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SIEMENS

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Thermostats

Overview and selection tools

Room thermostats

Siemens is a leading supplier of room temperature controllers for a wide range of heating, ventilation and cooling applications in residential buildings, hotels, office and commercial buildings.




Siemens solutions meet every budget: Basic electromechanical on/off units, RF-based or with infrared remote control, as well as thermostats with modulating outputs. Programmable thermostats with 24-hour or 7-day programs and non-programmable room temperature thermostats are available as analog or digital products with displays.

Quality, reliability, outstanding functionality, ease of installation and use: Our room controls satisfy your needs. The unique and acclaimed Siemens design is an additional stylish feature.

Proudly made around the world.

- Quality really is the issue
- Product lifecycles and environment in partnership
- Standards are not negotiable

Heating / Cooling applications

	Basic		With display					With time switch					
													
Type	RAA	RCU	RDD	RDD 310/EH	RDF3xx RDF6xx	RDH	RDF800..	RDE	RDE 410/EH	RDG	RDJ	REV	RDS
Housing													
Setpoint knob	□	■				★					★		
Setpoint buttons			■	■	■			■	■			■	
LED indicators	□												
Digital display			★	★	■	■	■	■	■	■	■	■	■
Programming slider											■	★	
Touch screen					★		★						★
Wiring													
Mains-independent	★												
Battery-powered			□					□			■	■	
Mains-powered	□	■	□	■	■	*	■	□	■	□		*	■
Radio frequency transmission			□			□		□			□	□	
Modulating heating valve control		★								□		□	
Multifunctional input					■		■	□		■			■
Remote control input												★	
Analog output	□	□								□			
Relay output	■		■	■	■	■	■	■	■	□	★	■	■
Functionalities													
Heating plants	■	■	■	■	■	■	■	■	■	■	■	■	■
Cooling plants	■	■			★		★					□	□
Domestic hot water control			□					□					■
Humidity control							★			★			★
Air quality monitoring							★						★
Green leaf										★			★
Remote operation (mobile app)													★
Commissioning mobile app										★			
Time switch													
Daily									■		■	□	■
Weekly					★			★	■	□		□	■
Operating mode													
Comf. mode	■	■	■	■	■	■	■	■	■	■	■	■	■
Eco mode		■	■	■	■		■	■	■	■	■	■	■
Standby		■	■	■	■		■	■	■	■	■	■	■
Frost protect.			■	■	■		■	■	■	■	■	■	■
Holidays								■				□	
Control loop	2-point	2-point/ PI	2-point	2-point	2-point	2-point/ PID	2-point/ PI	2-point/ PID	2-point	2-point/ PI	2-point/ PID	2-point/ PID or PI	2-point/ PID
Communication					■ KNX		■ KNX			■ KNX			■ WLAN

■ Valid for all variants □ Depending on variants ★ Main feature
RDD810.../NF only compatible with square conduit box and Arina frame ARG800.1

* Radio frequency receiver only
★ KNX, MODBUS







Fan-coils application

Type	Basic		With display				With time switch	
	RAB	RCC	RDG1xx RDG2xxKN	RDF3xx RDF6xx	RDF5...	RDF8xx	RDG1..T RDG2xxKN	RDF6xxT
Housing								
Setpoint knob	■	■	■				■	
LED indicators	□	★						
Digital display			★	■	■	■	■	■
Auto fan speed			■	■	■	■	■	■
Flush mounting				★	★	■		★
Touch screen						★		
Wiring								
Mains-independent	★							
Mains-powered		■	□	□	■	■	□	■
Multifunctional input			■	□		■	■	■
Sensor input		□	■	□		■	■	■
Changeover input		■	■	□		■	■	■
Analog output			□	□			□	
Relay output (on/off)	■	□	□	□	■	■	□	■
Triac 2-p/3-p/PWM			□				□	
DC-fan			□	□			□	□
Functionalities								
2-pipe-system	□	□	■	■	□	■	■	■
4-pipe-system	□	□	■	□	□	■	■	■
Electric heater		□	□	□		■	■	■
Radiator			■			■	■	
Humidity control			★				★	
Green leaf			★				★	
Master /Slave			□				□	
Delta Temp. Control			□				□	
Commissioning mobile app			★				★	
Time switch weekly							★	★
Operating mode								
Comfort	■	■	■	■	■	■	■	■
Economy		■	■	■		■	■	■
Standby/Prot.	□	■	■	■	■	■	■	■
Frost protect.		□	■	■		■	■	■
Control loop	2-point	2-point/PI	2-point/PI	2-point/PI	2-point	2-point/PI	2-point/PI	2-point/PI
Infrared remote control				□			■	□
Communication			□ KNX	□ KNX, Modbus		□ KNX	□ KNX	

Thermostats

Overview and selection tools

Heat Pumps applications




	With display				With time switch	
						
Type	RDG110, RDG160T	RDG260KN	RDF3xx/ RDF8xx	RDF6xx	RDF6xxT	RDG160T
Housing						
Digital display	■	■	■	■	■	■
Fan speed command	- / 1 / 3 / DC	- / 1 / 3 / DC	1 / 3	1 / 3 / DC	1 / 3 / DC	- / 1 / 3 / DC
Wiring						
Mains-powered	■	■	■	■	■	■
Sensor input	■	■	■	■	■	■
Relay output	■	■	■	■	■	■
Functionalities						
Electric heater	■	■	■	■	■	■
DX compressor	■	■	□	□	□	■
Manuel Heat / Cool changeover	■	■	■	■	■	■
Weekly time clock		■			■	
Operating mode	Comf. mode	■	■	■	■	■
	Eco mode	■	■	■	■	■
	Standby.	■	■	■	■	■
	Frost protect.	■	■	■	■	■
Control loop	2-point	2-point	2-point	2-point	2-point	2-point
Green leaf		✱				
Master / Slave		■				
Delta Temp. Control		■				
Commissioning mobile app		✱				
Communication		■ KNX	□ KNX, Modbus	□ KNX, Modbus		

■ Valid for all variants

□ Depending on variants

✱ Main feature

VAV applications

	Basic	With display	
			
Type	RCU50.2	RDU340	RDG40..
Housing			
Setpoint knob	■		■
Digital display		■	■
Flush mounting		■	
Wiring			
Mains-powered	■	■	■
Senor input		■	■
Changeover input		■	■
Analog output	■	■	■
Relay output		■	
Functionalities			
Indoor air quality			□
Manuel Heat / Cool changeover	■	■	■
External setpoint shift			
Vmin Cooling	■	■	■
Operating mode	Comf. mode	■	■
	Eco mode	■	■
	Sandby/Prot.	■	■
	Frost protect.	■	■
Control loop	2-point	P/I	P/I
Communication			□ KNX

■ Valid for all variants

□ Depending on variants

Overview capillary thermostats / frost protection thermostats

Typ	Dat a sheet	Function				Setting range	Capillary length [mm]	Switching cap. AC 24...250 V		Approvals				IP	Set		Sensor element / mounting				Applications ⁴⁾							
		Control thermostat (TR)	Thermal reset limit thermostat (TW)	Limit thermostat (TB)	Safety limit thermostat (STB)	TR / TW: Set point [°C] TB / STB: Setpoint cut-out temperature [°C]		Amps.	CE (73/23/EEC, 89/336/EEC, EN60730)	ENEC (European Norms Elec. Certif.)	PED (Pressure Equipment Directive)	EN14597 (old approval: DIN3440)	C-Tick		Degree of protection (IP)	Pocket ALT-SB100 / ALT-DB100J (length mm)	Clamping band for piping up to Ø 100 mm	Remote line – Sensor with capillary line	Surface thermostat – Sensor attached to housing	Ductwork – The entire capillary as sensor (at least 30 cm for detection)	Immersion – immersion sensor	Room thermostat – Helix sensor	Temperature control	Temperature limitation	Frost protection	Air conditioning	Heating boilers	Domestic hot water heating / heat exchanger
RAK-ST.010FP-M	N1204				■	95	700	16 (2.5)/2 (0.4)	■	■	■	■	■	43	100	■	■		■	■					■			
RAK-ST.020FP-M	N1204				■	100	700	16 (2.5)/2 (0.4)	■	■	■	■	■	43	100		■	■		■					■			
RAK-ST.030FP-M	N1204				■	110	700	16 (2.5)/2 (0.4)	■	■	■	■	■	43	100		■	■		■					■			
RAK-ST.1430S-M	N1204				■	80...100	1600	16 (2.5)/2 (0.4)	■	■	■	■	■	43		■	■	■		■					■			
RAK-ST.1310P-M	N1204				■	90...110	700	16 (2.5)/2 (0.4)	■	■	■	■	■	43	100		■	■		■					■			
RAK-ST.1300P-M	N1204				■	110...130	700	16 (2.5)/2 (0.4)	■	■	■	■	■	43	100		■	■		■					■			
RAK-ST.1600MP	N1204				■	95...130	700	16 (2.5)/2 (0.4)	■	■	■	■	■	54	100		■	■		■					■			
RAK-ST.1385M	N1204				■	40...70	700	16 (2.5)/2 (0.4)	■	■	■	■	■	54			■	■		■					■			
RAK-TB.1400S-M	N1206			■		45...60	700	16 (2.5)/2 (0.4)	■	■	■	■	■	43		■	■	■		■					■		■	
RAK-TB.1410B-M	N1206			■		50...70	700	16 (2.5)/2 (0.4)	■	■	■	■	■	43	100		■	■	■		■				■			■
RAK-TB.1420S-M	N1206			■		65...80	700	16 (2.5)/2 (0.4)	■	■	■	■	■	43		■	■	■		■					■			
RAK-TR.1000B-H	N1205	■				15...95	700	16 (2.5)/6 (2.5)	■	■	■	■	■	43	100		■	■	■		■			■	■	■		
RAK-TR.1000S-H	N1205	■				15...95	700	16 (2.5)/6 (2.5)	■	■	■	■	■	43			■	■	■		■			■	■	■		
RAK-TR.1210B-H	N1205					15...82	700	16 (2.5)/6 (2.5)	■	■	■	■	■	43	100		■	■	■		■				■	■	■	
RAK-TW.1000S-H	N1202		■			15...95	700	16 (2.5)/6 (2.5)	■	■	■	■	■	43			■	■	■		■			■	■	■		
RAK-TW.1200B-H	N1202		■			40...120	700	16 (2.5)/6 (2.5)	■	■	■	■	■	43	100			■	■	■		■				■	■	
RAK-TW.1200S-H	N1202					40...120	700	16 (2.5)/6 (2.5)	■	■	■	■	■	43			■	■	■		■					■	■	
RAK-TW.5000S-H ³⁾	N1203			■		65...5	1600	16 (2.5)/6 (2.5)	■	■	■	■	■	43		■	■	■	■		■			■				
RAK-TW.5010S-H ³⁾	N1203			■		50...-10	1600	16 (2.5)/6 (2.5)	■	■	■	■	■	43			■	■	■		■			■				
RAK-TW.5000HS ³⁾	N1203			■		5...65	1600	16 (2.5)/6 (2.5)	■	■	■	■	■	65		■	■	■	■		■							
RAK-TW.1200HP	N1202		■			40...120	700	16 (2.5)/6 (2.5)	■	■	■	■	■	65	100		■	■	■		■				■	■		
RAK-TW.1000HB ³⁾	N1202		■			15...95	700	16 (2.5)/6 (2.5)	■	■	■	■	■	65	100		■	■	■		■				■	■	■	
RAZ-ST.011FP-J	N1214	■			■	TR: 15...95 STB: 100	700	16 (2.5)/2 (0.4)	■	■	■	■	■	40	100		■			■					■			
RAZ-ST.030FP-J	N1214	■			■	TR: 15...95 STB: 110	700	16 (2.5)/2 (0.4)	■	■	■	■	■	40	100		■			■					■	■		
RAZ-ST.1500P-J	N1214	■			■	TR: 15...95 STB: 110...130	700	16 (2.5)/2 (0.4)	■	■	■	■	■	40	100		■			■					■			
RAZ-ST.1510P-J	N1212	■			■	TR: 15...95 STB: 90...110	700	16 (2.5)/6 (2.5)	■	■	■	■	■	40	100		■			■					■			
RAZ-TW.1000P-J	N1212	■	■			TR: 15...95 TW: 15...95	700	16 (2.5)/6 (2.5)	■	■	■	■	■	40	100		■			■					■			
RAZ-TW.1200P-J	N1212	■	■			TR: 40...120 TW: 40...120	700	16 (2.5)/6 (2.5)	■	■	■	■	■	40	100		■			■					■			
TKM2	N1291		■			20...110	-	10 (2) A	■	■	■	■	■	54	200		■				■				■			
QAF63.2-J ¹⁾	A6V10432020xx	Sensor				0...15	2000	see data sheet	■	■				42				■			■	■	■					
QAF63.6-J ¹⁾	A6V10432020xx	Sensor				0...15	6000	see data sheet	■	■				42				■			■	■	■					
QAF64.2-J ¹⁾	A6V10432020xx	■	■			0...15	2000	see data sheet	■	■				42				■			■	■	■					
QAF64.6-J ¹⁾	A6V10432020xx	■	■			0...15	6000	see data sheet	■	■				42				■			■	■	■					
QAF81.3	N1284		■			-5...15	3000	10 (2) A	■	■				54				■			■	■	■					
QAF81.6	N1284		■			-5...15	6000	10 (2) A	■	■				54				■			■	■	■					
QAF81.6M	N1284			■		-5...15	6000	10 (2) A	■	■				54				■			■	■	■					
QAF65.3M-J	A6V11965899xx				■	-10...15	3000	16 (0.1)/2 (0.1)	■	■				65				■			■	■	■					
QAF65.6M-J	A6V11965899xx				■	-10...15	6000	16 (0.1)/2 (0.1)	■	■				65				■			■	■	■					
QAF65.3AR-J	A6V12051788xx				■	-10...15	3000	16 (0.1)/2 (0.1)	■	■				65				■			■	■	■					
QAF65.6AR-J	A6V12051788xx				■	-10...15	6000	16 (0.1)/2 (0.1)	■	■				65				■			■	■	■					
TRG2 ²⁾	N1329	■				-5...50	-	10 (2) A	■	■				54						■	■				■			
TRG22	N1329	■				-5...50	-	10 (2) A	■	■				54						■	■				■			
RAM-TR.2000M	N1197	■				20...90	-	16 (0.2) A	■	■			■	20		■		■			■				■	■	■	
RAM-TW.2000M	N1197		■			20...90	-	16 (0.2) A	■	■			■	20		■		■			■				■	■	■	

Accessories and Spare Parts (Capillary clamps etc.) see data sheet „CE1N1193“

¹⁾ Electronic frost protection unit with 0...10 V (0...15 °C) output signal / manual or automatic reset function

²⁾ With variable switching differential TRG2: 0,7...6 K

³⁾ An ALT-AB200 protection pocket is generally used for ductwork

⁴⁾ This field should not be considered complete or all encompassing. Various other applications are possible.

⁵⁾ Replacement for RAK-TW.1000B-H

Smart Room Thermostat

RDS110



Room thermostat for the control of heating applications in apartments, single family homes, dormitories and other residential-type as well as light commercial spaces. With remote access via computer, tablet, or smartphone using the Siemens Comfort Cloud service.

Room thermostat features

- Backlit, auto-dimming 90 mm color LCD touch screen for intuitive local operation
- Mobile app for smartphones
- Air quality indication via built-in sensor, direct temperature and operating mode selection
- Operate automatically following a scheduler
- RoomOptiControl function with Green leaf button for energy-optimized operation
- Temperature setting limitation for use in public spaces
- Screen lock protection against unauthorized access
- Manual switchover between "Home", "Away" and "OFF" on touch screen
- Room temperature control using the built-in temperature sensor or an optional remote sensor
- Optional temperature averaging using an additional remote temperature sensor
- Patented self-learning algorithm with PID response (patent pending) guaranteeing optimum temperature control performance in all room types
- Optimum start control function that advances the switch-on time to ensure the selected setpoint is reached as required
- Floor temperature limitation using a remote sensor in electric floor-heating applications
- Humidity control using the built-in humidity sensor or an optional remote sensor
- Presence detection using a built-in PIR sensor or approach sensor
- Two multifunctional inputs, optional and configurable for operating mode switchover contact (e.g. window contact), remote room temperature sensor, floor temperature sensor, outside air temperature sensor, remote humidity sensor
- Two relay outputs for heating equipment, extra output for domestic hot water (DHW) boiler, humidifier or dehumidifier
- Periodic pump/valve operation to protect against seizing
- Navigation wizard for guided, fast commissioning; remote firmware upgrade capability

Remote operation and monitoring

- Mobile App for smartphones and tablets based on iOS and Android
- Individual time program for each day of the week
- Energy consumption indication
- Manual switchover between "Home", "Away" and "OFF" operating modes on mobile app
- Individual scheduler for domestic hot water boiler
- User account management

Data sheet	A6V10807602
Operating voltage	AC/DC 230 V
Power consumption	9 VA
Setpoint setting range	5...40 °C
Sensing element	Resistance sensor
Switching differential	0.5...6 K
Communication	Connectable with a WLAN (802.11b/g/n) compatible router
Analog inputs, number	2
Relay outputs	Change-over contact Potential-free
Relay outputs, number	2
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2)A
Design	External sensor
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	91 x 91 x 26 mm
Color	Black

Stock no.	Product no.
S55772-T100	RDS110

Thermostats

Smart thermostats

Heating

RDS110.R



Smart Thermostat Wireless

Wireless room thermostat for the control of heating applications in apartments, single family homes, dormitories and other residential-type as well as light commercial spaces. With remote access via computer, tablet, or smartphone using the Siemens Comfort Cloud service.

Room thermostat features

- Backlit, auto-dimming 90 mm color LCD touch screen for intuitive local operation
- Air quality indication via built-in sensor
- Direct temperature and operating mode selection
- Temperature setting limitation for use in public spaces
- Screen lock protection against unauthorized access
- Room temperature control using the built-in temperature sensor or an optional remote sensor
- Optional temperature averaging using an additional remote temperature sensor
- Patented self-learning algorithm with PID response (patent pending) guaranteeing optimum temperature control performance in all room types
- Optimum start control function that advances the switch-on time to ensure the selected setpoint is reached as required
- Viewing temperature, humidity and heat demand trends
- Floor temperature limitation using a remote sensor in electric floor-heating applications
- Humidity control using the built-in humidity sensor or an optional remote sensor
- Multifunctional inputs for remote sensors
- Navigation wizard for guided, fast commissioning
- Remote firmware upgrade capability

Remote operation and monitoring

- Mobile App for smartphones and tablets based on iOS and Android
- Individual time program for each day of the week
- Energy consumption indication
- Manual switchover between "Home", "Away" and "OFF" operating modes on mobile app
- Wireless communication with receiver and radiator valve
- Support Dark and Light background colors on mobile app

Data sheet	A6V11562461
Operating voltage	AC 230 V
Power consumption	9 VA
Setpoint setting range	0...50 °C
Switching differential	0.5...6 K
Communication	Connectable with a WLAN (802.11b/g/n) compatible router
Analog inputs, number	2
Relay outputs	Potential-free
Relay outputs, number	2
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2)A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	91 x 91 x 26 mm

Stock no.	Product no.
S55772-T103	RDS110.R

Wireless accessory smart thermostats

Product Title	Data sheet	Stock no.	Product no.
Theft protection kit	A6V11739247	S55845-Z244	ATN5
Smart Thermostat Receiver	A6V11562464	S55772-T104	RCR114.1
Radiator valve actuator	A6V11739247	S55181-A101	SSA911.01TH

Thermostats

Smart thermostats

Conventional and heat pump

Smart Room Thermostat

RDS120

Room thermostat for the control of Conventional & Heat Pumps HVAC systems in apartments, single family homes, dormitories and other residential-type as well as light commercial spaces. With remote access via tablet & smartphone using the Siemens Comfort Cloud service.



Room thermostat features

- (1) Controls conventional HVAC systems up to 3H/2C and heat pumps up to 4H/2C,
- (2) Easy to read, backlit, auto-dimming 3.5" color LCD touch,
- (3) One-touch green leaf button to maximize energy efficiency,
- (4) Built-in Volatile Organic Compounds (VOC) sensor enables ventilation strategies for optimum indoor air quality,
- (5) Built-in humidity sensor,
- (6) Built-in occupancy sensor and window / door contact enables smart occupancy control

Remote operation and monitoring

- (1) Mobile App for smartphones and tablets based on iOS and Android,
- (2) Individual time program for each day of the week,
- (3) Manual switchover between "Home", "Away" and "OFF" operating modes on mobile app,
- (4) User account management

Data sheet	A6V10807603
Operating voltage	AC 24 V
Power consumption	9 VA
Color	Black
Dimensions (W x H x D)	91 x 91 x 26 mm

Stock no.	Product no.
S55772-T101	RDS120

RDS120.B Smart Room Thermostat

RDS120.B

Room thermostat for the control of Conventional & Heat Pumps HVAC systems in apartments, single family homes, dormitories and other residential-type as well as light commercial spaces. With remote access via tablet & smartphone using the Siemens Comfort Cloud service.



Room thermostat features

- (1) Controls conventional HVAC systems up to 3H/2C and heat pumps up to 4H/2C,
- (2) Easy to read, backlit, auto-dimming 3.5" color LCD touch,
- (3) One-touch green leaf button to maximize energy efficiency,
- (4) Built-in Volatile Organic Compounds (VOC) sensor enables ventilation strategies for optimum indoor air quality,
- (5) Built-in humidity sensor,
- (6) Built-in occupancy sensor and window / door contact enables smart occupancy control
- (7) BACnet enabled

Remote operation and monitoring

- (1) Mobile App for smartphones and tablets based on iOS and Android,
- (2) Individual time program for each day of the week,
- (3) Manual switchover between "Home", "Away" and "OFF" operating modes on mobile app,
- (4) User account management

Operating voltage	24 V
Power consumption	9 VA
Dimensions (W x H x D)	91 x 91 x 26 mm
Color	Black

Stock no.	Product no.
S55772-T106	RDS120.B

Thermostats

Smart thermostats

Accessories for smart thermostats

ARG100.01



Mounting frame set ARG100.01

Mounting frame set for square conduit boxes for use with room thermostats

Data sheet

A6V11190640

Stock no.

Product no.

S55772-T102

ARG100.01

Room thermostats with KNX communications

RDG2..KN

- For temperature and humidity control
- KNX communications
- Built-in temperature and humidity sensors

Data sheet	A6V11545853
Setpoint setting range	5...40°C
Relay outputs, number	3
Type of fixing	Wall mounting with screws
Degree of protection	IP30

Thermostats

Communicating room thermostats

Fan coils – KNX

RDG200KN

**KNX communicating room thermostat. Outputs modulating (PWM / 3-pos.) or on/off. Fan coil (3-speed / DC fan), universal applications**

- KNX communications
- Built-in temperature and humidity sensors and control
- For applications with 2-position (on/off or PWM) or 3-position control outputs
- For applications with 3-speed or DC 0...10 V fan
- AC 230V or AC 24V power supply.
- 3 multifunctional inputs for keycard contact, external room / return air temperature (NTC3K; QAH11.1, QAA32 or LG-Ni1000 sensors), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact, presence detector
- Operating modes: Comfort, Economy and Protection
- Automatic or manual DC fan or 1-/3-speed
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display
- Green leaf function
- Local weekly time program (with 3 Comfort periods per day)
- Manager /Subordinate (M/S) function
- Delta temperature control for district heating
- Commissioning via Smartphone APP "PCT Go", local HMI or KNX tools.

Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 2-pipe / 2-stage heating or cooling systems
- 4-pipe system
- 4-pipe system with electrical heater
- 4-pipe / 2-stage heating and cooling system (selectable also for 2-stage cooling / 1-stage heating or 2-stage heating / 1-stage cooling)

Data sheet	A6V11545853
Operating voltage	AC 24 V
	AC 230 V
Switching differential	Heating: 0,5...6 K
	Cooling: 0,5...6 K
Communication	Bus: KNX (S-mode and LTE with Synco)
Analog inputs, number	3
Analog outputs	Fan. 1 (DC 0...10 V)
Analog outputs, number	1
Analog output, signal	DC 0...10 V
Digital inputs, number	3
Relay outputs	Fan: 1- or 3-speed
Relay output, switching voltage	AC 24 V or 230 V
Relay output, switching current	5 (4) A
Triac outputs	Valve, el. heater
	2-position, PWM, 3-position
Triac outputs, number	4
Triac output, switching voltage	AC 24...230 V
Triac output, switching current	1 A
Dimensions (W x H x D)	92 x 134 x 25 mm

Stock no.	Product no.
S55770-T409	RDG200KN

KNX communicating room thermostat. Outputs modulating (DC) or on/off. Fan coil (3-speed / DC fan) or universal applications

RDG260KN



- KNX communications
- Built-in temperature and humidity sensors and control
- For applications with DC control outputs and DC or 3-speed fan output
- For applications with 2-position control output with DC fan output
- AC or DC 24 V operating voltage
- 3 multifunctional inputs for keycard contact, external room / return air temperature (NTC3K; QAH11.1, QAA32 or LG-Ni1000 sensors), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact, presence detector
- Operating modes: Comfort, Economy and Protection
- Automatic or manual DC fan or 1-/3-speed
- Automatic or manual heating / cooling changeover
- Minimum and maximum setpoint limitation
- Backlit display
- Green leaf function
- Local weekly time program (with 3 Comfort periods per day)
- Manager / Subordinate (M/S) function
- Delta temperature control for district heating
- Adjustable commissioning and control parameters
- Commissioning via Smartphone APP "PCT Go", local HMI or KNX tools

Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 2-pipe / 2-stage heating or cooling system
- 4-pipe system
- 4-pipe system with electrical heater
- 4-pipe / 2-stage heating and cooling system (selectable also for 2-stage cooling / 1-stage heating or 2-stage heating / 1-stage cooling)
- Heating / cooling with 6-port ball valves

Data sheet	A6V11545853
Operating voltage	AC 24 V
Switching differential	Heating: 0,5...6 K Cooling: 0,5...6 K
Communication	Bus: KNX (S-mode and LTE with Synco)
Analog inputs, number	3
Analog outputs	Valve, el. heater: 4 Fan: 1 (DC 0...10 V)
Analog outputs, number	5
Analog output, signal	DC 0...10 V
Digital inputs, number	3
Relay outputs	Valve, compressor or el. heater: 2 outputs, 2-position Fan: 1- or 3-speed
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (4) A
Dimensions (W x H x D)	92 x 134 x 25 mm

Stock no. Product no.

S55770-T412 **RDG260KN**

Thermostats

Communicating room thermostats

Fan coils – KNX

RDF8..KNX Flush Mount

Touch screen room thermostat for 2-/4- pipe fan coil, universal applications or compressors in DX-type equipment



- Operating modes: Comfort, Economy and Protection
- For heating and/or cooling applications
- 2 or 3-position control outputs
- Output for 1-speed or 3-speed fan
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact, presence detector
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: Ivory white or black
- Backlit display

Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

Data sheet	N3174
Power consumption	6 VA
Setpoint setting range	5...40 °C
Switching differential	0.5...6 K
Communication	Bus: KNX (S-mode and LTE mode with Synco 700)
Analog inputs, number	2
Relay outputs	Fan: N.O. contacts, non-floating Valve: N.O. contacts, non-floating
Relay outputs, number	5
Relay output, switching voltage	AC 230 V
Relay output, switching current	5 (2) A
Degree of protection	IP30
Dimensions (W x H x D)	86 x 86 x 47 mm

Range overview RDF8..KNX Flush Mount

Product Title	Operating voltage [V]	Stock no.	Product no.
Flush mount touch KNX room thermostat for 2-/4-pipe FCU with on/off output and 2x universal input, fit for both round and square conduit boxes, black	AC 230	S55770-T429	RDF800KN/VB
Flush mount touch KNX room thermostat for 2-/4-pipe FCU with on/off output and 2x universal input, fit for both round and square conduit boxes	AC 230	S55770-T350	RDF800KN

Flush-mount room thermostat with KNX communications, 2-/4-pipe fan coils or DX type equipment for both round and square conduit boxes RDF6..KNX Flush Mount

Flush-mount room thermostat with LCD for fan coil units and compressors in DX-type equipment

- KNX communications
- For heating and/or cooling applications
- 2 or 3-position control outputs
- Output for 1-speed or 3-speed fan
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact, presence detector
- Operating modes: Comfort, Economy and Protection
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display
- Color of housing: signal white (RAL 9003) or black
- Independent function for window contact, presence detector (standard presence and hotel presence)



Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

Data sheet	N3076
Power consumption	2 VA
Switching differential	0.5...6 K
Communication	KNX
Analog inputs, number	2
Relay outputs	Fan: N.O. contacts, non-floating Valve: N.O. contacts, non-floating
Relay outputs, number	5
Relay output, switching voltage	AC 230 V
Relay output, switching current	5 (2) A
Type of fixing	With screws on recessed round conduit box diameter min. 60 mm
Dimensions (W x H x D)	86 x 86 x 46 mm

Range overview RDF6..KNX Flush Mount

Product Title	Operating voltage [V]	Stock no.	Product no.
Flush mount KNX room thermostat for 2-/4-pipe FCU with on/off output and 2x universal input, fit for both round and square conduit boxes	AC 230	S55770-T293	RDF600KN
Flush mount KNX room thermostat for 2-/4-pipe FCU with on/off output, KNX switching group, four buttons for switching lights and blinds and 2x universal input, fit for both round and square conduit boxes	AC 230	S55770-T400	RDF600KN/S
Flush mount KNX room thermostat for 2-/4-pipe FCU with on/off output and 2x universal input, fit for both round and square conduit boxes, black	AC 230	S55770-T430	RDF600KN/VB

Thermostats

Communicating room thermostats

Fan coils - Modbus

RDF3..MB Flush Mount



Flush mount MODBUS room thermostat for 2-/4-pipe FCU with on/off outputs and optional 2x universal input and electrical heater application, fit for square conduit boxes

- Modbus communications
 - For heating and/or cooling applications
 - 2 or 3-position control outputs
 - Output for 1-speed or 3-speed fan
 - 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
 - Operating modes: Comfort, Economy and Protection
 - Automatic or manual heating/cooling changeover
 - Adjustable commissioning and control parameters
 - Minimum and maximum setpoint limitation
 - Backlit display
- Application selectable:
- 2-pipe system
 - 2-pipe system with electrical heater
 - 4-pipe system

Range overview RDF3.. Modbus Flush Mount

Product Title	Operating voltage [V]	Color	Stock no.	Product no.
Flush mount MODBUS room thermostat for 2-/4-pipe FCU with on/off outputs, 2x universal input optional electrical heater application, fit for square conduit boxes, BLACK	AC 230	Black	S55770-T428	RDF302/VB
Flush mount MODBUS room thermostat for 2-/4-pipe FCU with on/off outputs and optional electrical heater application, fit for square conduit boxes	AC 230	White	S55770-T416	RDF302.B
Flush mount MODBUS room thermostat for 2-/4-pipe FCU with on/off outputs, 2x universal input optional electrical heater application, fit for square conduit boxes	AC 230	White	S55770-T238	RDF302

Thermostats

Communicating room thermostats

Fan coils - Modbus

Flush mount MODBUS room thermostat for 2-/4-pipe FCU with on/off valves, ECM fan, 2x universal input and electrical heater application, fit for both round and square conduit boxes

RDF6..MB Flush Mount



Flush-mount room thermostat for round and square conduit boxes with LCD for fan coil units and compressors

- Modbus communications
- For heating and/or cooling applications
- 2 or 3-position control outputs
- ECM fan output
- 2 multifunctional inputs for 1) keycard contact / window contact (DI) 2) heat / cool changeover (AI & DI)
- Operating modes: Comfort, Economy and Protection
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: signal white (RAL 9003)
- Backlit display

Application selectable:

- 2-pipe system
- 4-pipe system

Relay outputs	Valve: On/Off
Relay output, switching voltage	AC 230 V
Relay output, switching current	5 (2) A

Range overview RDF6.. Modbus Flush Mount

Product Title	Operating voltage [V]	Color	Stock no.	Product no.
Flush mount MODBUS room thermostat for 2-/4-pipe FCU with on/off valves, ECM fan and 2x universal input with optional electrical heater application, fit for both round and square conduit boxes	AC 230	White	S55770-T439	RDF660MB
Flush mount MODBUS room thermostat for 2-/4-pipe FCU with on/off valves, ECM fan and 2x basic input, fit for both round and square conduit boxes	AC 230	White	S55770-T433	RDF660MB/MM

Accessories for RDF302

Product Title	Data sheet	Stock no.	Product no.
Mounting bracket 10 mm thick	N3009	BPZ:ARG70.3	ARG70.3

Thermostats

Communicating room thermostats

Fan coils - BACnet

RDB1..



BACnet communicating room thermostat

- BACnet MS/TP communication
- For applications with DC control outputs and DC or 3-speed fan output
- For applications with 2-position, 3-position or DC control output with DC fan output
- 3 multifunctional inputs for keycard contact, external room / return air temperature, heat / cool changeover, window contact on/off, presence detector
- Operating modes: Comfort, Economy
- Automatic or manual DC fan or 1-/3-speed
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display
- On Off button

Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

Power consumption	3 W, class II construction
Measuring range	0...50 °C
Digital output, switching current	3 A
Communication	BACnet MS/TP
Analog outputs, number	2
Digital inputs, number	1
Relay outputs	Fan: 1-,2- or 3-speed
Triac outputs, number	2
Degree of protection	IP20
Dimensions (W x H x D)	102 x 120 x 29 mm

Range overview RDB1..

Operating voltage [V]	Color	Stock no.	Product no.
AC 230	White	S55770-T426	RDB160BN

Room thermostat for temperature and air quality control with KNX communications, AC 24 V, VAV heating and cooling systems

RDG405KN



- KNX communications
- Output DC 0...10 V for VAV actuator and auxiliary output ON/OFF, PWM or 3-position or 3-position for VAV actuator and auxiliary output DC 0...10 V
- 2 multifunctional inputs for keycard contact, external room / return air temperature (1x, QAH11. 1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact, presence detector
- 1 input DC 0...10 V for damper position feedback, for CO2 sensor
- Operating modes: Comfort, Economy and Protection
- Modulating PI control
- Control depending on the room or the return air temperature and air quality
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Minimum and maximum limitation of air flow signal
- Output signal inversion (DC 0...10 V) as an option
- Backlit display

Application selectable:

- Single-duct system
- Single-duct system with electrical heater
- Single-duct system and radiator / floor heating
- Single-duct system with heating / cooling coil

Data sheet	N3192
Operating voltage	AC 24 V
Power consumption	2 VA
Setpoint setting range	5...40 °C
Switching differential	Heating: 0.5...6 K; Cooling: 0.5...6 K
Communication	Bus: KNX (S-mode and LTE mode with Synco 700)
Analog inputs, number	2
Analog outputs	VAV actuator, electric heater, valve
Analog outputs, number	1
Analog output, signal	DC 0...10 V
Analog output, current	1 mA
Digital inputs, number	1
Triac outputs	VAV actuator, valve, el. heater
	2-position, PWM, 3-position
Triac outputs, number	1
Triac output, switching voltage	24 V
Triac output, switching current	1 A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	93 x 128 x 30.8 mm

Stock no.	Product no.
S55770-T348	RDG405KN

Thermostats

Communicating room thermostats

Heating - KNX

RDD810KN



Flush mount touch screen KNX room thermostat for heating (SPDT) with 2x universal input, fit for both round and square conduit boxes

- KNX communications
- Operating modes: Comfort, Economy and Protection
- Control output: changeover contact (SPDT)
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), window contact on/off, presence detector, fault contact, presence detector
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: Ivory white
- Backlit display

Data sheet	N3175
Operating voltage	AC 230 V
Power consumption	6 VA
Setpoint setting range	5...40 °C
Switching differential	0.5...6 K
Communication	Bus: KNX (S-mode and LTE mode with Synco 700)
Analog inputs, number	2
Relay outputs	Heating: contacts, floating
Relay outputs, number	1
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2) A
Degree of protection	IP30
Dimensions (W x H x D)	82 x 82 x 47 mm

Stock no. Product no.

S55770-T444 RDD810KN

RDD810KN/NF



Touch screen room thermostat with KNX communications, for heating application (for China frames)

- KNX communications
- Operating modes: Comfort, Economy and Protection
- Control output: changeover contact (SPDT)
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), window contact on/off, presence detector, fault contact, presence detector
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: Ivory white
- Backlit display
- Mounting on chinese mounting frames

Data sheet	N3175
Operating voltage	AC 230 V
Power consumption	6 VA
Setpoint setting range	5...40 °C
Switching differential	0.5...6 K
Communication	Bus: KNX (S-mode and LTE mode with Synco 700)
Analog inputs, number	2
Relay outputs	Heating: contacts, floating
Relay outputs, number	1
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2) A
Type of fixing	Only on China frames
Degree of protection	IP30
Dimensions (W x H x D)	82 x 82 x 47 mm

Stock no. Product no.

S55770-T336 RDD810KN/NF

Thermostats

Communicating room thermostats

Conventional and heat pump - BACnet

BACnet Commercial Thermostat No Logo

RDY2000BN/NL



- Controls conventional systems with up to 3 stages heating and 3 stages cooling
- Controls heat pumps with 1 or 2 compressors and up to 2-stage auxiliary heat
- Backlit 5-inch LCD touch screen
- On-board temperature and humidity sensor
- Multiple configurable inputs and outputs enable advanced control strategies
- Seven-day (2- or 4-event) occupancy scheduling
- BTL listed MS/TP BACnet communication
- No Siemens logo on front panel

Operating voltage AC 24 V \pm 20%, Class 2, 4A maximum
Power consumption Max. 96 VA

Stock no.	Product no.
S55770-T395	RDY2000BN/NL

Thermostats

Communicating room thermostats

IAQ control - KNX / Modbus

RDF870KN



Flush mount touch KNX PM2.5 & CO2 & Ventilation Controls with on/off or ECM fans selectable and 2x DC 0-10 V input, fit for both round and square conduit boxes

- AC 230 V operating voltage, large, backlit display
- Display and setpoint adjustment for PM2.5 and CO2 control
- Display of room temperature, outside temperature, VOC (volatile organic compound) and RH (relative humidity)
- Support 1-/3-/4-speed On/Off fan or DC fan output
- Two multifunctional inputs for external passive and DC 0...10 V sensors
- Operating modes: Comfort, Economy and Protection
- KNX S-Mode
- KNX commissioning via ETS or local control parameters
- KNX integration into Desigo via group (ETS) or individual addressing
- KNX integration into third-party system via group addressing (ETS)
- Mounting on recessed square 86 mm box or round 60 mm with 60 mm fixing centers and minimum 40 mm depth
- Color of housing: Ivory white (RAL 9001)

Application selectable:

- PM2.5 control only
- CO2 control only
- PM2.5 & CO2 controls (CO2 higher priority in control)
- Ventilation control

2x sensor inputs are selectable:

- 0: No function
- 1: Temperature (AI) (NTC 10k)
- 2: Temperature (AI) (0...10 V)
- 3: PM2.5 (AI) µg/m³ (0...10 V)
- 4: CO2 (AI) ppm (0...10 V)
- 5: VOC (AI) % (0...10 V)
- 6: VOC (AI) mg/m³ (0...10 V)
- 7: RH (AI) % (0...10 V)
- 8: Alarm input (DI)
- 9: Dummy AI (0...10 V) (RU only)

Data sheet

A6V11439454

Operating voltage

AC 230 V
230 V

Power consumption

7 VA
2.5 W

Communication

KNX S-Mode

Analog outputs

DC 0...10 V for ECM fan output

Relay outputs

Fan: N.O. contacts, non-floating
Valve: N.O. contacts, non-floating

Degree of protection

IP30

Dimensions (W x H x D)

86 x 86 x 46.8 mm

Color

White

Stock no.

Product no.

S55770-T407

RDF870KN

Flush mount touch MODBUS PM2.5 & CO2 & Ventilation Controls with on/off or ECM fans selectable and 2x DC 0-10 V input, fit for both round and square conduit boxes

RDF870MB



- AC 230 V operating voltage, large, backlit display
- Display and setpoint adjustment for PM2.5 and CO2 control
- Display of room temperature, outside temperature, VOC (volatile organic compound) and RH (relative humidity)
- Support 1-/3-/4-speed On/Off fan or DC fan output
- Two multifunctional inputs for external passive and DC 0... 10 V sensors
- Operating modes: Comfort, Economy and Protection
- RS485 Modbus RTU slave mode
- Modbus commissioning via third-party tool, e.g. Modbus scan, Modbus poll, etc
- Mounting on recessed square 86 mm box or round 60 mm with 60 mm fixing centers and minimum 40 mm depth
- Color of housing: Ivory white (RAL 9001)

RDF870MB can be configured as a room unit via DIP switches.

It provides the following additional functions:

- Setpoint adjustment and display for room temperature, VOC, RH and display of outside temperature
- Four remote digital outputs via bus and controlled by a master controller

Application selectable:

- PM2.5 control only
- CO2 control only
- PM2.5 & CO2 controls (CO2 higher priority in control)
- Ventilation control

2x sensor inputs are selectable:

- 0: No function
- 1: Temperature (AI) (NTC 10k)
- 2: Temperature (AI) (0... 10 V)
- 3: PM2.5 (AI) $\mu\text{g}/\text{m}^3$ (0... 10 V)
- 4: CO2 (AI) ppm (0... 10 V)
- 5: VOC (AI) % (0... 10 V)
- 6: VOC (AI) mg/m^3 (0... 10 V)
- 7: RH (AI) % (0... 10 V)
- 8: Alarm input (DI)
- 9: Dummy AI (0... 10 V) (RU only)

Data sheet	A6V11439454
Operating voltage	AC 230 V
Power consumption	6 VA
	2.1 W
Communication	RS485 Modbus
Analog outputs	DC 0... 10 V for ECM fan output
Relay outputs	Fan: N.O. contacts, non-floating Valve: N.O. contacts, non-floating
Degree of protection	IP30
Dimensions (W x H x D)	86 x 86 x 47 mm
Color	White

Stock no.	Product no.
S55770-T408	RDF870MB

RDF880KN


Flush mount touch KNX room thermostat for heating applications and/or VRF Room Unit with KNX Interface to VRF Gateway, fit for square conduit boxes

- Large display, touch screen with backlight
- VRF HMI: temperature setpoint, fan speed and operating mode selections
- 2-position (ON/OFF) temperature control with potential free output for UFH via build-in / external temperature sensor
- Display room temperature value (↓ C) and relative humidity value (% r.h.) via a build-in temperature and humidity sensor
- One setpoint adjustment for both VRF HMI and UFH controls
- Fan auto and manual speed setting from 1 up to 7 speed
- Operating mode selection for VRF: AUTO, COOL, HEAT, FAN and DRY
- Operating mode selection for UFH: Comfort and Protection
- Economy operating mode for both VRF and UFH to save energy
- 2 multifunctional inputs (see details in functional descriptions)
- Adjustable control parameters for alternative settings
- KNX bus communications via S-mode
- Integration to VRF system via S-mode and third party gateways
- Commissioning via ETS download
- Wizard function for fast commissioning via HMI
- Alarm / Error information
- AC 230 V operating voltage
- Mounting on round box, with min 60 mm diameter or recessed square 86 mm box with 60.3 mm fixing centers and min 40 mm depth

User Application selections via dipswitches:

1. Under Floor Heating only (UFH)
2. VRF HMI only (note: interface to VRF indoor unit via a third party VRF/KNX gateway)
3. Both UFH and VRF HMI

When VRF HMI is selected, it covers most daily VRF operations and the following parameters can be set to fit different VRF brands:

- Setpoint adjustment: - maximum / minimum limitations
- Fan speed adjustment: - auto / manual speeds (up to 7 speeds)
- Operating mode selection: - AUTO, HEAT, COOL, FAN and DRY
- Economy mode: - energy saving
- Fan swing adjustment (optional): - auto swing or fix at any position (10)
- Delay off timer (optional): - allow up to 23 hours operations before off

Data sheet	A6V11282546
Operating voltage	AC 230 V
Power consumption	6 VA
Communication	Bus: KNX (S-mode with Synco 700)
Relay outputs	Heating: contacts, floating
Dimensions (W x H x D)	86 x 86 x 47 mm

Stock no. Product no.

S55770-T415 RDF880KN

Thermostats

Communicating room thermostats

Room unit – KNX

Touch Control TC5, 5 inch touch panel, black

UP 205/21

- Aluminium and glass housing
- Capacitive touch colour display 5", 480 x 854 pixels
- LED colour light strip as orientation light, respectively to signal alarms
- Integrated room temperature sensor
- Micro SD card reader for on-site customization of wallpaper, screen saver and icons
- Connection to external power supply DC 24 V
- Flush mounted device for mounting in a flush wall box 60 mm Ø, for screw fixing
- Mounting plate included in gift box

Data sheet

A6V12259028

Dimensions (W x H x D)

86 x 148.8 x 11.5 mm



Stock no.

Product no.

5WG1205-2AB21

UP 205/21

Thermostats

Communicating room thermostats

Room unit – KNX

RDF880KN/NF



Touch Screen Flush-mount Room Thermostats with KNX Communications

- Large display, touch screen with backlight
 - VRF HMI: temperature setpoint, fan speed and operating mode selections
 - 2-position (ON/OFF) temperature control with potential free output for UFH via build-in / external temperature sensor
 - Display room temperature value (↓ °C) and relative humidity value (% r.h.) via a build-in temperature and humidity sensor
 - One setpoint adjustment for both VRF HMI and UFH controls
 - Fan auto and manual speed setting from 1 up to 7 speed
 - Operating mode selection for VRF: AUTO, COOL, HEAT, FAN and DRY
 - Operating mode selection for UFH: Comfort and Protection
 - Economy operating mode for both VRF and UFH to save energy
 - 2 multifunctional inputs (see details in functional descriptions)
 - Adjustable control parameters for alternative settings
 - KNX bus communications via S-mode and LTE-mode
 - Integration to VRF system via S-mode and third party gateways
 - Commissioning via ETS download
 - Wizard function for fast commissioning via HMI
 - Alarm / Error information
 - AC 230 V operating voltage
 - Mounting on recessed square 86 mm box with 60.3 mm fixing centers and min 40 mm depth, requires additional mounting frame to complete installation
 - Color of housing: Ivory white (RAL 9001)
-
- Fits DELTA arina mounting frame concept
 - Additional mounting frame is required: ARG800.1

Data sheet	A6V11282546
Operating voltage	AC 230 V
Power consumption	6 VA
Setpoint setting range	5...40 °C
Switching differential	0.5...6 K
Communication	Bus: KNX (S-mode with Synco 700)
Analog inputs, number	2
Relay outputs	Heating: contacts, floating
Relay outputs, number	1
Relay output, switching voltage	230 V
Relay output, switching current	5 (2) A
Type of fixing	Only on China frames
Degree of protection	IP30
Dimensions (W x H x D)	82 x 82 x 47 mm
Color	White

Stock no. Product no.

S55770-T398

RDF880KN/NF

Mounting adapter for RDG2..

ARG200

Mounting adapter for allowing RDG2xx thermostat installation on the wall without conduit box

Data sheet A6V11545853
Dimensions (W x H x D) 96 x 138 x 20 mm

Stock no. S55770-T438
Product no. **ARG200**

Mounting plate 120 x 120 mm for 4 x 4" housing

ARG70

Accessories for use with room thermostats RAA.., RAB.., RCC.., RCU.., RDD.., RDE.., RDF..

Data sheet N3009
Dimensions (W x H x D) 120 x 120 x 6 mm



Stock no. BPZ:ARG70
Product no. **ARG70**

Changeover cable holder for QAH11..

ARG86.3

Changeover mounting kit for QAH11.. sensor for universal use as a strap-on sensor

Data sheet N3009
Packaging unit 10 pieces
Warranty 2 Years



Stock no. BPZ:ARG86.3
Product no. **ARG86.3**

Cable temperature sensor PVC 4 m, NTC 3k

QAP1030/UFH

Data sheet N1854
Measuring range, temperature -20...70 °C
Sensing element, temperature NTC 3k
Measurement accuracy At -20...70 °C: ±0.3 K
Time constant 1.5 min to air
Protection pocket Non
Material, protection pocket None
Cable length 4 m



Stock no. S55720-S289
Product no. **QAP1030/UFH**

Thermostats

Communicating room thermostats

Accessories

ARG70.2



Mounting plate 112 x 130 mm for surface wiring

Accessories for use with room thermostats RAA..., RAB..., RCC..., RCU..., RDD..., RDE..., RDF..

Data sheet	N3009
Dimensions (W x H x D)	112 x 130 x 10 mm

Stock no.	Product no.
BPZ:ARG70.2	ARG70.2

QAH11.1



Cable temperature sensor PVC 2.5 m, NTC 3 kOhm, without connectors

For installation in fan coil units as

- a return air temperature sensor
- a changeover sensor

Packing size: 10 pcs

Data sheet	N1840
Measuring range	For fixed cable
Sensing element	NTC 3k
Measuring range, temperature	-20...70 °C
Sensing element, temperature	NTC 3k
Time constant	Air v=0 m/s: 90 s
Connection cable	2-wire Ferrules
Cable length	2.5 m
Warranty	5 Years

Stock no.	Product no.
BPZ:QAH11.1	QAH11.1

QAA32



Room temperature sensor NTC 3 kOhm

Data sheet	N1747
Sensing element	NTC 3k
Measuring range, temperature	0...40 °C
Sensing element, temperature	NTC 3k
Time constant	360 s
Measurement accuracy	25 °C: ±0.3 K
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	97 x 100 x 36 mm
Warranty	5 Years

Stock no.	Product no.
BPZ:QAA32	QAA32

Thermostats

Standalone room thermostats

Heating and/or cooling

Room thermostat with large LCD

RDH100..

Mains independent, battery powered electronic room thermostat with TPI output control. The required temperature is adjusted with the large setting knob on the front of the unit.

- Easy operation by large setting knob and large display
- For heating only
- Color of housing front: signal white RAL9003
- Color of baseplate: light gray RAL7035

Battery life	1 year
Setpoint setting range	5...30 °C
Relay outputs	Change-over contact, potential-free
Relay outputs, number	1
Relay output, switching voltage	24...250 V
Dimensions (W x H x D)	120 x 90 x 26.9 mm

Room thermostat RDH100

RDH100

Mains independent, battery powered electronic room thermostat with PID output control. The required temperature is adjusted with the large setting knob on the front of the unit.

- Easy operation by large setting knob and large display
- For heating only
- Color of housing front: signal white RAL9003
- Color of baseplate: light gray RAL7035
- 2 x 1.5 V AA alkaline batteries included



Operating voltage	DC 3 V
Color	Light white

Stock no.	Product no.
S55770-T377	RDH100

Room thermostat radio frequency set (transmitter and receiver)

RDH100RF/SET

Radio frequency controller set consisting of:

RDH100RF: Electronic room thermostat with radio frequency transmitter, same controller functionality as RDH100.

Technical data:

- Transmission frequency: 433 MHz
- Dimensions (W x H x D): 90 x 120 x 26.9 mm
- Transmitter tablestand
- 2 x 1.5 V AA alkaline batteries included



RCR100/433: Radio frequency receiver with operating mode indication (433 MHz),

- Switching unit with relay outputs
- Receiver override button for manual switch-on/switch-off
- Mounting adapter plate for receiver

Operating voltage	Receiver: AC 230 V, Transmitter: DC 3 V
Color	Light white

Stock no.	Product no.
S55770-T378	RDH100RF/SET

Thermostats

Standalone room thermostats

Heating and/or cooling

RDJ100..

Room thermostat with 24-hour time switch and large LCD

Mains independent, battery powered electronic room thermostat with TPI output control. The required temperature is adjusted with the large setting knob on the front of the unit.

- Easy operation by large setting knob and large display
- For heating
- 24-hour (1-day) time programming
- Color of housing front: signal white RAL9003
- Color of baseplate: light gray RAL7035

Battery life	1 year
Setpoint setting range	5...30 °C
Relay outputs	Change-over contact, potential-free
Relay outputs, number	1
Relay output, switching voltage	AC 24...250 V
Dimensions (W x H x D)	120 x 90 x 26.9 mm

RDJ100

Room thermostat with 24-hour time switch and large LCD



Mains independent, time programming, battery powered electronic room thermostat with PID out control.

- With digital 24-hour time program
- Easy operation by large setting knob, large display and sliders
- Color of housing front: signal white RAL9003
- Color of baseplate: light gray RAL7035

Operating modes:

- Automatic operation with up to 2 heating periods per day
- Continuous Comfort
- Continuous Economy
- Frost Protection

Operating voltage	DC 3 V
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Stock no.	Product no.
S55770-T379	RDJ100

RDJ100RF/SET

Room thermostat radio frequency set with 24-hour time switch (transmitter and receiver)



Time programming radio frequency set consisting of room thermostat RDJ100RF (with integrated radio transmitter) and receiver unit RCR100/433. Same functionality as RDJ100.

RDJ100RF: Electronic radio frequency room temperature controller

Technical data:

- Transmission frequency: 433 MHz
- Dimensions (W x H x D): 90 x 120 x 26.9 mm
- Transmitter table stand
- 2 x 1.5 V AA alkaline batteries included

RCR100/433: Radio frequency receiver with operating mode indication (433 MHz)

- Switching unit with relay outputs
- Receiver override button for manual switch-on/switch-off
- Mounting adapter plate for receiver

Operating voltage	Receiver: AC 230 V, Transmitter: DC 3 V
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Stock no.	Product no.
S55770-T380	RDJ100RF/SET

Thermostats

Standalone room thermostats

Heating and/or cooling

Room thermostats with LCD

RDD100..

- 2-position control with on / off positioning signal output for heating
- Operating modes: Normal operation and energy saving mode
- Automatic operating mode changeover as an option
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Setpoint setting range	5...35 °C
Switching differential	1 K
Relay outputs	Change-over contact, potential-free
Relay output, switching current	5 (2) A
Relay output, switching voltage	AC 24...230 V
Degree of protection	IP30

Room thermostat with LCD, AC 230 V

RDD100

- 2-position control with on / off positioning signal output for heating
- Operating modes: Normal operation and energy saving mode
- Automatic operating mode changeover as an option
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Data sheet	N 1420
Operating voltage	AC 230 V
Dimensions (W x H x D)	85 x 106 x 21.5 mm
Color	Light white



Stock no.

Product no.

S55770-T275

RDD100

Room thermostat with LCD, battery

RDD100.1

- 2-position control with on / off positioning signal output for heating
- Operating modes: Normal operation and energy saving mode
- Automatic operating mode changeover as an option
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Data sheet	N 1420
Operating voltage	DC 3 V
Voltage supply	Micro (2xAAA)
Dimensions (W x H x D)	85 x 106 x 21.5 mm
Color	Light white



Stock no.

Product no.

S55770-T276

RDD100.1

Room thermostats with LCD

RDD100.1-XA

- 2-position control with on / off positioning signal output for heating
- Operating modes: Normal operation and energy saving mode
- Automatic operating mode changeover as an option
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)



Stock no.

Product no.

S55770-T337

RDD100.1-XA

Thermostats

Standalone room thermostats

Heating and/or cooling

RDE100..

Room thermostats with auto time switch and LCD

- 2-position control with on/off output for heating
- Operating modes: Normal and energy-saving mode
- Auto time switch (individual day, 7 day or 5-2 day) and manual operation
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Setpoint setting range	5...35 °C
Switching differential	1 K
Degree of protection	IP30
Dimensions (W x H x D)	85 x 127 x 21.5 mm

RDE100

Room thermostat with auto time switch and LCD, AC 230 V



- 2-position control with on/off output for heating
- Operating modes: Normal and energy-saving mode
- Auto time switch (individual day, 7 day or 5-2 day) and manual operation
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Data sheet	N1422
Operating voltage	AC 230 V
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2) A
Relay outputs	Change-over contact Potential-free

Stock no.

Product no.

S55770-T278

RDE100

RDE100.1

Room thermostat with auto time switch and LCD, battery



- 2-position control with on/off output for heating
- Operating modes: Normal and energy-saving mode
- Auto time switch (individual day, 7 day or 5-2 day) and manual operation
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Data sheet	N1422
Voltage supply	Micro (2xAAA)
Operating voltage	DC 3 V
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2) A
Relay outputs	Change-over contact Potential-free

Stock no.

Product no.

S55770-T279

RDE100.1

Thermostats

Standalone room thermostats

Heating and/or cooling

Room thermostat with auto time switch and LCD, battery, independent DHW

RDE100.1DHW

- 2-position control with ON / OFF output for heating
- Independent ON / OFF control of DHW
- Operating modes: Auto, normal operation, energy saving and frost protection
- Auto time switch (individual day, 7 day or 5-2 day) and manual operation

Data sheet	N1423
Voltage supply	Micro (2xAAA)
Operating voltage	DC 3 V
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2) A
Relay outputs	Change-over contact Potential-free



Stock no.

Product no.

S55770-T280

RDE100.1DHW

Room thermostats with auto time switch and LCD

RDE100.1-XA

- 2-position control with on/off output for heating
- Operating modes: Normal and energy-saving mode
- Auto time switch (individual day, 7 day or 5-2 day) and manual operation
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2) A
Relay outputs	Change-over contact, potential-free



Stock no.

Product no.

S55770-T338

RDE100.1-XA

Thermostats

Standalone room thermostats

Heating and/or cooling

RDE100..RF..

Wireless room thermostat with auto timer

Battery-powered DC 3 V thermostat, with time switch, optional external input

- 2-position control with on / off output for heating
- Operating modes: Comfort, Economy, Auto timer and Protection mode
- Auto time switch
- Adjustable commissioning and control parameters
- Multifunction input for external floor sensor, keycard contact, etc.
- Color of housing front: signal white RAL9003 (NCS S 0502-G)

Setpoint setting range	5..35 °C
Switching differential	1 K
Radio frequency	433 MHz
Degree of protection	IP30

RDE100.1RF

Wireless room thermostat with auto timer

Battery-powered DC 3 V thermostat, with time switch, optional external input



Data sheet	CB1N1425
Voltage supply	Micro (2xAAA)
Operating voltage	DC 3 V
Relay output, switching voltage	230 V
Dimensions (W x H x D)	127 x 85 x 22 mm

Stock no.	Product no.
S55770-T320	RDE100.1RF

RDE100.1RFS

Wireless room thermostat with auto timer, incl. receiver

Battery-powered DC 3V thermostat with mains-powered AC 230 V receiver, with time switch, optional external input



Data sheet	CB1N1425
Voltage supply	Micro (2xAAA)
Operating voltage	DC 3 V
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	8 (2) A
Relay outputs	Change-over contact Potential-free
Dimensions (W x H x D)	127 x 85 x 22 mm

Stock no.	Product no.
S55770-T282	RDE100.1RFS

Thermostats

Standalone room thermostats

Heating and/or cooling

Wireless room thermostat with auto timer

RDE100.1RFS-XA

Battery-powered DC 3 V thermostat, with time switch, optional external input

- 2-position control with on / off output for heating
- Operating modes: Comfort, Economy, Auto timer and Protection mode
- Auto time switch
- Adjustable commissioning and control parameters
- Multifunction input for external floor sensor, keycard contact, etc.
- Color of housing front: signal white RAL9003 (NCS S 0502-G)



Dimensions (W x H x D)

127 x 85 x 22 mm

Stock no.

Product no.

S55770-T346

RDE100.1RFS-XA

Thermostats

Standalone room thermostats

Heating and/or cooling

RDD100..RF..

Wireless room thermostat with LCD

Battery-powered DC 3 V thermostat, no time switch

- 2-position control with on / off control output
- Operating modes: Comfort, Economy and Protection mode
- Adjustable commissioning and control parameters
- Color of housing front: signal white RAL9003 (NCS S 0502-G)

Setpoint setting range	5...35 °C
Switching differential	1 K
Radio frequency	433 MHz
Degree of protection	IP30
Dimensions (W x H x D)	106 x 85 x 22 mm

RDD100.1RF

Wireless room thermostat with LCD



Battery-powered DC 3 V thermostat, no time switch

Data sheet	CB1N1424
Operating voltage	DC 3 V
Voltage supply	Micro (2xAAA)
Color	Light white

Stock no.

Product no.

S55770-T319

RDD100.1RF

Wireless accessory for RDD/E100

RDE-MZ6

Wireless Multizone Receiver



Mains-powered AC 230 V multizone receiver

Data sheet	CB1N1428
Operating voltage	AC 230 V
Power consumption	4 VA
Relay outputs	Change-over contact Potential-free
Relay outputs, number	6
Relay output, switching voltage	230 V
Relay output, switching current	8 (2) A
Radio frequency	433 MHz
Type of fixing	DIN rail wall mounting
Degree of protection	IP30
Dimensions (W x H x D)	280 x 76 x 36.5 mm
Color	Light white

Stock no.

Product no.

S55770-T285

RDE-MZ6

Thermostats

Standalone room thermostats

Heating and/or cooling

Room thermostat with 24-hour time switch

RAV11.1



- Mains-independent, electronic PID controller with 2-position output, battery-powered
- With analog 24-hour time switch
- Self-learning 2-position controller with PID control (patented)
- Color of housing front: signal white RAL9003 (NCS S 0502-G)
- Color of baseplate: light grey RAL7035 (NCS 2801-Y43R)

- Operating modes:
- 24-hour mode with heating periods according to the analog time switch
- Continuous Comfort mode
- Continuous Economy mode
- Standby with frost protection

Operating voltage	DC 3 V
Voltage supply	Mignon (2xAA)
Setpoint setting range	5...30 °C
Relay outputs	Normally open contact Potential-free
Relay output, switching voltage	AC 24...250 V
Relay output, switching current	8 (3.5) A
Degree of protection	IP30
Dimensions (W x H x D)	128 x 104 x 37 mm

Stock no.

Product no.

BPZ:RAV11.1

RAV11.1

Flush mount touch screen room thermostat for heating (SPDT) with 2x universal input, fit for both round and square conduit boxes

RDD810



- Operating modes: Comfort, Economy and Protection
- Control output: changeover contact (SPDT)
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), window contact on/off, presence detector, fault contact, presence detector
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: Ivory white
- Backlit display

Operating voltage	AC 230 V
Power consumption	6 VA
Setpoint setting range	5...40 °C
Switching differential	0.5...6 K
Analog inputs, number	2
Relay outputs	Heating: contacts, floating
Relay outputs, number	1
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2) A
Degree of protection	IP30
Dimensions (W x H x D)	82 x 82 x 47 mm

Stock no.

Product no.

S55770-T443

RDD810

Thermostats

Standalone room thermostats

Heating and/or cooling

RDE410/EH



Flush-mount room thermostats with auto timer

- Operating voltage AC 230 V
- 2-position control with On/Off control output
- Input for cable temperature sensor NTC 3k (QAP1030/U FH) for the floor
- Floor temperature limitation with cable temperature sensor
- Operating modes: Comfort, Energy Saving and Frost Protection
- Minimum and maximum setpoint setting range
- Backlit white LCD
- Protection class IP31, suitable for installation in wet rooms
- Auto Timer with 8 programmable time switches

Data sheet	N1440
Operating voltage	AC 230 V
Power consumption	4 VA
Setpoint setting range	5...40 °C
Digital output, switching voltage	230 V
Digital output, switching current	16 A
Degree of protection	IP31
Dimensions (W x H x D)	86 x 86 x 50 mm

Stock no.	Product no.
S55770-T333	RDE410/EH

RDD810/NF



Standalone touch screen room thermostat for heating application (for China frames)

- Operating modes: Comfort, Economy and Protection
- Control output: changeover contact (SPDT)
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), window contact on/off, presence detector, fault contact, presence detector
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: Ivory white
- Backlit display
- Mounting on chinese mounting frames

Operating voltage	AC 230 V
Power consumption	6 VA
Setpoint setting range	5...40 °C
Switching differential	0.5...6 K
Analog inputs, number	2
Relay outputs	Heating: contacts, floating
Relay outputs, number	1
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (2) A
Type of fixing	Only on China frames
Degree of protection	IP30
Dimensions (W x H x D)	82 x 82 x 47 mm

Stock no.	Product no.
S55770-T406	RDD810/NF

Accessories for RDD310..

Product Title	Data sheet	Stock no.	Product no.
Cable temperature sensor PVC 4 m, NTC 3k	N1854	S55720-S289	QAP1030/U FH

Thermostats

Standalone room thermostats

Heating and/or cooling

Flush-mount room thermostat

RDD2.. Flush Mount

For heating-only units and heating applications

- Slim (8 mm thickness) touch button design
- AC 230 V supply voltage, large LCD backlit display
- Operating modes: ON (Normal), ECO (Economy), OFF (Protection)
- Room temperature or temperature setpoint display
- Room temperature display via built-in sensor
- Temperature setpoint adjustment
- Minimum and maximum setpoint limitation
- SPDT relay for valve actuator with potential-free input (AC 24...230 V)
- External sensor input for floor temperature limitation
- Simple delay-off timer for max. 23 hours
- Internal sensor calibration
- Keylock function
- Return to previous operating mode or Protection (OFF) upon power failure
- Adjustable commissioning and control parameters
- Mounting on recessed square 86 mm conduit box with 60.3 mm fixing centers and min. 50 mm depth



Range overview RDD2.. Flush Mount

Product Title	Operating voltage [V]	Color	Stock no.	Product no.
Flush mount room thermostat for under floor heating (SPDT), fit for square conduit boxes	AC 230	White	S55770-T440	RDD210
Flush-mount room heating thermostat	AC 230	White	S55770-T461	RDD210.V
Flush-mount room heating thermostat	AC 230	Gold	S55770-T482	RDD210.V/VG
Flush-mount room heating thermostat	AC 230	Silver	S55770-T479	RDD210.V/VS

Flush-mount room thermostat with LCD

RDD3.. Flush Mount

- Operating voltage AC 230 V
- 2-position control with On / Off control output
- Input for an external temperature sensor (QAH11.1 / QAA32)
- Temperature limitation function for heating, controlled by external temperature sensor (optional)
- Operating modes: Comfort, Energy Saving and Frost Protection
- Manual changeover of current operating mode
- Maximum and minimum setpoint limitation
- Backlit LCD
- Mounting on recessed rectangular conduit box, fixing center at 60.3mm (ARG71)



Range overview RDD3.. Flush Mount

Product Title	Operating voltage [V]	Color	Stock no.	Product no.
Flush-mount room thermostat for electric floor heating	AC 230	White	S55770-T296	RDD310/EH
Flush mount room thermostat for heating (SPDT) with no input, fit for square conduit boxes	AC 230	White	S55770-T358	RDD310/MM

Thermostats

Standalone room thermostats

Heating and/or cooling

RDD5.. Flush Mount



Flush mount room thermostat for heating (SPDT), fit for square conduit boxes

Heating/Cooling room thermostat

- Output for on/off valve actuator, 3-wire on/off valve
- Cooling only / Heating only
- Operation modes: Comfort and Protection
- Adjustable commissioning and control parameters
- Optional display of room temperature or setpoint
- Minimum and maximum setpoint limitation
- Display temperature in increments of 0.5 °C or °F
- Color of housing: signal white (RAL 9003)
- LED backlit display
- Full or partial keylock
- Internal sensor calibration
- Timer with delay off function: preset or user selection from 1 to 23 hours
- Return to previous mode or Protection (Off) mode upon power down

Range overview RDD5..Flush Mount

Product Title	Operating voltage [V]	Color	Stock no.	Product no.
Room thermostats in bulk pack of 20 units, white	AC 230	White	S55770-T425	RDD510/BP
Flush mount room thermostat for heating (SPDT), AC 230 fit for square conduit boxes in bulk pack of 20 units, silver	AC 230	Silver	S55770-T432	RDD510/BP.VS

RDF270.. Flush Mount



Flush mount room thermostat for Fresh Air Unit (Fan Controller) with bypass damper and internal/external air circulation switch, fit for square conduit boxes

Fresh air unit (FAU)

- Slim (8 mm thickness) touch button design
- AC 230 V supply voltage, large LCD backlit display
- Operating modes: ON, FAU ECO and OFF
- Fan type selection: 1-speed, 2-speed, 3-speed or ECM
- Manual fan speed adjustment at max. 3 speeds
- Selectable internal and external air circulations
- Bypass function for external air circulation
- Simple delay-off timer for max. 23 hours
- Keylock function
- Returning to previous operating mode, ON (Normal mode) or OFF for power down
- Adjustable commissioning and control parameters
- Mounting on recessed square 86 mm conduit box with 60.3 mm fixing centers and minimum 50 mm depth

Range overview RDF270..Flush Mount

Operating voltage [V]	Color	Stock no.	Product no.
AC 230	White	S55770-T441	RDF270
AC 230	White	S55770-T462	RDF270.V
AC 230	Gold	S55770-T483	RDF270.V/VG
AC 230	Silver	S55770-T480	RDF270.V/VS

Thermostats

Standalone room thermostats

Heating and/or cooling

Flush mount VRF Room Unit with MODBUS Interface to VRF Gateway, fit for square conduit boxes

RDF280.. MB Flush Mount

HMI for variable refrigerant flow (VRF) applications

- Slim (8 mm thickness) touch button design
- AC 230 V operating voltage, large LCD backlit display
- Operating modes: ON, ECO and OFF
- Room temperature or temperature setpoint display
- Room temperature display via built-in sensor or VRF indoor unit
- Temperature setpoint adjustment
- Minimum and maximum setpoint limitation
- Master/Slave VRF mode selection: AUTO, COOL, HEAT, FAN & Dehumidification
- Fan mode: Auto and manual
- Fan speed adjustment up to 7 speeds
- Simple delay-off timer up to 23 hours
- Internal sensor calibration
- Keylock function
- Returning to previous operating mode, ON (Normal mode) or OFF for power down
- Adjustable commissioning and control parameters
- RS485 Modbus RTU slave mode Modbus interface for VRF gateway and system integration
- Mounting on recessed square 86 mm conduit box with 60.3 mm fixing centers and min. 50 mm depth



Range overview RDF280..MB Flush Mount

Operating voltage [V]	Color	Stock no.	Product no.
AC 230	White	S55770-T442	RDF280
AC 230	White	S55770-T463	RDF280.V
AC 230	Gold	S55770-T484	RDF280.V/VG
AC 230	Silver	S55770-T481	RDF280.V/VS

Electromechanical room thermostats

RAA..1..

2-position controller for controlling the room temperature. The required temperature is adjusted with the setting knob on the front of the unit.

- Gas-filled diaphragm
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Setpoint setting range	8...30 °C
Switching differential	≤1 K
Type of fixing	Wall mounting with screws
Degree of protection	IP30

Electromechanical room thermostat, public sector model

RAA11

- Heating only or cooling only
- No operating elements on the front of the unit

Data sheet	N3561
Dimensions (W x H x D)	96 x 97 x 36 mm
Color	Light white



Stock no.	Product no.
S55770-T219	RAA11

Thermostats

Standalone room thermostats

Heating and/or cooling

RAA21



Electromechanical room thermostat, basic model

- Heating only or cooling only
- Setpoint adjustment with knob

Data sheet

Dimensions (W x H x D)

Color

N3562

96 x 97 x 35.3 mm

Light white

Stock no.

Product no.

S55770-T220

RAA21

RAA31



Electromechanical room thermostat with on/off switch

- Heating only or cooling only
- Setpoint adjustment with knob
- On / off switch

Data sheet

Dimensions (W x H x D)

Color

N3563

96 x 97 x 35.3 mm

Light white

Stock no.

Product no.

S55770-T221

RAA31

RAA31.16



Electromechanical room thermostat with on/off switch and LED

Same functionality as RAA31 plus mode indication (red LED, needed AC 230 V)

Data sheet

Power consumption

Dimensions (W x H x D)

Color

N3563

0.5 VA

98 x 97 x 35.3 mm

Light white

Stock no.

Product no.

S55770-T222

RAA31.16

RAA31.26



Electromechanical room thermostat with on/off switch and LED, auxiliary switch and LED

Same functionality as RAA31 plus 2 mode indications (red LED, needed AC 230 V) and additional independent on / off switch.

Data sheet

Power consumption

Dimensions (W x H x D)

Color

N3563

0.5 VA

99 x 110 x 35.3 mm

Light white

Stock no.

Product no.

S55770-T223

RAA31.26

Thermostats

Standalone room thermostats

Heating and/or cooling

Electromechanical room thermostat with selector heating/off/cooling, 1 output

RAA41

- Heating or cooling
- Setpoint adjustment with knob
- Switch for cooling / off / heating

Data sheet N3564
 Dimensions (W x H x D) 98 x 97 x 35.3 mm
 Color Light white



Stock no.	Product no.
S55770-T224	RAA41

Accessories for RAA..1..

Product Title	Data sheet	Stock no.	Product no.
Mounting plate 120 x 120 mm for 4 x 4" housing	N3009	BPZ:ARG70	ARG70
Mounting plate 112 x 130 mm for surface wiring	N3009	BPZ:ARG70.2	ARG70.2

Thermostats

Standalone room thermostats

Heating and/or cooling

RCU.. Universal

Universal room thermostat for heating and cooling systems

- Electronic room temperature controller for heating and cooling operation
- PI control
- Operating mode changeover input for remote control
- Color of housing front: signal white RAL9003 (NCS S 0502-G)
- Color of baseplate: light grey RAL7035 (NCS 2801-Y43R)

Setpoint setting range	8...30 °C
Digital inputs, number	1
Digital input, contact query	3...6 mA
	DC 6...15 V
Digital input, application	Night setback
Type of fixing	Wall mounting with screw
Degree of protection	IP30
Dimensions (W x H x D)	97 x 114 x 43 mm

RCU10



Universal room thermostat for 4-pipe systems, AC 230 V, positioning signal 2 pt or PWM

- Heating and cooling sequence
- 2nd heating sequence
- Selectable P-band (1 K heating, 0.5 K cooling, or 4 K heating, 2 K cooling)
- Selectable dead zone (2 K or 5 K)
- Frost protection function

Data sheet	N3041
Operating voltage	AC 230 V
Power consumption	6 VA
Triac outputs	PWM or ON/OFF
Triac output, switching voltage	230 V
Triac output, switching current	0.02...1 A

Stock no.	Product no.
BPZ:RCU10	RCU10

RCU15



Universal room thermostat for 4-pipe systems, AC 24 V, positioning signal 2 pt or PWM

Same functionality and technical data as RCU10

In addition:

- Optional control depending on the room or return air temperature (with sensor QAH11.1)

Data sheet	N3048
Operating voltage	AC 24 V
Power consumption	6 VA
Triac outputs	PWM or ON/OFF
Triac output, switching voltage	24 V
Triac output, switching current	0.02...1 A

Stock no.	Product no.
BPZ:RCU15	RCU15

Accessories for RCU..

Product Title	Data sheet	Stock no.	Product no.
Mounting plate 120 x 120 mm for 4 x 4" housing	N3009	BPZ:ARG70	ARG70
Mounting plate 112 x 130 mm for surface wiring	N3009	BPZ:ARG70.2	ARG70.2

Thermostats

Standalone room thermostats

Heating and/or cooling

Electronic room thermostat with time switch, LCD and selection slider

REV..

Mains-independent, battery-operated room temperature controllers featuring user-friendly operation, easy-to-read display and large numbers

- Self-learning two-position controller with PID response (REV.., REV13.., REV24..)
- 3-position controller with PI response (for REV34..)
- Remote operation (REV.., REV13.., REV24, REV34..)
- Override button
- Sensor calibration and reset function
- Frost protection function and minimum limitation of setpoint
- Color of housing front: signal white RAL9003 (NCS S 0502-G)
- Color of baseplate: grey RAL7038



Operating mode selection:

- Automatic modes with time switch program
- Automatic mode with one or two heating phases (REV13..)
- Automatic mode with up to three comfort phases (REV.., REV24.., REV34..)
- Exception day mode with up to three comfort phases (REV.., REV24.., REV34..)
- Continuous comfort mode
- Continuous energy saving mode
- Frost protection

Operating voltage	DC 3 V
Battery life	2 years
Setpoint setting range	3...35 °C
Relay output, switching voltage	AC 24...250 V
Relay output, switching current	0.1...6 (2.5) A
	For RF versions: 0.2...16 (2) A
Degree of protection	IP20

Range overview REV..

Product Title	Dimensions (WxHxD) [mm]	Data sheet	Stock no.	Product no.
Room thermostat with 2-point control and 24-hour time switch, batteries, only heating	130 x 94 x 30	N2201	BPZ:REV13	REV13
24-hour room thermostat	130x94x30	N2201	BPZ:REV13-XA	REV13-XA
Room thermostat with 2-point control and 7-day time switch, batteries, heating and cooling	134.5 x 94 x 30	N2205	BPZ:REV24	REV24
Room thermostat with 2-point control and 7-day time switch, receiver with relay outputs (RF set), batteries, heating or cooling	134.5 x 94 x 30	N2206	BPZ:REV24RF/SET	REV24RF/SET
Electronic room thermostat with time switch, LCD and selection slider	134.5x94x30	N2206	BPZ:REV24RF/SET-XA	REV24RF/SET-XA
7-day room thermostat	134.5x94x30	N2205	BPZ:REV24-XA	REV24-XA
Room thermostat with 3-position control and 7-day time switch, batteries, heating and cooling	134.5 x 94 x 30	N2208	BPZ:REV34-XA	REV34-XA

Thermostats

Standalone room thermostats Heating and/or cooling

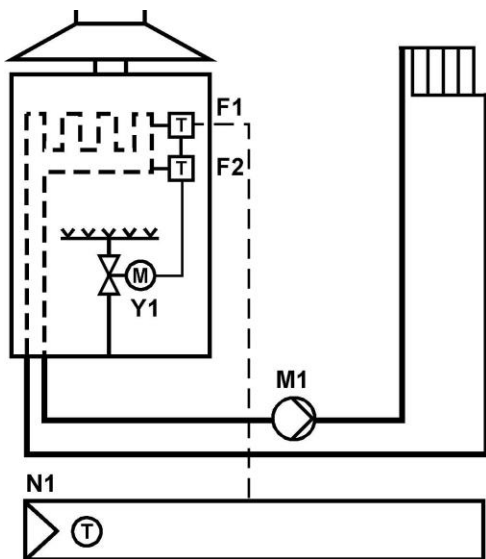
Application examples REV..

These are only a few examples of many applications that can be done with the thermostat REV...

More applications are described in "HIT" (the HVAC project engineering tool with a library of over 300 pre-configured HVAC-applications) and in the REV.. data sheet..

REV24

HAA001 EV2 HQ

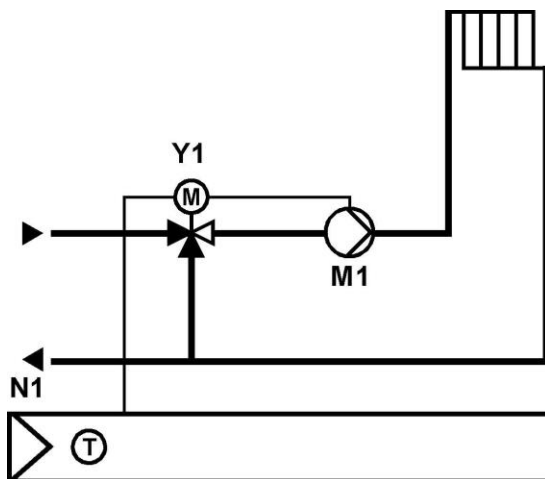


Room temperature controller with 7-day time switch, acting on on/off device

- 7-day time switch programme
- Three different 24-hour operating modes
- Continuous normal temperature mode
- Continuous economy temperature mode
- Standby with frost protection mode
- Holiday mode
- Override mode button
- Sensor calibration
- Installer parameter setting for pump kick and cooling
- Installer parameter setting for optimum start control in the morning
- Installer parameter setting for minimum limitation of set point
- Digital user interface
- Installer choice of algorithm: PID self learning; PID 12; PID 6; or 2-point

REV34

HOC002 EV3 HQ



Room temperature controller with 7-day time switch, acting on 3-position valve actuator

- 3-position controller with PI control
- 7-day time switch programme
- Three different 24-hour operating modes
- Continuous comfort temperature mode
- Continuous economy temperature mode
- Standby with frost protection mode
- Holiday mode
- Override mode button
- Digital user interface
- Sensor calibration
- Installer parameter setting for optimum start control in the morning
- Installer parameter setting for minimum limitation of set point
- Installer parameter setting for room size and heating capacity

Electromechanical room thermostats for fan coils

RAB..1..

Electromechanical room temperature controllers for fan coil for heating and/or cooling applications. Manual three-speed fan control. The required room temperature is adjusted with the setpoint knob on the front of the unit.

- Gas-filled diaphragm
- 2-position control
- Color of housing front and baseplate: signal white RAL9003 (NCS S 0502-G)

Setpoint setting range	8...30 °C
Switching differential	≤1 K
Switching voltage	AC 24...250 V
Switching current	0.2...6 (2) A
Degree of protection	IP30

Electromechanical room thermostat for 2-pipe fan coils, selector heating/cooling

RAB11

- Heating or cooling applications
- Selector for heating or cooling mode
- Selector for manual 3-speed fan operation
- Manual fan operation or automatic fan operation parallel with the valve can be configured inside the unit

Data sheet	N3015
Operating voltage	AC 230 V
Dimensions (W x H x D)	99 x 110 x 35.3 mm



Stock no.	Product no.
S55770-T225	RAB11

Electromechanical room thermostat for 2-pipe fan coils, selector heating/cooling/fan only

RAB11.1

Same functionality and technical data as RAB11. Additional selector position for ventilation (heating and cooling inactive).

Data sheet	N3015
Operating voltage	AC 230 V
Dimensions (W x H x D)	99 x 110 x 35.3 mm



Stock no.	Product no.
S55770-T226	RAB11.1

Thermostats

Standalone room thermostats

Fan coils

RAB21



Electromechanical room thermostat for 2-pipe fan coils, basic model

- Heating or cooling applications
- Selector for manual 3-speed fan operation
- Changeover function, heating or cooling (with external automatic aquastat)
- Manual fan operation or automatic fan operation parallel with cooling / heating mode can be configured inside the unit

Data sheet	N3016
Operating voltage	AC 230 V
Dimensions (W x H x D)	99 x 110 x 35.3 mm
Color	Light white

Stock no.	Product no.
S55770-T227	RAB21

RAB31



Electromechanical room thermostat for 4-pipe fan coils, selector heating/cooling

- Heating or cooling applications
- Selector for heating or cooling mode
- Selector for 3-speed fan operation
- Manual fan operation or automatic fan operation parallel with heating / cooling mode (depending on the selector's position) can be configured inside the unit

Data sheet	N3017
Operating voltage	AC 230 V
Dimensions (W x H x D)	99 x 110 x 35.3 mm
Color	Light white

Stock no.	Product no.
S55770-T229	RAB31

RAB31.1



Electromechanical room thermostat for 4-pipe fan coils, selector heating/cooling/fan only

Same functionality and technical data as RAB31. Additional selector position for ventilation (heating and cooling inactive).

Data sheet	N3017
Operating voltage	AC 230 V
Dimensions (W x H x D)	99 x 110 x 35.3 mm
Color	Light white

Stock no.	Product no.
S55770-T230	RAB31.1

RAB91



Fan speed switch, 3-stage

Selector for 3-speed fan operation

Data sheet	N3018
Operating voltage	AC 230 V
Dimensions (W x H x D)	96 x 97 x 36 mm

Stock no.	Product no.
S55770-T231	RAB91

Electronic room thermostats for fan coils

RCC..

- For heating and cooling applications
- Operating mode selector
- LEDs for indicating the operating state
- Setting knob for room temperature adjustment
- External operating mode changeover contact
- Various operating modes (normal and energy saving mode, etc.)

Setpoint setting range 8...30 °C
Degree of protection IP30

Room thermostat for 2-pipe fan coils, AC 230 V, positioning signal 2 pt, return air sensor

RCC10



- Heating or cooling sequence
- Automatic heating/cooling changeover (with sensor QAH11.1)
- Operating mode changeover input for remote control
- Outputs for 3-speed fan (0 / I / II / III)
- 2-position control
- Selectable switching differential (1 K heating, 0.5 K cooling, or 4 K heating, 2 K cooling)
- Input for return temperature sensor (QAH11.1)
- Frost protection mode

Data sheet	N3021
Operating voltage	AC 230 V
Relay output, switching voltage	230 V
Relay output, switching current	Fan: 0.1...2.6 A Valve: 0.1...1.3 A
Relay outputs	Fan: 3-position switch with normally open contacts Valve: Change-over contact
Dimensions (W x H x D)	Non floating 97 x 114 x 43 mm

Stock no.

Product no.

BPZ:RCC10

RCC10

Thermostats

Standalone room thermostats

Fan coils

RCC20



Room thermostat for 2-pipe fan coils, AC 230 V, positioning signal 2 pt, return air sensor, el. heater

- Heating or cooling sequence
- Automatic heating/cooling changeover (with sensor QAH11.1)
- Operating mode changeover input for remote control
- Output for electrical heater
- 2-position control
- Selectable switching differential (1 K heating, 0.5 K cooling, or 4 K heating, 2 K cooling)
- Selectable dead zone (2 K or 5 K)
- Input for return air temperature sensor (QAH11.1)
- Frost protection mode
- Outputs for 3-speed fan (0 / I / II / III)

Data sheet	N3022
Operating voltage	AC 230 V
Relay output, switching voltage	230 V
Relay output, switching current	Fan: 0.1...2.6 A Valve: 0.1...1.3 A Electric heater: 0.1...5.4 A
Relay outputs	Fan: 3-position switch with normally open contacts Valve: Normally open contact Electric heater: Normally open contact Non floating
Dimensions (W x H x D)	97 x 114 x 43 mm

Stock no.	Product no.
BPZ:RCC20	RCC20

RCC30



Room thermostat for 4-pipe fan coils, AC 230 V, positioning signal 2pt, return air sensor

- Heating and cooling sequence
- Operating mode changeover input for remote control
- 2-position control
- Selectable switching differential (1 K heating, 0.5 K cooling, or 4 K heating, 2 K cooling)
- Input for return air temperature sensor (QAH11.1)
- Frost protection mode
- Selectable dead zone (2 K or 5 K)
- Outputs for 3-speed fan (0 / I / II / III)

Data sheet	N3023
Operating voltage	AC 230 V
Relay output, switching voltage	230 V
Relay output, switching current	Fan: 0.1...2.6 A Valve: 0.1...1.3 A
Relay outputs	Fan: 3-position switch with normally open contacts Valve: Normally open contact Non floating
Dimensions (W x H x D)	96.6 x 114.15 x 42.8 mm

Stock no.	Product no.
BPZ:RCC30	RCC30

Accessories for RAB.. / RCC..

Product Title	Data sheet	Stock no.	Product no.
Mounting plate 120 x 120 mm for 4 x 4" housing	N3009	BPZ:ARG70	ARG70
Changeover cable holder for QAH11..	N3009	BPZ:ARG86.3	ARG86.3
Mounting plate 112 x 130 mm for surface wiring	N3009	BPZ:ARG70.2	ARG70.2
Cable temperature sensor PVC 2.5 m, NTC 3 kOhm, without connectors	N1840	BPZ:QAH11.1	QAH11.1

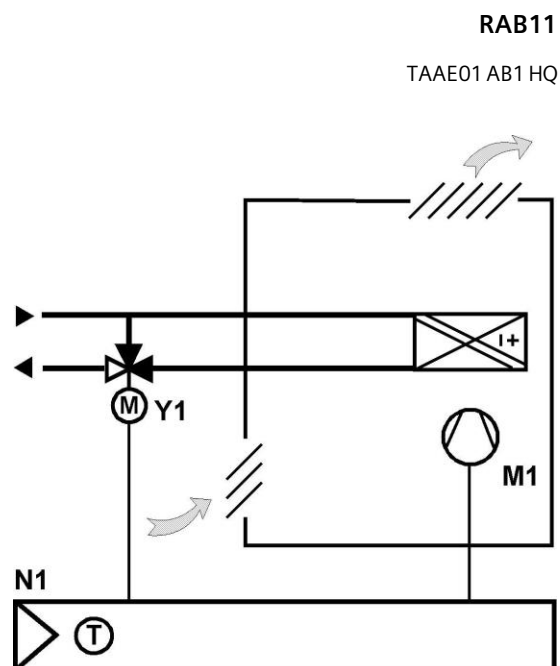
Application examples RAB..

These are only a few examples of many applications that can be done with the thermostat RAB...

More applications are described in "HIT" (the HVAC project engineering tool with a library of over 300 pre-configured HVAC-applications) and in the RAB.. data sheet.

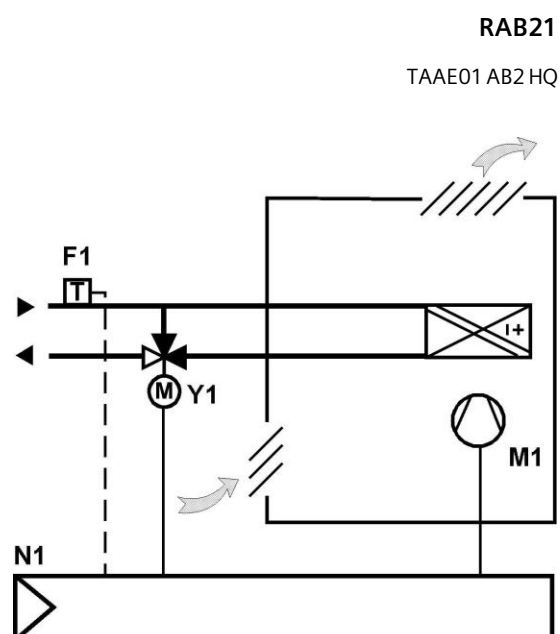
2-pipe fan coil, manual heating / cooling changeover

- 2-position control algorithm for heating or cooling systems
- Setting range of setpoint knob can be limited
- Operating mode selector for heating and cooling
- 4-position fan speed selector (I/II/III/off)



2-pipe fan coil, automatic heating / cooling changeover

- 2-position control for heating or cooling systems
- Setting range of setpoint knob can be limited
- 4-position fan speed selector (I/II/III/off)
- Heating/cooling changeover (aquastat)



Thermostats

Standalone room thermostats

Fan coils

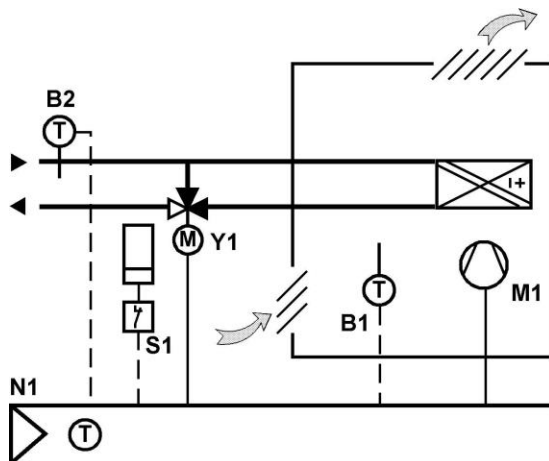
Application examples RCC..

These are only a few examples of many applications that can be done with the thermostat RCC...

More applications are described in "HIT" (the HVAC project engineering tool with a library of over 300 pre-configured HVAC-applications) and in the RCC.. data sheet.

RCC10

TAAE01 CC1 HQ

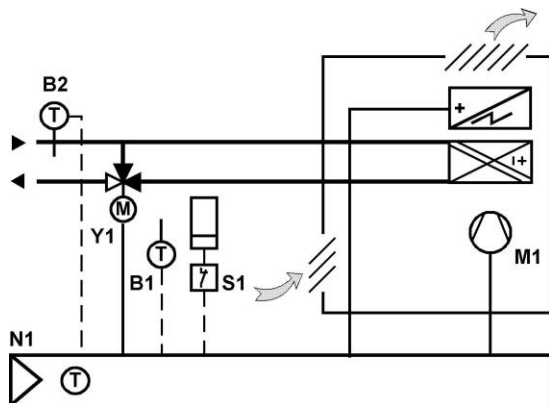


2-pipe fan coil, automatic heating / cooling changeover on/off output

- 2-position control algorithm for heating or cooling systems
- Output for ON/OFF valve actuator
- 4-position fan speed selector (I/II/III/standby)
- Status LED for heating, cooling and fan
- Setting range of setpoint knob can be limited
- Parameter setting by installer for: Fan control, operating mode changeover operating mode switch condition, frost protection, switching differential for heating or cooling
- Automatic heating/cooling changeover with external temperature sensor (QAH11.1)
- Operating mode changeover for remote control with external switch
- Temperature control according to integrated sensor or external temperature sensor QAH11.1 or QAA32)

RCC20

TAAZ01 CC2 HQ



2-pipe fan coil, automatic heating / cooling changeover and electrical heater

- 2-position control algorithm for heating or cooling systems
- Outputs for ON/OFF valve actuator and electrical heater
- 4-position fan speed selector (I/II/III/standby)
- Status LED for heating, cooling and fan
- Setting range of setpoint knob can be limited
- Parameter setting by installer for: Fan control, operating mode changeover operating mode switch condition, frost protection, switching differential for heating or cooling, dead zone, setpoint differential, operation of electrical heater in cooling or heating mode
- Automatic heating/cooling changeover with external temperature sensor (QAH11.1)
- Operating mode changeover for remote control with external switch
- Temperature control according to integrated sensor or external temperature sensor (QAH11.1 or QAA32)

Room thermostats for fan coil units, universal applications and heat pump applications

RDG1..

Data sheet	N3181
Setpoint setting range	5...40 °C
Type of fixing	Wall mounting with screws
Degree of protection	IP30

Room thermostat, AC 230 V, for fan coil units and universal applications

RDG100

- Operating modes: Comfort, Energy Saving and Protection
- 2-position, 3-position or PWM control outputs
- Automatic or manual fan speed
- 3 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display



Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 4-pipe system
- 4-pipe system with electrical heater
- 2-stage heating or cooling system

Data sheet	N3181
Operating voltage	AC 230 V
Relay outputs, number	3
Relay outputs	Fan: 1- or 3-speed
Relay output, switching voltage	230 V
Relay output, switching current	5 (4) A
Triac outputs, number	3
Triac outputs	Valve, el. heater
	2-position, PWM, 3-position
Triac output, switching voltage	230 V
Triac output, switching current	1 A
Switching differential	Heating: 0.5...6 K; Cooling: 0.5...6 K
Analog inputs, number	2
Digital inputs, number	1
Dimensions (W x H x D)	93 x 128 x 30.8 mm

Stock no.

Product no.

S55770-T158

RDG100

Thermostats

Standalone room thermostats

Fan coils

RDG110



Room thermostat, AC 230 V, for fan coil units and heat pump applications

- Operating modes: Comfort, Energy Saving and Protection
- 2-position control outputs
- Automatic or manual fan speed
- 3 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Backlit display

Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 4-pipe system
- 2-stage heating or cooling system

Data sheet

Operating voltage

Relay outputs, number

Relay outputs

Relay output, switching voltage

Relay output, switching current

Switching differential

Analog inputs, number

Digital inputs, number

Dimensions (W x H x D)

N3181

AC 230 V

5

Valve, compressor or el. heater: 2 outputs (SPDT), 2-position

Fan: 1- or 3-speed

230 V

Valve, compressor or el. heater: 5 (3) A

Fan: 5 (4) A

Heating: 0.5...6 K; Cooling: 0.5...6 K

2

1

93 x 128 x 30.8 mm

Stock no.

Product no.

S55770-T160

RDG110

Room thermostat for fan coil units and universal applications, 7-day time switch

RDG1..0T..

Data sheet	N3181
Setpoint setting range	5...40 °C
Type of fixing	Wall mounting with screws
Degree of protection	IP30

Room thermostat, AC 230 V, for fan coil units and universal applications, 7-day time switch, vertical

RDG100T



- Operating modes: Auto timer, Comfort, Energy Saving and Protection
- Auto Timer mode with 8 programmable timers
- 2-position, 3-position or PWM control outputs
- Automatic or manual fan speed for 1-speed or 3-speed fan
- 3 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Infrared remote control receiver
- Backlit display
- Auto timer can be disabled

Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 4-pipe system
- 4-pipe system with electrical heater
- 2-stage heating or cooling system

Data sheet	N3181
Operating voltage	AC 230 V
Switching differential	Heating: 0.5...6 K; Cooling: 0.5...6 K
Analog inputs, number	2
Analog input, signal	NTC 3k
Relay outputs, number	Switch
Relay outputs	3
Relay output, switching voltage	Fan: 1- or 3-speed
Relay output, switching current	230 V
Triac outputs, number	5 (4) A
Triac output, switching current	3
Triac outputs	1 A
Triac output, switching voltage	Valve, el. heater
Dimensions (W x H x D)	2-position, PWM, 3-position
	230 V
	93 x 128 x 30.8 mm

Stock no.

Product no.

S55770-T159

RDG100T

RDG160T



Room thermostat, AC 24 V, for fan coil units (3-speed or ECM fan), universal applications and heat pump applications. 7-day time switch. Outputs DC 0..10V or ON/OFF

- Operating modes: Auto timer, Comfort, Energy Saving and Protection
- Auto Timer mode with 8 programmable timers
- 2-position or DC 0...10V control outputs
- ECM fan or 3-speed fan outputs
- Automatic or manual fan speed
- 3 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact, supply air temperature sensor
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Infrared remote control receiver
- Backlit display
- Auto timer can be disabled

Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 2-pipe system and radiator / floor heating
- 4-pipe system
- 2-stage heating or cooling system

Data sheet	N3181
Operating voltage	AC/DC 24 V
	DC 24 V
Switching differential	Heating: 0.5...6 K; Cooling: 0.5...6 K
Analog inputs, number	2
Analog input, signal	NTC 3k
	Switch
Relay outputs, number	3
Relay outputs	Fan: 1- or 3-speed
	Valve: Normally open contact
	Electric heater: Normally open contact
Relay output, switching voltage	AC 24...230 V
Relay output, switching current	5 (4)A
Analog outputs	Valve, el. heater: 2
	Fan: 1 (ECM)
Analog output, signal	DC 0...10 V
Analog output, current	Valve, el. heater: Max. ±1 mA
	Valve: 1 mA
Dimensions (W x H x D)	93 x 128 x 30.8 mm

Stock no.	Product no.
S55770-T343	RDG160T

Room thermostat

RDF..

- Electronic room temperature controller with LCD for fan coil units for compressors in DX-type equipment
- For heating and/or cooling applications
- ON/OFF
- Operating mode changeover input for remote control
- Various operating modes (normal, energy saving and stand-by)
- Outputs for 3-speed fan
- Selectable installation and control parameters
- Color of housing front: signal white RAL9003 (NCS S 0502-G)
- Color of baseplate: light grey RAL7035 (NCS 2801-Y43R)

Operating voltage	AC 230 V
Setpoint setting range	5...40 °C
Relay outputs	Fan: N.O. contacts, non-floating Valve: change-over contact, non-floating
Relay output, switching voltage	AC 230 V
Relay output, switching current	4 (2) A
Degree of protection	IP30
Dimensions (W x H x D)	86 x 86 x 39 mm

Room thermostat for 2-pipe fan coils or DX-type equipment, return air temperature sensor

RDF110



- Output for an on / off valve actuator or compressor
- Outputs for a 3-speed fan
- Control depending on the room or return air temperature (with sensor QAH11.1)
- 2-position control
- Sensor input either for automatic heating / cooling changeover or return air temperature (with sensor QAH11.1)
- Automatic or manual three-speed fan control
- Operating modes: normal, energy-saving and standby
- Operating mode changeover input for remote control

Data sheet	N3057
Degree of protection	IP30
Dimensions (W x H x D)	102 x 128 x 30 mm

Stock no.	Product no.
BPZ:RDF110	RDF110

Room thermostat for 2-pipe fan coils or DX-type equipment

RDF110.2



- Output for an on / off valve actuator or compressor
- Outputs for a 3-speed fan
- Control depending on the room or return air temperature (with sensor QAH11.1)
- 2-position control
- Manual heating/Cooling change-over
- Automatic or manual three-speed fan control
- Operating modes: normal, energy-saving and standby

Data sheet	N3057
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Stock no.	Product no.
BPZ:RDF110.2	RDF110.2

Thermostats

Standalone room thermostats

Fan coils

Accessories for RDG.. / RDF..

Product Title	Data sheet	Stock no.	Product no.
Mounting plate 112 x 130 mm for surface wiring	N3009	BPZ:ARG70.2	ARG70.2
Cable temperature sensor PVC 2.5 m, NTC 3 kOhm, without connectors	N1840	BPZ:QAH11.1	QAH11.1
Infrared Remote Control for room thermostats	N3060	S55770-T166	IRA211

RDF8..Flush Mount



Touch screen room thermostat for 2-/4- pipe fan coil, universal applications or compressors in DX-type equipment

- Operating modes: Comfort, Economy and Protection
- For heating and/or cooling applications
- 2 or 3-position control outputs
- Output for 1-speed or 3-speed fan
- 2 multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact, presence detector
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: Ivory white
- Backlit display

Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

Data sheet	N3174
Power consumption	6 VA
Setpoint setting range	5...40 °C
Switching differential	0.5...6 K
Analog inputs, number	2
Relay outputs	Fan: N.O. contacts, non-floating Valve: N.O. contacts, non-floating
Relay outputs, number	5
Relay output, switching voltage	AC 230 V
Relay output, switching current	5 (2) A
Degree of protection	IP30
Dimensions (W x H x D)	86 x 86 x 47 mm

Range overview RDF8..Flush Mount

Product Title	Operating voltage [V]	Stock no.	Product no.
Flush mount touch room thermostat for 2-/4-pipe FCU with on/off output and 2x universal input, fit for both round and square conduit boxes	AC/DC 230	S55770-T396	RDF800
Touch screen room thermostat for 2-/4- pipe fan coil, universal applications or compressors in DX-type equipment (for China frames)	AC 230	S55770-T397	RDF800/NF

Flush-mount room thermostats for both round and square conduit boxes, with backlit LCD

RDF6..Flush Mount

Flush-mount room thermostat for round conduit box with LCD

- Output for 1-speed or 3-speed fan
- 2 or 3-position control outputs
- Two multifunctional inputs for keycard contact, external room / return air temperature (QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Operating modes: Comfort, Energy Saving and Protection
- Automatic or manual heating/cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Color of housing: signal white (RAL 9003)
- Backlit display



Application selectable:

- 2-pipe system
- 2-pipe system with electrical heater
- 4-pipe system

Operating voltage	AC 230 V
Switching differential	0.5...6 K
Analog inputs, number	2
Relay outputs, number	5
Type of fixing	Recessed round conduit box diameter min. 60 mm
Dimensions (W x H x D)	86 x 86 x 46 mm

Range overview RDF6..Flush Mount

Product Title	Color	Stock no.	Product no.
Flush mount room thermostat for 2-/4-pipe FCU with on/off valves, ECM fan, 7-day time switch, infrared remote control and 2x universal input, fit for both round and square conduit boxes	White	S55770-T434	RDF660T
Flush mount room thermostat for 2-/4-pipe FCU with on/off output and 2x universal input, fit for both round and square conduit boxes		S55770-T291	RDF600
Flush mount room thermostat for 2-/4-pipe FCU with on/off output, time programs and 2x universal input, fit for both round and square conduit boxes, infrared remote control, 7-day time switch, backlit LCD		S55770-T292	RDF600T

Thermostats

Standalone room thermostats

Fan coils

RDF5..Flush Mount



Flush-mount room thermostats for square conduit boxes

Flush-mount thermostats

- Output for on/off valve actuator, 3-wire on/off valve
- 3-speed fan control: Automatic or manual
- Manual heating / cooling changeover or continuous Cooling only / Heating only
- Operation modes: Comfort and Protection
- Adjustable commissioning and control parameters
- Optional display of room temperature or setpoint
- Minimum and maximum setpoint limitation
- Display temperature in increments of 0.5 °C or °F
- Color of housing: signal white (RAL 9003)
- LED backlit display
- Full or partial keylock
- Internal sensor calibration
- Timer with delay off function: preset or user selection from 1 to 23 hours
- Return to previous mode or Protection (Off) mode upon power down
- Fan speed low or off in deadzone
- Fan minimum On-time
- Three standard color housings on bulk pack for project delivery
- Customization is also available by request

- LED backlit display
- Keylock function
- Display either room temperature or setpoint
- Comfort and Protection(Off) operating modes
- Automatic or manual heating/cooling changeover
- Automatic or manual 3-speed fan control
- Selectable fan operation in deadzone
- Timer with delay Off function: preset or user selection from 1 to 23 hours
- Minimum and maximum setpoint limitation
- Return to previous operating mode or Protection(Off) upon power down
- Internal sensor calibration
- Adjustable commissioning and control parameters
- Fit into 86x86 conduit boxes
- Housing available in different colors

Data sheet	A6V10889950
Operating voltage	AC 230 V
Power consumption	Max. 12 VA
Setpoint setting range	5...40 °C
Switching differential	0.5...6 K (factory setting: 1 K)
Dimensions (W x H x D)	86 x 86 x 39 mm

Range overview RDF5..Flush Mount

Product Title	Stock no.	Product no.
Flush-mount room thermostat for 2-pipe fan coils	S55770-T382	RDF510
Flush mount room thermostat for 2-pipe FCU with on/off output, fit for square conduit boxes in bulk pack of 20 units	S55770-T383	RDF510/BP
Flush mount room thermostat for 2-pipe FCU with on/off output, fit for square conduit boxes in bulk pack of 20 units, silver	S55770-T403	RDF510/BP.VS
Flush mount room thermostat for 2-pipe FCU with on/off output, fit for square conduit boxes in bulk pack of 20 units, black	S55770-T404	RDF510/BP.VB
Flush mount room thermostat for 2-pipe FCU with on/off output, fit for square conduit boxes in bulk pack of 20 units, gold	S55770-T405	RDF510/BP.VG
Flush mount room thermostat for 4-pipe fan coils	S55770-T384	RDF530
Flush mount room thermostat for 4-pipe FCU with on/off output, fit for square conduit boxes in bulk pack of 20 units	S55770-T385	RDF530/BP

Thermostats
Standalone room thermostats
Fan coils

Range overview RDF5..Flush Mount

Product Title	Stock no.	Product no.
Flush mount room thermostat for 4-pipe FCU with on/off output, fit for square conduit boxes in bulk pack of 20 units, black	S55770-T417	RDF530/BP.VB
Flush mount room thermostat for 4-pipe FCU with on/off output, fit for square conduit boxes in bulk pack of 20 units, gold	S55770-T424	RDF530/BP.VG
Flush mount room thermostat for 4-pipe FCU with on/off output, fit for square conduit boxes in bulk pack of 20 units, silver	S55770-T423	RDF530/BP.VS

Thermostats

Standalone room thermostats

Fan coils

RDF..Flush Mount



Flush-mount room thermostat

Flush-mount room thermostat with LCD for 2-/4-pipe fan coil units and compressors in DX-type equipment

- For heating and/or cooling applications
- Outputs for 3-speed fan
- Selectable installation and control parameters

Setpoint setting range

5...40 °C

Degree of protection

IP30

Range overview RDF..Flush Mount

Product Title	Operating voltage [V]	Color	Stock no.	Product no.
Flush-mount room thermostat for rectangular conduit box, for 2-/4-pipe fan coils or DX type equipment, backlit LCD	AC 230		BPZ:RDF300.02	RDF300.02
Flush mount room thermostat for 2-/4-pipe FCU with on/off output and 2x universal input, fit for square conduit boxes, black	AC 230	Black	S55770-T427	RDF300.02/VB
Flush mount room thermostat for 2-pipe fan coils	AC 230		S55770-T187	RDF310.2/MM
Flush mount room thermostat for 2-/4-pipe FCU with DC valves, 3-speed fan and 2x universal input, fit for square conduit boxes	AC 24		BPZ:RDF340	RDF340

Accessories for RDF..

Product Title	Data sheet	Stock no.	Product no.
Mounting bracket 10 mm thick	N3009	BPZ:ARG70.3	ARG70.3
Hotel Key Card ARG810.1		S55770-T446	ARG810.1
Door Bell with DND ARG820.1		S55770-T447	ARG820.1
Door Bell with DND & MUR ARG830.1		S55770-T448	ARG830.1
Cable temperature sensor PVC 2.5 m, NTC 3 kOhm, without connectors	N1840	BPZ:QAH11.1	QAH11.1
Infrared Remote Control for room thermostats	N3060	S55770-T166	IRA211
Room temperature sensor NTC 3 kOhm	N1747	BPZ:QAA32	QAA32

Thermostats

Standalone room thermostats

Variable air volumes (VAV)

Electronic room thermostat for VAV and CAV systems

RCU..VAV

- Electronic room thermostat for heating and cooling operation
- P control
- Setpoint shifting
- Color of housing front: signal white RAL9003 (NCS S 0502-G)
- Color of baseplate: light grey RAL7035 (NCS 2801-Y43R)

Power consumption	6 VA
Setpoint setting range	8...30 °C
Analog output, signal	DC 0...10 V
Analog output, current	Max. ±1 mA
Type of fixing	Wall mounting with screw
Degree of protection	IP30
Dimensions (W x H x D)	97 x 114 x 43 mm

Room thermostat for VAV and CAV systems, AC 24 V, positioning signal DC 0...10 V, manual changeover heating/cooling/off

RCU50.2



Same functionality and technical data as RCU50

- Manual heating / cooling changeover and OFF position
- Signal inversion of output signal
- No setpoint shift
- No operating mode changeover input for remote control
- No adjustable minimum limitation for cooling output
- No frost protection

Data sheet	N3045
Operating voltage	AC 24 V

Stock no.	Product no.
BPZ:RCU50.2	RCU50.2

Accessories for RDU3.. flush mount

Product Title	Data sheet	Stock no.	Product no.
Mounting bracket 10 mm thick	N3009	BPZ:ARG70.3	ARG70.3

Thermostats

Standalone room thermostats

Variable air volumes (VAV)

RDG400



Room thermostat, AC 24 V, VAV heating and cooling systems

- Output DC 0...10 V for VAV actuator and auxiliary output ON/OFF, PWM or 3-position or 3-position for VAV actuator and auxiliary output DC 0...10 V
- 3 multifunctional inputs for keycard contact, external room / return air temperature (1x, QAH11.1, QAA32), heat / cool changeover, operation mode changeover, window contact on/off, dewpoint monitor, electrical heater enabled, fault contact
- Operating modes: Comfort, Energy Saving and Protection
- Modulating PI control
- Control depending on the room or the return air temperature
- Automatic or manual heating / cooling changeover
- Adjustable commissioning and control parameters
- Minimum and maximum setpoint limitation
- Minimum and maximum limitation of air flow signal
- Output signal inversion (DC 0...10 V) as an option
- Backlit display

Application selectable:

- Single-duct system
- Single-duct system with electrical heater
- Single-duct system and radiator / floor heating
- Single-duct system with heating / cooling coil

Data sheet	N3182
Operating voltage	AC 24 V
Power consumption	2 VA
Setpoint setting range	5...40 °C
Switching differential	Heating: 0.5...6 K; Cooling: 0.5...6 K
Analog inputs, number	2
Analog outputs	VAV actuator, electric heater, valve
Analog outputs, number	1
Analog output, signal	DC 0...10 V
Analog output, current	1 mA
Digital inputs, number	1
Triac outputs	VAV actuator, valve, el. heater
	2-position, PWM, 3-position
Triac outputs, number	1
Triac output, switching voltage	24 V
Triac output, switching current	1 A
Type of fixing	Wall mounting with screws
Degree of protection	IP30
Dimensions (W x H x D)	93 x 128 x 30.8 mm

Stock no. Product no.

S55770-T164

RDG400

Application examples RDG..

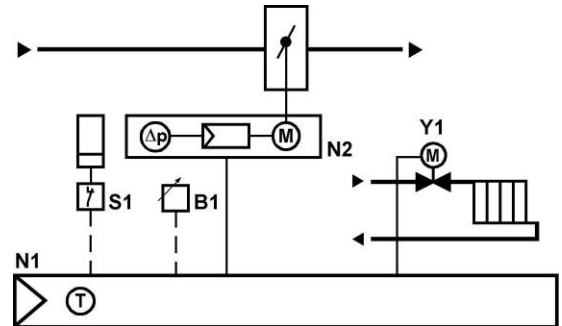
More applications are described in "HIT" (the HVAC project engineering tool with a library of over 300 pre-configured HVAC-applications) and in the RDG.. data sheet

VAV box, automatic heating/cooling changeover with radiator, mod. PI-control, DC 0...10 V for cooling

RDG400

TCCE01 DG4 HQ

- Modulating PI control algorithm for heating and cooling systems
- Outputs for DC 0...10 V and ON/OFF, PWM, 3-position
- Setting range of setpoint knob can be limited
- Manual operating mode button
- Parameter setting by installer
- Temperature control according to integrated sensor
- Adjustable minimum limitation of cooling output (air flow)
- Operating mode changeover for remote control with external switch/sensor
- Operating voltage AC 24 V
- Backlit display



Thermostats

Standalone room thermostats

Accessories

ARG70



Mounting plate 120 x 120 mm for 4 x 4" housing

Accessories for use with room thermostats RAA.., RAB.., RCC.., RCU.., RDD.., RDE.., RDF..

Data sheet	N3009
Dimensions (W x H x D)	120 x 120 x 6 mm

Stock no.	Product no.
BPZ:ARG70	ARG70

ARG86.3



Changeover cable holder for QAH11..

Changeover mounting kit for QAH11.. sensor for universal use as a strap-on sensor

Data sheet	N3009
Packaging unit	10 pieces
Warranty	2 Years

Stock no.	Product no.
BPZ:ARG86.3	ARG86.3

QAP1030/UFH



Cable temperature sensor PVC 4 m, NTC 3k

Data sheet	N1854
Measuring range, temperature	-20...70 °C
Sensing element, temperature	NTC 3k
Measurement accuracy	At -20...70 °C: ±0.3 K
Time constant	1.5 min to air
Protection pocket	Non
Material, protection pocket	None
Cable length	4 m

Stock no.	Product no.
S55720-S289	QAP1030/UFH

ARG70.2



Mounting plate 112 x 130 mm for surface wiring

Accessories for use with room thermostats RAA.., RAB.., RCC.., RCU.., RDD.., RDE.., RDF..

Data sheet	N3009
Dimensions (W x H x D)	112 x 130 x 10 mm

Stock no.	Product no.
BPZ:ARG70.2	ARG70.2

Cable temperature sensor PVC 2.5 m, NTC 3 kOhm, without connectors

QAH11.1



For installation in fan coil units as

- a return air temperature sensor
- a changeover sensor

Packing size: 10 pcs

Data sheet	N1840
Measuring range	For fixed cable
Sensing element	NTC 3k
Measuring range, temperature	-20...70 °C
Sensing element, temperature	NTC 3k
Time constant	Air v=0 m/s: 90 s
Connection cable	2-wire Ferrules
Cable length	2.5 m
Warranty	5 Years

Stock no.

Product no.

BPZ:QAH11.1

QAH11.1

Room temperature sensor NTC 3 kOhm

QAA32



Data sheet	N1747
Sensing element	NTC 3k
Measuring range, temperature	0...40 °C
Sensing element, temperature	NTC 3k
Time constant	360 s
Measurement accuracy	25 °C: ±0.3 K
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	97 × 100 × 36 mm
Warranty	5 Years

Stock no.

Product no.

BPZ:QAA32

QAA32

Thermostats

Capillary and clamp-on thermostats

Temperature

RAK-TR.1..H



Temperature controller

External scale, 1 changeover contact, immersion and strap-on thermostat in one.

Data sheet	N1205
Switching differential	6 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	0.1...16 (2.5) A
Digital outputs	1-pin
	Potential-free
	Changeover contact
Degree of protection	IP43
Dimensions (W x H x D)	55 x 156 x 72 mm

Range overview RAK-TR.1..H

Setpoint setting range [°C]	Protection pocket [LW7]	Capillary length [mm]	Stock no.	Product no.
15...95	PN 10, 100 mm, G 1/2"	700	S55700-P111	RAK-TR.1000B-H
15...95		700	S55700-P112	RAK-TR.1000S-H
15...82	PN 10, 100 mm, G 1/2"	700	S55700-P113	RAK-TR.1210B-H

Note to protection pocket: Brass, nickel-plated.

RAK-TW.1..H



Thermal reset limit thermostat

Internal scale, 1 changeover contact, immersion and strap-on thermostat in one.

Data sheet	N1202
Switching differential	6 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 1-2: 0.1...16 (2.5) A
	Contact 1-3: 0.1...6 (2.5) A
Digital outputs	1-pin
	Potential-free
	Changeover contact
Degree of protection	IP43
Dimensions (W x H x D)	55 x 156 x 64 mm

Range overview RAK-TW.1..H

Setpoint setting range [°C]	Protection pocket [LW7]	Capillary length [mm]	Stock no.	Product no.
15...95		700	S55700-P116	RAK-TW.1000S-H
40...120	PN 10, 100 mm, G 1/2"	700	S55700-P117	RAK-TW.1200B-H
40...120		700	S55700-P119	RAK-TW.1200S-H

Note to protection pocket: Brass, nickel-plated.

Thermostats

Capillary and clamp-on thermostats

Temperature

Thermal reset limit thermostat

RAK-TW.1..H..

Immersion, strap-on and remote thermostat in one

Data sheet	N1202
Switching differential	6 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact connection 1-2: 0.1...16 (2.5) A Contact connection 1-3: 0.1...6(2.5) A
Digital outputs	1-pole Potential-free Changeover contact
Degree of protection	IP65
Dimensions (W x H x D)	55 x 156 x 64 mm



Range overview RAK-TW.1..H..

Setpoint setting range [°C]	Protection pocket [LW7]	Capillary length [mm]	Stock no.	Product no.
15...95	PN 10, 100 mm, G½"	700	S55700-P115	RAK-TW.1000HB
40...120	PN 10, 100 mm, G½"	700	S55700-P118	RAK-TW.1200HP

Note to protection pocket: Brass, nickel-plated.

Temperature limiter

RAK-TB.1..M

Internal scale, 1 changeover contact, immersion and strap-on thermostat in one.

Data sheet	N1206
Reset temperature	Min. 15 K under the switch-off point
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 11-12: 0.1...16 (2.5) A Contact 11-13: 2 (0.4) A
Digital outputs	1-pin Potential-free Switchover contact
Degree of protection	IP43
Dimensions (W x H x D)	55 x 156 x 67 mm



Range overview RAK-TB.1..M

Switch-off point [°C]	Protection pocket [LW7]	Capillary length [mm]	Stock no.	Product no.
45...60		700	S55700-P108	RAK-TB.1400S-M
50...70	PN 10, 100 mm, G½"	700	S55700-P109	RAK-TB.1410B-M
65...80		700	S55700-P110	RAK-TB.1420S-M

Note to protection pocket: Brass, nickel-plated.

Thermostats

Capillary and clamp-on thermostats

Temperature

RAK-ST..M



Safety limit thermostat

Internal scale, 1 changeover contact, failsafe capillary, immersion and strap-on thermostat in one, with ambient temperature compensation.

Data sheet	N1204
Reset temperature	Min. 15 K under the switch-off point
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 11-12: 0.1...16 (2.5) A Contact 11-13: 2 (0.4) A
Digital outputs	1-pin Potential-free Switchover contact
Degree of protection	IP43
Dimensions (W x H x D)	55 x 156 x 67 mm

Range overview RAK-ST..M

Switch-off point [°C]	Protection pocket [LW7]	Capillary length [mm]	Stock no.	Product no.
95	PN 10, 100 mm, G ½"	700	S55700-P100	RAK-ST.010FP-M
100	PN 10, 100 mm, G ½"	700	S55700-P101	RAK-ST.020FP-M
110	PN 10, 100 mm, G ½"	700	S55700-P102	RAK-ST.030FP-M
110...130	PN 10, 100 mm, G ½"	700	S55700-P103	RAK-ST.1300P-M
90...110	PN 10, 100 mm, G ½"	700	S55700-P104	RAK-ST.1310P-M
80...100		1600	S55700-P106	RAK-ST.1430S-M

Note to protection pocket: Brass, nickel-plated.

RAK-ST.1..M..



Safety limit thermostat

Immersion, strap-on and remote thermostat in one

Data sheet	N1204
Reset temperature	~7 K under the switch-off point
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 11-12: 16 (2,5) A Contact 11-13: 2 (0,4) A
Digital outputs	1-pole Potential-free Changeover contact
Degree of protection	IP65
Dimensions (W x H x D)	55 x 156 x 67 mm

Range overview RAK-ST.1..M..

Switch-off point [°C]	Protection pocket	Capillary length [mm]	Stock no.	Product no.
40...70		700	S55700-P105	RAK-ST.1385M
95...130	100 mm; G ½"; 7 mm; PN10	700	S55700-P107	RAK-ST.1600MP

Note to protection pocket: Brass, nickel-plated.

Thermostats

Capillary and clamp-on thermostats

Temperature

Thermal reset limit thermostat for air ducts, 20...110 °C; perforated protection pocket 200mm

TKM2



Data sheet	N1291
Setpoint setting range	20...110 °C
Switching differential	2 K
Digital output, switching voltage	AC 250 V
Digital output, switching current	0.2...10 (2) A
Ambient temperature head	Max. 100 °C
Digital outputs	1-pin
	Potential-free
	Changover contact
Degree of protection	IP54
Dimensions (W x H x D)	60 x 120 x 55 mm

Stock no.

Product no.

BPZ:TKM2

TKM2

Thermostats

Capillary and clamp-on thermostats

Temperature

RAZ-TW.1..J



Temperature controller/ thermal reset limit thermostat

Combination of control thermostat (TR) and thermal reset limit thermostat (TW). Internal scale (TR), internal scale (TW), 2 changeover contacts. Immersion thermostat and wall mounting.

Data sheet	N1212
Immersion length	100 mm
Reset temperature	Min. 15 Kelvin under the switch-off point
Switching differential	6 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	0.1...16 (4) A
Digital outputs	1-pin
	Potential-free
	Changeover contact
Degree of protection	IP40
Dimensions (W x H x D)	120 x 106 x 70 mm

Range overview RAZ-TW.1..J

Setpoint setting range [°C]	Protection pocket [LW7]	Capillary length [mm]	Stock no.	Product no.
TR: 15...95 TW: 15...95	PN 10, 100 mm, G 1/2" 2x	700	S55700-P140	RAZ-TW.1000P-J
TR: 40...120 TW: 40...120	PN 10, 100 mm, G 1/2" 2x	700	S55700-P141	RAZ-TW.1200P-J

Double protection pocket 2x inner dia. 7mm, brass nickel plated.

Thermostats

Capillary and clamp-on thermostats

Temperature

Temperature controller/ safety limit thermostat

RAZ-ST..J

Combination of control thermostat (TR) and safety limit thermostat (STB). Internal scale (TR), internal scale (STB), 2 changeover contacts, failsafe capillary, STB with ambient temperature compensation. Immersion thermostat and wall mounting.



Data sheet	N1214
Immersion length	100 mm
Capillary length	700 mm
Reset temperature	Min. 20 Kelvin under the switch-off point
Switching differential	TR: 6 K STB: ± 5 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	TR: 0.1...16 (4) A STB: Contact 1-2 0.1...16 (1) A Contact 1-4 max. 0.5 A (alarm contact)
Digital outputs	1-pin Potential-free Changeover contact
Degree of protection	IP40
Dimensions (W x H x D)	120 x 106 x 70 mm

Range overview RAZ-ST..J

Setpoint setting range [°C]	Switch-off point [°C]	Protection pocket [LW7]	Stock no.	Product no.
15...95 100	100	PN 10, 100 mm, G 1/2"	S55700-P136	RAZ-ST.011FP-J
15...95 110	110	PN 10, 100 mm, G 1/2"	S55700-P137	RAZ-ST.030FP-J
TR: 15...95 STB: 110...130	110...130	PN 10, 100 mm, G 1/2"	S55700-P138	RAZ-ST.1500P-J
15...95 90...110	90...110	PN 10, 100 mm, G 1/2"	S55700-P139	RAZ-ST.1510P-J

Double protection pocket 2x inner dia.7mm, brass nickel plated.

Strap-on temperature controller, 20...90 °C, fixing spring, setpoint adjuster externally

RAM-TR.2000M

Electromechanical temperature control (TR) with single-pole changeover microswitch:

- Set point externally adjustable
- Controlled medium: water, oil

Data sheet	N1198
Setpoint setting range	20...90 °C
Sensing element	Bimetall
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	0.2...16 A
Digital outputs	1-pin Potential-free Changeover contact
Degree of protection	IP20
Dimensions (W x H x D)	38 x 105 x 42 mm



Stock no.	Product no.
BPZ:RAM-TR.2000M	RAM-TR.2000M

Thermostats

Capillary and clamp-on thermostats

Temperature

RAM-TW.2000M



Strap-on temperature limitation, 20...90 °C, fixing spring, setpoint adjuster internally

Electromechanical temperature limitation (TW) with single-pole changeover microswitch:

- Set point internally adjustable
- Controlled medium: water, oil

Data sheet	N1198
Setpoint setting range	20...90 °C
Sensing element	Bimetall
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	0.2...16 A
Digital outputs	1-pin
	Potential-free
	Changeover contact
Degree of protection	IP20
Dimensions (W x H x D)	38 x 105 x 42 mm

Stock no.

Product no.

BPZ:RAM-TW.2000M

RAM-TW.2000M

Protection pockets for RAK-T and RAK-S

Packaging unit	Protection pocket	Material	PN class	Data sheet	Stock no.	Product no.
1 pc	100 mm, G½" LW7	Brass, nickel-plated	PN 10	N1194	BPZ:ALT-SB100	ALT-SB100
1 pc	150 mm, G½" LW7	Brass, nickel-plated	PN 10	N1194	BPZ:ALT-SB150	ALT-SB150
1 pc	200 mm, G½" LW7	Brass, nickel-plated	PN 10	N1194	BPZ:ALT-SB200	ALT-SB200
1 pc	280 mm, G½" LW7	Brass, nickel-plated	PN 10	N1194	BPZ:ALT-SB280	ALT-SB280
1 pc	100 mm; G½"; 7 mm	Stainless steel V4A	PN 16	N1194	BPZ:ALT-SS100	ALT-SS100
1 pc	150 mm, G½" LW7	Stainless steel V4A	PN 16	N1194	BPZ:ALT-SS150	ALT-SS150
1 pc	280 mm, G½" LW7	Stainless steel V4A	PN 16	N1194	BPZ:ALT-SS280	ALT-SS280
1 pc	450 mm, G½" LW7	Stainless steel V4A	PN 16	N1194	BPZ:ALT-SS450	ALT-SS450
1 pc	100 mm, G½" (with flange) LW7	Stainless steel V4A	PN 40	N1194	BPZ:ALT-SSF100	ALT-SSF100
1 pc	150 mm, G½" (with flange) LW7	Stainless steel V4A	PN 40	N1194	BPZ:ALT-SSF150	ALT-SSF150
1 pc	200 mm, G½" (with flange) LW7	Stainless steel V4A	PN 40	N1194	BPZ:ALT-SSF200	ALT-SSF200
1 pc	280 mm, G½" (with flange) LW7	Stainless steel V4A	PN 40	N1194	BPZ:ALT-SSF280	ALT-SSF280
1 pc	450 mm, G½" (with flange) LW7	Stainless steel V4A	PN 40	N1194	BPZ:ALT-SSF450	ALT-SSF450
1 pc	600 mm, G½" (with flange) LW7	Stainless steel V4A	PN 40	N1194	BPZ:ALT-SSF600	ALT-SSF600

Accessories for RAZ-T.., RAZ-S.. and RAK..

Product Title	Material	PN class	Data sheet	Stock no.	Product no.
Mounting kit for RAK../RAZ..			N1193	BPZ:ALT-C001	ALT-C001
Protection pocket, 100 mm, MS63 nickel-plated, G½", PN10, 2xLW7	Brass, nickel-plated	PN 10	N1194	S55700-P142	ALT-DB100J
Protection pocket, 150 mm, MS63 nickel-plated, G½", PN10, 2xLW7	Brass, nickel-plated	PN 10	N1194	S55700-P143	ALT-DB150J
Protection pocket, 280 mm, MS63 nickel-plated, G½", PN10, 2xLW7	Brass, nickel-plated	PN 10	N1194	S55700-P144	ALT-DB280J
Protection pocket, 450 mm, MS63 nickel-plated, G½", PN10, 2xLW7	Brass, nickel-plated	PN 10	N1194	S55700-P145	ALT-DB450J

Thermostats

Capillary and clamp-on thermostats

Temperature

Accessories for RAZ-T., RAZ-S. and RAK..

Product Title	Material	PN class	Data sheet	Stock no.	Product no.
Protection pocket, 100 mm, stainless steel V4A, G½" LW15	Stainless steel V4A	PN 16	N1194	S55700-P146	ALT-DS100J
Protection pocket, 150 mm, stainless steel V4A, G½" LW15	Stainless steel V4A	PN 16	N1194	S55700-P147	ALT-DS150J
Protection pocket, 280 mm, stainless steel V4A, G½" LW15	Stainless steel V4A	PN 16	N1194	S55700-P148	ALT-DS280J
Protection pocket, 450 mm, stainless steel V4A, G½" LW15	Stainless steel V4A	PN 16	N1194	S55700-P149	ALT-DS450J

Accessories for RAK-T and RAK-S

Product Title	Packaging unit	Material	Data sheet	Stock no.	Product no.
Protection pocket, perforated, 200 mm	1 pc	Steel, galvanized	N1193	BPZ:ALT-AB200	ALT-AB200
Mounting kit for RAK../RAZ..	1 bag		N1193	BPZ:ALT-C001	ALT-C001
Mounting flange, adjustable depth	1 pcs.	PA66GF35	N1193	BPZ:AQM63.0	AQM63.0
3 capillary supports and 3 spacers for QAF.. Mounting			N1821	BPZ:AQM63.2	AQM63.2
Terminal housing	1 box		N1207	S55700-P131	RAK-H-M

Thermostats

Capillary and clamp-on thermostats

Frost protection units

QAF63..J



Frost detector, modulating

- For fitting to the air duct
- Fully active capillary tube sensor
- With capillary tube entry

In addition to direct mounting, the frost sensor can be fitted to the air duct using the AQM63.0 snap-on mounting flange (accessory).

Data sheet	A6V10432020
Operating voltage	AC 24 V
Power consumption	5 VA
Min. active length	250 mm
Measuring range, temperature	0...15 °C
Ambient temperature, operation	-15...60 °C
Connection cable	3-wire
Analog output, signal	DC 0...10 V
Degree of protection	IP42
Dimensions (W x H x D)	96 x 136 x 67 mm

Range overview QAF63..J

Capillary length [mm]	Stock no.	Product no.
2000	S55700-P153	QAF63.2-J
6000	S55700-P154	QAF63.6-J

QAF65.3AR-J



Frost monitor, 2-point, capillary tube 3000 mm, -10...+15 °C

Monitoring of the temperature in ventilation and air conditioning plants to prevent damage from frost. Capillary tube for fitting on air heating coils

Factory setup 5 °C

Data sheet	A6V12051788
Operating voltage	AC 250 V
Setpoint setting range	-10...15 °C
Sensing element, temperature	Liquid expansion sensor
Capillary length	3000 mm
Switching differential	2 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 1-2: 0.1...16 (4)A; Contact 1-4 (STB, Alarm contact): 0.1...16 (4) A
Digital outputs	Switchover contact
Degree of protection	IP65
Dimensions (W x H x D)	53 x 150 x 64 mm
Color	Gray

	Stock no.	Product no.
	S55700-P163	QAF65.3AR-J

Thermostats

Capillary and clamp-on thermostats

Frost protection units

Frost monitor, 2-point, capillary tube 6000 mm, -10...+15 °C

QAF65.6AR-J

Monitoring of the temperature in ventilation and air conditioning plants to prevent damage from frost. Capillary tube for fitting on air heating coils



Factory setup 5 °C

Data sheet	A6V12051788
Operating voltage	AC 250 V
Setpoint setting range	-10... 15 °C
Sensing element, temperature	Liquid expansion sensor
Capillary length	6000 mm
Switching differential	2 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 1-2: 0.1... 16 (4)A; Contact 1-4 (STB, Alarm contact): 0.1... 16 (4) A
Digital outputs	Switchover contact
Degree of protection	IP65
Dimensions (W x H x D)	53 x 150 x 64 mm
Color	Gray

Stock no.

Product no.

S55700-P164

QAF65.6AR-J

Thermostats

Capillary and clamp-on thermostats

Frost protection units

QAF64..J



Frost detector, air side, 2-point

- Modulating and 2-position
- Fully active capillary type sensing element
- Indication of frost with red LED
- Test switch for simulation of frost
- Selector for automatic or manual reset function
- Modulating P-controller for startup
- Limit value contact for plant control

In addition to direct mounting, the frost monitor can be fitted to the air duct using the AQM63.0 snap-on mounting flange (accessory).

Data sheet	A6V10432022
Operating voltage	AC 24 V
Power consumption	6.6 VA
Min. active length	250 mm
Setpoint setting range	1...10 °C
Measuring range, temperature	0...15 °C
Ambient temperature, operation	-15...55 °C
Connection cable	6 (8)-wire
Digital output, switching voltage	DC 5 V / AC 5...250 V
Digital output, switching current	6 (4) A
Analog inputs	Control input
Analog output, signal	DC 0...10 V
Digital outputs	Potential-free Switchover contact
Degree of protection	IP42
Dimensions (W x H x D)	96 x 136 x 67 mm

Range overview QAF64..J

Capillary length [mm]	Stock no.	Product no.
2000	S55700-P155	QAF64.2-J
6000	S55700-P156	QAF64.6-J

QAF65.3M-J



Frost monitor, 2-point, capillary tube 3000 mm, -10...+15 °C

Internal scale, 1 changeover contact, capillary tube for fitting on air heating coils

Factory setup 5 °C

Data sheet	A6V11965899
Operating voltage	AC 250 V
Setpoint setting range	-10...15 °C
Sensing element, temperature	Liquid expansion sensor
Capillary length	3000 mm
Switching differential	2 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 1-2: 0.1...16 (4)A; Contact 1-4 (STB, Alarm contact): 0.1...16 (4) A
Digital outputs	Switchover contact
Degree of protection	IP65
Dimensions (W x H x D)	53 x 150 x 64 mm
Color	Gray

	Stock no.	Product no.
	S55700-P161	QAF65.3M-J

Thermostats
Capillary and clamp-on thermostats
Frost protection units

Accessories for QAF63.. and QAF64..

Product Title	Data sheet	Stock no.	Product no.
Mounting flange, adjustable depth	N1193	BPZ:AQM63.0	AQM63.0
3 capillary supports and 3 spacers for QAF.. Mounting	N1821	BPZ:AQM63.2	AQM63.2

Thermostats

Capillary and clamp-on thermostats

Frost protection units

QAF81..



Frost monitor, 2-point

For temperature supervision on the air side of air heating coils in ventilation and air conditioning plants to provide protection against frost.

Data sheet	N1284
Setpoint setting range	-5...+15 °C
Min. active length	300 mm
Switching differential	2 K
Digital output, switching voltage	AC 250 V
Digital output, switching current	10 (2) A
Mounting position	Any
Digital outputs	1-pin Potential-free Switchover contact
Degree of protection	IP54
Dimensions (W x H x D)	106 x 113 x 37 mm

Range overview QAF81.

Capillary length [mm]	Stock no.	Product no.
3000	BPZ:QAF81.3	QAF81.3
6000	BPZ:QAF81.6	QAF81.6
6000	BPZ:QAF81.6M	QAF81.6M

QAF65.6M-J



Frost monitor, 2-point, capillary tube 6000 mm, -10...+15 °C

Internal scale, 1 changeover contact, capillary tube for fitting on air heating coils

Factory setup 5 °C

Data sheet	A6V11965899
Operating voltage	AC 250 V
Setpoint setting range	-10...15 °C
Sensing element, temperature	Liquid expansion sensor
Capillary length	6000 mm
Switching differential	2 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 1-2: 0.1...16 (4)A; Contact 1-4 (STB, Alarm contact): 0.1...16 (4) A
Digital outputs	Switchover contact
Degree of protection	IP65
Dimensions (W x H x D)	53 x 150 x 64 mm
Color	Gray

	Stock no.	Product no.
	S55700-P162	QAF65.6M-J

Accessories for QAF81..

Product Title	Data sheet	Stock no.	Product no.
Set of 6 capillary supports	N1284	BPZ:FK-TZ1	FK-TZ1
6 Capillary tube clamps for QAF../QAM.. mounting	N1284	BPZ:AQM63.3	AQM63.3

Thermostats

Capillary and clamp-on thermostats

Frost protection units

Frost protection monitor

RAK-TW.5..H

Internal scale, 1 changeover contact, immersion and strap-on thermostat in one.

Perforated protection pocket must be ordered as a separate item: ALT-AB200

Data sheet	N1203
Switching differential	5 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact 1-2: 0.1...16 (2.5) A Contact 1-3: 0.1...6 (2.5) A
Digital outputs	1-pin Potential-free Switching contact
Degree of protection	IP43
Dimensions (W x H x D)	55 x 156 x 64 mm



Range overview RAK-TW.5..H

Setpoint setting range [°C]	Capillary length [mm]	Stock no.	Product no.
5...65	1600	S55700-P121	RAK-TW.5000S-H
-10...50	1600	S55700-P122	RAK-TW.5010S-H

Frost protection monitor

RAK-TW.5..H..

Immersion, strap-on and remote thermostat in one

Perforated protection pocket must be ordered as a separate item: ALT-AB200

Data sheet	N1203
Switching differential	5 K
Digital output, switching voltage	AC 24...250 V
Digital output, switching current	Contact connection 1-2: 0.1...16 (2.5) A Contact connection 1-3: 0.1...6 (2.5) A
Digital outputs	1-pole Potential-free Changeover contact
Degree of protection	IP65
Dimensions (W x H x D)	55 x 156 x 64 mm



Range overview RAK-TW.5..H..

Setpoint setting range [°C]	Capillary length [mm]	Stock no.	Product no.
5...65	1600	S55700-P120	RAK-TW.5000HS

Accessories for RAK-TW.5.. and RAK-TW.5..H..

Product Title	Data sheet	Stock no.	Product no.
Protection pocket, perforated, 200 mm	N1193	BPZ:ALT-AB200	ALT-AB200

Thermostats

Capillary and clamp-on thermostats

Coiled probe thermostats

TRG2



Room thermostat with helix sensor, TR -5..50 °C

For commercial and industrial applications.

Data sheet	N1329
Operating voltage	AC 250 V
Setpoint setting range	-5...50 °C
Connection cable	2-wire
Switching differential	0.7...6 K; adjustable
Digital output, switching voltage	250 V
Digital output, switching current	0.2...10 (2)A
Digital outputs	CO: 1
	Potential-free
Relay outputs	Change-over contact
Relay outputs, number	1
Mounting position	Horizontal
Degree of protection	IP54
Dimensions (W x H x D)	98 x 95 x 63 mm
Color	Gray

Stock no.

Product no.

BPZ:TRG2

TRG2

TRG22



Room thermostat with helix sensor, TR -5..50 °C, 2 switches on 2 steps 2..12 K difference

For commercial and industrial applications.

Note on switching interval:

Adjustable temperature difference between step 1 and step 2.

Data sheet	N1329
Operating voltage	AC 250 V
Setpoint setting range	-5...50 °C
Switching differential	2 K
Switching interval	2...12 K
Digital outputs	CO: 2
	Potential-free
Relay outputs	Change-over contact
Mounting position	Horizontal
Degree of protection	IP54
Color	Gray
Dimensions (W x H x D)	98 x 135 x 67 mm

Stock no.

Product no.

BPZ:TRG22

TRG22

**Published by
Siemens Switzerland Ltd**

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**For the U.S. published by
Siemens Industry Inc.**

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