EsGate 2, EsGate 2.LVAC

SWISSDOOR DØRTEKNIK FOR PROFESSIONELLE

BIRCHER Reglomat

Translation of the original instructions

Please keep for future reference!

Switching device in combination with safety edges to avoid dangers at crushing and shearing points

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Safety and warning notices

⚠️ ➜ The electrical connection may only be set up by an electrician. ➜ The arrangement of the components depends on the structural conditions and the gate design. ➜ Switch off the operating voltage before working on the system. ➜ The switching device monitors pressure-sensitive protective devices from Bircher Reglomat AG (proper use). ➜ Use of components not supplied by Bircher-Reglomat (including safety edges) will render the guarantee and liability null and void. ➜ Connect all operating and switching voltages to the same fuse. ➜ Connect the operating voltage to the same circuit as the industrial door controller. ➜ Disconnect device from mains in the event of a fault. ➜ Protection max. 10 A
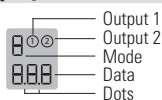
1 Electrical connection and terminal diagram

Version	Operating voltage	safety edge ①	safety edge ②	Test input	Output 1	Output 2	Signal output
EsGate 2 **EsGate 2.LVAC**	+/~ A1 −/~ A2	1 2	3 4	T2 T1	14 11	24 21	5 6

2 Operation

«Mode» button   «Data» button

Control buttons on device: [Mode] [Data]

Display

- Output 1
- Output 2
- Mode
- Data
- Dots

-🔆- = Symbol for display flashes

3 Standard operation

When everything is connected correctly:

Status LED lights up green — Dots flash

Displays shown when safety edge is actuated: Status LED lights up orange

① actuated: P① 1   ② actuated: P② 2

Active test input:

A ·🔆

4 Diagnostic menu

Press the «Mode» and «Data» buttons simultaneously for 2 s ➜ status LED flashes orange. Press «Mode» buttons briefly to change to the next mode. Press the «Mode» button for 2 s to exit diagnostic menu.

Error display mode

E 101 — The 5 most recent errors can be interrogated. Press the «Data» key briefly in each case, and the errors are displayed one after the other. End appears when the «Data» button is pressed for the 5th time. The malfunctions are displayed in chronological order (new ➜ old)

Mode «r» Resistance

r 1 8 — The resistances of the safety edges are displayed. Example:
8 = Resistance between 7 and 9 kohm.
1 = safety edge ①
To access the next safety edge: Press the «Data» button

Mode «S» Output 1

S P① 1 — Output 1: Press the «Data» button

S P① 0 — The Output 1 is deactivated

S P① 1 — Press the «Data» button again
The Output 1 is activated

Mode «S» Output 2

S P② 1 — Output 2: Press the «Data» button

S P② 0 — The Output 2 is deactivated

S P② 1 — Press the «Data» button again
The Output 2 is activated

Modus «S» Simulation test

S P①② 1 — Both outputs: Press the «Data» button

S P①② 0 — Both outputs are deactivated
Press the «Data» button again

S P①② 1 — Both outputs are activated

Mode «I» Test input

I IAC — Display when test input inactive

I①② AC — Display when test input active

Mode «C» current configuration

C 001 — Displays current configuration of safety edge inputs, see configuration table.
Configuration ➜ chapter 5

Mode «C» current configuration test signal

C 001 — Displays current configuration, test signal, see test pulse table.
Configuration ➜ chapter 5

Mode «h» current fall-delay time

h 002 — Displays current fall-delay time, see fall-delay time table.
Configuration ➜ chapter 5
To access the config. mode: Proess the «Mode» button

5 Configuration mode (for configuration before starting up, via diagnostic menu, after mode «h»)

⚠️ Please read chapters 5.1 to 5.4 in full before attempting configuration.

5.1 Activating configuration menu

C con — Status LED flashes orange, press «Data» button

C con — Press the «Mode» and «Data» buttons simultaneously for 2 s.
Configuration menu is activated.

Configuration menu can be **exited** at any time by pressing the «Mode» button (2 s).
«End» is displayed ➜ Press «Data» button and release ➜ Restart undertaken with new configuration.

5.2 Configuration of safety edge inputs

C 001 — The current setting for the safety edge inputs is displayed.

C 001 — Use the «Data» button to set the **configuration** you want for the safety edge inputs (according to Table 1).

Dysplay	safety edge ①	safety edge ②
unc	not configured	
001*	X	X
002	X	
003		X

*) Factory setting

Table 1

5.3 Configuration Test input

Use the «Data» button to set the required **test signal** (according to Table 2).

Display	Test pulse
001	⊓
002*	⊔

Table 2   *) Factory setting

5.4 Configuration fall-delay time

Use the «Data» button to set the required **fall-delay time** (according to Table 3).
Then briefly press the «Mode» button and End appears.

→ The system is configured.
→ Press «Data» button to restart.

⚠ Error messages may occur when restarting after configuration if the inputs do not match the configuration.

Display	Fall-delay time
001	none
002	100 ms
003*	200 ms
004	500 ms
005	1000 ms

Table 3   *) Factory setting

6 Signal output

Signal output closed when **both** outputs, 1 and 2, are closed. Actuation or fault → signal output open.

7 Error displays

If an error is detected then the outputs are deactivated and symbols ① & ② and an error code are displayed. The status LED lights up red.

Display	E001	E002	E006	E101/ E102
Error	Safety edge malfunct. ①	Safety edge malfunct. ②	Mounting ≠config. mode	Undervoltage/overvoltage
Remedy	Check safety edge ①	Check safety edge ②	Check configuration	Check supply

Should other fault messages appear, please contact your supplier.

8 Most important technical data

Operating voltage	EsGate 2	24 V AC/DC ± 15%,
	EsGate 2.LVAC	100-240 V AC 50/60 Hz
Power consumption		max. 3 VA
Safety edges		8,2 kOhm

Outputs	Semiconductor relay, 24V AC/DC, max. 50mA
Test input	24V AC/DC, 2mA Not activated = Standard operation, activated = Test
Dimensions (W x H x D)	22,5 x 94 x 88 mm

9 EC Declaration of conformity, date of production

9.1 EC Declaration of conformity

Manufacturer:	Bircher Reglomat AG, Wiesengasse 20, CH-8222 Beringen
Employee responsible for documentation:	Bircher Reglomat GmbH, Dr. Marc Loschonsky, Robert-Bosch-Strasse 3, DE-71088 Holzgerlingen
Product:	Safety switching device
Models:	EsGate 2, EsGate 3
Notified Body:	Suva, Bereich Technik, SCESp 008, Kenn-Nr. 1246
Txpe-examination certificate:	E 6936, E 6937
Fulfills the essential requirements in acc. with:	2006/42/EG, 1999/5/EG
Following standards were applied:	EN ISO 13849-1:2008+AC:2009
Signee:	CTO Dr. Marc Loschonsky, COO Daniel Nef

9.2 Date of production

See label → week/year, e.g. 12/10 = week 12, 2010

10 Contact data

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