

KONVEKTA

Thermo Systems

Installation- and Operating manual for control KS20

Heating/Ventilation



KS20.01 12 Volt – Item no.: H11-004-445

KS20.01 24 Volt - Item no.: H11-004-482

Cooling/Heating/Ventilation



KS20.02 12 Volt Item no.: H11-004-446

KS20.02 24 Volt Item no.: H11-004-484

Only for KONVEKTA installation- and maintenance staff!

ID#: H110044452AA
Version: A01

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Appendix:

- Generally wiring diagram no: BK1-080-013
- Drawing control KS20.01 : H11-004-445
- Drawing control KS20.01 : H11-004-446
- Drawing control KS20.01 24V : H11-004-482
- Drawing control KS20.02 24V : H11-004-484

1. Overview of revisions

Version	Date	Name	remarks	file
A00	19.12.06	Pfluger	source file	110044452AA
A01	07.05.07	Pfluger	Added 24 Volt Versions	110044452AA

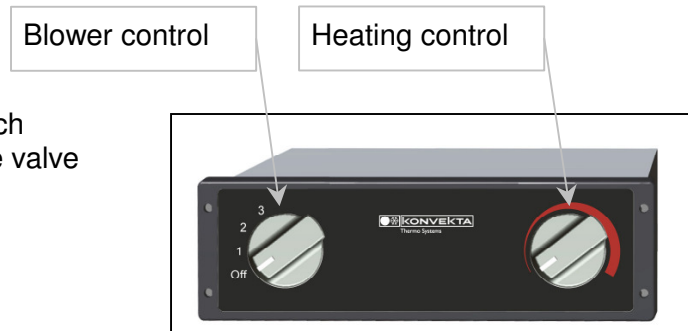
2. General description

The control unit is in radio size (DIN) the body is made of plastic
 A plug connection (12polar) for the connection cables is situated on the rear side
 For the demounting of the unit two conventional release clips are needed.

KS20 Hardware

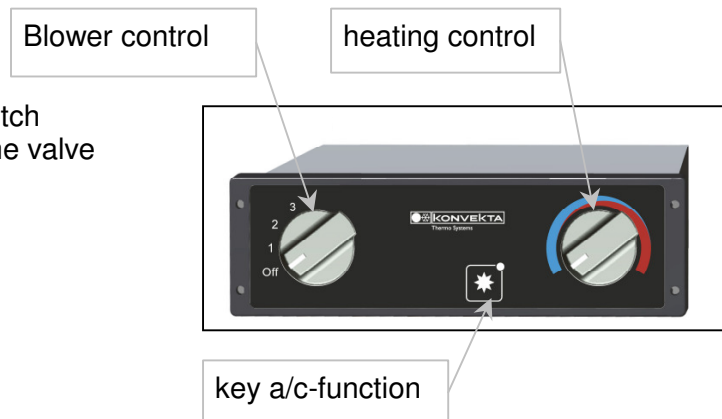
KS20.01

- Blower control via 3-step switch
- Heating control via cycle time valve without a/c-function

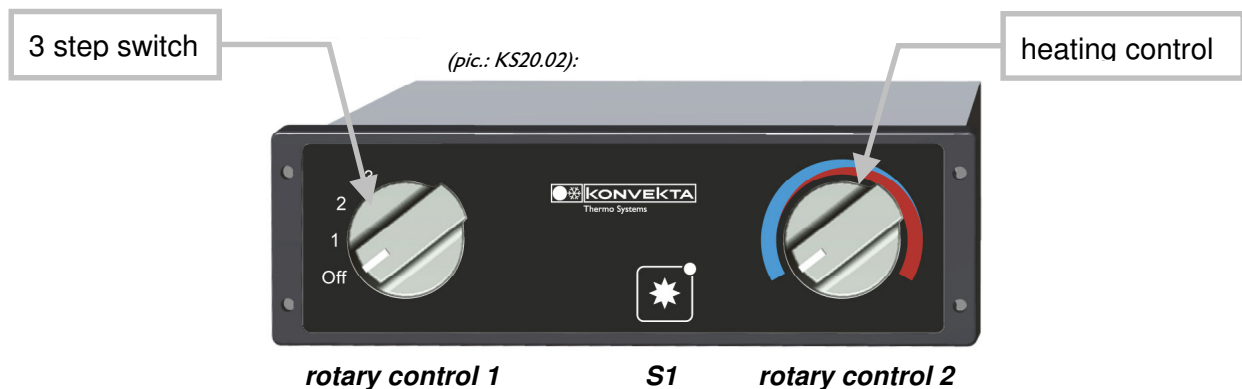


KS20.02

- Blower control via 3-step switch
- Heating control via cycle time valve
- Manual a/c-function via key



3. Description of operating elements



Key S1

- switch ON compressor manual (LED illuminates) ---only at KS20.02---

rotary control 1

- 3 step switch for evaporator blower

position	OFF	–	OFF
position	1	–	blower capacity - minimum
position	2	–	blower capacity - medium
position	3	–	blower capacity - maximum

rotary control 2

- adjustment of heating capacity

4. Function description

4.1. Operation KS20.01

After stress connection the unit is in operability.

After activation of the ignition (X1/2) and release of the three-stage rotary switch (X1/4) the heating control is activated. According to the position of the rotary knob the magnetic valve is actuated in a time code of 45 seconds.

With the rotary switch 1 the fan can be shifted in three stages.

Is the rotary switch at stage “OFF” the heater is automatically deactivated.

4.2. Operation KS20.02

After stress connection the unit is in operability.

After activation of the ignition (X1/2) and release of the three-stage rotary switch (at minimum stage 1) (X1/4) the heating control is activated and the compressor can be activated manually by the button S1.

According to the position of the rotary knob the magnetic valve is actuated in a time code of 45 seconds.

With the rotary switch 1 the fan can be shifted in three stages.

Is the rotary switch at stage “OFF” the heater is automatically activated and the air-conditioning compressor is deactivated.

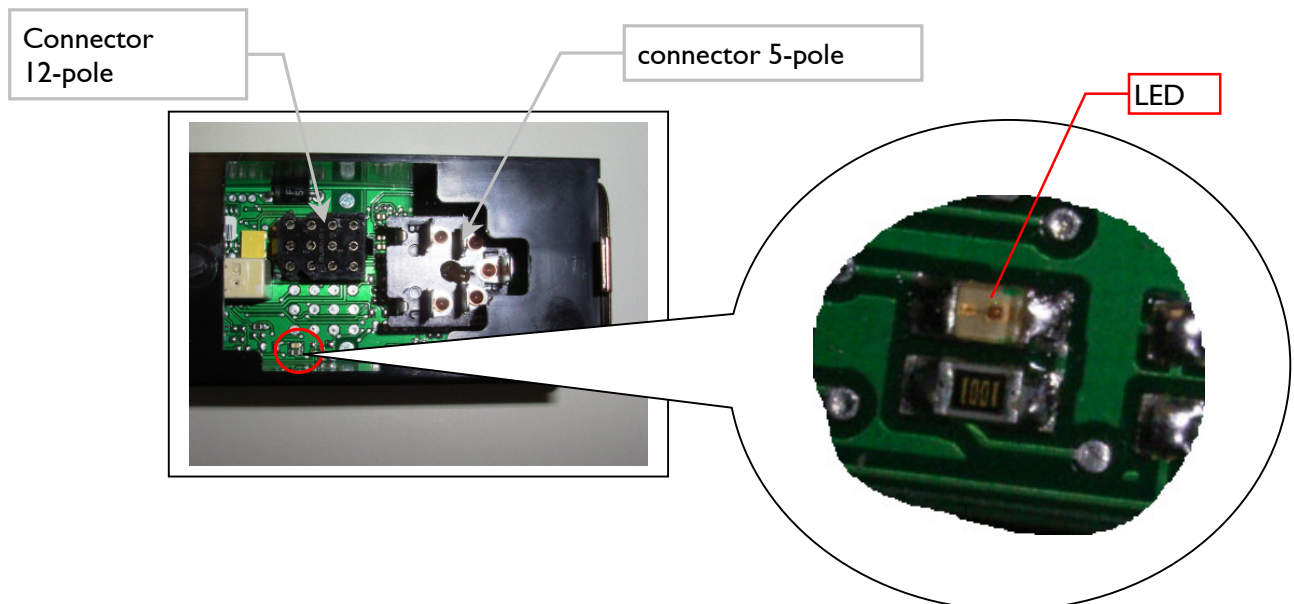
4.3. Overview in- and outputs

- 3 Digital outputs a 200 mA
- 1 Digital output 3 Amp.
- 1 Digital input

5. Blink code of the fault- LED (Option)

An the rear side, on the circuit board, next to the connection plug there is a green fault-LED. This informs about the status and the operating state of the KS 20.10. After impressing a voltage on it the LED lights for 60 seconds. In regular operation the LED is OFF.

LED flashing one time short circuit at a digital outlet



6. Connector assignment KS20.01 / KS20.02

Socket housing 12 pole.

-01-	GND	GND Kl.31
-02-	VCC	12 (resp. 24) VDC (ignition) Kl. 15
-03-	VCCL	12 (resp. 24) VDC / Kl.30 (fuse 7,5A)
-04-	DE02	release for compressor (+ from rotary switch)
-05-	DE03	check-back signal compressor (Option)
-06-	DA 07	magnetic clutch compressor (3 Amp.)
-07-	DA 01	water pump (Option)
-08-	DA 02	n.c.
-09-	DA 03	n.c.
-10-	DA 04	n.c.
-11-	DA 05	Heating valve A / connect DA06 + DA07 when sw/ws
-12-	DA 06	Heating valve B / connect DA06 + DA07 when sw/ws

Plug housing 5 pol.

- B -	B+ (fuse 25A)
- L -	blower capacity – minimum (low)
- M -	blower capacity – medium (middle)
- H -	blower capacity – maximum (high)
- C -	release compressor

n.c. = not connected