DATA SHEET

rH- R5

Five-channel relay
of the F&Home RADIO system.

The rH-R5 module includes five relays to switch electrical circuits from a common power supply. Communication with the server is done via radio. The load of power input can be resistive, inductive and capacitive, both in direct and alternating current circuits. All relays have connected one lead of closing contact to a common wire. Pressing the button on the housing for less than 1 second switches all relays on or off at the same time.

The rH-R5 module is represented by an object, which consist of five binary inputs and five binary (bistate) outputs of the relay, separate for each physical input. The input of the object is used for controlling the relay channels, and the information about operating state of the given relay channel is feed on the output.

Inputs		
Figure	Name	Type
	Control of relay 1, 2, 3, 4, 5	binary

Outputs		
Figure	Name	Type
	Confirmed status of relay 1, 2, 3, 4, 5	binary

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	
Relay 1, 2, 3, 4, 5 mode	Sets the operating mode of the relay in the standby mode	Normally open (NO)	Applying logical state '1' on the input causes closing of the contact and applying logical state '0' its opening
		Normally closed (NC)	Applying logic state '1' on the input causes opening of the contact and applying logical state '0' its closing
Channel 1, 2, 3, 4, 5 offline: enable for [minutes] after switching the power on	Sets the operation time of the module when there is no connection to the server	0-240	minute

The rH-R5 relay can be used as the actuator (for controlling solenoids) in heating systems. The diagram below shows portion of a project that uses the rH-T1X1 modules for measuring the temperature and object 650 as a program temperature regulator.

Technical specifications table	
Rated supply voltage	230V AC
Supply voltage tolerance	-20%, +10%
Rated power consumption	<1.5 W
Radio link (operating frequency)	868 MHz
Signal strength	9 mW
Transmission type	two-way
Coding	yes
Range in open space	100 m
Period of logging in the system	30 seconds
Relay number	5
Relay contact current	Safe contact load is 3A per channel or 10 A for the entire module (due to the common contact of all the relays) - for example even load 5x2 A or 3 A + 3 A + 2 A + 2 A
Galvanic separation (from power supply)	yes
Storing temperature	$-20^{O}C$ to $+50^{O}C$
Working temperature	$+10^{O}C$, $+45^{O}C$
Humidity	<=85% (without condensation and aggressive gases)
Dimensions	52.5 x 90 x 65 mm
Ingress protection	IP20
Operating position	any
Enclosure type	on a 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.
• Mount 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.
• Register the module in the system.

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

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

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.