

TEMPERATURE AND HUMIDITY CONTROLLER FOR AIR-HANDLING UNIT WITH TWO BATTERIES

RTU 644

APPLICATION

Designed for control of room temperature and humidity and/or discharge air in air handling units consisting of:

- 1 or 2 heating and/or cooling batteries.
- 1 humidification unit, modulating or On-Off.
- 1 air mixing unit or one heat recoverer.

Essential detectors : 1 room or air duct temperature detector.

Optional accessories : 1 flow temperature detector, 1 preheating temperature detector, 1 outside temperature detector, 1 room or air duct humidity detector, 1 outside humidity detector, 1 glass window dew point detector, 1 temperature setpoint adjuster, 1 humidity setpoint adjuster.



FEATURES

- Power supply: 24 V~; Consumption: 5 VA; DIN 105 x 115 modular case; Protection: IP 40.
- Digital programming by means of four operating keys and alphanumeric display.
- Three 3-wire modulating outputs or On-Off in two stages (two equal loads) or in three stages (two unequal loads) which can be configured for:
 - control of room temperature in relation to desired heating and cooling values with option of summer outside compensation, minimum and maximum flow limits so as to avoid cold air currents and the stratification of hot air and condensing in the air ducts.
 - control of discharge air temperature in relation to desired heating and cooling values with optional winter and summer compensation.
 - control of pre-heating temperature at variable value in relation to room temperature and humidity.
 - control of room relative humidity in relation to humidification and dehumidification values requested.
- 1 progressive 0...10 V - output which can be configured for:
 - control of air mixing in relation to room outside temperature (free cooling) or to enthalpic comparison.
 - control of outside air for control of room dehumidification with compensation for dew point glass windows.
 - control of heat recoverer in relation to room-outside temperature.
- Manual or automatic season switching of controller functions and of On-Off 3-wire season switch.
- Variation of temperature and humidity setting points by means of remote control.
- Alarms for controller fault and for short or open detector circuits.

Code	Description	Data sheet
RTU 644	Temperature and humidity controller for air-handling unit with two batteries	E 132

DETECTORS AND ACCESSORIES FOR RTU 644

Code	Description	Application range	Sensing element	Data sheet
STA 010	Air duct temperature detector (extract, discharge, dew point).	0...60 °C	NTC 10 kΩ	N 150
SAB 010	Room temperature detector.	0...40 °C	NTC 10 kΩ	N 111
STA 001	Air duct temperature detector (outside air).	-30...40 °C	NTC 1 kΩ	N 150
SAE 001	Outside temperature detector.	-30...40 °C	NTC 1 kΩ	N 120
STV 010	Window glass dew point detector.	0...40 °C	NTC 10 kΩ	N 160
SUR 012	Air duct relative humidity detector.	20...80 %	0...10 V-	-
SUR 051	Air duct relative humidity detector (for swimming pool).	10...90 %	0...10 V-	-
SAU 012	Room humidity and temperature detector.	20...80 %	0...10 V-	N 225
CDB 100	Temperature setpoint adjuster.	-5...+5 °C	-	-
CDB 200	Humidity setpoint adjuster.	-10...+10 %	-	-