

RXP 212: Pneumatic operating unit

Used in conjunction with the RLP 100 F123 VAV controller and the RXP 210 alarm unit for monitoring the air volume in relation to the sash opening of a fume-cupboard. Functions: operating mode \dot{V}_{\max} /control mode (F001, F002); \dot{V}_{\min} /control mode/ \dot{V}_{\max} /control mode (F003, F004); alarm reset; indication of control offset. All the operating units comply with EN 13463-1 and EN 1127-1 (Ex II 2 G T6) and can be employed in Zone 1 areas where there is a risk of explosion.

Housing is made of glass-fibre-reinforced thermoplastic; front plate of aluminium with manual switch, 'Mute' button and manometer. Suitable for fitting into panels; for wall mounting, see accessories. Compressed-air connections: push-on connectors for soft plastic tubing of 4 mm internal dia.

Type	Fitting	Position of manual switch \dot{V}_{\max}	Positions	Weight kg
RXP 212 F001	vertically	emergency mode; damper fully open	2	0.2
RXP 212 F002	horizontally	emergency mode; damper fully open	2	0.2
RXP 212 F003	vertically	100% air volume, controlled	4	0.2
RXP 212 F004	horizontally	100% air volume, controlled	4	0.2

Manual switch and Mute button:			Pressure gauge:	
Nominal flow Q_N	(1.0 bar → 0)	3.0 m ³ /h	Error	Class 1.6
Max. leakage rate	(2.5 bar → 0)	1.2 l _n /h	Max. operating pressure	1.4 bar
Max. pressure/differential pressure		2.5 bar		
Permissible ambient temp.		0...55 °C	Dimension drawing	M03226
Wiring diagram	F001/F002	A04869	Fitting instructions	MV 505314
	F003/F004	A08539		

Accessories

0297780 001* Housing, including two screws, for wall mounting; not tested for explosion-free zones.

*) Dimension drawing or wiring diagram are available under the same number

For regulations on the quality of the air supply, especially at low ambient temperatures, see Section 60.

Operation

Together with the RLP 100 F123 controller and the RXP 210 alarm unit, the operating unit monitors the air volume in the fume cupboard. The amount that the fume cupboard's sash is open is fed as a setpoint to the relevant VAV controller (RLP 100 F123) and compared to the actual value of the air volume (F001, F002). On the F003/F004 models, the amount that the fume cupboard's sash is open is fed as a setpoint (via the operating unit's manual switch) to the VAV controller and compared to the actual value of the air volume.

Any deviation is indicated visually (in accordance with DIN 12924) on the RXP 212. In the event of a malfunction, an acoustic signal is emitted by the RXP 210 alarm unit. It can be stopped by pressing the 'Mute' button on the operating unit for about two seconds (closes connector 6 on the alarm unit).

Pressure gauge For indicating the offset in air volume ($\Delta \dot{V}$).
Green sector: actual value = setpoint.
Red sector: the actual value is smaller or larger than the setpoint.

Manual switch RXP 212 F001, F002: with \dot{V}_{\max} position (emergency mode; damper fully open) and \odot position (control mode).
RXP 212 F003, F004: with \dot{V}_{\min} position (minimum air volume, controlled), \odot position (control mode), \dot{V}_{\max} position (100% air volume, controlled), and \odot position (control mode).

Mute button to suppress the alarm.

Technical information

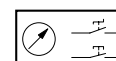
Technical Manual VAV 7 000 621 001

Additional information on accessory

0297780 001 Housing of black glass-fibre-reinforced thermoplastic. Due to the suitable choice of materials, the surface resistance is not higher than 10⁹ Ω. When used in compliance with the guidelines, and when carrying out servicing and cleaning, no electrostatic charges occur. The housing complies with the EN 50014 standard.

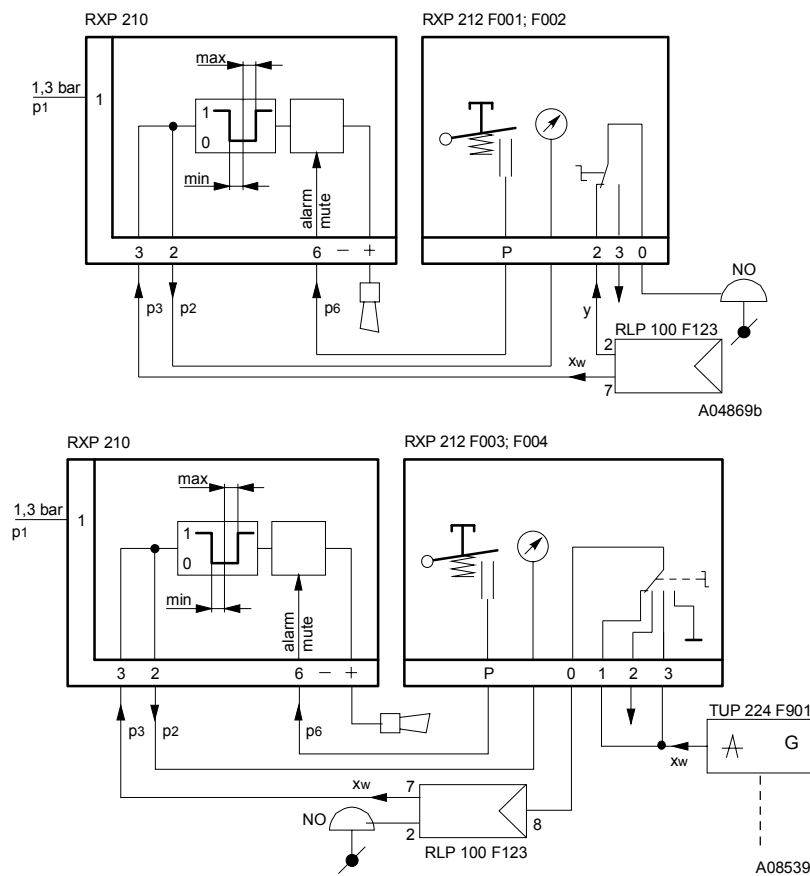


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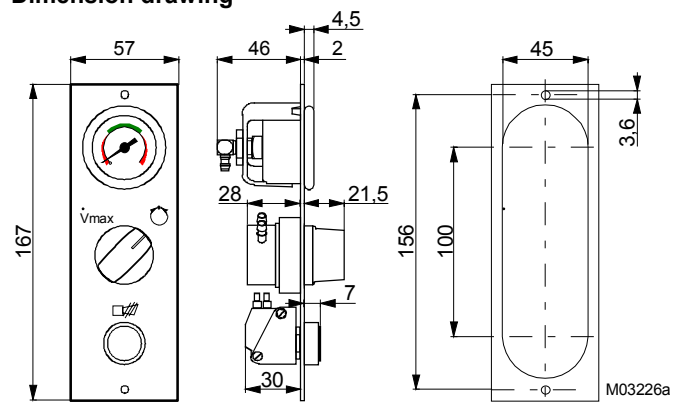


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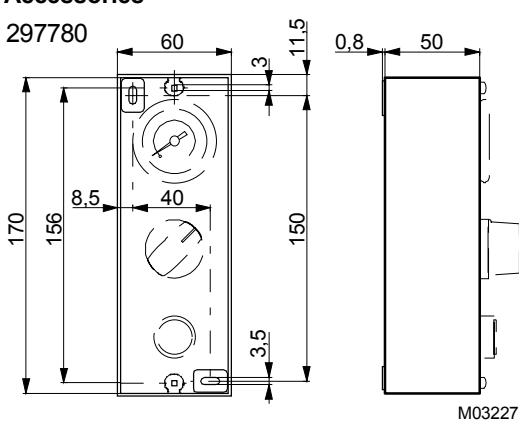
Connection diagram



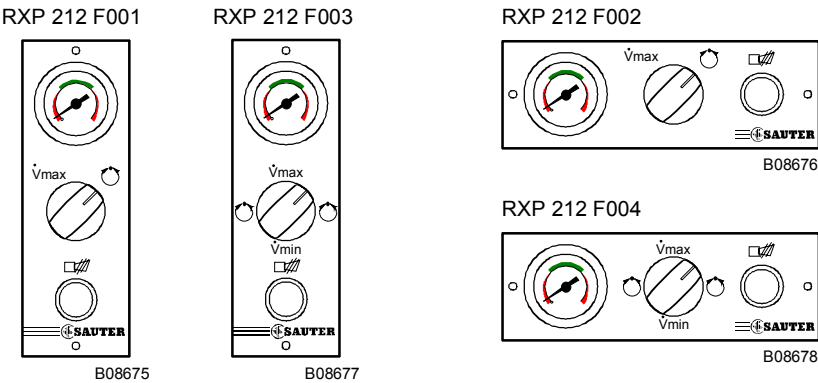
Dimension drawing



Accessories

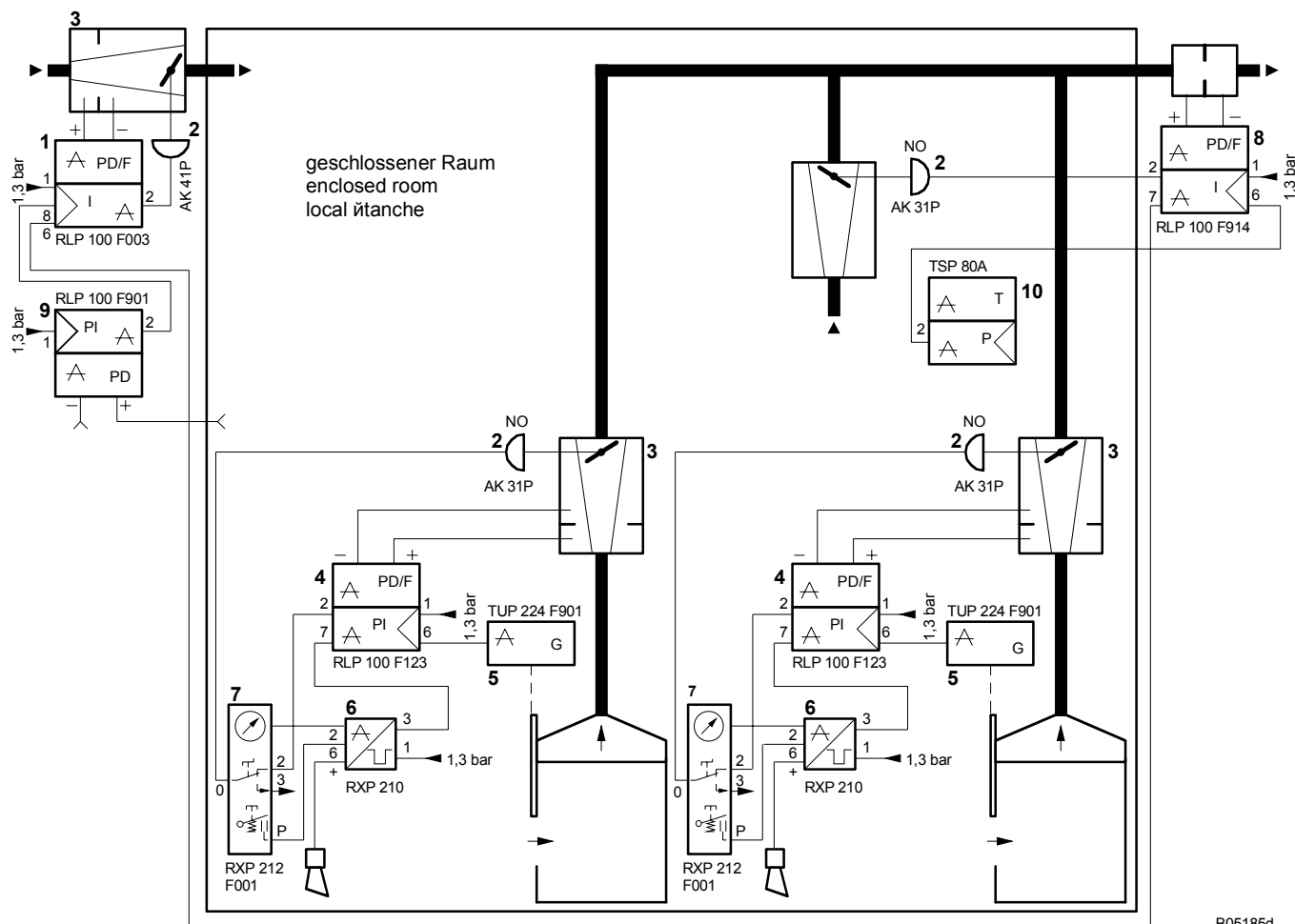


Variants



Example of use

Volume of return air controlled in proportion to the opening of the fume cupboard's sliding door; with sash sensor, alarm unit and operating unit; taking the room temperature into account.

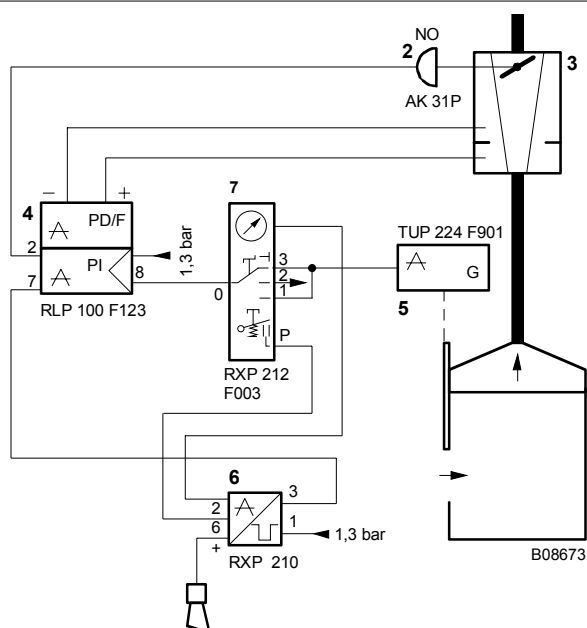


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Variant: RLP 100 F123

with: alarm unit RXP 210 and
operating unit RXP 212 F003
(manual switch Aut- \dot{V}_{\min} - Aut- \dot{V}_{\max})

1	Volume-flow controller
2	Damper drive, NO
3	Reducing box
4	VAV return-air controller for fume cupboards
5	Sash sensor
6	Alarm unit
7	Operating unit
8	Room RA controller for aggressive gases
9	Pressure controller
10	Room-temperature controller
NO	Normally open (drucklos offen)



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