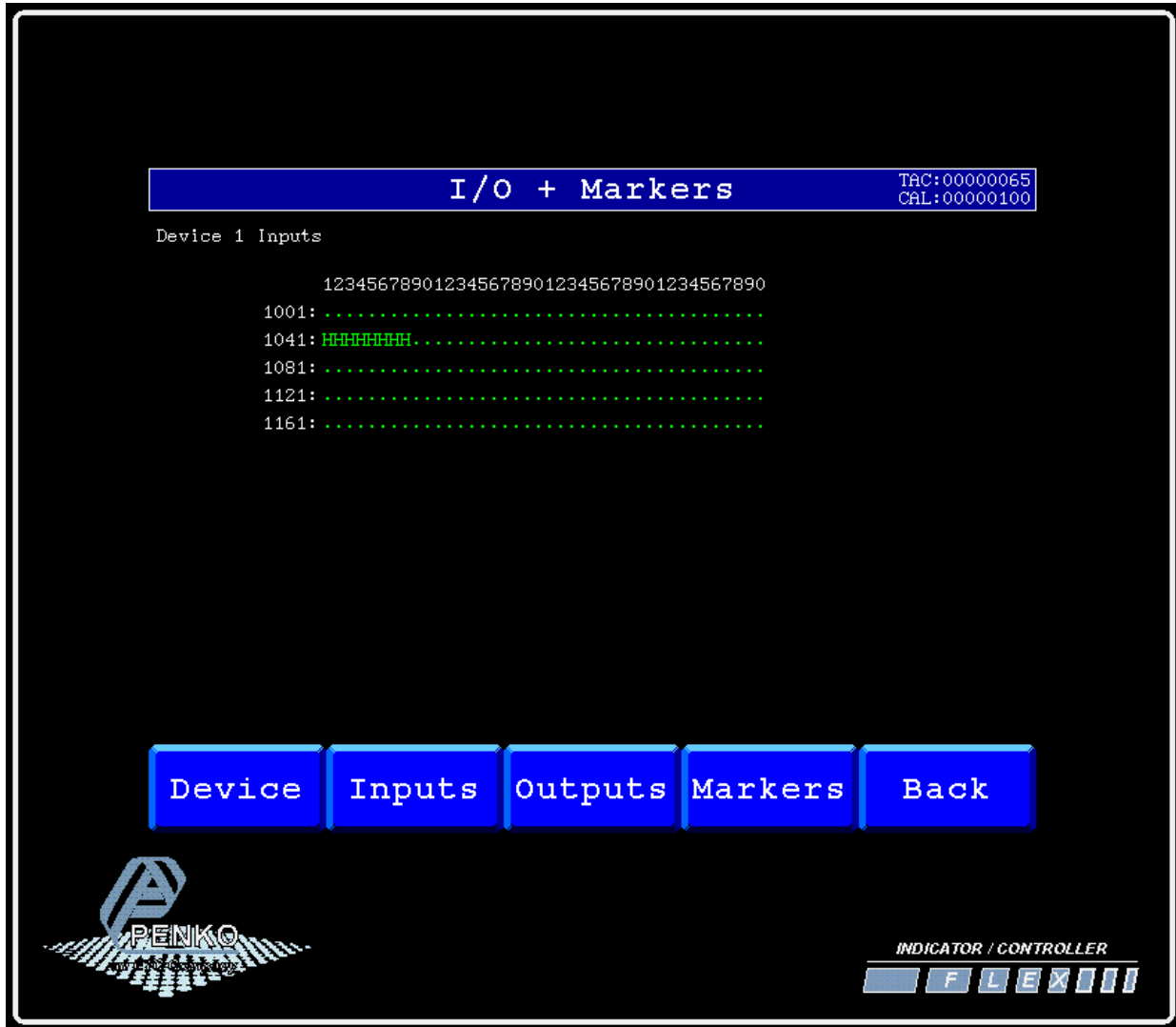
Double click on **Output Control** and set **Address** to “1”, **Sub address** to “1” and **I/O start** to “409”. Click on **Apply** to save settings.



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Connect and setup the RIO700 and FLEX 2100.

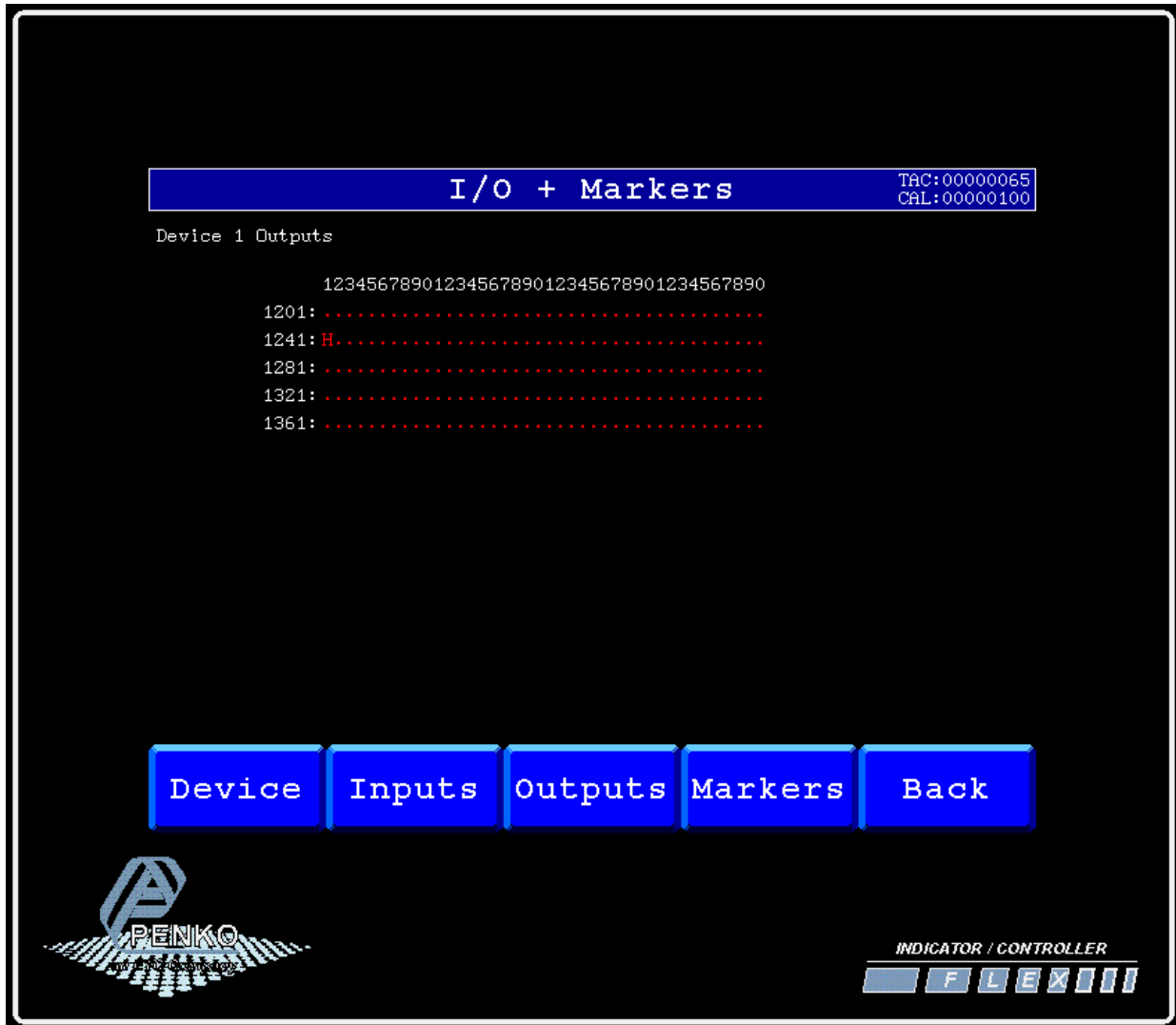
### Checking the connection

To check if the connection works, use the FLEX and go to **System settings** → **Status** → **I/O + Markers** → **Device**. Now you should see the inputs from 1041 to 1048 if they are switched on.



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Connect and setup the RIO700 and FLEX 2100.

Press on **Outputs** to see the outputs from 1241 to 1248. Now you should see the outputs from 1241 to 1248 if they are switched on in your program.







## About PENKO

Our design expertise include systems for manufacturing plants, bulk weighing, check weighing, force measuring and process control. For over 35 years, PENKO Engineering B.V. has been at the forefront of development and production of high-accuracy, high-speed weighing systems and our solutions continue to help cut costs, increase ROI and drive profits for some of the largest global brands, such as Cargill, Sara Lee, Heinz, Kraft Foods and Unilever to name but a few.

Whether you are looking for a simple stand-alone weighing system or a high-speed weighing and dosing controller for a complex automated production line, PENKO has a comprehensive range of standard solutions you can rely on.

## Certifications

PENKO sets high standards for its products and product performance which are tested, certified and approved by independent expert and government organizations to ensure they meet – and even – exceed metrology industry guidelines. A library of testing certificates is available for reference on:

[http://penko.com/nl/publications\\_certificates.html](http://penko.com/nl/publications_certificates.html)



## PENKO Professional Services

PENKO is committed to ensuring every system is installed, tested, programmed, commissioned and operational to client specifications. Our engineers, at our weighing center in Ede, Netherlands, as well as our distributors around the world, strive to solve most weighing-system issues within the same day. On a monthly basis PENKO offers free training classes to anyone interested in exploring modern, high-speed weighing instruments and solutions. A schedule of training sessions is found on: [www.penko.com/training](http://www.penko.com/training)

## PENKO Alliances

PENKO's worldwide network: Australia, Belgium, Brazil, China, Denmark, Germany, Egypt, Finland, France, India, Italy, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Syria, Turkey, United Kingdom, South Africa, Slovakia Sweden, Switzerland and Singapore. A complete overview you will find on: [www.penko.com/dealers](http://www.penko.com/dealers)

