

ecos202: DDC intelligent unitary controller

How energy efficiency is improved

High-performance function modules in the ecos enable energy-optimised room control, guaranteeing that energy consumption is minimised.

Areas of application

Intelligent unitary control, fan-coil units, control of chilled beams, etc.

Features

- Part of the SAUTER EY-modulo 2 system family
- Individual adaptation of the indoor climate by means of room operating units in series EY-RU2 . and EYB2. .
- Optimisation of energy consumption thanks to occupancy function, window contact monitoring, demand-led fan speed switching and time-dependent setpoint specification.
- Time and calendar function
- Recording of historical data
- Integration into the building management system via novaNet data interface
- Programming/parameterisation via PC with CASE Suite software (based on IEC 61131-3)

Technical description

- Voltage supply 24 V~
- System bus: novaNet (2-wire)



T10636

Products

Type	Description
EYE201F001	DDC intelligent unitary controller, 1 relay
EYE202F001	DDC intelligent unitary controller, 3 relays

Technical data

Electrical supply

Power supply	24 V~ ± 20%, 50/60 Hz
Power consumption	10 VA ¹⁾

Permitted ambient conditions

Operating temperature	0...45 °C
Humidity	< 85% rh
	no condensation

Installation

Weight (kg)	0.37
Dimensions (W x H x D)	178 x 103 x 42

Standards, guidelines and directives

Degree of protection	IP 10 (EN 60529)
Protection class	II (EN 60730-1)
Conformity to	
EMC Directive 2004/108/EC	EN 61000-6-1
	EN 61000-6-2 ²⁾
	EN 61000-6-4
	EN 55022 Class A
Low Voltage Directive 2006/95/EC	EN 60730-1
	EN 60730-2-9
Software class A	EN 60730-1 Annexe H

Additional information

Fitting instructions	MV 505444
Material declaration	MD 94.201
Dimension drawing	M02181
Wiring diagram	A06142 , A06143

Inputs

for operating unit	EYB2.., EY-RU2..
for temperature sensor	Ni1000
for command variable	0...10 V (R _i = 10 kΩ)
for control contact	On/off

Outputs

Triac switching outputs	0-I-II (24 V~, 1 A)
Relay switching outputs	Make contact (250 V~, 2 A)
Analogue	0...10 V (load ≥ 1 kΩ)

1) Transformer sizing - see page 2

2) If it is mandatory to comply with the industrial standard (EN 61000-6-2), the connecting cables must not exceed 30 m in length.

EYE201

1	1
1	2
1	1
2	3

EYE202

EYE201

1	2
1	3
0	2

EYE202

Transformer sizing

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

Since small transformers differ from one another, 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 notes

If connected to 230 V~, the unit must be made touch-proof. Communication cabling must be undertaken correctly and must meet the requirements of standards EN 50174-1, -2 and -3.

Communication cabling must remain separate from other cabling that carries power.

No account has been taken of special standards such as IEC/EN 61508, IEC/EN 61511, IEC/EN 61131-1 and 2 and similar standards. Local regulations on installation, application, access, access authorisations, accident prevention, safety, dismantling and disposal must be observed. Compliance is also required with installation standards EN 50178, 50310, 50110, 50274, 61140 and similar.

The following conditions must be met:

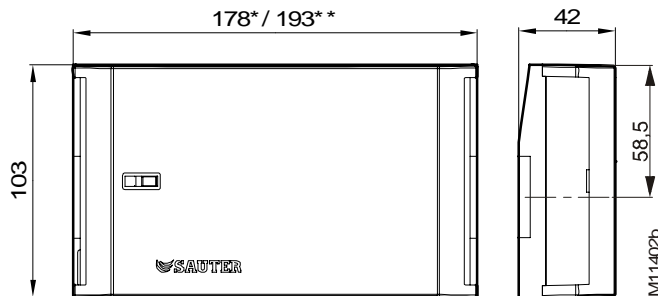
Cross-section of conductors: min. 0.8 mm², max. 2.5 mm², Cu conductors in compliance with the standards and national installation regulations

This is class A equipment. It may cause radio interference in residential premises; in this case, the operator may be requested to implement appropriate measures.

For further information, consult the fitting instructions.

MFA	Address type	EYE 201		EYE 202	
		HDB	Terminals	HDB	Terminals
04	Temperature measurement, Ni1000 (measuring range: -10...95 °C)	*	4-6	*	4-6
05	Temperature measurement, Ni1000 (measuring range: -10...95 °C)	-	-	*	4-7
07	Analogue measurement, 0...10 V=	*	4-5	*	4-5
09	Temperature measurement, Ni1000 (operating unit) (measuring range: -10...95 °C)	*	3-2-1	*	3-2-1
10	Potentiometer measurement (operating unit)(basic setting: ± 2°)	*	3-2-1	*	3-2-1
20	Analogue output 0 (2)...10 V=	-	-	*	8-9
21	Analogue output 0 (2)...10 V=	-	-	*	8-10
32	Digital output 0-I-II (Triacs 24 V~, 1A)	*	19-20-21	*	19-20-21
33	Digital output 0-I-II (Triacs 24 V~, 1A)	-	-	*	22-23-24
35	Digital output 0-I II III (relay 250 V~, 2A)	-	11-12	*	11-12-13-14
40	Operating feedback, MFA 56 (0-I-II)	*	Internal	*	Internal
41	Operating feedback, MFA 57-1 (0-I-II-III)	*	Internal	*	Internal
42	Rotating circuit from MFA 56 0-I-II-0...	*	Internal	*	Internal
43	Rotating circuit from MFA 57 0-III-II-I-0...	*	Internal	*	Internal
50	Quantity counter for MFA 52	-	-	*	18-15
52	Contact input	*	18-15	*	18-15
53	Contact input	*	18-16	*	18-16
54	Contact input	-	-	*	18-17
56	Contact input, key 0-I-II (operating unit)	-	3-2-1	-	3-2-1
57	Contact input, key 0-I-II-III (operating unit)	-	3-2-1	-	3-2-1

Dimension drawing

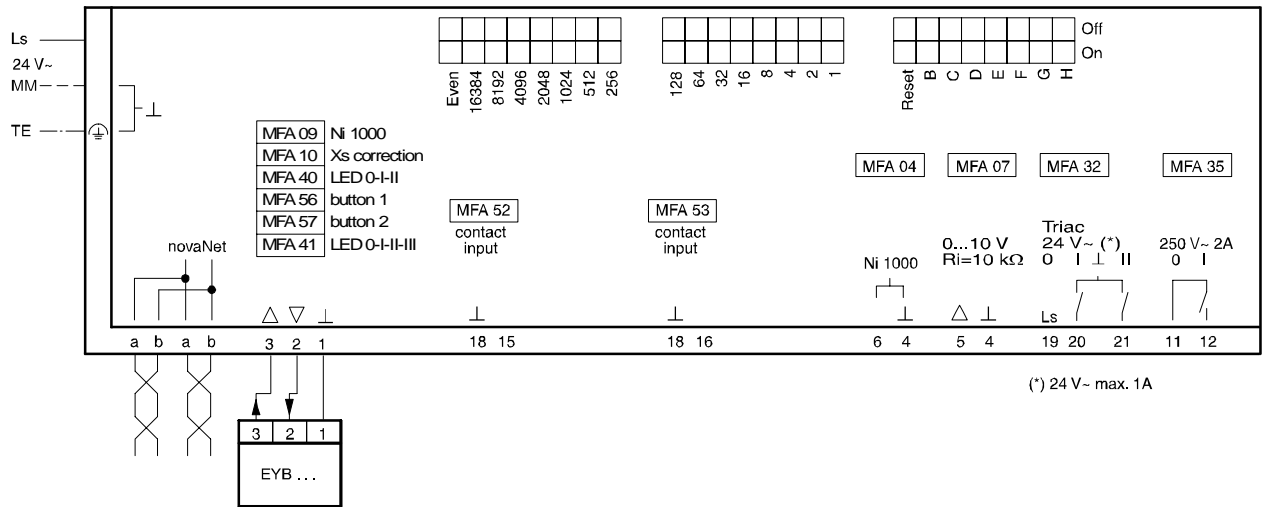


* EYE201F001, EYE202F001

** EYE202F011 (with plug-in terminals)

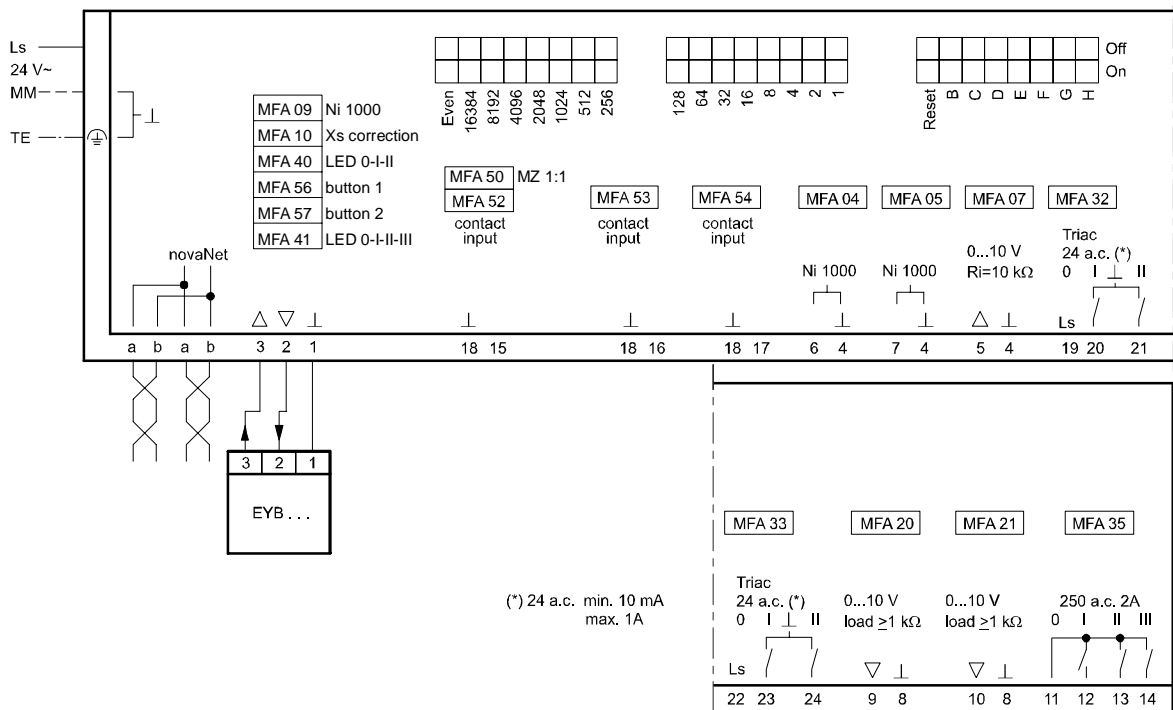
Wiring diagram

EYE201



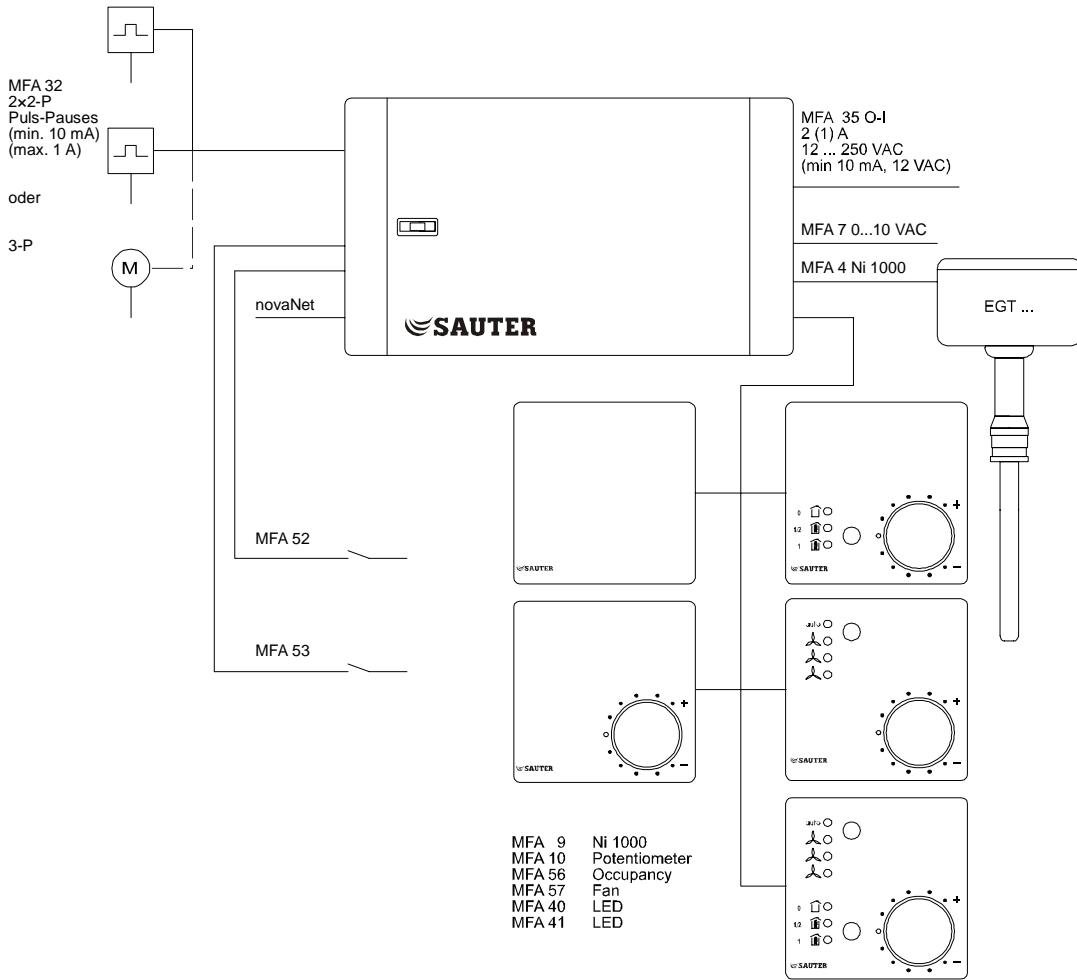
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EYE202



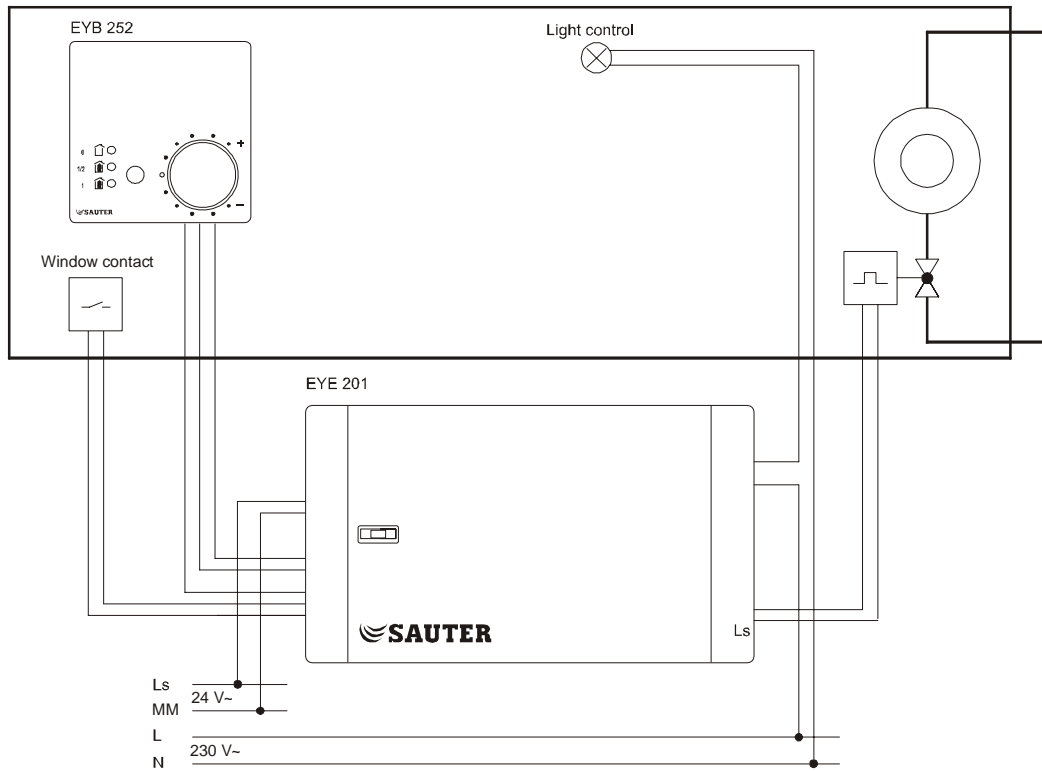
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EYE201 inputs & outputs



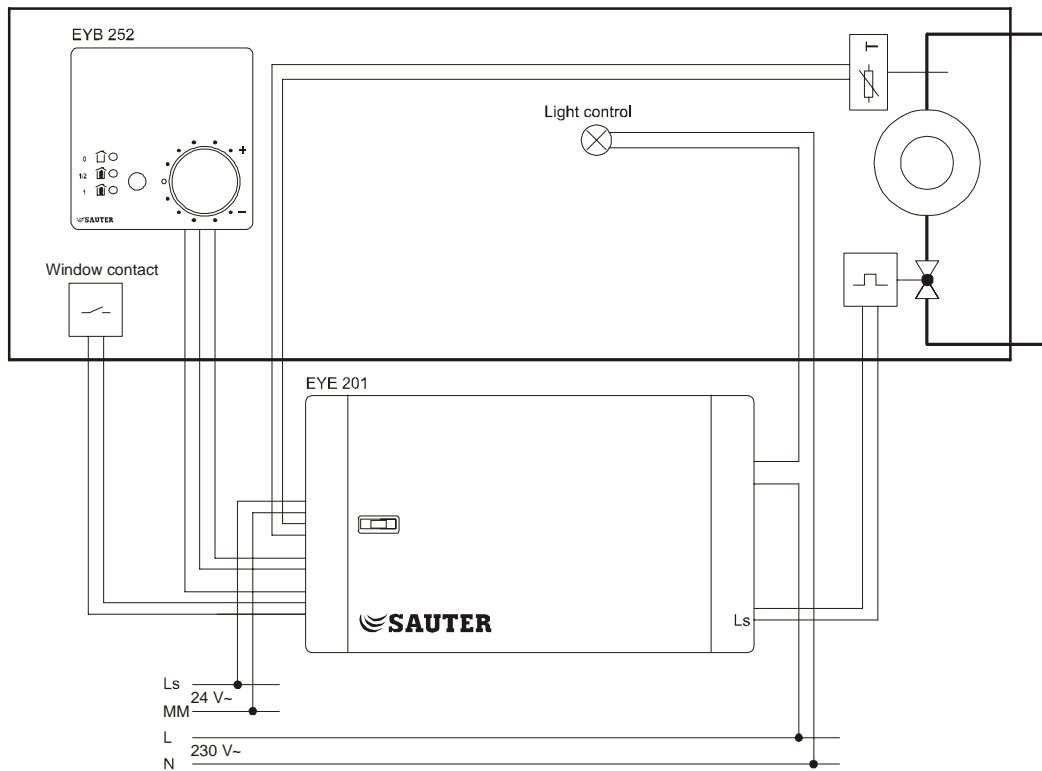
Application

Radiator heating



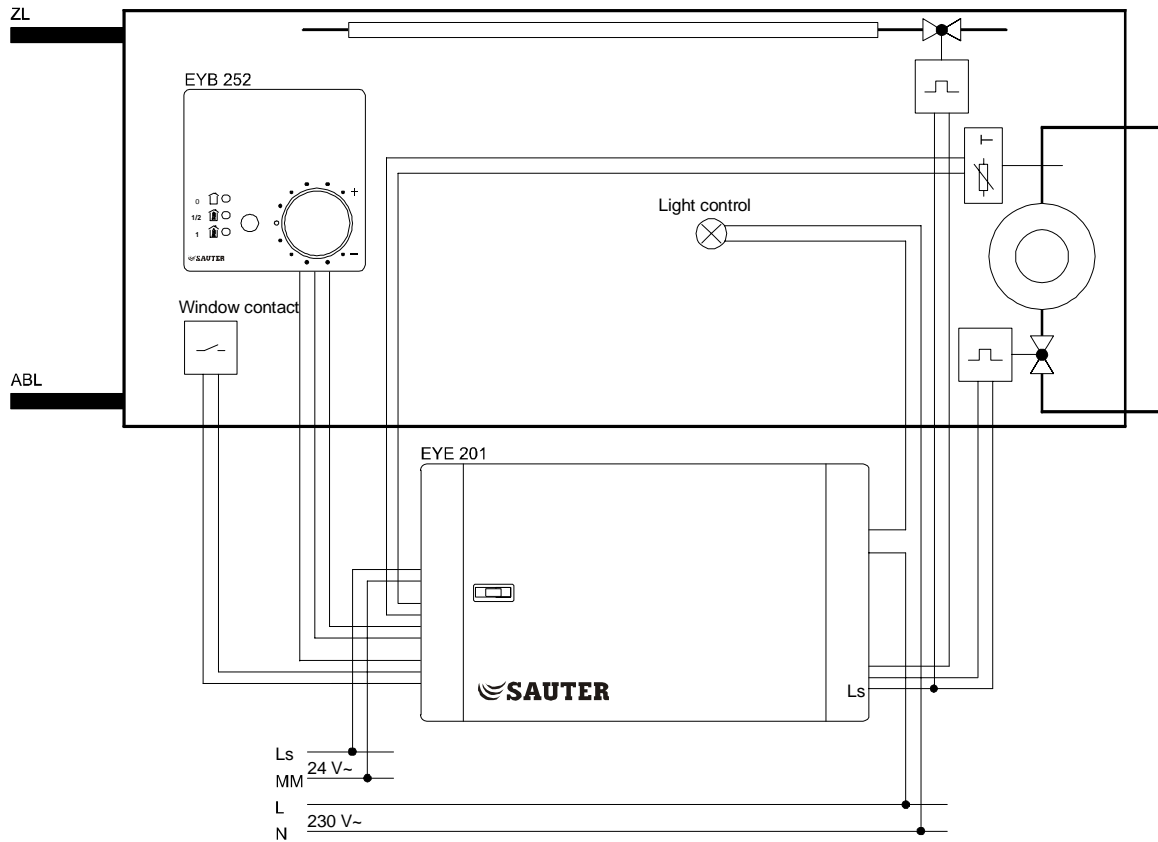
Radiator heating

with base-temperature monitor (window comfort)



Application (continuation)

Chilled beams with displacement ventilation (constant air volume) and radiator heating with window comfort monitoring.
Central air humidity monitoring.



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