

EYE 205, 206: ecos, DDC Individual-room controller

For VAV control of individual rooms according to occupancy. Temperature controlled by varying the air volume using the air damper. Using the EYB 251...254 operating units, every function can be selected from the room. Functions: window contacts, presence signal, ventilator control, dew-point monitoring. Suitable for connecting to the EY3600 building management system via data interface. Housing of fire-retardant thermoplastic, white (RAL 9010). Parameters: timer and calendar functions are stored in a battery-backed RAM. Compact unit for fitting in rows (DIN 43880) onto 35 mm top-hat rail as per EN 50022. Terminals for up to 2,5 mm².



T02992

Type	Description	Relay output	Voltage	Weight kg
EYE 205 F001	DDC-individual-room cascade controller	–	24 V~	0,4
EYE 206 F001	DDC-individual-room cascade controller	1	24 V~	0,4
Power supply 24 V~	± 20%, 50/60 Hz	Perm. ambient temperature	0...45 °C	
Power consumption	10 VA ¹⁾	Permissible ambient humidity	< 85 %rh without condensation	
W × H × D	178 × 103 × 42	Wiring diagram	A06470 ; A06471	
Degree of protection	IP 10	Dimension drawing	M02181	
Protection class	II	Fitting instructions	MV 505467	
Radio suppression	as per EWG 82/499	Complies with:-	EMC directive 2004/108/EC EN 61000-6-1/ EN 61000-6-2 EN 61000-6-4 EN 55022 Class A	
Inputs		EYE 205	EYE 206	
for operating unit	EYB 251-EYB 256	1	1	
Temperature sensor	Ni1000	1	2	
for command variable	0...10 V (R _i = 10 KΩ)	1	1	
for control contacts	On/Off	2	3	
Static pressure difference		1	1	
Pressure range	0 to 400 Pa	–	–	
Linearity	Typically. ± 0,3% FS	–	–	
Hysteresis	Typically. 0,2% FS	–	–	
Permitted overload	2 kPa	–	–	
Membrane	Silicon rubber LSR	–	–	
Outputs		EYE 205	EYE 206	
Triac switching output	0-I-II (24 V~, 1 A)	2	3	
Relay switching output	normally open (250 V~, 2A)	–	1	
Analogue	0...10 V (load ≥ 1kΩ)	1	2	

¹⁾ Use correct transformer size (see PDS)

Transformer size

Since the form factor of the current consumed by *ecos* deviates largely from the sinus function, it is advisable to include a performance reserve for small transformers.

Since small transformers are very different, you should proceed as follows if you are unsure of the transformer's behaviour and there are no other details available:-

- For 1 *ecos*: choose a transformer of at least 25 VA
- For 2 *ecos*: choose a transformer of at least 40 VA
- For 3 *ecos*: choose a transformer of at least 50 VA
- For 6 *ecos*: choose a transformer of at least 75 VA
- For 10 *ecos*: choose a transformer of at least 100 VA
- For each further *ecos*: add 10 VA

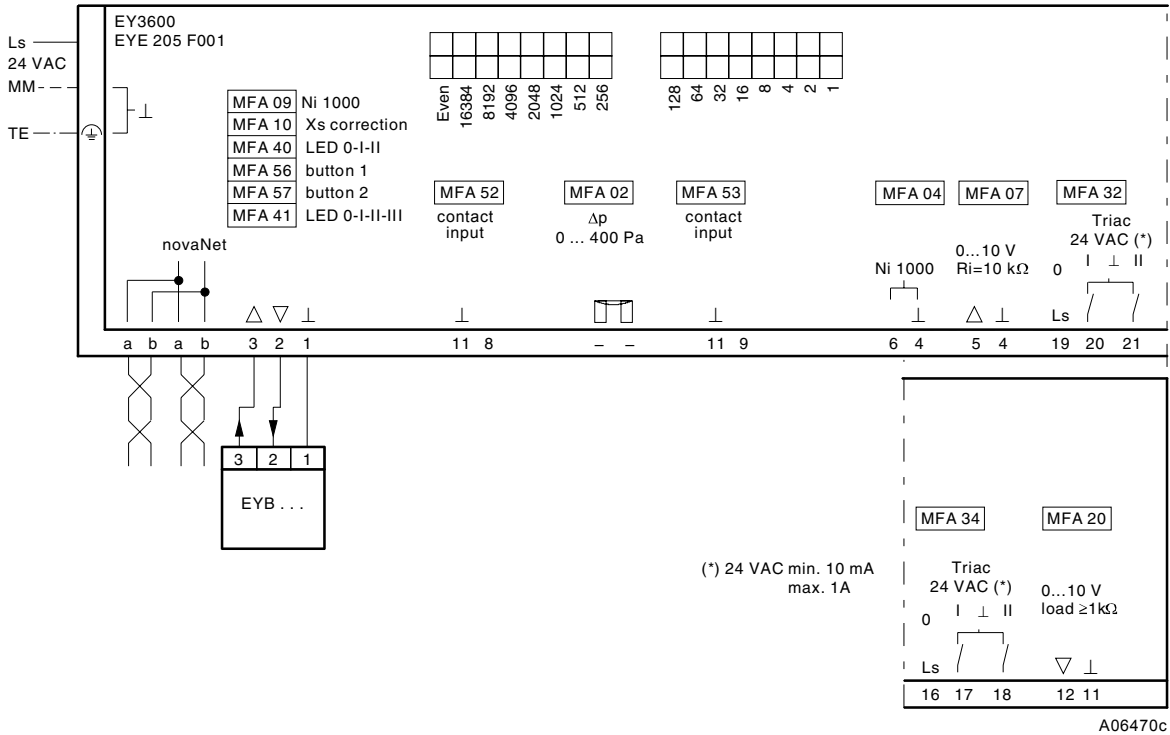
Engineering note

The 230 V~ version must be made touch-proof.

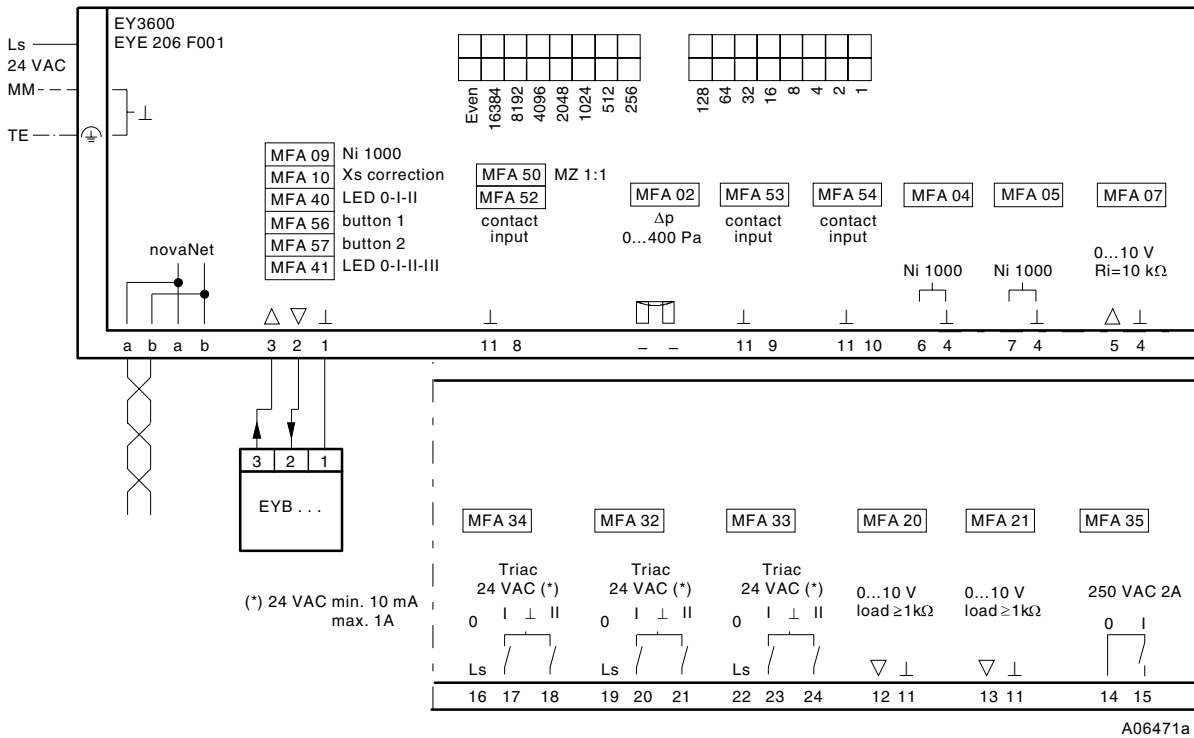
MFA	Type of address	EYE 205		EYE 206	
		HDB	Bornes	HDB	Bornes
02	Measurement, pressure difference	*	–	*	–
04	Measurement, temperature Ni1000 (range: –10...95 °C)	*	4-6	*	4-6
05	Measurement, temperature Ni1000 (range: –10...95 °C)	–	–	*	4,7
07	Measurement, analog 0...10 V dc	*	4-5	*	4-5
09	Measurement, temperature Ni1000 (operating unit) (range: –10...95 °C)	*	3-2-1	*	3-2-1
10	Measurement, potentiometer (operating unit) (basic setting: $\pm 2^\circ$)	*	3-2-1	*	3-2-1
20	Output, analog 0(2)...10 V dc	*	11-12	*	11-12
21	Output, analog 0(2)...10 V dc	–	–	*	11-13
32	Output, digital 0-I-II (triacs 24 V ac, 1A)	*	19-20-21	*	19-20-21
33	Output, digital 0-I-II (triacs 24 V ac, 1A)	–	–		22-23--24
34	Output, digital 0-I-II (triacs 24 V ac, 1A)	*	16-17-18	*	16-17-18
35	Output, digital (relais 250 V ac, 2A)	–	–	*	14-15
40	Feedback signal MFA 56 (0-I-II)	*	interne	*	interne
41	Feedback signal MFA 57-1 (0-I-II-III)	*	interne	*	interne
42	Rotating circuit from MFA 56 0-I-II-0...	*	interne	*	interne
43	Rotating circuit from MFA 57 0-III-II-I-0...	*	interne	*	interne
52	Contact input	*	11-8	*	11-8
53	Contact input	*	11-9	*	11-9
54	Contact input	–	–	*	11-10
56	Contact input, button 0-I-II (operating unit)	–	3-2-1	–	3-2-1
57	Contact input, button 0-I-II-III (operating unit)	–	3-2-1	–	3-2-1

Wiring diagram

EYE 205

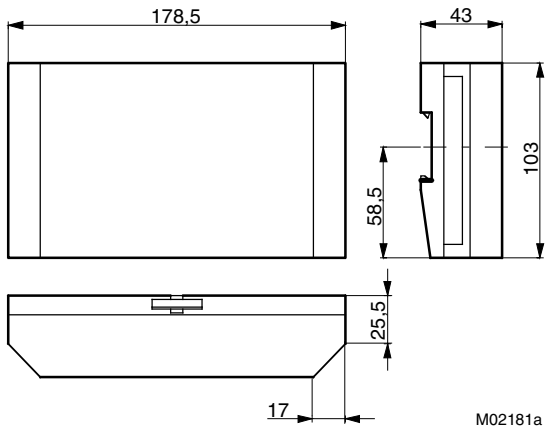


EYE 205



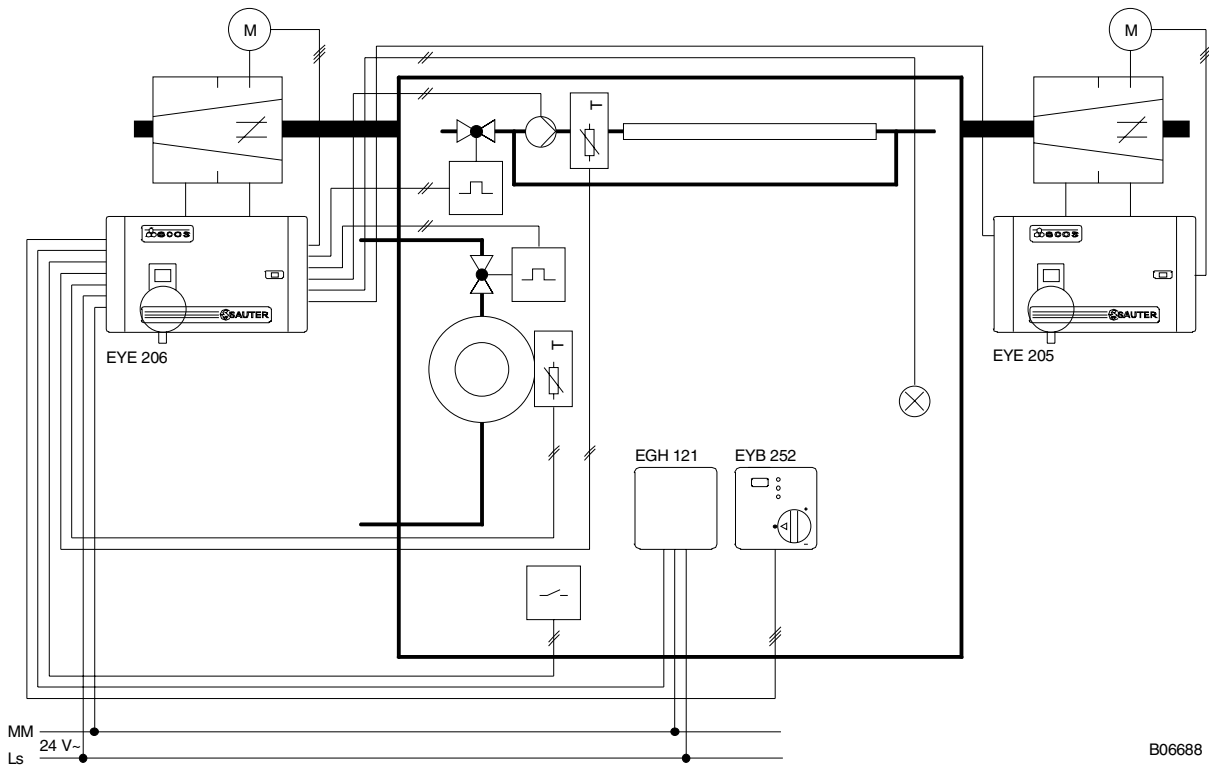
In cases where the industry standard (EN 61000-6-2) has to be met, the power cables for the analogue inputs/outputs (AI/AO) and the power cable to the EYB operating units should be no longer than 30 m.

Dimension drawing

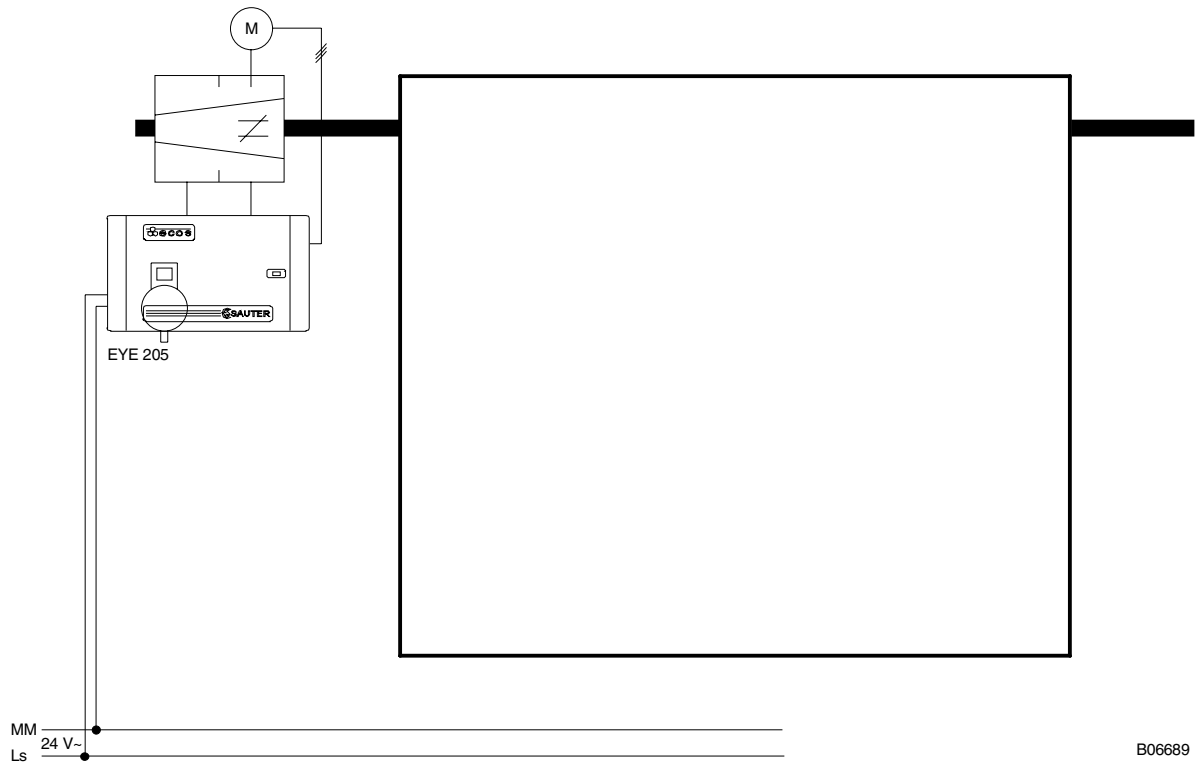


Application

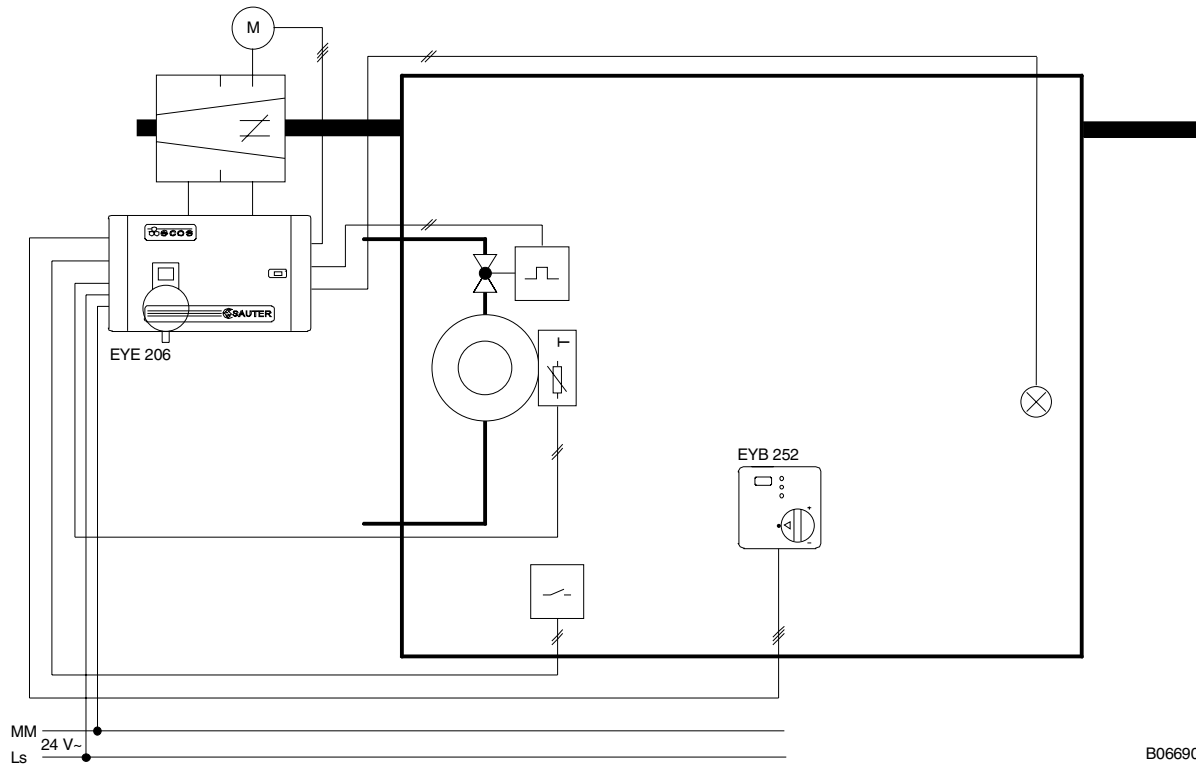
Chilled-beam system with constant amount of water; VAV radiator heating with window compensation; dew-point monitor



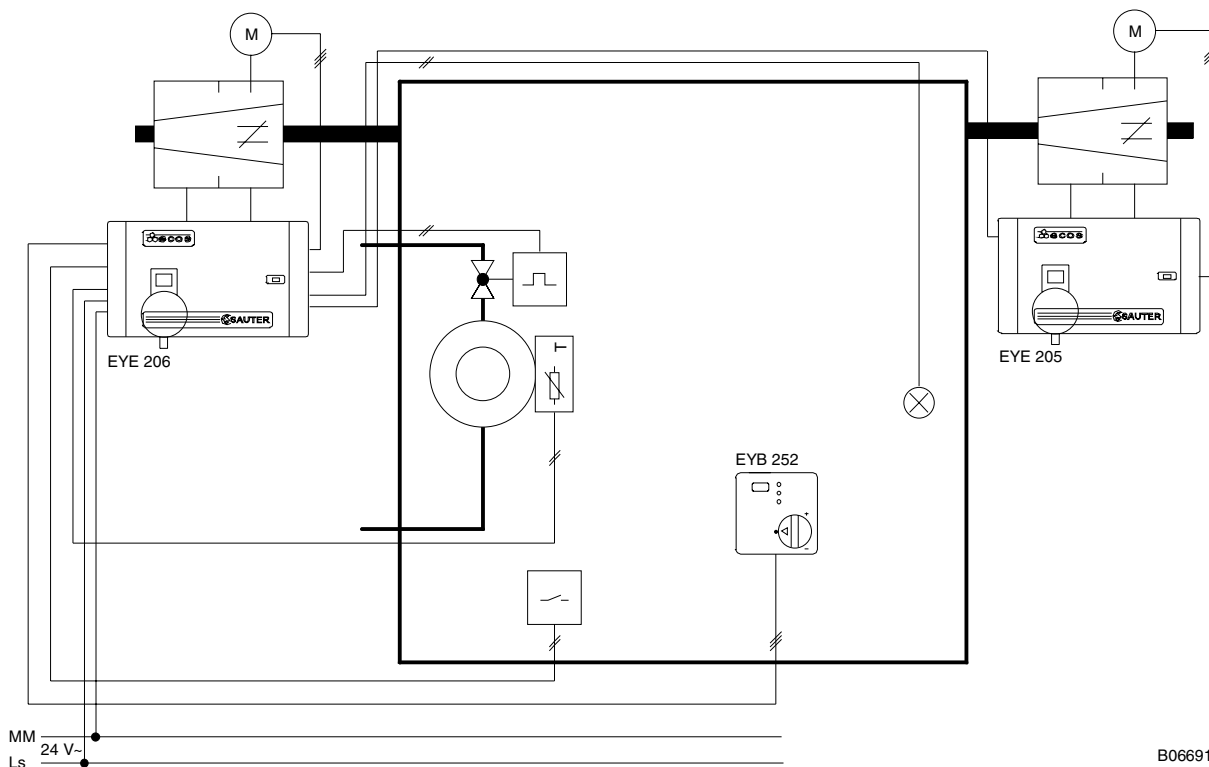
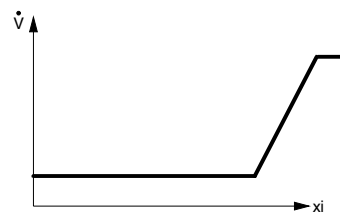
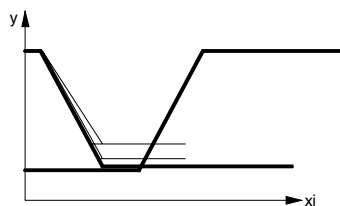
VAV fixed-value control



VAV fixed-value + schedule control with radiator heating and window-compensation monitor

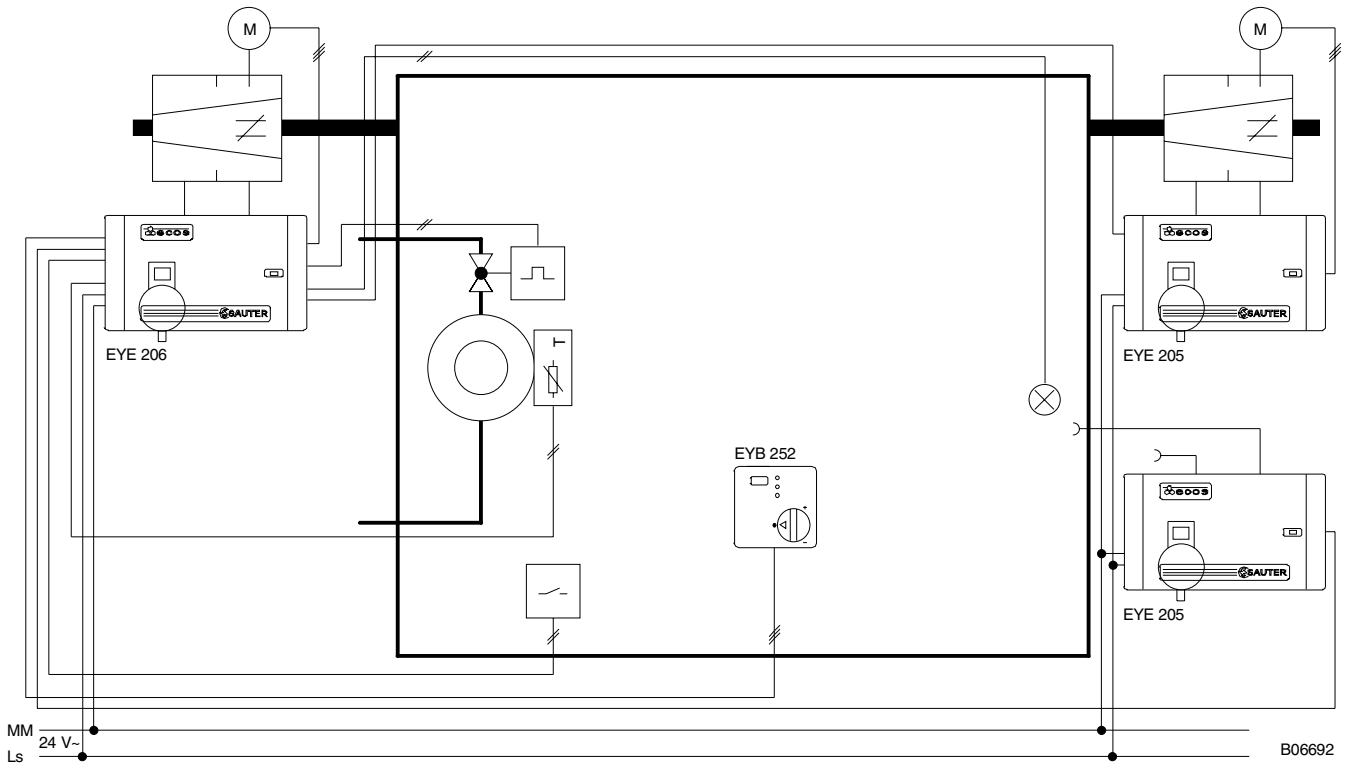
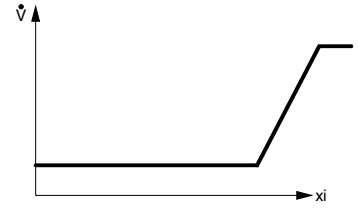
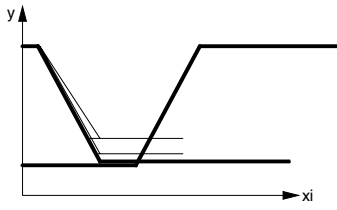


VAV fixed-value + schedule control (SA/FA) with radiator heating and window-compensation monitor with shifting of the FA curve

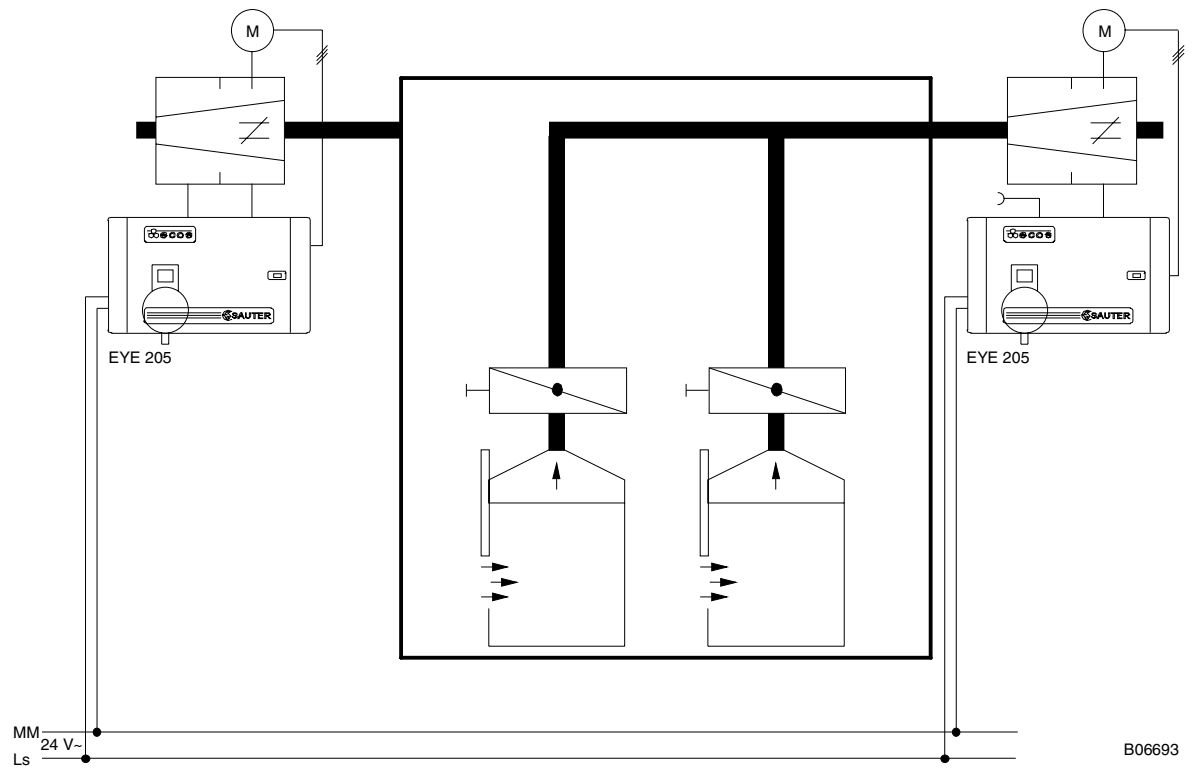


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VAV fixed-value + schedule control (SA/FA) with radiator heating and window-compensation monitor with shifting of the FA curve and room-pressure monitor

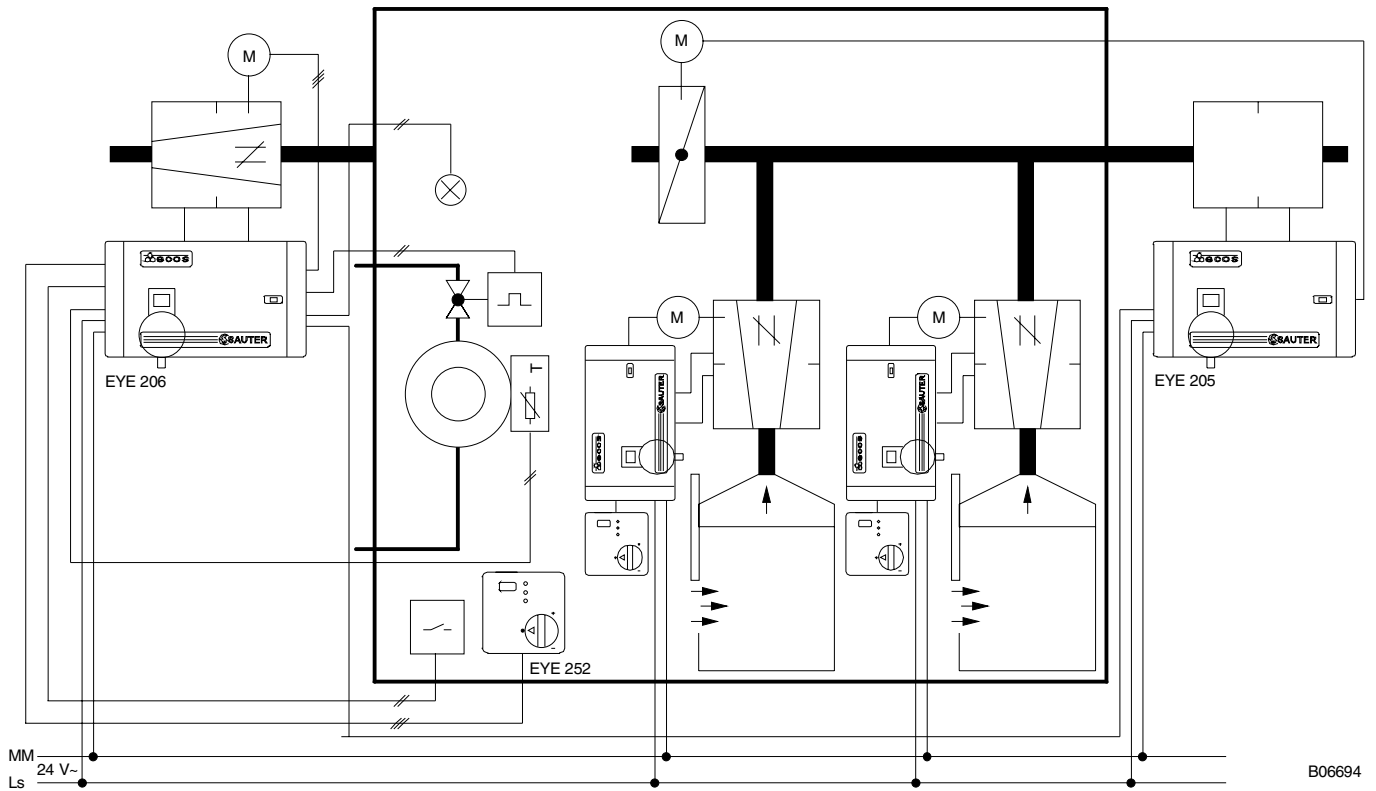
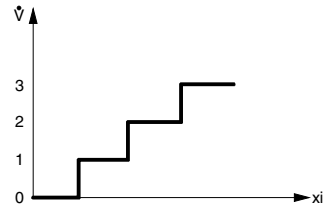


VAV fixed-value control.
Fume cupboards with constant air volume



VAV fixed-value + schedule control (SA/FA) with radiator heating and window-compensation monitor.

Fume cupboards with 3-stage air volume



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