

## DATA SHEET



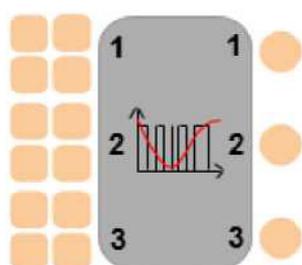
### rH-AO3 LR

0 - 10 V analog outputs module of the F&Home  
RADIO system.

LR version - longer range

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The rH-AO3 LR module is a three-channel transmitter of a 0 - 10 V voltage signal. Communication with the server is done by radio. The regulation is made on the basis of voltage change on the output in the range of 0 to 10 V. The rH-AO3 LR module is particularly suitable for controlling lights, fans and other receivers adapted to voltage control.



The rH-AO3 LR module is represented by an object, which consist of three LIGHT-type channels that read information about power and activation time from four identical inputs. The algorithm determines the maximum power read from all inputs, separately for each channel, and together with switch-on time controls the connected receivers. Feedback about the actual level of load control is applied on the “Confirmed PWM status, channel 1, 2, 3”, separately for each channel.

#### TABELKI:

Rysunek - Figure

Nazwa - Name

Typ - Type

sterowanie - control

kanał - channel

wejście oświetlenia - lightning input

potwierdzony stan - confirmed state

wyjście oświetlenia - lightning output

### Installer settings in the configuration program

Feature name	Description	Range	Unit / Description
Connection monitoring	Sets action in case of loss of connection to the server (information about the modules out of reach).	Standard module	Information on the standard output SX 752
		Alarm module	Information on the alarm output SX 752
		Unmonitored module	No connection correctness control
The delay in signaling a lack of coverage	Sets the delay after which the module is reported that it is beyond the coverage range of the server	1 - 5	
PWM signal frequency	Sets the PWM signal frequency	100 - 1000 in steps of 100	Hz
Offline: enable for [minutes] after switching the power on	Sets the operation time of the module if there is no connection to the server	0-240	minute

Because the module reports to the system as rH-PWM3, you should convert signals. Below is a proposal for a solution based on the temperature transition to obtain on output a linear characteristic required for 0-1- V control.

Panel - Panel

Technical specifications table	
Rated supply voltage	12 - 30 V DC
Supply voltage tolerance	-20%, +10%
Rated power consumption	0.4W
Radio link (operating frequency)	868 MHz
Signal strength	9 mW
Transmission type	Two-way
Coding	yes
Range in open space	350 m
Period of logging in the system	30 seconds
Output load	50 mA per channel
Switching time from 0 to 100%	0.2-30 seconds
Storing temperature	-20 <sup>o</sup> C to +50 <sup>o</sup> C
Working temperature	0 <sup>o</sup> C, +45 <sup>o</sup> C
Humidity	<=85% (without condensation and aggressive gases)
Dimensions	90 x 65 x 18 mm (1 module)
Ingress protection	IP20
Working temperature	any
Enclosure type	on DIN rail
Built-in security	against overheating

- Disconnect the power supply circuit; make sure using the appropriate device if there is no voltage on the supply lines.
- Install the module on a DIN rail in the switchboard.
- Connect the wires according to the diagram above.
- Place the antenna of the module parallel to one of the antennas of the server and move it away as far as possible from other wires.
- Switch the power supply and register module in the system.

## Module operation indication (green LED)

Mode	Description
Online (registered)	LED lights, dims during radio transmission
Registration	LED pulsating quickly
Offline	LED flashes every half a second - a module has lost the radio connection to the server or is not registered
Not programmed	LED flashes: lights, dims for 100 ms every 1 second - the module should be returned to the manufacturer.



#### Registration in the system

1. Select the registration method in the configurator.
2. Press and hold button on the board.
3. After 5 seconds the module will register itself in the system or the program will report an error in case of failure.

#### **WARNING**

The connection method is specified in this manual. Any activities related to installation, connection and regulation should be carried out by persons with electrical qualifications who are familiar with this manual and features of the module. Manner of transport, storing and using the module affects its proper operation. Installation of the module is not recommended in the following cases: missing components, damage to the module or its deformation. In case of malfunction the module should be returned to the manufacturer.

