

Room control unit for room automation,
configurable, with multifunctional display
and Modbus connection

RYMASKON® stands for a series of multifunctional room control units.

The individually configurable **RYMASKON® 400-Modbus** enables automated monitoring and control of the indoor climate and illumination in a Modbus network. It has two digital inputs and two digital/analogue outputs. Room climate control and regulation can be accessed from a central point on a higher-level Modbus master and on-site operation can be selectively or completely disabled. Thanks to its internal outputs, the inputs and settings on the device do not necessarily have to be processed by the master. This means that it is also possible to have decentralised individual room control at any time. An internal sensor detects the room temperature.

Six freely assignable function buttons on the front panel of the unit can be used for on-site operation and configuration. An integrated rotary encoder with a central input button enables manual adjustment of settings and parameter assignment on location. Desired functions (such as "Light ON") and display values can be activated by triggering an approximation sensor when entering the room.

The dimmable multifunctional display is designed specifically for room operation and uses intuitive symbols for a clear view of all available spatial data. Besides the time, weekday and climate parameters (temperature, humidity, dew point, CO₂ content), it can also display additional features, such as heating/cooling and fan modes, window open, lighting, alarm, key lock or room occupancy.

RYMASKON® 412-Modbus
RYMASKON® 422-Modbus



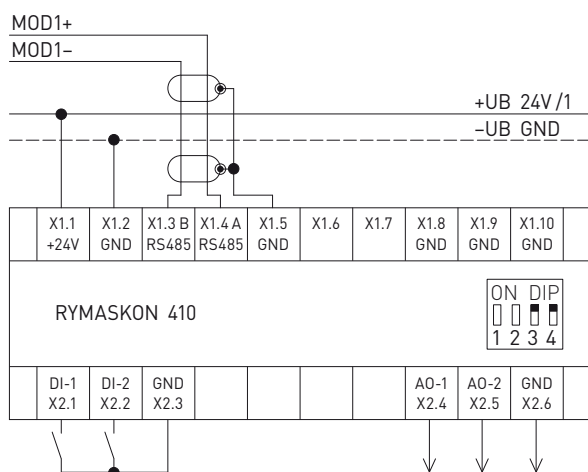
TECHNICAL DATA

Power supply:	24 V DC (± 10 %)
Power consumption:	1.08 W at 100 % backlighting 0.94 W at 15 % backlighting 0.89 W without backlighting (without load at the actuator outputs)
Inputs:	2 digital inputs without additional 0 V output signal *
Outputs:	RYMASKON 410: 2 analogue outputs (0-10 V DC) rated current max. 4 mA RYMASKON 420: 2 digital outputs or PWM rated current 400 mA (short circuit max. 1.2 A)
Interface:	RS485 Modbus RTU Slave (57600, 38400, 19200, 9600 Baud), bus termination can be set via DIP switch
Sensor:	NTC 10 kΩ, 0...+70 °C, precision ±0.4 K
Operating elements:	multifunctional display, 6 touch buttons, 1 rotary encoder, 1 approximation sensor (IR)
Electrical connection:	0.14 - 1.5 mm ² , via plug-in screw terminals
Enclosure:	plastic, glass front panel, black or white colour
Dimensions:	88 x 173 x 30 mm (incl. connection terminals)
Mounting:	using a plastic mounting plate (see dimensional drawing), wall mounting or on in-wall flush double switch box
Ambient temperature:	+5...+40 °C (operation); -10...+50 °C (storage)
Permitted humidity:	0...85 % r. H. (without dew formation)
Protection type:	IP 20 (according to EN 60 529)
Standards:	CE-conformity, electromagnetic compatibility according to EN 61 326, EMC Directive 2014 / 30 / EU

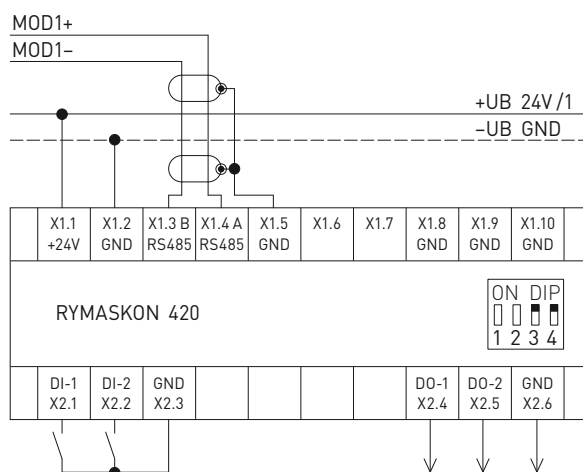
* digital inputs (DI1 / DI2)

In order to connect potential-free contacts, a GND signal (e.g. terminal X2.3) should be routed to the desired input via the contact.

Schematic diagram * RYMASKON® 410-Modbus



Schematic diagram * RYMASKON® 420-Modbus



**NEW**

S+S REGELTECHNIK

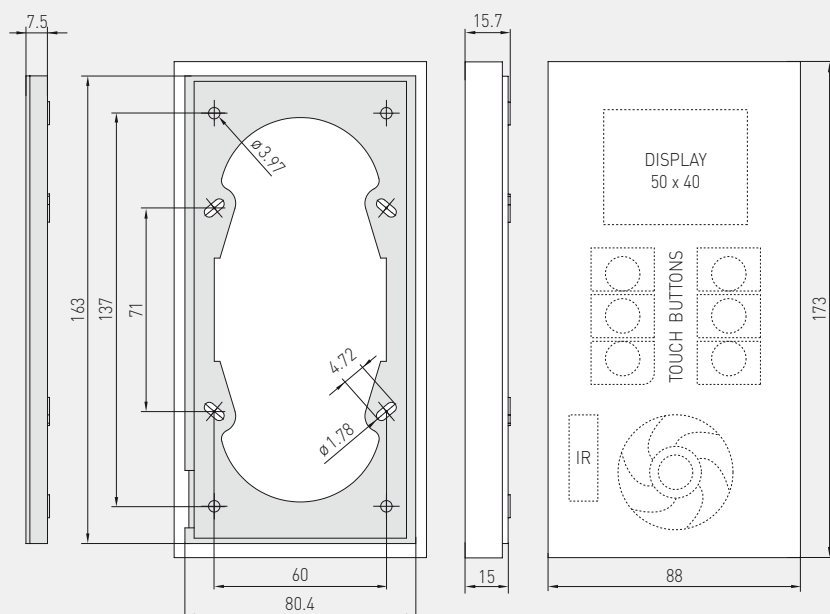
RYMASKON® 400 - ModbusRoom control unit for room automation,
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BUS

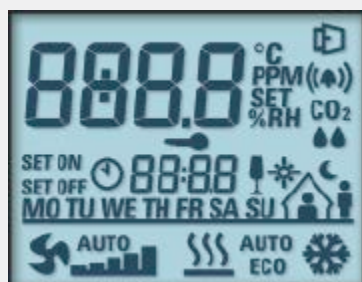


Dimensional drawing

RYMASKON® 400-Modbus

RYMASKON® 411-Modbus
RYMASKON® 421-ModbusDisplay
symbols

RYMASKON® 400-Modbus



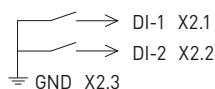
DIP Switch RYMASKON® 400-Modbus		
RS485 bus termination	DIP 3	DIP 4
activated	ON	ON
deactivated	OFF	OFF

Note:
Always configure the bus termination
of the RS 485 interface (DIP 3 and DIP 4)
in pairs!

Connecting
diagram

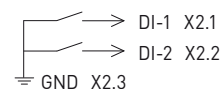
RYMASKON® 410-Modbus

	X2	
Input 1	Ø 1	DI-1 (digital) 0 V
Input 2	Ø 2	DI-2 (digital) 0 V
	Ø 3	GND
Output 1	Ø 4	AO-1 (analogue) 0-10 V DC
Output 2	Ø 5	AO-2 (analogue) 0-10 V DC
	Ø 6	GND
	X1	
	Ø 1	+UB 24 V DC
	Ø 2	-UB GND
	Ø 3	RS485 - B (Modbus RTU)
	Ø 4	RS485 - A (Modbus RTU)
	Ø 5	GND
	Ø 6	GND
	Ø 7	GND
	Ø 8	GND
	Ø 9	GND
	Ø 10	GND

Connecting
diagram

RYMASKON® 420-Modbus

	X2	
Input 1	Ø 1	DI-1 (digital) 0 V
Input 2	Ø 2	DI-2 (digital) 0 V
	Ø 3	GND
Output 1	Ø 4	DO-1 (digital / PWM)
Output 2	Ø 5	DO-2 (digital / PWM)
	Ø 6	GND
	X1	
	Ø 1	+UB 24 V DC
	Ø 2	-UB GND
	Ø 3	RS485 - B (Modbus RTU)
	Ø 4	RS485 - A (Modbus RTU)
	Ø 5	GND
	Ø 6	GND
	Ø 7	GND
	Ø 8	GND
	Ø 9	GND
	Ø 10	GND

**RYMASKON® 400-Modbus – Room control unit for room automation**

Type / WG02	Communication	Output	Colour	Display	Item No.	Price
RYMASKON® 410-Modbus						
RYMASKON 411	RS485	2x (analog) 0-10V	black	■	1901-5121-2101-000	455,00 €
RYMASKON 412	RS485	2x (analog) 0-10V	white	■	1901-5121-2102-000	455,00 €
RYMASKON® 420-Modbus						
RYMASKON 421	RS485	2x (digital / PWM)	black	■	1901-5121-2201-000	455,00 €
RYMASKON 422	RS485	2x (digital / PWM)	white	■	1901-5121-2202-000	455,00 €

PWM = pulse-width modulation

Accessories

KA-2	Modbus communication adapter with USB/RS485 interface for system connection or/and as an active bus termination resistance	on request
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