



## HVAC I/O Modbus Modules

The library allows the use of HVAC Modbus I/O modules of the manufacturer powerIO via a RS485 COM port. The devices are appended in the project tree and are parameterized from there without further programming effort. In the I/O Mapping area the assignments of the input/output variables can be set. The modules are available with emergency manual operation level and without. The status of the manual override is queried.

### Product description

This library allows you to use the HVAC I/O Modbus Modules 16DI, 8DO, 8DO-R, 4DO-R, 8AI and 8AO. It requires a RS485 COM-Port interface and also a Modbus license (mostly included).

The devices can be added to the device tree and also be extended with various romod modules. Variables can be mapped to the program under the I/O-Mapping Tab.

All output modules are local override/indication devices, the state can be monitored and changed. If the device is local overridden/indicated, then it will be shown under the device tree.

There is also a parameter settings window for each module. Different settings as slave-address, Bus-Timeout, send command or cycle request time can be configured under this section. Many specific I/O extended settings are also available for example: Negation, two-point-function, limiter, damped function etc. The analog input module allows you to select sensors as PT1000/100, Ni 1000, NTC 10k, etc.

The HVAC-Master device is required for configuring the physical hardware COM-Port. Common serial settings can be configured there. The Hardware modules can be decentral installed (for example in electrical distribution boards). Supported bus cable length for the devices is up to 3937 feet (based on the environmental conditions). Each device address is configurable with dip switches. Serial communication settings as baudrate don't need to be configured, because the devices are supporting "Autobauding". This feature is decreasing the fault-rate and also the installation time out of the field.

More Informations: [www.hvac-automation.com](http://www.hvac-automation.com) Onlineshop: [shop.powerio.com](http://shop.powerio.com)

## General information

### Supplier:

CODESYS GmbH  
 Memminger Strasse 151  
 87439 Kempten  
 Germany

### Support:

<https://support.codesys.com>

### Item:

HVAC I/O Modbus Modules

### Item number:

2312000001

### Sales:

CODESYS Store

<https://store.codesys.com>

### Included in delivery:

- HVAC Library

## System requirements and restrictions

Programming System	CODESYS Development System V3.5.10.0
Target System	CODESYS Control V3.5.10.0
Supported Platforms / Devices	Tested devices: CODESYS Control Win V3, Raspberry Pi Notice: Use the project 'Device Reader' to find out the supported features of your device. 'Device Reader' is available for free in the CODESYS Store.
Additional Requirements	RS485 COM port (also possible via USB COM port adapter), Modbus RTU license must be available on the target device.
Restrictions	The I/O connection has no real-time properties. Maximum 30 Romod Slaves per Romod Master Device.
Licensing	License activation optionally on CODESYS Key or CODESYS Soft Key (free part of CODESYS Controls)(without license 30 min Demo) Licensing per Runtime (SPS) necessary!
Required Accessory	Romod I/O modules from the manufacturer Romotec ( <a href="http://www.romotec.de">www.romotec.de</a> ).

*Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact [sales@codesys.com](mailto:sales@codesys.com).*

*Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.*