

Data Sheet Iono Pi Library for CODESYS



The package "Iono Pi Library for CODESYS" contains all the required components and examples to use the CODESYS platform on your Iono Pi: an extremely versatile Input/Output module based on Raspberry Pi

Product Description



Iono Pi is an extremely versatile I/O module that combines several digital and analog input lines, support for standard interfaces like 1-Wire and Wiegand and power relay outputs, typical of modern PLCs, with the powerful 1.2GHz quad-core ARM Cortex-A53 64-bit processor of the Raspberry Pi 3.

Iono Pi adds other important features that are essential to use the Raspberry Pi 3 for professional applications, like a robust power supply with wide voltage range (9÷28Vdc) capable of up to 2.5A output current at 5V to the Raspberry Pi board, and an optional real time clock with lithium back-up battery.

Iono Pi can be used for an incredible range of applications, from data acquisition and control, to home and building automation, as well as access control, hotel room control solutions, environmental monitoring and many others.

Iono Pi can be employed both in industrial and residential environments, for professional applications where extreme reliability, ruggedness and compliance with technical and safety directives are required.

Find out more at www.sferalabs.cc/iono-pi

Range of Functions

Iono Pi features

- 9÷28Vdc power supply, with surge and reverse polarity protection, and 1.1A resettable fuse
- up to 2.5A max current to the 5V Raspberry Pi power supply input pins (at 24Vdc)
- 4 power relay outputs rated for 6A at 250V
- 2 analog voltage inputs 0÷30V
- 2 analog voltage inputs 0÷3V on internal pin-headers
- 7 configurable digital input/output pins
- 1-Wire and Wiegand support
- optional real time clock with on-board lithium back-up battery
- 2 on-board LEDs, one for power supply and one controlled by a Pi's GPIO line
- power supply and I/O connections on a screw terminal block
- pre-assembled and tested Raspberry Pi 3 Model B with Iono Pi board, in a standard 4 modules DIN rail case
- side access to HDMI and 3.5mm jack for audio and composite video
- access to all USB ports and Ethernet port
- compliant with 2014/35/UE (Low Voltage), 2014/30/UE (EMC), EN61000-6-2:2005 (EMC Immunity), EN60664-1:2007 (Electrical safety), EN61000-6-3:2007 (Emission) and 2011/65/UE (RoHS)

CODESYS support

This package gives you full control of Iono Pi's digital and analog I/Os and interfaces. It is based on the CODESYS Control runtime for Raspberry Pi SL.

Setup and usage

CODESYS runtime for Raspberry Pi

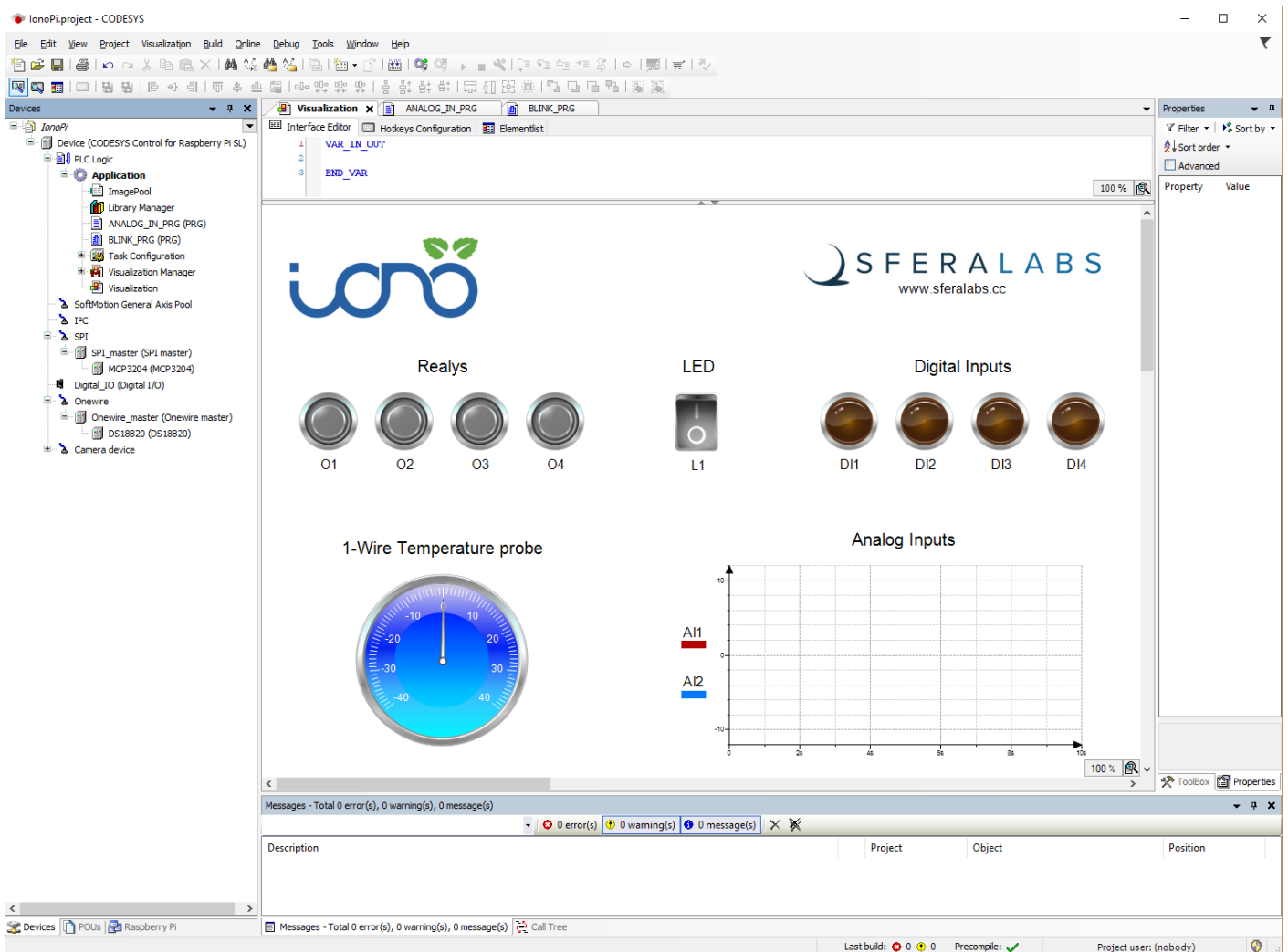
This package requires the “CODESYS Control for Raspberry Pi SL” package to be installed on your CODESYS installation and the relative runtime to be installed on Iono Pi. Please refer to the documentation of “CODESYS Control for Raspberry Pi SL” for details.

Iono Pi Library for CODESYS

Install this package on your CODESYS installation using the Package Manager (in the *Tools* menu). The process will install all the required drivers and libraries as well as an example project that can be used as a reference to use all of Iono Pi’s functionalities.

Iono Pi

No other specific software or configuration is required for Iono Pi to work with the CODESYS runtime for Raspberry Pi. For optional RTC installation, hardware testing and further details, please refer to the Iono Pi user guide available at www.sferalabs.cc/iono-pi



General Information



Supplier	Sfera Labs Srl Strada 4, Palazzo Q6 20089 Rozzano (Milano) Italy
Support	support@sferalabs.cc
Product	Iono Pi Library for CODESYS
Order Number	
Sales	CODESYS Store store.codesys.com
Scope of Delivery	▪ Package Iono Pi Library for CODESY

System Requirements and Restrictions

Programming System	CODESYS Development System ≥ V3.5.12.0
Target System	CODESYS Control for Raspberry Pi SL ≥ V3.5.12.0
Supported Platforms / Devices	Iono Pi
Additional Requirements	-
Restrictions	Refer to the Iono Pi user guide for installation and use restrictions
Licensing	-
Required Accessory	-

Change History

Version	Description	Editor	Date
1.0.0.0	First release	GB	05.04.2018
1.1.0.0	Name change	GB	01.06.2018