

- ▶ Output extension unit to ECO SYS
- ▶ 8 additional consumer groups
- ▶ Integrated time clock per signal path
- ▶ Decentralized connection via two-wire bus
- ▶ 8 normally open contacts, 1 change over contact
- ▶ Width 157.5mm
- ▶ Installation design



Technical data

1. Functions

Output extension unit to ECO-SYS.
The base device can be extended by 8 signal paths.
Maximum 7 ECO GATE's per ECO-SYS are lockable over decentral two-wire bus. Connection facility for sub counter. Control contacts to influence the control mode of individual circuits.

2. Time ranges

Min. turn-on time for channels 1 to 8	00min 01s to 19min 59s
Min. turn-off time for channels 1 to 8	00min 01s to 19min 59s
Max. turn-off time for channels 1 to 8	00min 01s to 19min 59s
Priority for channels 1 to 8	00min 01s to max. Prior

3. Indicators

Green LED ON:	indication of supply voltage
Yellow LED ON/OFF:	indication of status of the 8 circuits (1...8), terminals (1...16)
Red LED ON:	indication of failure status
Display:	LCD (alphanumeric) two-line; 16 characters in each line

4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN-rail TS 35 according to EN 50022
Mounting position: catch down
Shockproof terminal connection according to VBG 4, IP rating IP20
Recommended / maximal length of skinning:
6mm/9mm

Terminal capacity:
1 x 2,5mm² flexible without multicore cable end
2 x 0.5 to 1.5mm² flexible without multicore cable end
1 x 1 to 2,5mm² inflexible with multicore cable end

5. Input circuit

Supply voltage:
Wide supply range: 110-240VAC 50/60Hz, 110-300VDC
Tolerance:
110V to 300V DC -15% to +10%
110V to 240V AC -15% to +10%
Own consumption:
max. 3,6W (55mA @ 110V AC, 30mA @ 240V AC)
Current consumption:
max. 100mA @ 110V AC, max. 50mA @ 240V AC)
Duty cycle: 100%
Reset time: —
Nominal voltage of isolation: 300V
Rated surge voltage: 4kV
Minimal electric strength to other circuits:
3000V AC/1min (enhanced isolation according to EN 60950)

6. Output circuit

8 potential free normally open contacts
Outputs 1 to 8
Function: Controlling of power demand
Min. ON time: 0min 0s - 19min 59s
Max. OFF time: 0min 1s - 19min 59s
Min. OFF time: 0min 1s - 19min 59s

1 potential free change over contact

Output F	Notice of malfunction summary
Switching capacity:	690VA (3A / 230V AC)
Fusing:	—
Mechanical life:	20 x 10 ⁶ operations
Electrical life:	2 x 10 ⁵ operations
Switching capacity:	max. 60/min at 100VA resistive load max. 6/min at 1000VA resistive load (according to IEC 947-5-1)
Nominal voltage of isolation:	250V AC (according to IEC 664-1)
Rated surge voltage:	4kV, overvoltage category III (according to IEC 664-1)
Minimal electrical strength to other circuits:	1500V AC/1min (basic isolation according to EN 60950)

7. Control contact PWR

Function:	Power indication of sub counters or for accumulation of sum achievement
Connection:	Potential free, terminals 28, 29
Type:	S0 (according to DIN 43864)
Sensing current:	12,5mA DC
Sensing voltage:	15V DC
Tolerance:	+10%
Frequency:	max. 50Hz

8. Control contact IN1 to IN5

Function:	Effects the outputs 1 to 5 according to programming
Connection:	Potential free, terminals 30, 39
Type:	current loop
Sensing current:	6,25mA DC
Sensing voltage:	15V DC
Tolerance:	+10%

9. Accuracy

Computational accuracy digital determinate, depending on the number of energy pulses of the counter.

Adjustment accuracy:	—
Repetition accuracy:	—
Voltage influence:	—
Temperature influence:	—

10. Ambient conditions

Ambient temperature:	0 to +50°C (according to IEC 68-1)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (according to IEC 721-3-3 class 3K3)
Pollution degree:	2, if built in 3 (according to IEC 664-1)

Functions

EcoGate receives its data for operation from the bus. From this data, the channels to be switched on or off are apparent in priority levels. Load channels with a lower priority than the current priority level will be used for power demand regulation. Those with higher priority will not be affected.

With this data, in combination with the configuration settings, it is apparent to the device which channel has to be switched on or off. Further more operational data like active power, set points and trend of energy consumption is shown on the display.

Bus Interface

Interface type: RS485, see chapter bus system

Attendee settings: 1 to 32

Master settings: 1 to 5

Power supply output: 24V / 100mA for wide supply range

Real time clock

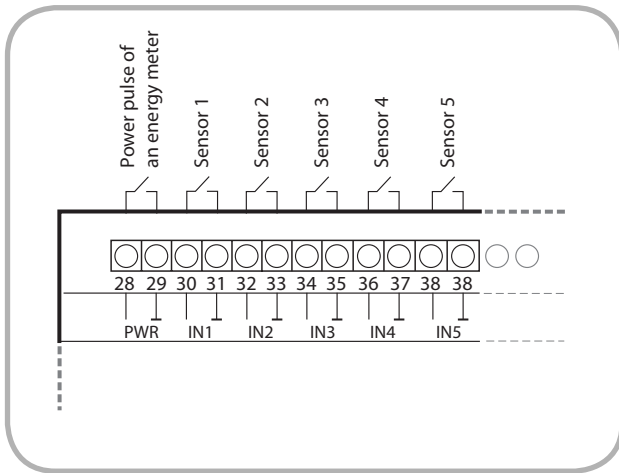
EcoGate is equipped with a real time clock. The device synchronizes itself to the clock time of the Master Device every full hour.

Timer

The timer function is for EcoGate as well available as for EcoSys. It is also possible to create seven blocks of time periods for each channel. The parameters of the timer are administered autonomously by the output extension. Action is taken independently from the regulation algorithm.

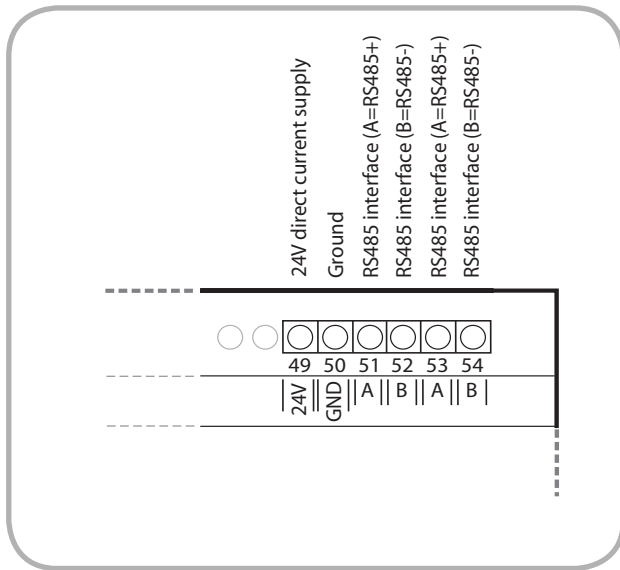
Connections

Control contact

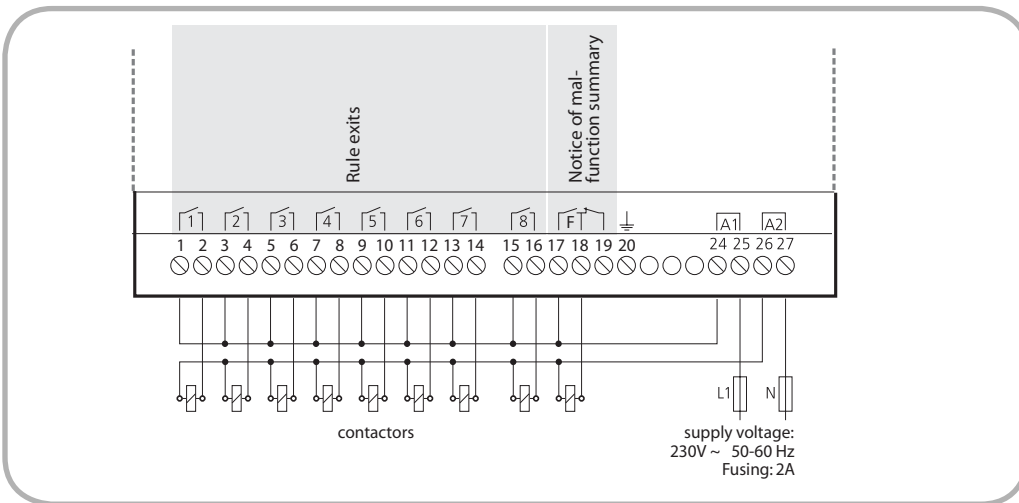


Connections

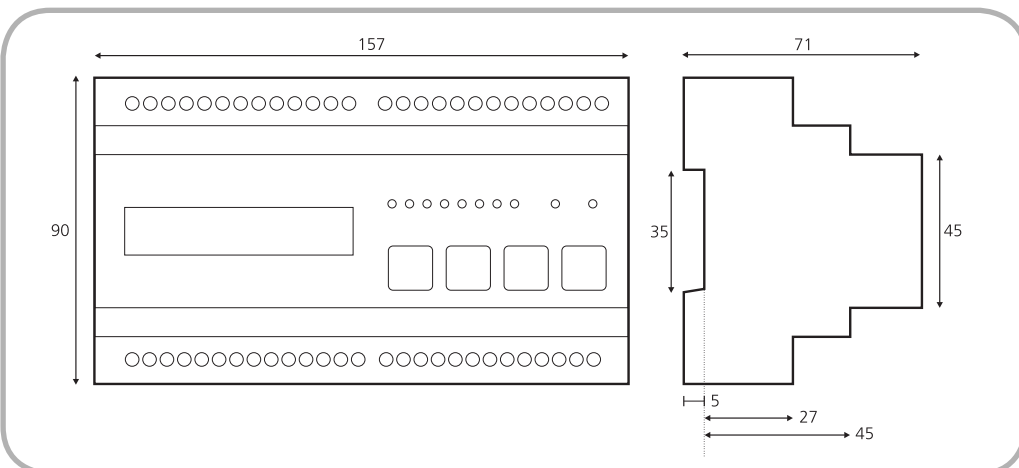
Connections



Outputs



Dimensions



Notes

Subject to alterations and errors