



## Air duct temperature controller RKA2 / RKB2

Compact temperature controller for air duct mounting with integrated temperature sensor  
 continuous output with settable P-Band  
 direction switchable (heating or cooling)  
 Housing: 82 (113) x 80 x 46 (-TR) mm, IP54, sensor sealed

RKB2: with signal limiter for minimal or maximal flap opening

### Technical data

Electrical data	Power supply	24 Vac/dc (21,6...26,4 V)
	Power consumption	< 1 VA
	Output RKA2	2...10 Vdc, max. 2 mA
	Output RKB2	0...10 Vdc, max. 2 mA, with signal limiter for minimum or maximum flap opening
Functions	Adjustment range	0...50 °C
	Directional switch K / H	K = (da) tR increases - Y increases, H = (ia) tR increases = Y decreases
	Setpoint correction SK	±5 K, adjustable internally
	P-Band XP	1..8 K (factory setting FS 2 K)
	Temperature probe	integrated duct sensor, moisture resistant embedded
Safety	Protection type / class	IP54 / III (SELV)
	EMC	EN 55011:2011-04, 55011-103:2013-02
	CE conformity	according to 2014/30/EU
	Ambient temperature	operation 0...50 °C; storage -10...+70 °C
Mechanical	connection technology	screw terminal 2,5 mm <sup>2</sup>
	Housing	82 (113) x 80 x 46 (+TR) mm, PC halogenfree (grey)
	cable entry	cable gland M20 x 1,5
	immersion sleeve	stainless steel ø 10 mm with ALU-flange
	Immersion depth	with / without flange = 80/100 mm or 180/200 mm
	Weight	ca. 270 g

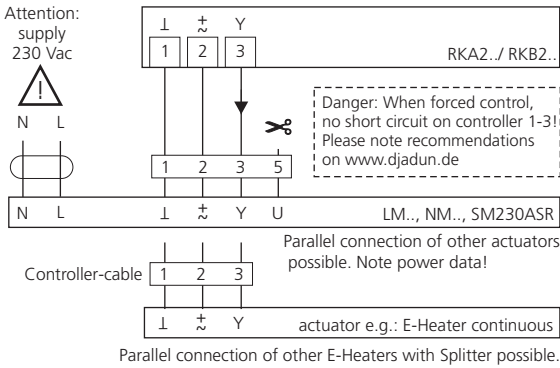
### Product features

Application	For controlling continuous actuators, VAV systems and ventilation units in HVAC systems and marine applications
Special	Cost-effective compact solution, which is mainly used to control the supply air or exhaust air temperature in ventilation duct systems.
Control function	1 continuous output with proportional function
Control signal	RKA2... 2...10 Vdc, direction switchable heating or cooling (FS) RKB2.. 0...10 Vdc, with signal limiter for minimum or maximum flap opening
Power supply	24 Vac/dc, or direct by actuators (e.g. N../L../SM230ASR, DM2.2) or our Electro-Heaters

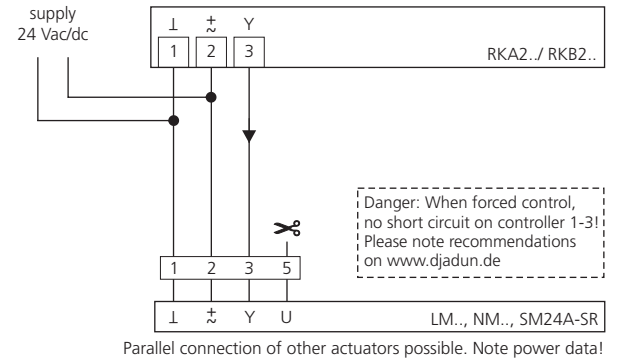
### Order information

Item number	signal	range	Variant
RKA2/0.50-100	2...10 Vdc	0...50 °C	Immersion depth 80 / 100 mm
RKA2/0.50-200	2...10 Vdc	0...50 °C	Immersion depth 180 / 200 mm
RKB2/0.50-100	0...10 Vdc	0...50 °C	Immersion depth 80 / 100 mm, with signal limiter
RKB2/0.50-200	0...10 Vdc	0...50 °C	Immersion depth 180 / 200 mm, with signal limiter

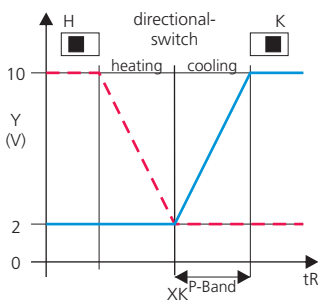
**Connection diagram L., N., SM230ASR**  
**Connection diagram Kompakt Heater**



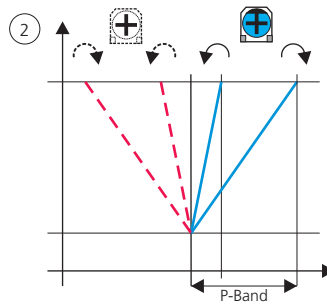
**Connection diagram 24 V actuators**



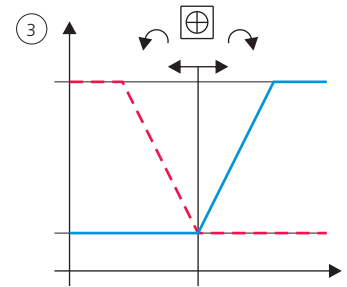
**Function diagram RKA2**



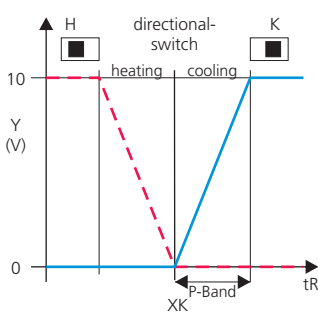
**P-Band XP**



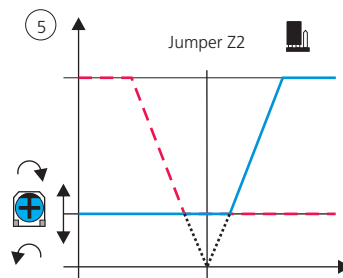
**Setpoint correction SK**



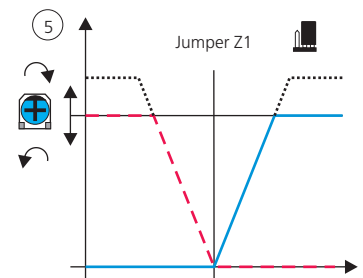
**Function diagram RKB2**



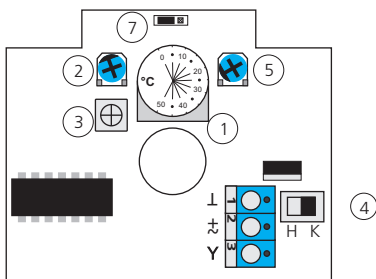
**Min.-limiter RKB2**



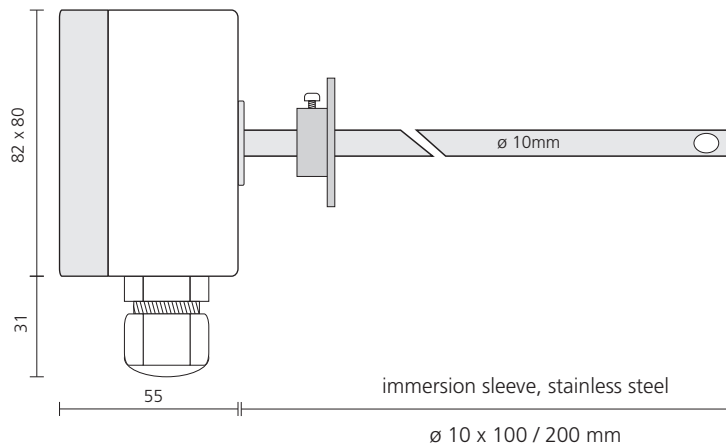
**Max.-limiter RKB2**



**Circuit Board <ccb: A4084>**



**Dimensions**



- ① Setpoint adjustment XK
- ② P-Band XP
- ③ setpoint or sensor correction
- ④ direction switch H / K
- ⑤ Min.-Max.-limitation Y-signal (only RKB..)
- ⑦ Jumper for Min.-Max.-limitation (RKB)