

MODBUS/BACNET



RUMREGULATOR

Interface for controlling
temperature, ventilation, sun protection (2 zones),
room control unit with colour touch display,
with Modbus or BACnet connection

The RYMASKON® 500 / 600 / 700 series of room control units are designed for controlling the climatic zone in residential, hotel and office rooms and individually regulate the heating/cooling steps of the internal rooms. A colour touch display with modern icons is used for the visual display and operation at the location. The product range is characterised by the variety of combination options of the individual components.

The RYMASKON® 700 Interface series controls via the bus heating or cooling valves, fan speed and the sun protection (blinds, shutters) in two zones. In addition to the integrated temperature sensor, two external temperature sensors (NTC10K) can also be connected. Measuring elements for relative humidity and CO2 are also available. The devices are used in room climate technology, including convective fans, cooling ceilings and heating/cooling systems. Wall mounting is performed on standard in-wall flush boxes. The devices are optionally available with a Modbus or BACnet communication interface and in various type versions (see number key).

The basic model RYMASKON® 710 Interface with colour touch display (3.5"), in a white housing, possesses an integrated temperature and humidity sensor (CO2 sensor optional), 2 resistance inputs (NTC10K) for external sensors, 1 digital input, 1 relay output (7 A / 0.5 A with CO2) and optionally with Modbus or BACnet connection. The room control units are used for controlling temperature, fans and sun protection (2 zones) via the bus.

TECHNICAL DATA (Basic model)

Device type:	room control unit
Functions:	temperature and fans (1 zone), sun protection (2 zones)
Communication:	Modbus RTU Slave address range can be configured between 1...247 or BACnet MS/TP device ID 65100 (default) and MAC address can be configured between 1...247 RS485 interface, max. 63 devices, 9500 / 19200 / 38400 / 57500 / 76800 Baud, none / even / odd parity, 1 / 2 stop bits
Voltage supply:	24 V AC/DC (± 15%)
Power consumption:	max. 1.92W
Inputs:	2 resistance inputs (NTC10K) for external temperature sensors 1 digital input (potential-free), impedance <1 kOhm
Outputs:	1 relay output (2-point regulation) without CO2: 7 A at 230 V AC (resistive load); 2.2 / 1.3 A at 230 / 115 V AC (inductive load) with CO2: 0.5 / 0.5 A at 230 / 115 V AC (resistive/inductive load)
Operating mode:	Comfort, ECO, OFF, Boost
Control element:	3.5" touch display with backlighting, cut-out approx. 50 x 75 mm, resolution 320 x 480 pixels, 255,000 colours

TEMPERATURE

Sensor:	integrated temperature sensor
Measuring range:	-40...+125 °C
Accuracy:	typically ±0.5 °C at +25 °C

HUMIDITY

Sensor:	integrated humidity sensor
Measuring range:	0...100% r.H.
Accuracy:	typically ±2% r.H. (20...80% r.H.) at +25 °C

CARBON DIOXIDE (CO2)

Sensor:	optical NDIR sensor (non-dispersive infrared technology), with automatic calibration
Measuring range:	0...5000 ppm
Accuracy:	typically ±50 ppm ±3% of the measured value at +25 °C
Electrical connection:	0.14 - 1.5 mm², via screw terminals
Housing:	plastic, polycarbonate material, self-extinguishing, white colour (optionally black or chrome), weight approx. 220 g
Housing dimensions:	approx. 88 x 112 x 14.5 mm (on-wall) approx. 88 x 112 x 20.5 mm (on-wall with CO2 sensor) approx. 52 x 53 x 28.5 mm (in-wall)
Mounting:	wall-mounting on in-wall flush box, Ø55 mm
Ambient temperature:	0...+50 °C (operation); -30...+70 °C (storage)
Permitted humidity:	0...95% r. H., (non-precipitating air)
Protection type:	IP 20 (according to EN 60529)
Standards:	CE conformity, according to EMC directive 2004/108/EU, Low-Voltage directive 2006/95/EU, according to EN 61000-6-1/3, EN 60730-1, EN 6100-4-2/4/5/11

ACCESSORIES

see table

RYMASKON® 700

Display icons



Room temperature
[°C]



External temperature
[°C]



Relative humidity
[%RH]



Ventilation
(fan speed,
6 steps)



Sun protection
(2 zones)

RYMASKON® 700

with CO2 sensor



CO2 content
[ppm]

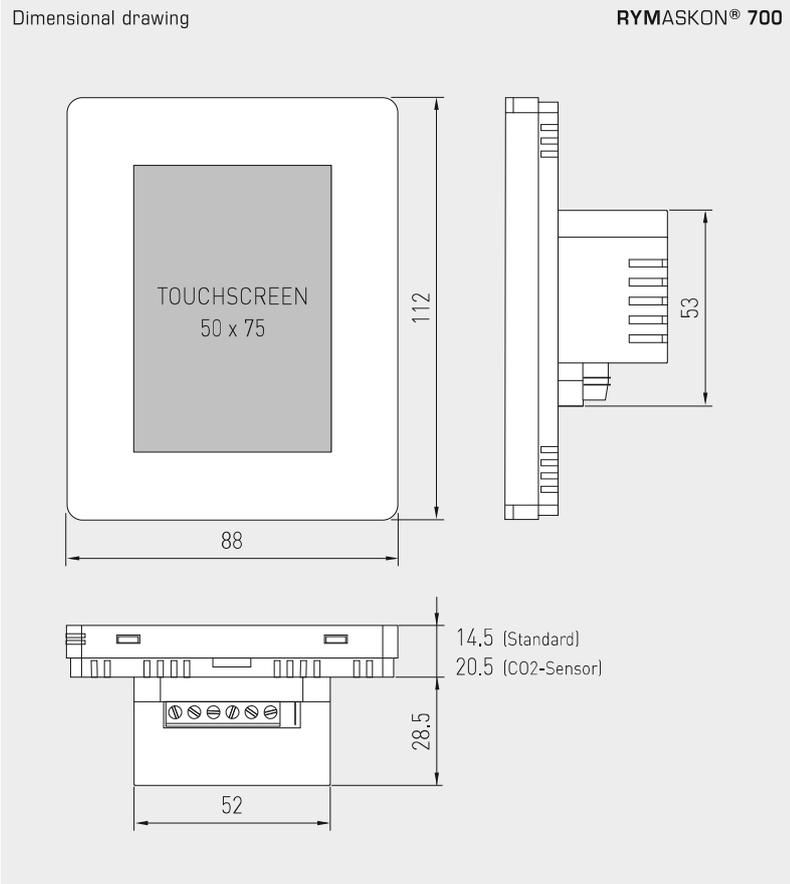


NEW

S+S REGELTECHNIK

RYMASKON® 700 Interface

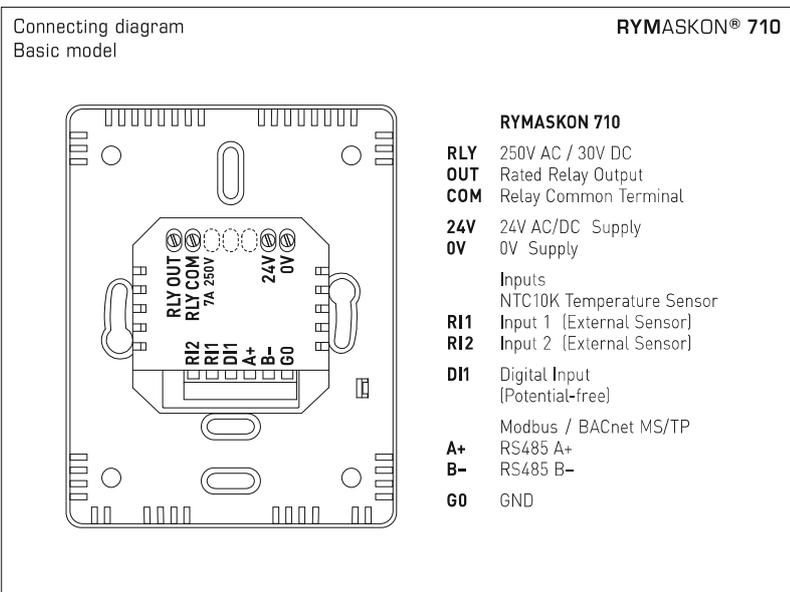
Interface for controlling temperature, ventilation, sun protection (2 zones), room control unit with colour touch display, with Modbus or BACnet connection



RYMASKON® 700
On-wall 14.5 mm



RYMASKON® 700
with CO2 sensor
On-wall 20.5 mm



Interface for controlling
 temperature, ventilation, sun protection (2 zones),
 room control unit with colour touch display,
 with Modbus or BACnet connection

RYMASKON® 700 Interface (series)

Number key for type versions

R Y M 7 - 1 0 I x - x x 0 x - 0 0 0

- Pos. 1-4 Type name**
RYMASKON 700
- Pos. 5 Channel configuration**
Type 710 **2RI, 1DI, 1RO** 7 A / 0,5 A with CO2
- Pos. 7 Device type**
Interface
- Pos. 8 Communication**
Modbus
BACnet
- Pos. 9 Voltage supply**
12 V DC
24 V AC/DC
- Pos. 10 Additional measuring elements**
without *
RH (rel. humidity)
CO2 (carbon dioxide)
RH + CO2
- Pos. 11 Extra options**
without
- Pos. 12 Housing colour**
black
white
chrome

RYM7]

1]

I]

M]
B]

1]

2]

0]

1]

2]

3]

0]

1]

2]

3]

- Pos. 5 **RI** Resistance input (NTC10K) for external temperature sensors
- DI** Digital input (potential-free)
- RO** Relay output (7 A), (2-point regulation)

Pos. 10 * The **temperature sensor** forms part of the basic equipment and is included in the option "without" additional measuring elements.

Type 710 **Basic model** (see table on the right) available from stock –
 Freely configurable type versions available upon request!

RYMASKON® (basic model) Comparison table		Type 510 Thermostat	Type 610 Controller	Type 710 Interface
Outputs	Relay output for heating / cooling	1	–	Bus
	Analogue output (0–10 V) Heating / cooling 6-way valves, fans	–	3	Bus
Function	Sun protection (zones)	●	●●	●●
	Air Conditioning (on/off)	●	–	–
Sensors	Temperature (°C)	●	●	●
	Humidity (% RH)	●	●	●
	CO2 (ppm)	–	○	○
Inputs	Digital input	1	1	1
	Analogue input (0–10 V)	–	2	–
	Resistance input (NTC10K)	2	–	2

○ = optional



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RYMASKON® 700 Interface

Interface for controlling temperature, ventilation, sun protection (2 zones), room control unit with colour touch display, with Modbus or BACnet connection

KEY FEATURES

Basic model

RYMASKON® 700

Home Screen

- 24 V AC/DC voltage supply
- 3.5 inch touch display with backlighting
- Modbus or BACnet
- Wall mounting on standard in-wall flush boxes
- Integrated temperature sensor (basic equipment)
- Integrated humidity sensor
- Integrated CO2 sensor (optional)
- Regulation of heating, cooling, fans via the bus
- Operation of temperature, fans and sun protection (2 zones) via touch display
- 2 resistance inputs (NTC10K) for external temperature sensors
- 1 relay output (7A / 0.5A with CO2) as 2-point regulator (potential-free) controllable via bus
- 1 digital input (potential-free)
- Operating mode
Comfort, ECO, OFF, Boost, Frosts Protection



RYMASKON® 710 Interface (basic model), room control unit with touch display

Type / WG02	Communication	Measuring element	Control system	Colour	Display	Item No.	Price
RYMASKON® 710-Modbus							
Rymaskon 712-MOD-RH	Modbus	T RH	T V S S	white	■	RYM7-10IM-2102-000	322,92 €
Rymaskon 712-MOD-RH-CO2	Modbus	T RH CO2	T V S S	white	■	RYM7-10IM-2302-000	441,72 €
RYMASKON® 710-BACnet							
Rymaskon 712-BAC-RH	BACnet	T RH	T V S S	white	■	RYM7-10IB-2102-000	322,92 €
Rymaskon 712-BAC-RH-CO2	BACnet	T RH CO2	T V S S	white	■	RYM7-10IB-2302-000	441,72 €
Measuring element / control system:	T = Temperature sensor (basic equipment) RH = Humidity sensor CO2 = Carbon dioxide sensor		T = Temperature V = Ventilation S = Sun protection (2 zones)				
Channel configuration:	2RI 2 Resistance inputs (NTC10K) for external temperature sensors 1DI 1 digital input (potential-free) 1RO 1 Relay output (7 A), (2-point regulation)						
Optional:	More type versions available upon request! For configuration options, see number key (left).						

ACCESSORIES

RYMASKON® USB Configuration Tool							
RYMASKON USB_CT	For quick transfer of the device configuration from the PC to all devices in the building					1901-51Z3-0002-000	139,32 €

Controller for controlling and regulating temperature, ventilation, sun protection (2 zones), room control unit with colour touch display, with Modbus or BACnet connection

The RYMASKON® 500 / 600 / 700 series of room control units are designed for controlling the climatic zone in residential, hotel and office rooms and individually regulate the heating/cooling steps of the internal rooms. A colour touch display with modern icons is used for the visual display and operation at the location. The product range is characterised by the variety of combination options of the individual components.

The RYMASKON® 600 Controller series regulates through analogue outputs (0–10 V) up to two heating or cooling valves (6-way valves can also be controlled) and the ventilation (EC ventilator). The sun protection (blinds, shutters) can be controlled in two zones via the bus. In addition to the integrated temperature sensor, two external temperature sensors (NTC10K) or two analogue sensors (0–10 V) can also be connected. Measuring elements for relative humidity and CO₂ are also available. The devices are used in room climate technology, including convector fans, cooling ceilings and heating/cooling systems. Wall mounting is performed on standard in-wall flush boxes. The devices are optionally available with a Modbus or BACnet communication interface and in various type versions (see number key).

The basic model RYMASKON® 610 Controller with colour touch display (3.5"), in a white housing, possesses an integrated temperature and humidity sensor (CO₂ sensor optional), 2 analogue inputs for external sensors (0–10 V), 1 digital input, 3 analogue outputs (0–10 V), and optionally with Modbus or BACnet connection. The room control units are used for controlling temperature, fans and sun protection (2 zones) directly via the analogue outputs or via the bus.

TECHNICAL DATA (Basic model)

Device type:	room control unit with controller
Functions:	temperature and fans (1 zone), sun protection (2 zones)
Communication:	Modbus RTU Slave address range can be configured between 1...247 or BACnet MS/TP device ID 65100 (default) and MAC address can be configured between 1...247 RS 485 interface, max. 63 devices, 9500 / 19200 / 38400 / 57500 / 76800 Baud, none / even / odd parity, 1 / 2 stop bits
Power supply:	24 V AC/DC (± 15%)
Power consumption:	max. 1.92 W
Inputs:	2 analogue inputs 0–10 V 1 digital input (potential-free, Impedance <1 kOhm)
Outputs:	3 analogue outputs 0–10 V (heating, cooling, fans) input impedance > 100 kOhm
Operating mode:	Comfort, ECO, OFF, Boost, Frost Protection
Control element:	3.5" touch display with backlighting, cut-out approx. 50 x 75 mm, resolution 320 x 480 pixels, 255,000 colours

TEMPERATURE

Sensor:	integrated temperature sensor
Measuring range:	–40...+125 °C
Accuracy:	typically ±0.5 °C at +25 °C

HUMIDITY

Sensor:	integrated humidity sensor
Measuring range:	0...100% r.H.
Accuracy:	typically ±2% r.H. (20...80% r.H.) at +25 °C

CARBON DIOXIDE (CO₂)

Sensor:	optical NDIR sensor (non-dispersive infrared technology), with automatic calibration
Measuring range:	0...5000 ppm
Accuracy:	typically ±50 ppm ±3% of the measured value at +25 °C
Electrical connection:	0.14–1.5 mm ² , via screw terminals
Housing:	plastic, polycarbonate material, self-extinguishing, white colour (optionally black or chrome), weight approx. 220 g
Housing dimensions:	approx. 88 x 112 x 14.5 mm (on-wall) approx. 88 x 112 x 20.5 mm (on-wall with CO ₂ sensor) approx. 52 x 53 x 28.5 mm (in-wall)
Mounting:	wall mounting on in-wall flush box, Ø55 mm
Ambient temperature:	0...+50 °C (operation); –30...+70 °C (storage)
Permitted humidity:	0...95% r.H., (non-precipitating air)
Protection type:	IP 20 (according to EN 60529)
Standards:	CE conformity, according to EMC directive 2004/108/EU, Low-Voltage directive 2006/95/EU, according to EN 61000-6-1/3, EN 60730-1, EN 6100-4-2/4/5/11
ACCESSORIES	see table

RYMASKON® 600

Display icons



Room temperature
[°C]



External temperature
[°C]



Relative humidity
[%RH]



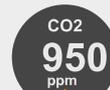
Ventilation
(fan speed,
6 steps)



Sun protection
(2 zones)

RYMASKON® 600

with CO₂ sensor



CO₂ content
[ppm]

Alarm levels 1/2
(incl. bell icon)
configurable

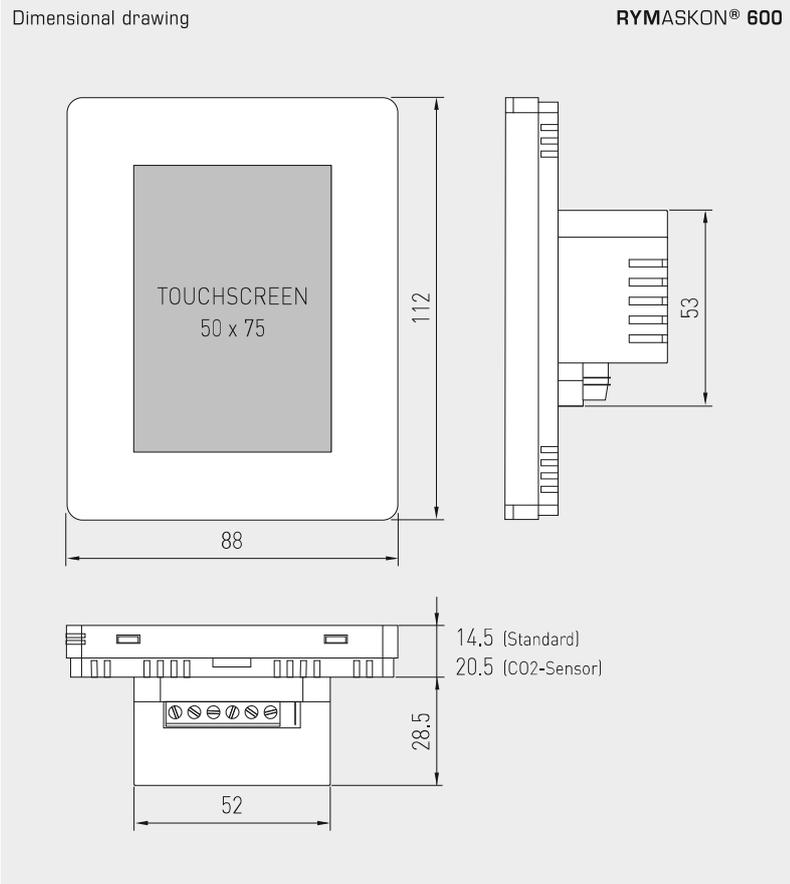


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RYMASKON® 600 Controller

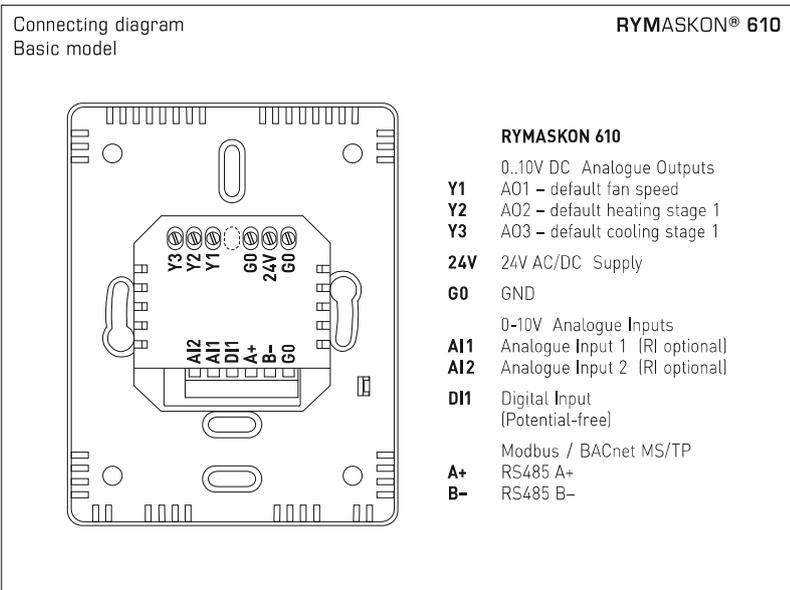
Controller for controlling and regulating temperature, ventilation, sun protection (2 zones), room control unit with colour touch display, with Modbus or BACnet connection



RYMASKON® 600
On-wall 14.5 mm



RYMASKON® 600
with CO2 sensor
On-wall 20.5 mm

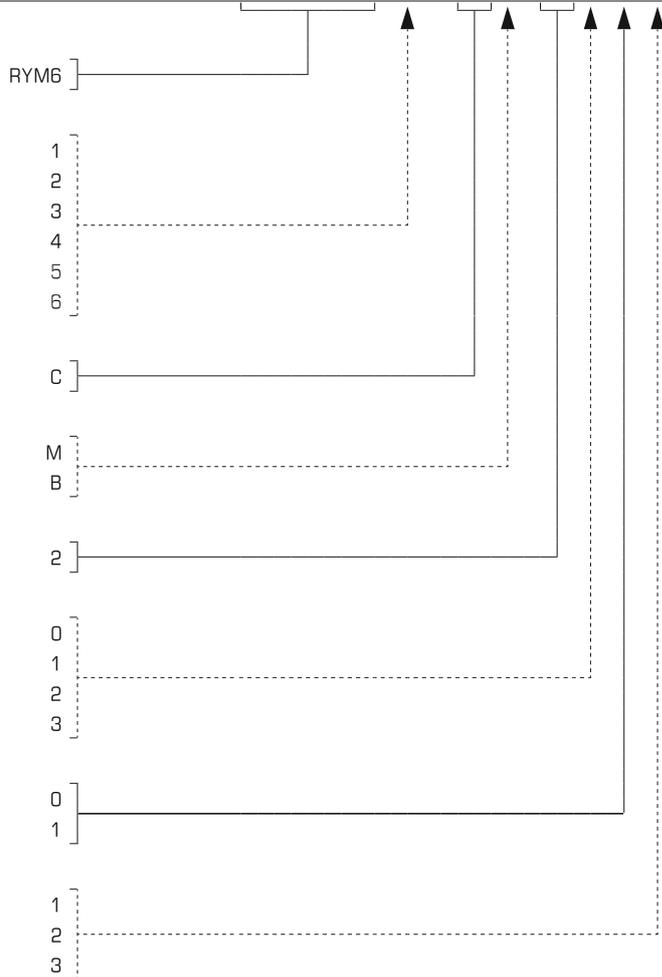


Controller for controlling and regulating temperature, ventilation, sun protection (2 zones), room control unit with colour touch display, with Modbus or BACnet connection

RYMASKON® 600 Controller (series)
Number key for type versions

R Y M 6 - x 0 C x - 2 x x x - 0 0 0

- Pos. 1-4** Type name
RYMASKON 600
- Pos. 5** Channel configuration
Type 610 **2RI, 1DI, 3AO** (h,c,f)
Type 620 **1RI, 1DI, 2AO** (h,c), **3RO** (f) 0,5 A
Type 630 **1RI, 1DI, 2AO** (h,c), **3RO** (f) 7A
Type 640 **2RI, 1DI, 1AO** (f), **2DO** (h, c, PMW)
Type 650 **2RI, 1DI, 1AO** (EC-f), **4RO** (h,c,f) 0.5 A
Type 660 **2RI, 1DI, 2DO** (h, c, PMW), **3RO** (f) 7 A
- Pos. 7** Device type
Controller
- Pos. 8** Communication
Modbus
BACnet
- Pos. 9** Voltage supply
24 V AC/DC
- Pos. 10** Additional measuring elements
without *
RH (rel. humidity)
CO2 (carbon dioxide)
RH + CO2
- Pos. 11** Extra options
without
AI instead of **RI**
- Pos. 12** Housing colour
black
white
chrome



Pos. 5	RI Resistance input (NTC10K)	(h) Heating	Pos. 10 *	The temperature sensor forms part of the basic equipment and is included in the option "without" additional measuring elements.
	RO Relay output (0.5 A / 7 A)	(c) Cooling		
	AI Analogue input (0-10 V DC) instead of RI	(f) Fans		
	AO Analogue output (0-10 V DC)	(EC-f) EC fans		
	DI Digital input (potential-free)	(PMW) Pulse Width Modulation		
	DO Digital output (potential-free)			

Type 610 **Basic model** (see table on the right) available from stock – Freely configurable type versions available upon request!

RYMASKON® (basic model) Comparison table		Type 510 Thermostat	Type 610 Controller	Type 710 Interface
Outputs	Relay output for heating/cooling	1	–	Bus
	Analogue output (0-10 V) Heating/cooling 6-way valves, fans	–	3	Bus
Function	Sun protection (zones)	●	●●	●●
	Air-conditioning (on/off)	●	–	–
Sensors	Temperature (°C)	●	●	●
	Humidity (% RH)	●	●	●
	CO2 (ppm)	–	○	○
Inputs	Digital input	1	1	1
	Analogue input (0-10 V)	–	2	–
	Resistance input (NTC10K)	2	–	2

○ = optional



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RYMASKON® 600 Controller

Controller for controlling and regulating temperature, ventilation, sun protection (2 zones), room control unit with colour touch display, with Modbus or BACnet connection

KEY FEATURES

Basic model

RYMASKON® 600
Home Screen

- 24 V AC/DC voltage supply
- 3.5 inch touch display with background lighting
- Modbus or BACnet
- Wall mounting on standard in-wall flush boxes
- Integrated temperature sensor (basic equipment)
- Integrated humidity sensor
- Integrated CO2 sensor (optional)
- Regulation of heating, cooling, fans directly through analogue outputs (0–10 V)
- Operation of temperature, fans, sun protection (2 zones) via touch display
- 3 analogue outputs (0–10 V) for controlling heating/cooling valves and EC motor
- 2 analogue inputs (0–10 V) for external sensors
- 1 digital input (potential-free)
- Operating mode
Comfort, ECO, OFF, Boost, Frosts Protection



RYMASKON® 610		Controller (basic model), room control unit with touch display					
Type / WG02	Communi- cation	Measuring element	Control system	Colour	Display	Item No.	Price
RYMASKON® 610-Modbus							
Rymaskon 612-MOD-RH-AI	Modbus	T RH	T V S S	white	■	RYM6-10CM-2112-000	376,92 €
Rymaskon 612-MOD-RH-CO2-AI	Modbus	T RH CO2	T V S S	white	■	RYM6-10CM-2312-000	538,92 €
RYMASKON® 610-BACnet							
Rymaskon 612-BAC-RH-AI	BACnet	T RH	T V S S	white	■	RYM6-10CB-2112-000	376,92 €
Rymaskon 612-BAC-RH-CO2-AI	BACnet	T RH CO2	T V S S	white	■	RYM6-10CB-2312-000	538,92 €
Measuring element / control system:	T = Temperature sensor (basic equipment) RH = Humidity sensor CO2 = Carbon dioxide sensor		T = Temperature V = Ventilation S = Sun protection (2 zones)				
Channel configuration:	2AI 2 analogue inputs (0–10 V DC) instead of 2RI 1DI 1 digital input (potential-free) 3AO 3 analogue outputs (0–10 V DC) for heating, cooling, fans						
Optional:	More type versions available upon request! For configuration options, see number key (left).						
ACCESSORIES							
RYMASKON® USB Configuration Tool							
RYMASKON USB_CT	For quick transfer of the device configuration from the PC to all devices in the building					1901-51Z3-0002-000	139,32 €

Thermostat for controlling and regulating temperature and the sun protection (1 zone), room control unit with colour touch display, with Modbus or BACnet connection

The RYMASKON® 500 / 600 / 700 series of room control units are designed for controlling the climatic zone in residential, hotel and office rooms and individually regulate the heating/cooling steps of the internal rooms. A colour touch display with modern icons is used for the visual display and operation at the location. The product range is characterised by the variety of combination options of the individual components.

The RYMASKON® 500 Thermostat series regulates a heating or cooling valve directly through a relay. The sun protection (blinds, shutters) can be controlled in one zone via the bus. In addition to the integrated temperature sensor, two external temperature sensors (NTC10K) can also be connected. A measuring element for relative humidity is also available. The devices are used in room climate technology and heating/cooling systems, such as cooling ceilings and floor heating. Wall mounting is performed on standard in-wall flush boxes. The devices are optionally available with a Modbus or BACnet communication interface (optionally without communication) and in various type versions (see number key).

The basic model RYMASKON® 510 Thermostat with colour touch display (3.5"), in a white housing, possesses an integrated temperature and humidity sensor, 2 resistance inputs (for external NTC10K temperature sensors), 1 digital input, 1 relay output (7A) and optionally with a Modbus or BACnet connection. The room control units are used for controlling heating/cooling directly through the relay (2-point regulation) and the sun protection (1 zone) via the bus.

TECHNICAL DATA (Basic model)

Device type:	room control unit with 2-point regulation
Functions:	temperature (1 zone), sun protection (1 zone)
Communication:	Modbus RTU Slave address range can be configured between 1...247 or BACnet MS/TP device ID 65100 (default) and MAC address can be configured between 1...247 RS 485 interface, max. 63 devices, 9500 / 19200 / 38400 / 57500 / 76800 Baud, none / even / odd parity, 1 / 2 stop bits
Power supply:	24 V AC/DC (± 15%)
Power consumption:	max. 1.92 W
Inputs:	2 resistance inputs (NTC10K) for external temperature sensors 1 digital input (potential-free), impedance <1 kOhm
Outputs:	1 relay output (2-point regulation) 7 A at 230 V AC (resistive load); 2,2 / 1,3 A at 230 / 115 V AC (inductive load)
Operating mode:	Comfort, ECO, OFF, Boost, Holiday, Frost Protection
Control element:	3.5" touch display with background lighting, cut-out approx. 50 x 75 mm, resolution 320 x 480 pixels, 255,000 colours

TEMPERATURE

Sensor:	integrated temperature sensor
Measuring range:	-40...+125 °C
Accuracy:	typically ±0.5 °C at +25 °C

HUMIDITY

Sensor:	integrated humidity sensor
Measuring range:	0...100% r.H.
Accuracy:	typically ±2% r.H. (20...80% r.H.) at +25 °C

Electrical connection:	0.14 - 1.5 mm², via screw terminals
Housing:	plastic, polycarbonate material, self-extinguishing, white colour (optionally black or chrome), weight approx. 220 g
Housing dimensions:	approx. 88 x 112 x 14.5 mm (on-wall) approx. 52 x 53 x 28.5 mm (in-wall)
Mounting:	wall mounting on in-wall flush box, Ø55 mm
Ambient temperature:	0...+50 °C (operation); -30...+70 °C (storage)
Permitted humidity:	0...95% r.H., (non-precipitating air)
Protection type:	IP 20 (according to EN 60529)
Standards:	CE conformity, according to EMC directive 2004/108/EU, Low-Voltage directive 2006/95/EU, according to EN 61000-6-1/3, EN 60730-1, EN 6100-4-2/4/5/11

ACCESSORIES	see table
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RYMASKON® 500
Display icons



Room temperature
[°C]



External temperature
[°C]



Relative humidity
[%RH]



Air Conditioning
(AC)



Sun protection
(1 zone)



NEW

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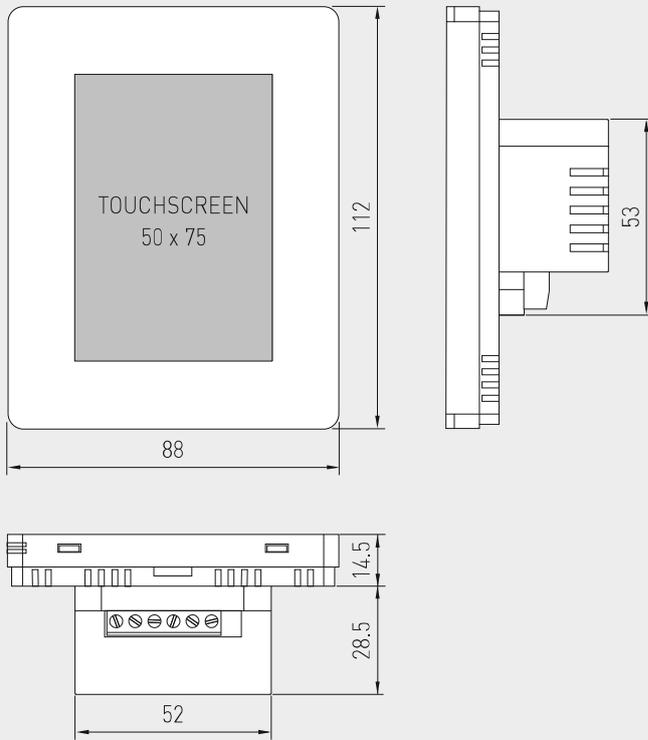
RYMASKON® 500 Thermostat

Thermostat for controlling and regulating temperature and the sun protection (1 zone), room control unit with colour touch display, with Modbus or BACnet connection

Dimensional drawing

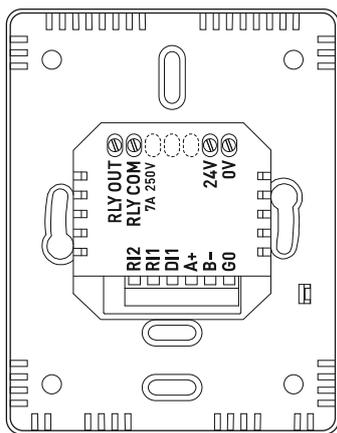
RYMASKON® 500

RYMASKON® 500
On-wall 14.5 mm



Connecting diagram
Basic model

RYMASKON® 510



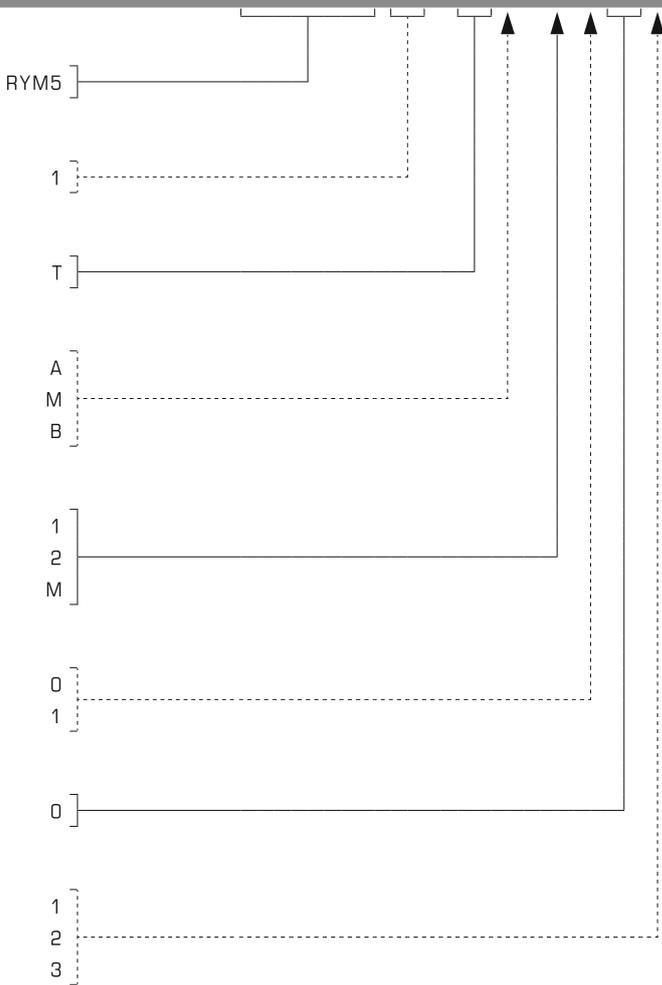
- RYMASKON 510**
- RLY OUT** 250V AC / 30V DC 7A(res)/2.2(ind)
Rated Relay Output
 - COM** Relay Common Terminal
 - 24V** 24V AC/DC Supply
 - 0V** 0V Supply
 - Inputs
NTC10K Temperature Sensor
 - RI1** Input 1 (External Sensor)
 - RI2** Input 2 (External Sensor)
 - DI1** Digital Input (Potential-free)
 - Modbus / BACnet MS/TP
 - A+** RS485 A+
 - B-** RS485 B-
 - G0** GND (internally linked with 0V Supply)

Thermostat for controlling and regulating temperature and the sun protection (1 zone), room control unit with colour touch display, with Modbus or BACnet connection

RYMASKON® 500 Thermostat (series)
Number key for type versions

RYM5-10T-x-x-x0x-000

- Pos. 1-4 Type name**
RYMASKON 500
RYM5
- Pos. 5 Channel configuration**
Type 510
2RI, 1DI, 1RO 7A
1
- Pos. 7 Device type**
Thermostat
T
- Pos. 8 Communication**
without
Modbus
BACnet
A
M
B
- Pos. 9 Voltage supply**
12 V DC
24 V AC/DC
90-250 V AC
1
2
M
- Pos. 10 Additional measuring elements**
without *
RH (rel. humidity)
0
1
- Pos. 11 Extra options**
without
0
- Pos. 12 Housing colour**
black
white
chrome
1
2
3



Pos. 5 **RI** Resistance input (NTC10K) for external temperature sensors
DI Digital input (potential-free)
RO Relay output (7 A), (2-point regulation)
 Pos. 10 * The **temperature sensor** forms part of the basic equipment and is included in the option "without" additional measuring elements.

Type 510 **Basic model** (see table on the right) available from stock –
 Freely configurable type versions available upon request!

RYMASKON® (basic model) Comparison table		Type 510 Thermostat	Type 610 Controller	Type 710 Interface
Outputs	Relay output for heating/cooling	1	–	Bus
	Analogue output (0-10 V) Heating/cooling 6-way valves, fans	–	3	Bus
Function	Sun protection (zones)	●	●●	●●
	Air Conditioning (on/off)	●	–	–
Sensors	Temperature (°C)	●	●	●
	Humidity (% RH)	●	●	●
	CO2 (ppm)	–	○	○
Inputs	Digital input	1	1	1
	Analogue input (0-10 V)	–	2	–
	Resistance input (NTC10K)	2	–	2

○ = optional



NEW

S+S REGELTECHNIK

RYMASKON® 500 Thermostat

Thermostat for controlling and regulating temperature and the sun protection (1 zone), room control unit with colour touch display, with Modbus or BACnet connection

KEY FEATURES

Basic model

RYMASKON® 500

Home Screen

- 24 V AC/DC voltage supply
- 3.5 inch touch display with background lighting
- Modbus or BACnet
- Wall mounting on standard in-wall flush boxes
- Integrated temperature sensor (basic equipment)
- Integrated humidity sensor
- Regulation of heating or cooling via relay (2-point regulator)
- Operation of temperature and sun protection (1 zone) via touch display
- 2 resistance inputs (NTC10K) for external temperature sensors
- 1 digital input (potential-free)
- 1 relay output (7 A), (2-point regulation)
- Operating mode
Comfort, ECO, OFF, Boost, Holiday, Frost Protection



RYMASKON® 510		Thermostat (basic model), room control unit with touch display				
Type / WG02	Communication	Measuring element	Control system	Colour	Item No.	Price
RYMASKON® 510-Modbus						
Rymaskon 512-MOD-RH	Modbus	T RH	T S	white	■ RYM5-10TM-2102-000	253,80 €
RYMASKON® 510-BACnet						
Rymaskon 512-BAC-RH	BACnet	T RH	T S	white	■ RYM5-10TB-2102-000	253,80 €
Measuring element / control system:	T = Temperature sensor (basic equipment) RH = Humidity sensor	T = Temperature heating / cooling S = Sun protection (1 zone)				
Channel configuration:	2RI 2 resistance inputs (NTC10K) for external temperature sensors 1DI 1 digital input (potential-free) 1RO 1 Relay output (7 A), (2-point regulation)					
Optional:	More type versions available upon request! For configuration options, see number key (left).					
ACCESSORIES						
RYMASKON® USB Configuration Tool						
RYMASKON USB_CT	For quick transfer of the device configuration from the PC to all devices in the building				1901-51Z3-0002-000	139,32 €

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

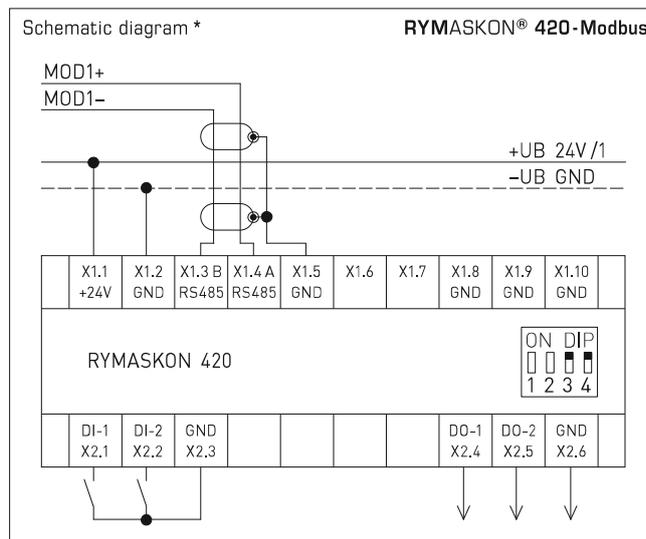
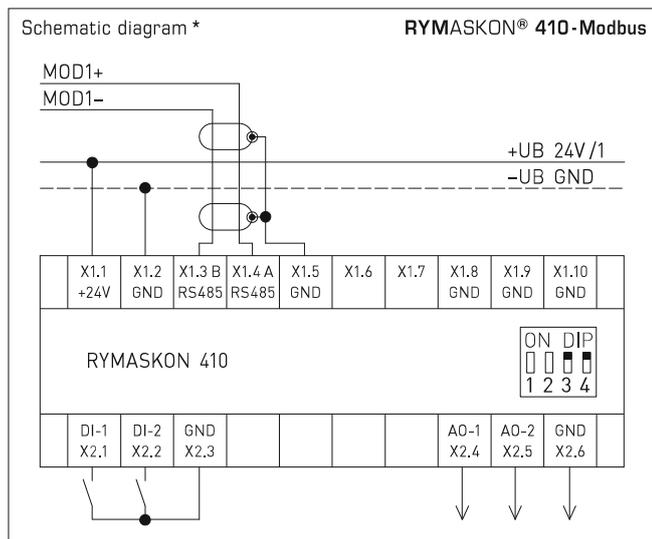


TECHNICAL DATA

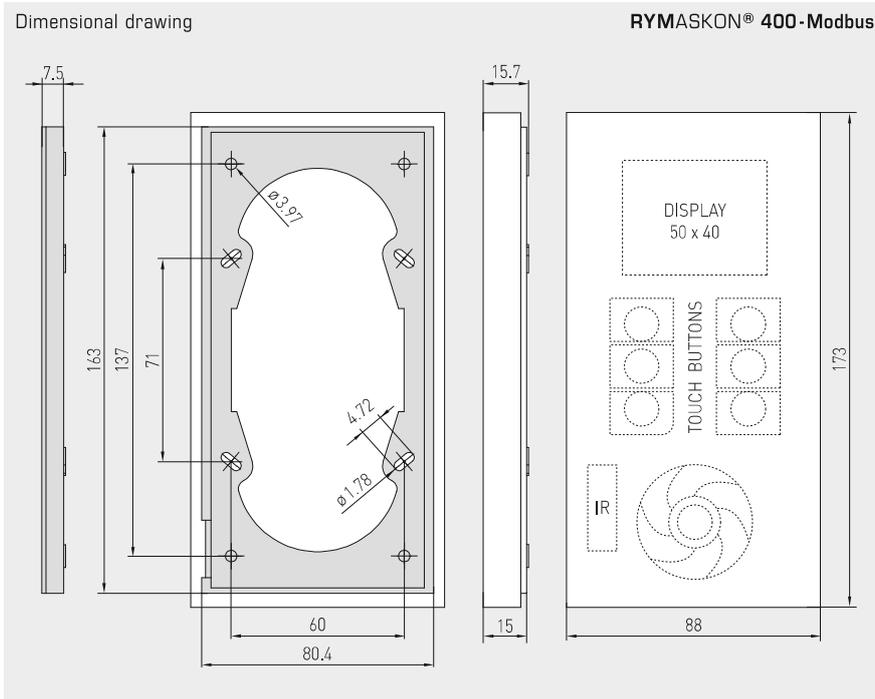
Power supply:	24 V DC (± 10%)
Power consumption:	1.08 W at 100% backlighting 0.94 W at 15% backlighting 0.89 W without backlighting (without load at the actuator outputs)
Inputs:	2 digital inputs without additional 0 V output signal *
Outputs:	Type 410: 2 analogue outputs (0-10 V DC) rated current max. 4 mA Type 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
Housing:	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.



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



RYMASKON® 411-Modbus
RYMASKON® 421-Modbus



Display symbols **RYMASKON® 400-Modbus**



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

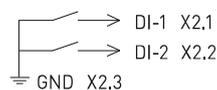
Note:

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	1	DI-1 (digital) 0 V
Input 2	2	DI-2 (digital) 0 V
	3	GND
Output 1	4	AO-1 (analogue) 0-10 V DC
Output 2	5	AO-2 (analogue) 0-10 V DC
	6	GND

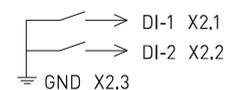
	X1	
	1	+UB 24V DC
	2	-UB GND
	3	RS485 - B (Modbus RTU)
	4	RS485 - A (Modbus RTU)
	5	GND
	6	GND
	7	GND
	8	GND
	9	GND
	10	GND



Connecting diagram **RYMASKON® 420-Modbus**

	X2	
Input 1	1	DI-1 (digital) 0 V
Input 2	2	DI-2 (digital) 0 V
	3	GND
Output 1	4	DO-1 (digital / PWM)
Output 2	5	DO-2 (digital / PWM)
	6	GND

	X1	
	1	+UB 24V DC
	2	-UB GND
	3	RS485 - B (Modbus RTU)
	4	RS485 - A (Modbus RTU)
	5	GND
	6	GND
	7	GND
	8	GND
	9	GND
	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	513,77 €
RYMASKON 412	RS485	2x (analog) 0-10V	white	■	1901-5121-2102-000	513,77 €
RYMASKON® 420-Modbus						
RYMASKON 421	RS485	2x (digital / PWM)	black	■	1901-5121-2201-000	513,77 €
RYMASKON 422	RS485	2x (digital / PWM)	white	■	1901-5121-2202-000	513,77 €

PWM = pulse-width modulation

ACCESSORIES						
KA2-Modbus	Communication adapter (USB/RS485) for system connection				1906-1200-0000-100	203,80 €
LA-Modbus	Line termination device (with terminating resistor) as an active bus termination				1906-1300-0000-100	76,01 €

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® 200 - Modbus** enables automated monitoring and control of the indoor climate and illumination in a Modbus network. It provides three digital inputs and a universal input, which allows connection of up to four external push buttons or switches. It can be configured remotely from a higher-level Modbus master and integrated into a cross-building room climate monitoring and data acquisition system. Internal sensors record room temperature, relative humidity and dew point.

Up to eight capacitive function buttons on the front panel of the compact unit can be used for on-site operation and configuration. A buzzer sounds to acknowledge button use and can also be used as an acoustic fault or alarm warning.

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, date and climate parameters (temperature, humidity, dew point, CO₂ content), it can also display additional features, such as fan mode or room occupancy. The back light colour can be adapted to the room design.

RYMASKON® 200 - Modbus
Type 232



TECHNICAL DATA

Power supply:	24 V DC (± 10%)
Power consumption:	max. 0.8 W
Inputs:	3 digital inputs (for standard push buttons or switches) 1 universal input (can be configured for connecting NTC10K temperature sensors or as additional digital input for the connection of standard push buttons or switches)
Bus interface:	RS485 Modbus RTU slave (57600, 38400, 19200, 9600 Baud), bus termination can be set via DIP switch, configurable speed 1200-115200 bit/s (typically 57600 bit/s), adjustable transfer mode (typically "8E1", 1 start bit, 8 data bits, even parity, 1 stop bit)
Equipment:	1 NFC (Near Field Communication) 1 infra-red receiver (NEC protocol) 1 buzzer
Operating elements:	1 backlit multifunctional display (individually programmable RGB colour selection) 4 / 6 / 8 touch buttons, type-dependent

TEMPERATURE

Sensor:	CMOS temperature sensor
Measuring Range:	-40...+125 °C, resolution: 0.1 °C
Accuracy:	typically ±0.5 °C (at +5...+60 °C)

HUMIDITY

Sensor:	capacitive humidity sensor
Measuring Range:	0...100 % r.H., resolution: 0.1 % r.H.
Accuracy:	typically ±2 % r.H. (at +25 °C, 20...80 % r.H.) typically ±3 % r.H. (at +25 °C, 0...20 % r.H. or 80...100 % r.H.)

Electrical connection:	0.2 - 1.5 mm ² , via plug-in screw terminals
Housing:	plastic, black or white colour
Dimensions:	approx. 94.5 x 110 x 19.5 mm
Mounting:	using a plastic mounting plate (see dimensional drawing), on in-wall flush box, Ø 55 mm
Ambient temperature:	0...+50 °C (operation)
Permitted humidity:	0...90 % r.H. (without dew formation)
Protection type:	IP 30 (according to EN 60 529)
Standards:	CE conformity, electromagnetic compatibility according to EN 50491, EMC directive 2014 / 30 / EU

CONTROL

Type 210:	Temperature up/down, Room occupancy, Menu
Type 220:	Temperature up/down, Fan speed up/down, Room occupancy, Menu
Type 230:	Temperature up/down, Fan speed up/down, Light on/off, Room occupancy, Menu
Type 240:	Temperature up/down, Sun protection up/down, Light on/off, Room occupancy, Menu
Type 250:	Temperature up/down, Fan speed up/down, Sun protection up/down, Room occupancy, Menu
Type 260:	Temperature up/down, Fan speed up/down, Sun protection up/down, Light, Menu

ACCESSORIES

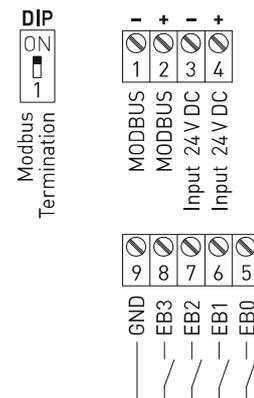
see table

Display symbols **RYMASKON® 200 - Modbus**



DIP Switch	RYMASKON® 200 - Modbus	
RS 485 bus termination		DIP 1
activated (default)		ON
deactivated		OFF

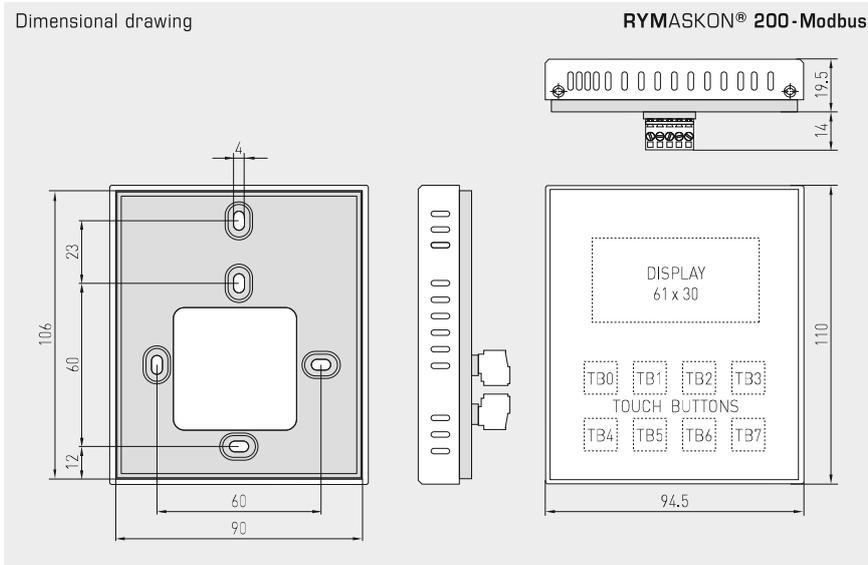
Connecting diagram **RYMASKON® 200 - Modbus**





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



RYMASKON® 200-Modbus
Type 231



RYMASKON® 200-Modbus Room control unit for room automation							
Type / WG02	Communication	Buttons	Control	Colour	Display	Item No.	Price
RYMASKON® 210-Modbus							
RYMASKON 211	RS485, NFC, NEC	4	T - - - R I M	black	■	1901-5111-3011-001	319,89 €
RYMASKON 212	RS485, NFC, NEC	4	T - - - R I M	white	■	1901-5111-3012-001	331,17 €
RYMASKON® 220-Modbus							
RYMASKON 221	RS485, NFC, NEC	6	T V - - - R I M	black	■	1901-5111-3011-002	319,89 €
RYMASKON 222	RS485, NFC, NEC	6	T V - - - R I M	white	■	1901-5111-3012-002	331,17 €
RYMASKON® 230-Modbus							
RYMASKON 231	RS485, NFC, NEC	8	T V - L R I M	black	■	1901-5111-3011-003	319,89 €
RYMASKON 232	RS485, NFC, NEC	8	T V - L R I M	white	■	1901-5111-3012-003	331,17 €
RYMASKON® 240-Modbus							
RYMASKON 241	RS485, NFC, NEC	8	T - S I L R I M	black	■	1901-5111-3011-004	319,89 €
RYMASKON 242	RS485, NFC, NEC	8	T - S I L R I M	white	■	1901-5111-3012-004	331,17 €
RYMASKON® 250-Modbus							
RYMASKON 251	RS485, NFC, NEC	8	T V I S - - R I M	black	■	1901-5111-3011-005	319,89 €
RYMASKON 252	RS485, NFC, NEC	8	T V I S - - R I M	white	■	1901-5111-3012-005	331,17 €
RYMASKON® 260-Modbus							
RYMASKON 261	RS485, NFC, NEC	8	T V I S I L - I M	black	■	1901-5111-3011-006	319,89 €
RYMASKON 262	RS485, NFC, NEC	8	T V I S I L - I M	white	■	1901-5111-3012-006	331,17 €
Control:		T = Temperature	V = Ventilation	R = Room occupancy			
		S = Sun protection	L = Light	M = Menu			
ACCESSORIES							
KA2-Modbus	Communication adapter (USB/RS485) for system connection					1906-1200-0000-100	203,80 €
LA-Modbus	Line termination device (with terminating resistor) as an active bus termination					1906-1300-0000-100	76,01 €



**HVAC & BYGNINGS-
AUTOMATIK**

VORES PRODUKTSORTIMENT INKLUDERER:



POWER IO



CO2- & VOCFØLERE



TEMP. AKTIV - RUMFØLERE



TILBEHØR



MODBUS/BACNET



TEMPERATURCONTROLLERE

VI FØRER PRODUKTER INDENFOR KATEGORIERNE:



AUTOMATIK



ELVARME



KØLEPROFILER

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