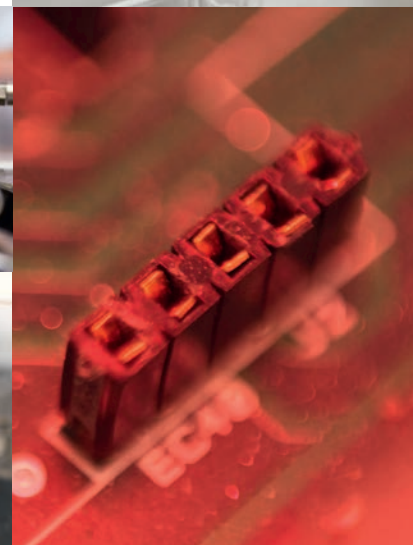
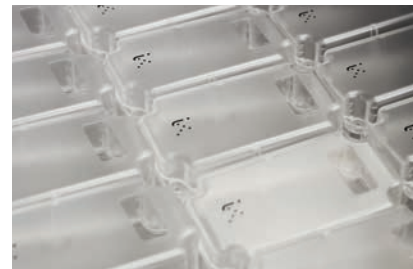


1 Thermostats and controllers



EVOLUTION TH, PRE-CONFIGURED CONTROLLER WITH DISPLAY, CLOCK AND COMMUNICATION

Controllers of the Evolution series are available in a wide range of functions for controlling heating, cooling and air-conditioning installations. The room controller Evolution TH is well-suited for thermoregulation applications.

Thanks to a large number of I/Os the unit is fit for control of 3-speed or EC fans in 2-pipe, 2-pipe + electric heater, 4-pipe, 4-pipe + electric heater systems. The outputs for valves can be on/off or modulating type. The large backlit display allows user to easily see temperatures, humidity, parameter settings, time bands and the state of the unit. The device is equipped with rapid access keys for the most common functions (fan speed control, season change, on/off etc.). The unit also features an RS485 line with Modbus slave RTU protocol or BACnet MS/TP for external communication and can be built-in wall mounted with a 3-module box. Depending on the model, controllers can have a communication feature, a clock, an on/off or proportional control, humidity sensor and a CO₂ sensor input.



TH



Technical data	
Supply voltage	110...230 V AC ± 10%, 50...60 Hz
Inputs	2 digital contacts free of potential / 2 or 3 NTC10-02 sensors / USB port for parameters setting and software update
Outputs	3 analogue outputs 0...10 V (R _i > 10 kOhm) according to model / 5 relays SPST 230 V AC, 3A (AC1) according to model
Power consumption	Max. 1.3 W
Temperature range	0...50 °C
Storage temperature	-20...+70 °C
Display	LCD with backlight
Communication	Modbus RTU (slave) or BACnet MS/TP
Range of temperature reading	-15...+90 °C
Mounting	3 modules built-in box
Casing	PC + ABS - White effect RAL 9003
Weight	Max. 230 g
Dimensions	128 x 80 x 55.5 mm
Protection class	IP30
Isolation class	II
Certification	EN 60730-1/A16:2007, EN 61000-6-1:2007, EN 61000-6-3:2007 and EN 60730-2-9:2003. RoHS: This Product complies with the EU directive 2011/65/EU of the European Parliament

PRODUCT SELECTION

TH-	X	X	X	S	X	1
Version:						
1 digital output + 3 analogue outputs + 3 analogue inputs	0					
2 digital output + 2 analogue outputs + 3 analogue inputs	1					
3 digital output + 1 analogue outputs + 3 analogue inputs	2					
3 digital output + 2 analogue outputs + 2 analogue inputs	3					
5 digital output + 0 analogue outputs + 3 analogue inputs	4					
Communication:						
Without communication				S		
Modbus				M		
Bacnet				B		
Clock:						
Without clock					S	
With clock					C	
Internal sensor:						
Temperature						T
Temperature + humidity						H
Connector:						
Plug-in connectors						1

EVOLUTION SPLIT MASTER UNIT, ROOM CONTROLLER FOR CONTROLLING MULTIPLE FAN COILS VIA SLAVE UNITS

Evolution Split series equipment enables the control of up to 14 fan coils connected to one master unit. The THS2-0MM is a configurable master / slave unit that when configured as master can be connected to other THS2-0MM units configured as slaves. THS2-0MM is equipped with a second Modbus communication port where it can be connected to a Scada system or to the optional THS2 display unit.

The THS2 display can be configured as master unit and connected to a THS2-0MM unit, it allows you to manage all the parameters and view the status of the internal network. With the THS2-0MM unit configured as a slave, it allows the control of only some operating parameters: on / off, setpoint and fan coil speed.

Evolution Split THS2-0MM can manage 3-speed fan coils or fans with EC motor, on / off valves, modulating valves or 3-point valves.



THS2



THS2-0MM

Technical data, unit THS2

Supply voltage	5 V DC Supplied by THS-0MM slave
Ambient temperature	0...50 °C
Display	LCD with backlight
Inputs	2 potential free contacts / USB port for parameters setting and software update
Communication	internal network
Dimensions (WxHxD mm)	128 x 80 x 28.5
Mounting	wall mounting
Protection class	IP30
Isolation class	II
Certification	EN 60730-1

Technical data, unit THS2-0MM

Supply voltage	110...240 V AC, 50/60 Hz
Power consumption	Max, 1,1 W (3,5 VA) slave THS-0MM (with power supply for master unit)
Ambient temperature	0...40 °C
Inputs	2 potential free contacts / 2 NTC10K sensors / USB port for parameters setting and software update
Outputs	3 analogue outputs 0...10 V ($R_L > 10\text{ K}$) / 5 relays SPST 250 V AC, 3A (AC1) / 1 relay SPST 250 V AC, 10 A (AC1)
Communication	Modbus RTU (Slave) to BMS and internal network
Dimensions (WxHxD mm)	140 x 121.5 x 47
Mounting	on board fan coil
Protection class	IP30
Isolation class	II
Certification	EN 60730-1



Article	Communication	Internal sensor	AI	DI	AO	DO	Clock
THS2	External network, Modbus RTU (master) Modbus	Temperature + humidity	-	2	-	-	X
THS2-0MM	Internal network and RTU Modbus (slave) to BMS	-	2	2	3	6	-

1

EVOLUTION AHU, ROOM CONTROLLER FOR AIR HANDLING UNITS

Room controller for air handling units, equipped with rapid access buttons for the most common functions. The wide availability of inputs and outputs makes it ideal for various types of systems: supply air temperature control, the supply air temperature control with outside temperature compensation, shooting or ambient air temperature control with supply limitations, monitoring of ambient air temperature using cascade control (control with flow sensor), monitoring air quality, de-humidification, free cooling, free heating, heat recovery. The outputs can be on / off or modulating. The large backlit display is easily readable and allows to read the measured values of humidity and temperature, control parameters, time slots of operation and the status of the device. It has also a RS485 communication line with Modbus RTU slave protocol, designed for installation on the wall of the box 3 modules. Depending on the model, the regulators may have a communication function, clock, on / off or proportional control, humidity sensor and a CO₂ sensor input.



AHU



Technical data	
Supply voltage	110...230 V AC ± 10%, 50...60 Hz
Inputs	2 potential free contacts / 2 or 3 NTC10-02 sensors / USB port for parameters setting and software update
Outputs	3 analogue outputs 0...10 V (R _L > 10 kOhm) according to model / 5 relays SPST 230 V AC, 3A (AC1) according to model
Power consumption	Max. 1.3 W
Storage temperature	-20...+70 °C
Temperature range	0...50 °C
Ambient humidity	10...90 % RH (non-condensing)
Display	LCD with backlight
Communication	Modbus RTU (slave)
Range of temperature reading	-15...+90 °C
Mounting	3 modules built-in box
Casing	PC + ABS - White effect RAL 9003
Weight	Max. 230 g
Dimensions	128 x 80 x 55.5 mm
Protection class	IP30
Isolation class	II
Certification	EN 60730-1/A16:2007, EN 61000-6-1:2007, EN 61000-6-3:2007 and EN 60730-2-9:2003. RoHS: This Product complies with the EU directive 2011/65/EU of the European Parliament

PRODUCT SELECTION

AHU	X	X	X	S	X	1
Version:						
1 digital output + 3 analog outputs + 3 analog inputs						0
2 digital outputs + 2 analog outputs + 3 analog inputs						1
3 digital outputs + 1 analog output + 3 analog inputs						2
3 digital outputs + 2 analog outputs + 2 analog inputs						3
5 digital outputs + 0 analog output + 3 analog inputs						4
Communication:						
Without communication				S		
Modbus				M		
Clock:						
Without clock				S		
With clock				C		
Internal sensor:						
Temperature						T
Temperature + humidity						H
Connector:						
Plug-in connectors						

EVOLUTION FH, ROOM CONTROLLER FOR RADIANT PANEL APPLICATIONS

Room regulator for regulation and control applications of radiant panel systems. The available functions, including flow temperature control, dew point control, the presence of the relative humidity sensor on board, the management of dehumidification, possibility of using independent time slots by area and much more, make the FH series regulators the optimal choice for the management of heating and cooling systems with radiant panels. The controllers have a Modbus communication port for control in master / slave systems or for interfacing with supervisory systems. The configuration of the products can be done via Modbus port or through a USB port, using the special Evolution Tool configuration software.



FH



1

Technical data

Supply voltage	110...230 V AC ± 10%, 50...60 Hz
Power consumption	Max. 1.3 W
Temperature range	0...50 °C
Inputs	2 potential free contacts / 2 or 3 NTC10K sensors / USB port for parameters setting and software update
Outputs	1 analogue outputs 0...10 V ($R_L > 10 \text{ k}\Omega$) according to model / 3 or 5 relays SPST 250 V AC, 3A (AC1) according to model
Communication	Modbus RTU (master or slave)
Range of temperature reading	-15...+90 °C
Ambient humidity	10...90 % RH (non-condensing)
Dimensions	128 x 80 x 55.5 mm
Mounting	3 modules built-in box
Storage temperature	-20...+70 °C
Casing	PC + ABS - White effect RAL 9003
Weight	Max. 230 g
Protection class	IP30
Isolation class	II
Certification	EN 60730-1, EN 61000-6-1, EN 61000-6-3

PRODUCT SELECTION

Room controller:

FH

X M X S H 1

Model:

3 digital outputs + 1 analogue output + 3 analogue inputs

2

5 digital outputs + 0 analogue outputs + 3 analogue inputs

4

Communication:

Modbus

M

Clock:

Without clock

S

With clock

C

Internal sensor:

Temperature + humidity

H

ROOM TEMPERATURE, HUMIDITY, CO₂ AND UNIVERSAL CONTROLLER 110...240 V AC

Stand-alone room controller for temperature, humidity, CO₂ and universal.



PC-H, PC-U



PC-T, PC-TC

Technical data	
Supply voltage	110...240 V AC, 50...60 Hz
Input	1 analogue input 0...10 V (only for model PC-U)
Output	1 analogue output 0...10 V ($R_L > 10 \text{ kOhm}$)
Ambient temperature	0...50 °C
Ambient humidity	10...90 % RH (non-condensing)
Working range, temperature	0...50 °C
Working range, humidity	0...100 % RH
Working range, CO ₂	0...2000 ppm
Protection class	IP30 class II
Dimensions	PC-H, PC-U: 85 x 100 x 30.5 mm PC-T, PC-TC: 88 x 100 x 30.5 mm

Article	Description	Power consumption
PC-H	Room humidity controller	Max. 0.46 W
PC-T	Room temperature controller	Max. 0.46 W
PC-TC	Room temperature and CO ₂ controller	Max. 1.25 W
PC-U	Universal room controller	Max. 0.46 W

ROOM TEMPERATURE CONTROLLER FOR 0...10 V DC OR 3-POINT ACTUATORS

This room controller is primarily intended for control of heating or cooling in zone control systems. It has an input for a presence detector (occupancy control). The controller also has an input for change-over, which makes it possible for the control function to switch between heating and cooling.



CA1

Technical data	
Supply voltage	24 V AC, $\pm 15\%$ 50...60 Hz, 2 VA
Output	0...10 V DC, 1 mA or 3-point, 24 V AC, 1 A
Inputs	Two digital and one NTC sensor
Setpoint	0...40 °C
P-band	0.5...50 K
Dimensions	102 x 120 x 29 mm
Protection class	IP20

Article	Description
CA1	Room temperature controller

ELECTRONIC ROOM THERMOSTAT, 1-STAGE

Electronic thermostats intended for heating or cooling with built-in sensor and input for an external sensor.



TAE1 TAE2


1

Technical data


Supply voltage	230 V AC ±15 %, 1 VA
Outputs	16 A, 230 V AC, change-over relay
Ambient temperature	0...50 °C
Sensor inputs	NTC sensor
Mounting	Wall
Dimensions	86 x 86 x 30 mm
Protection class	IP30

Article	Temperature range	Hysteresis
TAE1	0...30 °C	1 K
TAE2	20...50 °C	1...10 K

DB-TA ROOM CONTROLLERS WITHOUT DISPLAY

RANGE +5...+30°C DB-TA-		PIPE	OUTPUTS		SWITCHES			REMOTE S/W	REMOTE SENSOR	POWER SUPPLY
			RELAY	0... 10 VCC	ON/OFF	3-SPEED	S/W			
323-	435	2	•		s	•		•	A	24/230 V AC
335-	993	2/4		•/••			•/zn		B	24 V AC
343-	139	4	••		•	•	zn		B	24/230 V AC
345-	139	4		••	•	•	zn		B	24 V AC
	199	4		••	•		zn			
	999	4		••			zn			
363-	436	2	•		s	•	auto		A	230 V AC
383-	433	2/4	•		s	•	•		A	24/230 V AC
385-	433	2/4	•		•	•	•		A	230 V AC
387-	866	2	••••			m/a	auto		A	230 V AC

INDEX FOR MODELS DB-TA-3:

- zn** dead zone
- s** continuous fan/thermostatic fan/off switch
- auto** s/w change over with water sensor
-  on/off/electric heater switch
min speed/automatic speed switch
- m/a** min speed/automatic speed switch
- A** sensor NT0220-NTC10-02
- B** sensor NT0220-NTC100

ROOM THERMOSTATS FOR 2 PIPE SYSTEM



DB-TA-323-435

Technical data	
Supply voltage	24/230 V AC \pm 10 %, 50/60 Hz (selectable by jumper)
Load	Max. 6 A
Output	1 SPDT relay 6 A 24/230 V AC
Power consumption	1 W
Sensor	Thermoresistor NTC 100K (for DB-TA-323-435 -> NTC 10K)
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C (mechanical limitation of the setpoint adjustment)
Hysteresis	0.5 K
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	210 g
Dimensions	144 x 82 x 27 mm
Protection class	IP30
Isolation class	II

Article	On/off button	3 speeds	Change-over function, season	Sensor
DB-TA-323-435	X	X	Remote	NTA020-027P optional with 2 m cable, selectable by jumper



For DB-TA-323-435 switch off/fan based on temp./continuous fan.

ROOM CONTROLLERS FOR 2 OR 4 PIPE SYSTEM, 0...10 V OUTPUT



DB-TA-335-933

Technical data	
Supply voltage	24 V AC \pm 10 %, 50/60 Hz
Load	Max. 6 A (speeds)
Output	Proportional 0...10 V DC ($R_L > 10$ kOhm)
Power consumption	1 W
Sensor	NTC 100K
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C (mechanical limitation of the setpoint adjustment)
Hysteresis	0.5 K
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
P-band	1...5 K
Neutral zone	1...4 K
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	210 g
Dimensions	144 x 82 x 34 mm mm
Protection class	IP30
Isolation class	II

Article	3 speeds	Change-over function, season	Sensor
DB-TA-335-933	-	Local S/W (4-pipe) neutral zone	NT0220-NTC100 optional with 2 m cable, selectable by jumper

ROOM CONTROLLERS FOR 4 PIPE SYSTEM



DB-TA-343-139

Technical data	
Supply voltage	24/230 V AC ± 10%, 50/60 Hz (selectable by jumper)
Load	Max. 6 A (resistivi)
Outputs	2 SPDT relays 6 A 24/230 V AC
Power consumption	1 W
Sensor	NTC 100K
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	+5...+30 °C mechanical limitation of the setpoint adjustment
Hysteresis	0.5 K
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Neutral zone	1...4 K
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	210 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30 class II
Isolation class	II

Article	On/off button	3 speeds	Change-over function, season	Sensor
DB-TA-343-139	X	X	Local S/W (neutral zone)	NT0220-NTC100 optional with 2 m cable, selectable by jumper

ROOM CONTROLLERS FOR 4 PIPE SYSTEM, 0...10 V OUTPUTS



DB-TA-345-139

Technical data	
Supply voltage	24 V AC ± 10%, 50/60 Hz
Load	Max. 6 A (speed)
Outputs	2 proportional 0...10 V DC ($R_L > 10 \text{ k}\Omega$)
Power consumption	1 W
Sensor	NTC 100K
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C mechanical limitation of the setpoint adjustment
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
P-band	1...5 K
Neutral zone	1...4 K
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	210 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30 class II
Isolation class	II

Article	On/off button	3 speeds	Change-over function, season	Sensor
DB-TA-345-139	X	X	Local S/W (neutral zone)	NT0220-NTC100 optional with 2 m cable, selectable by jumper
DB-TA-345-199	X	-	Local S/W (neutral zone)	NT0220-NTC100 optional with 2 m cable, selectable by jumper
DB-TA-345-999	-	-	Local S/W (neutral zone)	NT0220-NTC100 optional with 2 m cable, selectable by jumper



DB-TA-345-199

ROOM THERMOSTATS FOR 2 PIPE SYSTEM WITH AUTOMATIC SEASON CHANGEOVER



DB-TA-363-436

Technical data	
Supply voltage	230 V AC \pm 10%, 50/60 Hz
Load	Max. 6 A (resistivi)
Output	1 relay 6 A 230 V AC
Power consumption	1 W
Sensor	NTC 10K air sensor and water sensor
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C (mechanical limitation of the setpoint adjustment)
Hysteresis	< 0.5 K
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	210 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30 class II
Isolation class	II

Article	Manual selection of thermostatic fan/continuous fan/Off	3 speeds	Change-over function, season	Sensor
DB-TA-363-436	X	X	Local S/W auto (season changeover selection, S/W, by water sensor)	NT0220-NTC10-02 optional with 2 m cable, selectable by jumper



Note: The thermostats are supplied with water sensor model NTA020-027P

ROOM THERMOSTATS FOR 2 OR 4 PIPE SYSTEM



DB-TA-383-433

Technical data	
Supply voltage	24/230 V AC \pm 10%, 50/60 Hz (selectable by jumper)
Load	Max. 6 A
Output	1 relay SPDT 6 A 230 V AC
Power consumption	1 W
Sensor	NTC 10K
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C (mechanical limitation of the setpoint adjustment)
Hysteresis	0.5 K
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	210 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30 class II
Isolation class	II

Article	Manual selection of thermostatic fan/continuous fan/Off	3 speeds	Change-over function, season	Sensor
DB-TA-383-433	X	X	Local S/W	NTA020-027P optional with 2 m cable, selectable by jumper

ROOM CONTROLLER FOR 2 OR 4 PIPE SYSTEM, ON-OFF



DB-TA-385-433

Supply voltage	230 V AC \pm 10%, 50/60 Hz
Outputs	Valves: Triac 0.5 A, 230 V AC / Fan: 0...10V V DC (RL > 10 kOhm)
Power consumption	1 W
Sensor	NTC 10K
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	210 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30
Isolation class	II

Article	Manual selection of thermostatic fan/continuous fan/off	3 speeds	Change-over function, season	Sensor
DB-TA-385-433	x	x	Local S/W	NT0220-NTC10-02 optional with 2 m cable, selectable by jumper

ROOM CONTROLLERS FOR 2 OR 4 PIPE SYSTEM WITH AUTOMATIC MOTOR SPEED AND SEASON CHANGEOVER



DB-TA-387-866

Technical data	
Supply voltage	230 V AC \pm 10%, 50/60 Hz
Load	Max. 6 A for motor output, valves or electric heater relay
Outputs	8 relays 6 A 230 V AC
Power consumption	1 W
Sensor	NTC 10K air sensor and water sensor
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	Summer: +24 \pm 5 °C / winter: +20 \pm 5 °C (mechanical limitation of the setpoint adjustment)
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Hysteresis	0.5 K
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	210 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30 class II
Isolation class	II

Article	Tubes	On/off/electric heating button	Auto/silence	Change-over function, season	3 speeds	Sensor
DB-TA-387-866		X	X	W/S (working season, W/S, selection by water sensor)	Auto	NTA020-027P optional with 2 m cable, selectable by jumper



Note: The controllers are supplied with water sensor model NTA020-027P.

DB-TA ROOM CONTROLLERS WITH DISPLAY

RANGE +5...+30°C DB-TA-	PIPE	OUTPUTS			SWITCHES			REMOTE S/W	ECONOMY	REMOTE SENSOR	POWER SUPPLY
		RELAY	0...10 VCC	ON/OFF	3-SPEED	S/W					
33A-	10A	2/4		q	•		par	•	v	A	24 V AC
	13A	2/4		q	•	•	par	•	v		
393-	435	2/4	•		s	•	•			A	230 V AC
3A5-	000	4		••			zn		v	-	24 V AC
3C3-	13A	2	••		•	•	par		v	A	230 V AC
	19A	2	••		•		par		v		
	99A	2	••				par		v		

INDEX FOR MODELS DB-TA-3:

- zn** dead zone
- q** proportional-integral action
- s** continuous fan/thermostatic fan/off switch
- par** setting by keys and display
- A** sensor NTO220-NTC10-02
- v** ECONOMY version: replace last number of code with "A"

ROOM CONTROLLERS FOR 2 AND 4 PIPE SYSTEM WITH ECONOMY FUNCTION, WITH 0...10 V OUTPUT(S)

Proportional integral temperature control in heating, ventilation, refrigeration and air conditioning for typically 2- and 4-pipe fan-coil systems with proportional valves.



DB-TA-33A-10A

Technical data	
Supply voltage	24 V AC ± 10%, 50/60 Hz
Inputs	External contact for economy / external contact or water sensor (NTA020-027P optional) for remote season changeover function (2-pipe)
Outputs	Valves: 1 or 2 0-10 V outputs ($R_L > 10 \text{ k}\Omega$) / speeds: 6 A 24/230 V AC, 50/60 Hz
Power consumption	1 W
Sensor	NTC 10K
Ambient temperature	0...45 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	6...45 °C
Storage temperature	-20...+60 °C
Storage humidity	< 95 % RH
Economy	2 pipes: adjustable range between 6...45 °C (replaced the working setpoint) / 4 pipes: adjustable range between 0...5 °C
P-band	1...30 K
I-time	1...30 minutes
Temperature resolution	0.1 °C
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	220 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30
Isolation class	II

Article	On/off button	3 speeds	Change-over function, season	Sensor
DB-TA-33A-10A	X	-	S / W setting by keys and display	NTO220-NTC10-02 optional with 2 m cable, selectable by jumper



Note: optional water sensor model NTA020-027P.

ROOM THERMOSTATS FOR 2 OR 4 PIPE SYSTEM

Technical data	
Supply voltage	230 V AC ± 10%, 50/60 Hz
Load	Max. 6 A
Inputs	External contact or water sensor for remote season changeover function (DB-TA-393-436)
Outputs	1 relay SPDT 6 A 230 V AC
Power consumption	1 W
Sensor	NTC 10K
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C adjustment by step of 0.5 °C
Hysteresis	0.5 K
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	220 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30
Isolation class	II



DB-TA-393-435



DB-TA-393-436

1

Article	Manual selection of thermostatic fan/continuous fan/Off	3 speeds	Change-over function, season	Sensor
DB-TA-393-435	X	X	S / W	NTA020-027P optional with 2 m cable, selectable by jumper
DB-TA-393-436	X	X		NTA020-027P optional with 2 m cable, selectable by jumper



Note: optional water sensor model NTA020-027P.

ROOM CONTROLLERS FOR 4 PIPE SYSTEM, TWO 0-10 V OUTPUTS

Technical data	
Supply voltage	24 V AC ± 10%, 50/60 Hz
Outputs	Valves: 2 0-10 V outputs ($R_L > 10 \text{ k}\Omega$) / speeds: 6 A 24/230 V AC, 50/60 Hz
Power consumption	1 W
Sensor	NTC 10K
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
P-band	1...5 K
Neutral zone	1...4 K
Temperature resolution	0.1 °C
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	220 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30
Isolation class	II



DB-TA-3A5-000

Article	On/off button	3 speeds	Change-over function, season
DB-TA-3A5-000	-	-	Neutral zone

ROOM THERMOSTATS 2 STAGES WITH ECONOMY FUNCTION

Temperature control in heating, refrigeration and air conditioning for typical fan-coil systems with 2 stages.



DB-TA-3C3-13A



DB-TA-3C3-19A



DB-TA-3C3-99A

Technical data

Supply voltage	230 V AC \pm 10%, 50/60 Hz
Input	External contact for economy function
Outputs	Valves: 2 relay SPDT 6 A 230 V AC / speeds: 6 A 24/230 V AC, 50/60 Hz
Power consumption	1 W
Sensor	NTC 10K
Ambient temperature	0...40 °C
Ambient humidity	10...90 % RH (non-condensing)
Setpoint	5...30 °C
Step differential	0.5...4 K
Hysteresis	0.5...4 K
Storage temperature	-20...+70 °C
Storage humidity	< 95 % RH
Economy	Adjustable range between 0...5 °C
Temperature resolution	0.1 °C
Casing	ABS fireproof according to UL94 V-0 color (RAL 9010)
Weight	220 g
Dimensions	144 x 82 x 34 mm
Protection class	IP30 class II
Isolation class	II

Article	On/off button	3 speeds	Hysteresis	Sensor
DB-TA-3C3-13A	X	X	0.5...4 K	NTA020-027P optional with 2 m cable, selectable by jumper
DB-TA-3C3-19A	X	-	0.5...4 K	NTA020-027P optional with 2 m cable, selectable by jumper
DB-TA-3C3-99A	-	-	0.5...4 K	NTA020-027P optional with 2 m cable, selectable by jumper