## SIEMENS



DESIGO™ RXA

# Non-communicating room controllers

### RXA29.1

For fan-coil systems

The RXA29.1 room controller are used for temperature control in individual rooms.

- For 2-pipe or 4-pipe fan-coil systems, with or without changeover
- Control of AC 24 V PWM<sup>1</sup> thermic valve actuators, 3-position AC 24 V valve and damper actuators
- Pl control
- AC 230 V operating voltage
  - 1) PWM = pulse-width modulated

Use

The RXA29.1 room controller is optimised for control of fan-coil systems in individual rooms.

The controller application and the configuration of connected field devices are defined manually with DIP switches and a potentiometer.

For a detailed description of functions, refer to the DESIGO RXA applications library, document CA2A3886.

#### Types

Туре	AC 24 V triac outputs	Relay outputs
RXA29.1/FC-04	For two thermic valve actuators	None
	or two 3-position actuators	
RXZ20.1	Accessories: terminal covers	

#### Ordering

When ordering, please specify the quantity, product name and type code. The RXZ20.1 terminal covers are supplied in packs of 10 pairs and must be ordered as a separate item (see also "Mounting").

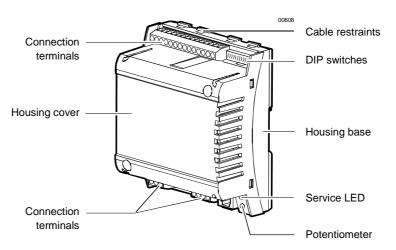
Example:

30	Room controllers, type RXA29.1	RXA29.1/FC-04
30	Pairs of terminal covers	RXZ20.1

#### Compatibility

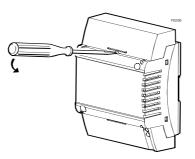
The QAA24 and QAA27 room temperature sensors and the Siemens Building Automation field devices are suitable for use with the RXA29.1 room controller. For details, refer to the product range description, document CA2S3880.

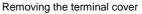
The RXA29.1 room controller consists of a housing base, a housing cover and the printed circuit board. The printed circuit board incorporates the connection terminals and the DIP switches used for configuration. The controllers also have a potentiometer for setpoint adjustment and testing, and a Service LED with different flashing patterns to indicate operational status and test states.



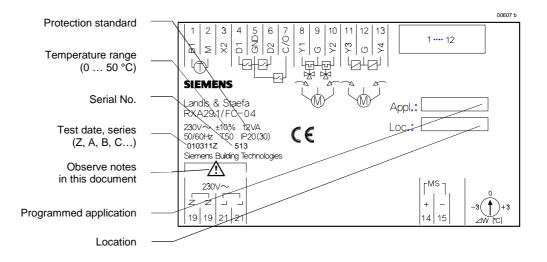
#### **Terminal cover**

Terminal covers (RXZ20.1) are available as an option, to protect the connection terminals from physical contact and dirt. The Service LED and the potentiometer remain visible even with the terminal covers fitted. The potentiometer can be operated with a screwdriver. The cable is connected to the room controller by breaking out the perforated cable entry guide.





#### Label

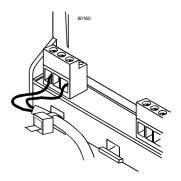


Options for use of the labeling fields "Appl." and "Loc.":

- Handwritten entry of location and the final application or
- Printed adhesive label

**Connection terminals** To avoid incorrect wiring, terminals which can be connected to AC 230 V (supply and relay outputs) are physically separate from the other terminals.

**Caution** The cable restraints on the housing base *must* be used for the connections to terminals 19 ... 28 (AC 230 V). The conductors must be secured with cable ties (see diagram).



#### Disposal

Note



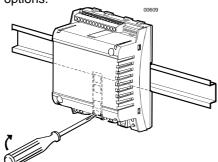
The controller includes electrical and electronic components and must not be disposed of as domestic waste.

Current local legislation must be observed.

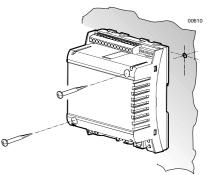
#### Engineering

	For information on selecting and sizing the cables for the power supply and for the field devices, refer to the installation guide, document CA2Z3884. The room controllers have an AC 230 V mains supply voltage. The controlled devices (valves and damper actuators) are supplied directly from the room controller. This means that a separate AC 24 V supply is not necessary for the RXA29.1 controller and the associated field devices.
Master/slave	<ul> <li>Where several room controllers are operating in the same space, they must be synchronized via the master/slave interface.</li> <li>Up to 3 slaves may be used (operating in parallel).</li> <li>The outputs of the master controller are mapped in the slaves. Note that room units connected to a slave controller cannot be operated.</li> <li>The polarity of the M/S wires has to be respected!</li> <li>The master/slave interface is compatible with the PRFA and PRFB controllers in the PRONTO range.</li> </ul>
AC 230 V supply cables	Sizing and fuse protection of the supply cables depends on the total load and on local regulations. The cables must be secured with cable restraints.
AC 24 V triac outputs	The simultaneous load on outputs Y1 Y4 must not exceed 9.5 VA.Example:Y1 (heating)2 thermic valve actuators, type STE72 6 WY2 (cooling)2 thermic valve actuators, type STE72 6 WY3, Y4 (outside air)Damper actuator 3.5 VAThe maximum load is 9.5 VA for the heating sequence and 9.5 VA for the cooling sequence. This is acceptable because the two sequences never operate at the same time.

The room controllers can be mounted in any orientation using the following fixing options:



*Rail mounting* The housing base is designed for snapmounting on DIN rails, type EN50022-35x7.5 (can be released with a screwdriver)



Surface mounting There are two drill holes for screwmounting (see "Dimensions" for drilling template). The housing base is fitted with raised supports. Screws: Max. diameter 3.5 mm, min. length 38 mm

When mounting note the following:

- The controller should not be freely accessible after mounting
- Ensure adequate air circulation to dissipate heat generated during operation.
- Easy access is required for service personnel
- Local installation regulations must be observed.

Mounting instructions and a drilling template are printed on the controller packaging.

#### Commissioning

The controller application and the configuration of the connected field devices are defined manually with DIP switches and the potentiometer. The Service LED provides information on power up and operational status.

There is no special test for checking that the connected field devices match the DIP switch settings. Depending on the application, if the controller has insufficient information it switches to "Idle" mode (all outputs at zero) and the LED remains on continuously.

For details refer to the applications library CA2A3886.

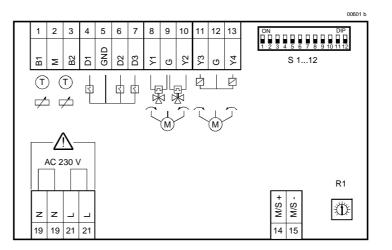
Caution In the event of a long-term short circuit or overload, the thermal fuse in the transformer may trip. The controller must then be replaced.

There is no protection against accidental connection with 230 V on the AC 24 V side.

#### **Technical data**

Power supply         Working voltage         AC 230 V ± 10 % Frequency           Control algorithm         Power consumption with output field devices commended         Max. 12 VA           Operating data         Control algorithm         PI           Inputs         Signal inputs D1 D3 (do volt-free contacts)         3           Control algorithm         DC 16 V         Control algorithm           Duratity         Control voltage         DC 16 V           Control voltage control         DC 06 nA           Control voltage control         Max. 100 út           Measured value repats Brown         LSS N 1000 temperature sensor           Control voltage control         Max. 10 k2           Measured value repats Brown         LSS N 1000 temperature sensor           Control voltage control         LSS N 1000 temperature sensor           Control voltage control         LSS N 1000 temperature sensor           Sequence + 12 control         Max. 0.2 K           Measuring range         0 50 °C           Sequence + 12 control voltage (SELV, not sensor temp, (without catbol)         Sequence + 1 degree and users           Output voltage (SELV, not sensor temp, (without catbol)         Max. 0.2 K           Output voltage (SELV, not sensor temp, (without catbol)         Cat V ONOFF, PVM or 3-position (depending on splication)				
Power consumption with output filled devices connected         Max. 12 VA Internal, non-resetting           Operating data         Thermal, non-resetting           Inputs         Signal inputs D103 (for volt-free contacts)           Quantity         3           Contact voltage         DC 16 V           Contact voltage         DC 18 V           Contact voltage         DC 18 V           Contact voltage         DC 18 V           Contact unrent         DC 8 mA           Contact voltage         DC 18 V           Contact voltage control         Max. 100 D           Messured value inputs B1 and B2         Type of signal is programmable (DIP switch)           Temperature sensor         L&S NI 1000 temperature sensor           messuring ency         050 °C           Sensor current         2.3 mA           Resolution         050 °C           Sensor current         2.3 mA           Resolution         0	Power supply	Working voltage		AC 230 V ± 10 %
output field devices connected         Max. 12 VA           Operating data         Thermal, non-resulting           Inputs         Operating 30103 (for volt-free contacts)           Quantity         3           Control algorithm         PI           Control voltage         DC 16 V           Contact oursent         DC 3 N           Contact transfer resistance         Max. 100 0           Not stabilis for pulse control         Measured value inputs B1 and B2           Type of signal is programmable (DIP switch)         LSS N1 1000 temperature sensor           Measuring range         0 S0 °C           Sensor current         2.3 mA           Resolution         Q2 N           Measuring range         AC 24 V           AC 24 V         AC 24 V           Output voltage (SELV, not earthed)         AC 24 V           AC 24 V traits control all pointinal load         Max. 5 S N1           Countart soutput strutters         3           Colde connections         Connection terminals for signals and			14	50/60 Hz
Internal lose         Thermal, non-resetting           Control algorithm         PI           Inputs         Signal inputs D1 D3 (for volt-free contacts)         3           Control voltage         DC 16 V           Control voltage         DC 16 V           Contact urgent         DC 8 mA           Measured value inputs B1 m 602         Type of signal is programmable (DIP switch)           Measuring range         0 50 °C           Sensor current         2.3 mA           Resolution         Max. 0.2 K           AC24 V Inscriptes         Max. 0.2 K           AC24 V Inscriptes         VI not experiative sensor           Output voltage (SELV, not earthed)         AC24 V Inscriptes           AC24 V Inscriptes         Max. 0.2 K           Couput current         Max. 0.5 A           Total nominal load         Max. 0.5 A           Couput current         Max. 0.4 V ONOFF, PWM or 3-position (depending on application)           Output voltage (SELV, not		•		M 40.1/A
Operating data Inputs         Control algorithm         PI           Inputs         Signal inputs D1 D3 (for volt-free contacts) Contact current         DC 16 V           Contact current         DC 8 mA           Contact transfer resistance         Max. 100 0.1           Contact transfer resistance         Max. 100 0.1           Measured value inputs B1 and B2         Type of signal is programmable (DIP switch)         L&S N 1000 temperature sensor           Temperature sensor         L&S N 1000         Measuring range         06 9 °C           Sensor current         2.3 mA         Resculation         0.2 K           Measuring range         06 °C         2.5 K           AC24 V trice outputs, 11Y4         Quantity         AC24 V to cutput, 11Y4           Output voltage (SELV, not earthed)         AC2 2 V ONOFFF, PWM or 3-position (depending on application)           Output voltage (SELV, not earthed)         AC 2 4 V ONOFFF, PWM or 3-position (depending on application)           Output voltage (SELV, not earthed)         AC 2 4 V ONOFFF, PWM or 3-position (depending on application)           Output voltage (SELV, not earthed)         AC 2 4 V ONOFFF, PWM or 3-position (depending on application)			s connected	
Inputs Signal ingus D1 D3 (for volt-free contacts) Gunnity 3 Contact voltage DC 16 V Contact current DC 8 mA Contact transfer resistance Max 100 0 Contact transfer resistance LAS N 1000 temperature sensor or seption adjuster Temperature sensor LAS N 1000 temperature sensor or seption adjuster Temperature sensor LAS N 1000 temperature sensor or seption adjuster Resolution 22 S * C sensor temp. (without cable) Selepoint adjuster Resolution AC24 V UNOFF, PWIM or 3-position (depending on application) Outputs Context transfer AC24 V UNOFF, PWIM or 3-position (depending on application) Output current Reset range Max 100 dupts simultaneously) (a 2 to Nover, advector, be advector				
Outputs         Outputs         0         Standb         Standb         Standb           Outputs         Outputs         0.2 Standb         DC 16 V         Contact current         DC 28 mA           Contact current         DC 28 mA         Max. 100 D         Contact insulation resistance         Min. 50 KD           Not suitable for puts control         Massured value inputs B1 and B2         Temperature sensor         L&S NI 1000 tomperature sensor           Temperature sensor         L&S NI 1000         D. 50 °C         Sensor current         2.3 mA           Resolution         D.2 St K         Measuring arrong 25 °C sensor temp. (without cable)         Max. 0.2 K           Outputs         AC24 V triac outputs, Y1 Y4         Quarthy         4         Cata V ONOFF, PWM or 3-position (depending on application)           Output voltage (SELV, not earthed)         AC 24 V ONOFF, PWM or 3-position (depending on application)         Output voltage (SELV, not earthed)         AC 24 V ONOFF, PWM or 3-position (depending on application)           Interfaces         Master/daw interface         Proprietary         AC 24 V ONOFF, PWM or 3-position (depending on application)           Output voltage (SELV, not earthed)         Ca 24 V ONOFF, PWM or 3-position (depending on application)         Output simultaneously         (a 2 ben on ub voltage 35 VA)           Interfaces         Master/daw interface <td></td> <td>0</td> <td></td> <td>PI</td>		0		PI
Contact voltage         DC 16 V           Contact transfer resistance         Max 100 Ω           Contact transfer resistance         Max 100 Ω           Contact transfer resistance         Mix 100 Ω           Not suitable for pulse control         Min. 50 kΩ           Measured value inpuls B1 and B2         Type of signal is programmable (DIP switch)         L&S NI 1000 temperature sensor or expoint adjuster           Temperature sensor         LAS NI 1000         LAS NI 1000         LAS NI 1000           Sensor current         2.3 mA	Inputs			0
Contact current DC 8 mA Contact current DC 8 mA Contact insulation resistance Max. 100 D Contact insulation resistance Min. 50 kQ Measured value inputs B1 and B2 Type of signal is programmable (DIP switch) Temperature sensor LAS NI 1000 temperature sensor of selpoint adjuster Temperature sensor LAS NI 1000 Measuring range 050 °C Sensor current 2.3 mA Resolution 25 °C sensor temp. (without MAX. 0.2 K Measuring error 215 °C sensor temp. (without MAX. 0.2 K Measuring error 215 °C sensor temp. (without MAX. 0.2 K Measuring error 215 °C sensor temp. (without MAX. 0.2 K Measuring error 215 °C sensor temp. (without MAX. 0.2 K Measuring error 215 °C sensor temp. (without MAX. 0.2 K Measuring error 215 °C sensor temp. (without MAX. 0.2 K Cable Selpoint adjuster BSGN-U1 Reset range +/-3K AC24 V UNOFFF, PWM or 3-position (depending on application) Output voltage (SELV. not earthed) AC 24 V ONOFFF, PWM or 3-position (depending on application) Output current MAX. 0.5 A Max. 0.5 N (at both outputs simultaneously) (e.g. 2 thermic valves.pp STF22 per heating and cooling asgewines +1 damper adtalator 35. VA) (at both outputs simultaneously) (e.g. 2 thermic valves.pp STF22 per heating and cooling asgewines +1 damper adtalator 35. VA) (at both outputs administ for signals and power supply (screw temminist) or (solid conductors 0.25 2.5 mm <sup>2</sup> single cable lengths Signal protection standard to EN 60529 Protection class Aution where A = 1.5 mm <sup>2</sup> AC24 V trice outputs Y1 Y4 Max. 100 m where A = 1.5 mm <sup>2</sup> AC24 V trice outputs Y1 Y4 Max. 100 m where A = 1.5 mm <sup>2</sup> AC24 V trice outputs Y1 Y4 Max. 100 m where A = 1.5 mm <sup>2</sup> AC24 V trice outputs Y1 Y4 Max. 100 m where A = 1.5 mm <sup>2</sup> AC24 V trice outputs Y1 Y4 Max. 100 m where A = 1.5 mm <sup>2</sup> AC24 V trice outputs Y1 Y4 Max. 100 m where A = 1.5 mm <sup>2</sup> AC24 V theo outputs Y1 Y4 Max. 100 m where A = 1.5 mm <sup>2</sup> AC24 V theo outputs Y1 Y4 Max. 100 m where A = 1.5 mm <sup>2</sup> AC24 V thoc outputs Y1 Y4 Max. 100 m whe				
Contact transfer resistance Max. 100 0 Contact insultion resistance Min. 50 kQ Not suitable for pulse control Measured value inputs B1 and B2 Type of signal is programmable (DIP switch) Temperature sensor or setpoint adjuster Temperature sensor UL&S Ni 1000 temperature sensor or setpoint adjuster Resolution 0.2 K Measuring area 25°C sensor temp. (without cable) Setpoint adjuster Reset range +/-3K AC24 V Inac outputs, Y1 Y4 Quantity ALC 4 V tac outputs, Y1 Y4 Quantity voltage (SELV, not earthed) AC24 V Vinac outputs, Y1 Y4 Quantity (eg. 21 temmic values, type STE72 per heating and cooling sequence + 1 demper aduator 3.5 VA) Interfaces Connections Connection terminals for signals and power Signal inputs D1 D3 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4 Max. 100 where A ≥		-		
Contact insulation resistance         Min. 50 kQ           Measured value inputs B1 and B2         Type of signal is programmable (DIP switch)         L&S Ni 1000 temperature sensor or setpoint adjuster           Temperature sensor         L&S Ni 1000         L&S Ni 1000           Measured value inputs B1 and B2         Contact insulation resistance         or setpoint adjuster           Sensor current         2.3 mA         Contact insulation resistance         Velocity           Sensor current         2.3 mA         Contact insulation resistance         Velocity           Coutputs         AC24 V triac outputs, Y1 Y4         Max. 0.2 K         Velocity           Quantity         4         AC24 V ONOFF, PWM or 3-position (depending on application)         Outputs           Outputs         AC24 V triac outputs, Y1 Y4         AC24 V ONOFF, PWM or 3-position (depending on application)           Output ourrent         Max. 0.5 A         Max. 0.5 A           Total nominal load         Max. 8.5 VA         Sensor           Cable connections         Connection terminals for signals and power         Standed or solid conductors, 0.25 2.5 mm²           Signal inputs D1D3         Max. 100 m where A ≥ 1.5 mm²         AC24 V triac outputs, Y1 Y4           Max. unable of slaves         3         Signal inputs D1 D3         Max. 100 m where A ≥ 1.5 mm² </td <td></td> <td colspan="2"></td> <td></td>				
Not suitable for pulse control           Measured value inputs B1 and B2           Type of signal is programmable (DIP switch)         L&S Ni 1000 temperature sensor or setpoint adjuster           Temperature sensor         L&S Ni 1000           Measuring range         0 60 °C           Sensor current         2.3 mA           Resolution         0.2 K           Measuring error a25 °C sensor temp, (without         Max. 0.2 K           Outputs         AC24 V triac outputs, Y1 Y4           Quantity         4           Outputs         AC24 V triac outputs, Y1 Y4           Quantity         4           Output voltage (SELV, not earthed)         Max. 0.5 A           Output current         Max. 0.5 A           Master/slave interface         Proprietary           Max. number of slaves         3           Cable connections         Signal inputs D1				
Measured value inputs B1 and B2         L8.5 M i 1000 temperature sensor or setpoint adjuster           Temperature sensor         L8.5 M i 1000 temperature sensor or setpoint adjuster           Measuring range         0 50 °C           Sensor current         2.3 mA           Cable         Setpoint adjuster           Resolution         0.2 K           Measuring error at 25 °C sensor temp. (without cable)         BSGN-U1           Setpoint adjuster         BSGN-U1           Research and the adjuster         AC24 V (Maccuputs, Y1,Y4           Quantity         4           Output voltage (SELV, not earthed)         AC 24 V ON/OFF, PWM or 3-position (depending on application)           Output current         Max. 0.5 A           Total nominal load         Max. 9.5 VA           Cable connections         Connection terminals for signals and power           Single cable lengths         Signal inputs D1 D3           Single cable lengths         Signal inputs D1 D3           Max. 100m with terminal cover fitted and wall mounted wither mounting arr				WIII. 50 K22
Type of signal is programmable (DIP switch)     L&S N1 1000       Temperature sensor     L&S N1 1000       Measuring range     050 °C       Sensor current     2.3 mA       Resolution     0.2 °K       Measuring array at 25 °C sensor temp. (without     0.2 °K       Outputs     AC24 V triac outputs, Y1Y4       Quantity     4       Output voltage (SELV, not earthed)     AC24 V ONOFF, PWM or 3-position (depending on application)       Output current     Max. 0.5 A       Total nominal load     Max. 9.5 VA       Interfaces     Measure interface       Master/slave interface     Proprietary       Master/slave interface     Proprietary       Single cable lengths     Signal inputs D1D3     Max. 100 m with diameters 2.0.6 mm       Single cable lengths     Signal inputs D1D3     Max. 100 m with adimeters 2.0.6 mm       Housing protection standard     Protection class I or 11     Max. 100 m with adimeters 2.0.6 mm       Anbient conditions     Operation     Transport       Class 28 % in     < 25 % in				
Temperature sensor         L&S N1 1000           Measuring range         050 °C           Sensor current         2.3 mA           Resolution         0.2 K           Measuring error at 25 °C sensor temp. (without cable)         Max. 0.2 K           Setpoint adjuster         BSGN-U1           Resolution         0.2 K           Max. 0.2 K         Max. 0.2 K           Guiputs         AC24 V triac outputs, Y1 Y4           Quantity         4           Outputs         AC24 V triac outputs, Y1 Y4           Quantity         4           Output voltage (SELV, not earthed)         AC24 V ON/OFF, PWM or 3-position (depending on application)           Output current         Max. 0.5 A           Total nominal load         Max. 9.5 VA           (at both outputs simultaneously)         (e.g. 2 hemmic valves, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)           Interfaces         Master/slave interface         Proprietary           Master/slave interface         Standed or solid conductors, 0.25, 2.5 mm²           Single cable lengths         Signal inputs D1 D3         Max. 100 m where $A \ge 1.5$ mm²           Single cable lengths         Signal inputs D1 D3         Max. 100 m where $A \ge 1.5$ mm²           AC24 V triac ouputs, Y1 Y4				L&S Ni 1000 temperature sensor
Temperature sensor     L&S Ni 1000       Measuing arong at 25 °C sensor temp. (without     0.2 K       Measuing arong at 25 °C sensor temp. (without     0.2 K       Seripoint adjuster     BSGN-U1       Resolution     0.2 K       Outputs     Caster and the sensor temp. (without       Resolution     0.2 K       Seripoint adjuster     BSGN-U1       Resolution     BSGN-U1       Reset range     +/-3K       Outputs V1 triac outputs, Y1, Y4     4       Quantity     4       Output output voltage (SELV, not earthed)     AC 24 V ON/OFF, PWM or 3-position (depending on application)       Output current     Max. 0.5 A       Total nominal load     Max. 9.5 VA       (at both outputs simultaneously)     (e.g. 2 thermic values, type STE72 per heating and cooling sequence +1 damper actuator 3.5 VA)       Interfaces     Master/slave interface     Proprietary       Single cable lengths     Connection terminals for signals and power     Stranded or solid conductors, 0.25, 2.5 mm²       Single cable lengths     Signal inputs D1 D3     Max. 100m with diameters ≥ 0.6 mm       Measured value inputs H and B2     Max. 100m with diameters ≥ 0.6 mm       Measured value inputs H and B2     Max. 100m with diameters ≥ 0.6 mm       Measured value inputs H and B2     Max. 100m with daminteres ≥ 0.6 mm       Measured value		Type of signal is programmable (DIP Switch)		•
Measuring range     050 °C       Sensor current     2.3 mA       Outputs     2.3 mA       Outputs     Resolution       Outputs     Setpoint adjuster       BSGN-U1     BSGN-U1       Researing error at 25 °C sensor temp. (without     Max. 0.2 K       Coutputs     AC24 V triac outputs, Y1 Y4       Quantity     4       Output voltage (SELV, not earthed)     AC 24 V ON/OFF, PWM or 3-position (depending on application)       Output voltage (SELV, not earthed)     AC 24 V ON/OFF, PWM or 3-position (depending on application)       Output voltage (SELV, not earthed)     AC 24 V ON/OFF, PWM or 3-position (depending on application)       Output current     Max. 0.5 A       Total nominal load     Max. 0.5 A       Master/slave interface     Proprietary       Max.number of slaves     Strande or solid conductors. 0.25 2.5 mm <sup>2</sup> Cable connections     Connection terminals for signals and power     Strande or solid conductors. 0.25 2.5 mm <sup>2</sup> Single cable lengths     Signal inputs D1D3     Max. 100m where A > 1.5 mm <sup>2</sup> Single cable lengths     Signal inputs D1D3     Max. 100m where A > 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1Y4     Max. 100m where A > 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1Y4     Max. 100m where A > 1.5 mm <sup>2</sup> Interface to slaves     Max. 100m where A > 1.5 mm <sup>2</sup>		Temperature sensor	-	
Sensor current         2.3 mÅ           Resolution         0.2 K           Measuing error at 25 °C sensor temp. (without cable)         Max. 0.2 K           Outputs         Setpoint adjuster         BSGN-U1           Reset range         +/-3K           AC24 V triac outputs, Y1 Y4         Quantity           AC24 V triac outputs, Y1 Y4         AC 24 V ON/OFF, PWM or 3-position (depending on application)           Output current         Max. 9.5 A           Total nominal load         Max. 9.5 A           (at both outputs simultaneously)         (e.g. 2 thermic values, type STE72 per heating and cooling sequence + 1 damper actuator 35 VA)           Interfaces         Master/slave interface         Proprietary           Max. number of slaves         3           Cable connections         Singel cable lengths         Singel cable lengths           Single cable lengths         Signal inputs D1D3         Max. 100m where A ≥ 1.5 mm²           AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm²           AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm²           Single cable lengths         Signal inputs D1 D3         Max. 100m where A ≥ 1.5 mm²           AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm²           AC24 V triac outputs, Y1 Y4         Max. 50		•		
Resolution         0.2 K           Measuing error at 25 °C sensor temp. (without cable)         Max. 0.2 K           Setpoint adjuster         BSGN-U1           Resear range         +/-3 K           AC24 V triac outputs, Y1 Y4         A           Quantity         4           Outputs         AC24 V ON/OFF, PWM or 3-position (depending on application)           Output votage (SELV, not earthed)         AC 24 V ON/OFF, PWM or 3-position (depending on application)           Output current         Max. 0.5 A           Total nominal load         Max. 9.5 VA           (at both outputs simultaneously)         (e.g. 2 themic values, type STE72 per heating and cooling sequence + 1 demper actuator 35 VA)           Interfaces         Max.tonumber of slaves         3           Cable connections         Connection terminals for signals and power         Stranded or solid conductors 0.25 2.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> Ac24 V triac outputs, Y1 Y4         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> Ac24 V triac outputs, Y1 Y4         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> Cable connection standard         Protection terminals         or (solid conductors only 2 x 1.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100 m where A ≥ 1				
Measured value inputs D1 and D2         Max. 0.2 K           Outputs         Setpoint adjuster mage         H-/-3K           Outputs         Reset range         +/-3K           Outputs         AC24 V triac outputs, Y1 Y4         Quantiy           Output voltage (SELV, not earthed)         AC 24 V ONOFF, PWM or 3-position (depending on application)           Output current         Max. 0.5 A           Total nominal load         Max. 9.5 VA           (at both outputs simultaneously)         (e.g. 2 themic values, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)           Interfaces         Master/slave interface         Proprietary           Max. number of slaves         3           Cable connections         Connection terminals for signals and power         Stranded or solid conductors, 0.25 2.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> Protection standard				
Cable)         Setpoint adjuster         BSGN-U1           Reset range         +/-3K           Outputs         AC24 V tria cutputs, Y1Y4           Quantity         AC24 V tria cutputs, Y1Y4           Output voltage (SELV, not earthed)         AC 4 VONOFF, PWM or 3-position (depending on application)           Output current         Max. 0.5 A           Total nominal load         Max. 0.5 A           (at both outputs simultaneously)         (e.g. 2 thermic valves, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)           Interfaces         Max.number of slaves         3           Cable connections         Signal inputs D1D3         Max. 100 m with diameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m with clameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m with clameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m with clameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m with clameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m with diameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m wither A ≥ 1.5 mm <sup>2</sup> AC24 V tria outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> Linterface to slaves         JS on therer A ≥ 0.75 mm <sup>2</sup> Cab			25 °C sensor temp. (without	-
Setpoint adjuster         BSGN-U1 Reset range           Outputs         AC24 V triac outputs, Y1Y4 Quantity         4           Output voltage (SELV, not earthed)         AC 24 V ONOFF, PWM or 3-position (depending on application)           Output current         Max. 9.5 VA (at both outputs simultaneously)         Max. 9.5 VA (at both outputs simultaneously)           Interfaces         Master/slave interface         Proprietary           Max. number of slaves         3           Cable connections         Stranded or solid conductors, 0.25 2.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100m with diameters 2.0.6 mm           Measured value inputs B1 and B2         Max. 100m with diameters 2.0.6 mm           Measured value inputs D1 and B2         Max. 100m with admineters 2.0.6 mm           Measured value inputs D1 and B2         Max. 100m with admineters 2.0.6 mm           Measured value inputs D1 and B2         Max. 100m with admineters 2.0.6 mm           Measured value inputs D1 and B2         Max. 100m with reminal cover fitted and wall mounted without DIN rail Interface to slaves           Housing protection standard         Protection class I or II           Accea V triac outputs, Y1 Y4         Max. 100m with adminetary 2.5.           Interface to slaves         Interface to slaves           Unusing protection standard         Protection cla		-		
Outputs         Reset range         +/- 3K           AC24 V triac outputs, Y1 Y4         AC24 V ONOFF, PWM or 3-position (depending on application)           Output voltage (SELV, not earthed)         AC 24 V ONOFF, PWM or 3-position (depending on application)           Output current         Max. 0.5 A           Total nominal load         Max. 0.5 A           Interfaces         Master/slave interface           Max. number of slaves         3           Cable connections         Connection terminals for signals and power         Stranded or solid conductors, 0.25, 2.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100 m with diameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100 m with diameters ≥ 0.6 mm           Measured value inputs B1         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> Housing protection standard         Protection standard to EN 60529         IP30 with terminal cover fitted and wall mounted pairmscreened           Protection class         Suitable for use in systems with protection class Ior II         Class 3K5 to IEC 60721-3-2           Temperature         0 50 °C         - 25 65 °C           Humidity         < 85 % th		,		BSGN-U1
Outputs         AC24 V triac outputs, Y1 Y4 Quantity         4           Output voltage (SELV, not earthed)         AC 24 V ONOFF, PWM or 3-position (depending on application)           Output voltage (SELV, not earthed)         AC 24 V ONOFF, PWM or 3-position (depending on application)           Output voltage (SELV, not earthed)         Max. 9.5 VA (at both outputs simultaneously)         (e.2 2 themic values, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)           Interfaces         Master/slave interface supply (screw terminals for signals and power supply (screw terminals)         Proprietary           Max. number of slaves         3           Cable connections         Connection reminals for signals and power supply (screw terminals)         or (solid conductors, 0.25 2.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> Measured value inputs B1 and B2         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> Ac24 V triac outputs, Y1 Y4         Max. 100 m where A ≥ 1.5 mm <sup>2</sup> Ac25 V triac outputs, Y1 Y4         Max. 100 m w				
Quantity     4       Output voltage (SELV, not earthed)     AC 24 V NO/OFF, PWM or 3-position (depending on application)       Output current     Max. 0.5 A       Total nominal load     Max. 9.5 VA       (at both outputs simultaneously)     (e.g. 2 themic values, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)       Interfaces     Proprietary       Max. number of slaves     3       Cable connections     Connection terminals for signals and power     Stranded or solid conductors, 0.25 2.5 mm <sup>2</sup> Single cable lengths     Signal inputs D1 D3     Max. 100 m with diameters ≥ 0.6 mm       Measured value inputs D1 D3     Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4     Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4     Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4     Max. 100m where A ≥ 1.5 mm <sup>2</sup> Ac24 V triac outputs, Y1 Y4     Max. 100m where A ≥ 1.5 mm <sup>2</sup> Cable type     2-core, twisted pair, unscreened       Protection standard     Protection class       Protection class     Suitable for use in systems with protection class I or II       Ambient conditions     Operation     Transport       Class     3K5 to IEC 60721-3-2     Class K5 to IEC 60721-3-2       Class     3K5 to IEC 60721-3-2     Class K5 to IEC 6072-1-2       Class </td <td>Outputs</td> <td></td> <td>s , Y1 Y4</td> <td></td>	Outputs		s , Y1 Y4	
Output current         Max. 0.5 A           Total nominal load         Max. 0.5 VA           (at both outputs simultaneously)         (e.g. 2 thermic values, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)           Interfaces         Master/slave interface         Proprietary           Max. number of slaves         3           Cable connections         Connection terminals for signals and power         Stranded or solid conductors, 0.25 2.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100 m with diameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V trice outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> Cable top         2-core, twisted pair, unscreened           Housing protection standard         Protection class I or II           Ambient conditions         Suitable for use in systems with protection class I or II           Calse type         -2 core, twisted pair, unscreened           Protection class         Suitable for use in systems with protection class I or II           Ambient conditions         Operation         Transport           Class 2 Sis m         <95 % ml	•			4
Output current         Max. 0.5 A           Total nominal load         Max. 0.5 VA           (at both outputs simultaneously)         (e.g. 2 thermic values, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)           Interfaces         Master/slave interface         Proprietary           Max. number of slaves         3           Cable connections         Connection terminals for signals and power         Stranded or solid conductors, 0.25 2.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100 m with diameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V trice outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> Cable top         2-core, twisted pair, unscreened           Housing protection standard         Protection class I or II           Ambient conditions         Suitable for use in systems with protection class I or II           Calse type         -2 core, twisted pair, unscreened           Protection class         Suitable for use in systems with protection class I or II           Ambient conditions         Operation         Transport           Class 2 Sis m         <95 % ml		Output voltage (SE	ELV, not earthed)	AC 24 V ON/OFF, PWM or 3-position
Total nominal load (at both outputs simultaneously)     Max. 9.5 VA (e.g. 2 thermic values, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)       Interfaces     Master/slave interface Max. number of slaves     Proprietary Max. number of slaves     3       Cable connections     Connection terminals for signals and power supply (screw terminals)     Stranded or solid conductors, 0.25 2.5 mm <sup>2</sup> Single cable lengths     Signal inputs D1 D3     Max. 100 m with diameters ≥ 0.6 mm       Measured value inputs B1 and B2     Max. 100m with eA ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4     Max. 100m with eA ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4     Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4     Max. 50 m where A ≥ 0.75 mm <sup>2</sup> Cable type     2-core, twisted pair, unscreened       Housing protection standard     Protection standard to EN 60529     IP30 with terminal cover fitted and wall mounted without DIN rail IP20 for all other mounting arrangements       Protection class     Suitable for use in systems with protection class I or II     Class       AMbient conditions     Operation     Transport       Class     SK to IEC 60721-3-3     Class Class Class Class I or II       Automatic electronic controls for household and similar use     EN 60730-1       Special requirements for energy controllers     EN 60730-2.11       Electromagnetic compatibility Interference immunity     EN 50082-2				(depending on application)
(at both outputs simultaneously)       (e.g. 2 thermic valves, type STE72 per heating and cooling sequence + 1 damper actuator 3.5 VA)         Interfaces       Master/slave interface       Proprietary         Max. number of slaves       3         Cable connections       Connection terminals for signals and power       Stranded or solid conductors, 0.25, 2.5 mm <sup>2</sup> Single cable lengths       Signal inputs D1 D3       Max. 100m whith diameters ≥ 0.6 mm         Measured value inputs B1 and B2       Max. 100m whith diameters ≥ 0.6 mm         Measured value inputs B1 and B2       Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4       Max. 50 m where A = 0.75 mm <sup>2</sup> Cable type       2-core, twisted pair, unscreened         Housing protection standard       Protection class I or II         Protection class       Suitable for use in systems with protection class I or II         Ambient conditions       Class       3K5 to IEC 60721-3-3         Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       0 50 °C       - 25 65 °C         Humidity       < 85 % th		Output current		Max. 0.5 A
Interfaces         Cooling sequence + 1 damper actuator 3.5 VA)           Interfaces         Master/slave interface         Proprietary           Max. number of slaves         3           Cable connections         Connection terminals for signals and power         Stranded or solid conductors, 0.25, 2.5 mm <sup>2</sup> Single cable lengths         Signal inputs D1 D3         Max. 100 m with diameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm <sup>2</sup> Housing protection standard         Protection standard to EN 60529         IP30 with terminal cover fitted and wall mounted without DIN rail IP20 for all other mounting arrangements           Protection class         Suitable for use in systems with protection class to r1I         Transport           Ambient conditions         Operation         Transport           Class         3% to IEC 60721-3-3         Class 2% to IEC 60721-3-2           Temperature         050 °C         -2565 °C           Humidity         < 45 % th		Total nominal load	1	Max. 9.5 VA
Interfaces         Master/slave interface         Proprietary           Max. number of slaves         3           Cable connections         Connection terminals for signals and power         Stranded or solid conductors, 0.25 2.5 mm²           Single cable lengths         Signal inputs D1 D3         Max. 100 m with diameters ≥ 0.6 mm           Measured value inputs B1 and B2         Max. 100m where A ≥ 1.5 mm²           AC24 V triac outputs, Y1 Y4         Max. 100m where A ≥ 1.5 mm²           AC24 V triac outputs, Y1 Y4         Max. 50 m where A ≥ 0.75 mm²           Cable type         2-core, twisted pair, unscreened           Housing protection standard         Protection standard to EN 60529         IP30 with terminal cover fitted and wall mounted without DIN rail IP20 for all other mounting arrangements           Protection class         Suitable for use in systems with protection class I or II         Maxter So % th           Ambient conditions         Operation         Transport           Class         3K5 to IEC 60721-3-3         Class 2K3 to IEC 60721-3-2           Temperature         0 50 °C         - 25 65 °C           Humidity         < 85 % th		(at both outputs simultaneously)		(e.g. 2 thermic valves, type STE72 per heating and
Max. number of slaves       3         Cable connections       Connection terminals for signals and power supply (screw terminals)       Stranded or solid conductors, 0.25 2.5 mm <sup>2</sup> or (solid conductors only) 2 x 1.5 mm <sup>2</sup> Signal inputs D1 D3       Max. 100 m with diameters ≥ 0.6 mm Measured value inputs B1 and B2       Max. 100 m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4       Max. 100 m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4         Housing protection standard       Protection standard to EN 60529       IP30 with terminal cover fitted and wall mounted without DIN rail IP20 for all other mounting arrangements         Protection class       Suitable for use in systems with protection class I or II         Ambient conditions       Operation       Transport         Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       050 °C       -2565 °C         Humidity       < 85 % rh				cooling sequence + 1 damper actuator 3.5 VA)
Cable connections       Connection terminals for signals and power       Stranded or solid conductors, 0.25 2.5 mm²         Single cable lengths       Signal inputs D1 D3       Max. 100 m with diameters ≥ 0.6 mm         Measured value inputs B1 and B2       Max. 100 m where A ≥ 1.5 mm²         AC24 V triac outputs, Y1 Y4       Max. 100m where A ≥ 1.5 mm²         Housing protection standard       Protection standard to EN 60529       Max. 50 m where A ≥ 0.75 mm²         Protection class       Suitable for use in systems with protection class 1 or II       Protection class 1 or II         Ambient conditions       Operation       Transport         Class       3K5 to IEC 60721-3.3       Class 2K3 to IEC 60721-3.2         Temperature       0 50 °C       - 25 65 °C         Humidity       < 85 % th	Interfaces	Master/slave interfac	ce	Proprietary
supply (screw terminals)       or (solid conductors only) 2 x 1.5 mm <sup>2</sup> Single cable lengths       Signal inputs D1 D3       Max. 100 m with diameters ≥ 0.6 mm         Measured value inputs B1 and B2       Max. 100 m with eA ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4       Max. 100 m where A ≥ 1.5 mm <sup>2</sup> Interface to slaves       Max. 50 m where A ≥ 1.5 mm <sup>2</sup> Cable type       2-core, twisted pair, unscreened         Protection standard       Protection standard to EN 60529         Protection class       Suitable for use in systems with protection class I or II         Ambient conditions       Suitable for use in systems with protection class I or II         Class       3K5 to IEC 60721-3-3         Temperature       0 50 °C         Humidity       < 85 % rh		Max. number of sl	aves	
Single cable lengths       Signal inputs D1 D3       Max. 100 m with diameters ≥ 0.6 mm         Measured value inputs B1 and B2       Max. 100m where A ≥ 1.5 mm <sup>2</sup> AC24 V triac outputs, Y1 Y4       Max. 100m where A ≥ 1.5 mm <sup>2</sup> Interface to slaves       Max. 50 m where A ≥ 1.5 mm <sup>2</sup> Cable type       2-core, twisted pair, unscreened         Housing protection standard       Protection standard to EN 60529       IP30 with terminal cover fitted and wall mounted without DIN rail         Protection class       Suitable for use in systems with protection class I or II       Interface to slaves         Ambient conditions       Operation       Transport         Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       0 50 °C       - 25 65 °C         Humidity       < 85 % rh	Cable connections	Connection terminal	s for signals and power	Stranded or solid conductors, 0.25 2.5 mm <sup>2</sup>
Measured value inputs B1 and B2     Max. 100m where A ≥ 1.5 mm²       AC24 V triac outputs, Y1 Y4     Max. 100m where A ≥ 1.5 mm²       Interface to slaves     Max. 50 m where A ≥ 1.5 mm²       Interface to slaves     Max. 50 m where A ≥ 1.5 mm²       Cable type     2-core, twisted pair, unscreened       Housing protection standard     Protection standard to EN 60529     IP30 with terminal cover fitted and wall mounted without DIN rail IP20 for all other mounting arrangements       Protection class     Suitable for use in systems with protection class I or II       Ambient conditions     Operation     Transport       Class     3K5 to IEC 60721-3-3     Class 2K3 to IEC 60721-3-2       Temperature     0 50 °C     - 25 65 °C       Humidity     < 85 % rh				
AC24 V triac outputs , Y1 Y4       Max. 100m where A ≥ 1.5 mm <sup>2</sup> Interface to slaves       Max. 50 m where A ≥ 0.75 mm <sup>2</sup> Cable type       2-core, twisted pair, unscreened         Housing protection standard       Protection standard to EN 60529       IP30 with terminal cover fitted and wall mounted without DIN rail IP20 for all other mounting arrangements         Protection class       Suitable for use in systems with protection class I or II         Ambient conditions       Operation       Transport         Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       0 50 °C       -25 65 °C         Humidity       < 85 % rh	Single cable lengths	Signal inputs D1 D3		_
Housing protection standard       Interface to slaves       Max. 50 m where A = 0.75 mm <sup>2</sup> Housing protection standard       Protection standard to EN 60529       IP30 with terminal cover fitted and wall mounted without DIN rail         Protection class       Suitable for use in systems with protection class I or II       IP20 for all other mounting arrangements         Ambient conditions       Suitable for use in systems with protection class I or II       Class         Ambient conditions       Suitable for use in systems with protection class I or II         Ambient conditions       Class       3K5 to IEC 60721-3-3         Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       0 50 °C       - 25 65 °C         Humidity       < 85 % rh				
Housing protection standard               Cable type               2-core, twisted pair, unscreened          Housing protection standard              Protection standard to EN 60529               IP30 with terminal cover fitted and             wall mounted without DIN rail             IP20 for all other mounting arrangements          Protection class              Suitable for use in systems with protection class I or II               Transport          Ambient conditions              Operation               Transport          Class       3K5 to IEC 60721-3-3               Class 2K3 to IEC 60721-3-2          Temperature              0             50 °C               -25             65 °C          Humidity              < 85 % rh		•		
Housing protection standard       Protection standard to EN 60529       IP30 with terminal cover fitted and wall mounted without DIN rail IP20 for all other mounting arrangements         Protection class       Suitable for use in systems with protection class I or II         Ambient conditions       Operation       Transport         Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       0 50 °C       - 25 65 °C         Humidity       < 85 % rh		Interface to slaves		
Protection class     Suitable for use in systems with protection class I or II       Ambient conditions     Operation       Transport       Class     3K5 to IEC 60721-3-3       Industry standards     Product safety       Automatic electronic controls for       household and similar use     EN 60730-1       Special requirements for energy controllers     EN 60730-2-11       Electromagnetic compatibility     Interference immunity       Interference immunity     EN 50082-2       Emitted interference     EN 50081-1       Meets the requirements for CE marking:     EMC Directive       EMC Directive     89/336/EEC       Low Voltage Directive     73/23/EEC				
Protection class       Suitable for use in systems with protection class I or II         Ambient conditions       Operation       Transport         Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       0 50 °C       - 25 65 °C         Humidity       < 85 % rh	Housing protection standard	Protection standard to EN 60529		
Protection class       Suitable for use in systems with protection class I or II         Ambient conditions       Operation       Transport         Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       0 50 °C       - 25 65 °C         Humidity       < 85 % rh				
Ambient conditionsOperationTransportClass3K5 to IEC 60721-3-3Class 2K3 to IEC 60721-3-2Temperature0 50 °C- 25 65 °CHumidity< 85 % rh	Desta stieve slave			
Class       3K5 to IEC 60721-3-3       Class 2K3 to IEC 60721-3-2         Temperature       050 °C       - 2565 °C         Humidity       < 85 % rh		Suitable for use in sy		
Industry standards       Temperature       0 50 °C       - 25 65 °C         Humidity       < 85 % rh	Ambient conditions	01	•	•
Industry standards       Humidity       < 85 % rh				
Industry standards       Product safety         Automatic electronic controls for       household and similar use       EN 60730-1         Special requirements for energy controllers       EN 60730-2-11         Electromagnetic compatibility       Interference immunity       EN 50082-2         Emitted interference       EN 50081-1         Meets the requirements for CE marking:       EMC Directive       89/336/EEC         Low Voltage Directive       73/23/EEC         Dimensions       See dimension diagrams		•		
Automatic electronic controls for         household and similar use       EN 60730-1         Special requirements for energy controllers       EN 60730-2-11         Electromagnetic compatibility       Interference immunity         Interference immunity       EN 50082-2         Emitted interference       EN 50081-1         Meets the requirements for CE marking:       EMC Directive         EMC Directive       89/336/EEC         Low Voltage Directive       73/23/EEC	Industry standards	·	< 65 % 111	< 95 /8 111
household and similar use       EN 60730-1         Special requirements for energy controllers       EN 60730-2-11         Electromagnetic compatibility       Interference immunity         Interference immunity       EN 50082-2         Emitted interference       EN 50081-1         Meets the requirements for CE marking:       EMC Directive         EMC Directive       89/336/EEC         Low Voltage Directive       73/23/EEC         Dimensions       See dimension diagrams	industry standards	5		
Special requirements for energy controllers       EN 60730-2-11         Electromagnetic compatibility       Interference immunity         Interference immunity       EN 50082-2         Emitted interference       EN 50081-1         Meets the requirements for CE marking:       EMC Directive         EMC Directive       89/336/EEC         Low Voltage Directive       73/23/EEC         Dimensions       See dimension diagrams				EN 60720 1
Electromagnetic compatibility         Interference immunity       EN 50082-2         Emitted interference       EN 50081-1         Meets the requirements for CE marking:         EMC Directive       89/336/EEC         Low Voltage Directive       73/23/EEC         Dimensions       See dimension diagrams				
Interference immunity     EN 50082-2       Emitted interference     EN 50081-1       Meets the requirements for CE marking:     EMC Directive       EMC Directive     89/336/EEC       Low Voltage Directive     73/23/EEC       Dimensions     See dimension diagrams				
Emitted interference     EN 50081-1       Meets the requirements for CE marking:     EMC Directive       EMC Directive     89/336/EEC       Low Voltage Directive     73/23/EEC       Dimensions     See dimension diagrams				EN 50082-2
Meets the requirements for CE marking:         EMC Directive       89/336/EEC         Low Voltage Directive       73/23/EEC         Dimensions       See dimension diagrams				
EMC Directive     89/336/EEC       Low Voltage Directive     73/23/EEC       Dimensions     See dimension diagrams				
Low Voltage Directive         73/23/EEC           Dimensions         See dimension diagrams			nundig.	89/336/FEC
Dimensions See dimension diagrams				
	Dimensions			
				0.59 kg
			,	

#### RXA29.1



#### **Measured value inputs**

- B1 1 Measured value input for L&S Ni 1000 sensor or setpoint adjuster
- M 2 Measured value input ground
- B2 3 Measured value input for L&S Ni 1000 sensor or setpoint adjuster

#### Signal inputs

- D1 4 Signal input (window or clock)
- GND 5 Signal ground
- D2 6 Signal input (occupancy)
- D3 7 Changeover input

#### **Triac outputs**

- Y1 8 AC 24 V, 0.5 A switching output
- G 9 AC 24 V actuator supply
- Y2 10 AC 24 V, 0.5 A switching output
- Y3 11 AC 24 V, 0.5 A switching output
- G 12 AC 24 V actuator supply
- Y4 13 AC 24 V, 0.5 A switching output

#### Master / Slave interface

M/S+ 14/15 Master/slave connection

#### Power supply

- N 19 Neutral conductor
- L 21 Phase conductor AC 230 V +/- 10 %

#### **Operator controls**

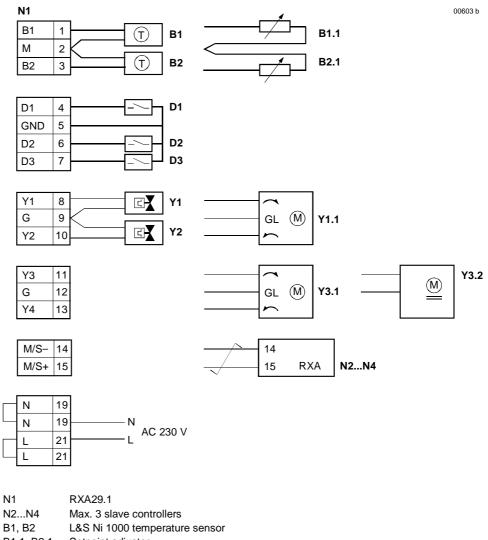
- S1...12 DIP switch for configuring the room controller.
- R1 Potentiometer for setpoint reset and test purposes.

STOP Caution!

#### Local installation regulations must be observed.

#### **Connection diagrams**

Connecting the field devices, room units and supply voltage



B1.1, B2.1	Setpoint adjuster	

D1, D2 Volt-free contacts (window contact, occupancy sensor, central time switch etc.)

- D3 Changeover signal
- Y1, Y2 AC 24 V thermic valve actuators
- Y1.1, Y3.1 Valve actuator, AC 24 V, 3-position (RXA21.1 only)
- Y3.2 Damper actuator with spring return

Twisted pair

Note

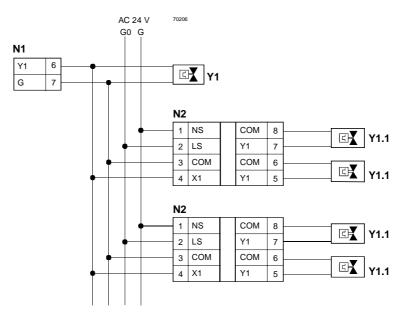
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For information on the compatibility of the various field devices with the RXA29.1 room controller, refer to the relevant application description.

Connecting a power amplifier

Parallel connection of a number of thermic valve actuators to output Y1 using the UA1T power amplifier.

The same principle applies to outputs Y2  $\dots$  Y4. Note that the simultaneous load on outputs Y1  $\dots$  Y4 must not exceed 9.5 VA (power consumption at input X1 of the UA1T: 0.5 VA)



- N1 RXA29.1
- N2 UA1T (see data sheet CA2N3591)
- Y1 AC 24 V thermic valve actuator

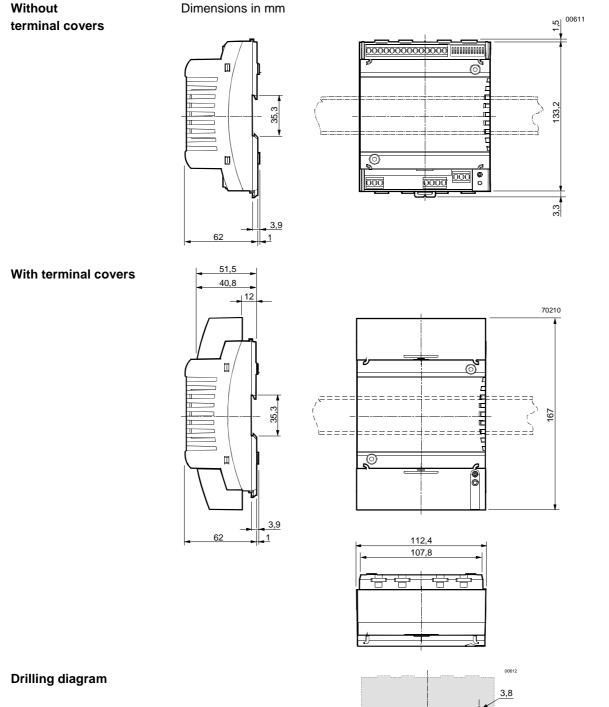
Y1.1 AC 24 V thermic valve actuator (max. 2 STE72 actuators per Y1 output on the UA1T)

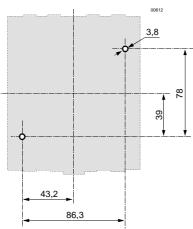
Notes

- The UA1T requires an AC 24 V supply voltage

- The UA1T is not suitable for the connection of 3-position actuators.

#### Dimensions





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Subject to technical alterations

Non-communicating room controllers RXA29.1