InTra6 3, InTra6 3.LVAC

Please keep for future reference!

BIRCHER Reglomat

Translation of the original instructions

Switching device with inductive transmission system used in combination with safety edges to avoid dangers at crushing and shearing points in sliding gate systems.

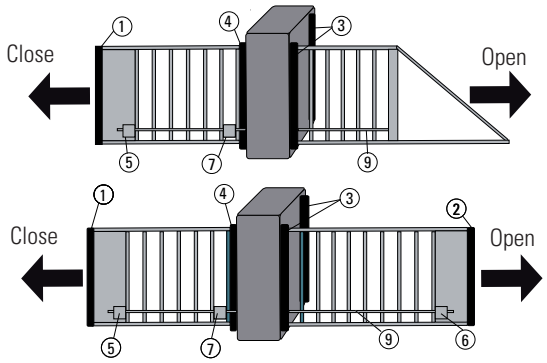
255838W 08/13

ENGLISH

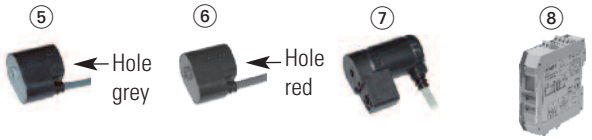
Safety and warning notices

⚠ ➔ 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 System components



① Mobile safety edge CLOSE (primary closing edge)
② Mobile safety edge OPEN
③ Stationary safety edge CLOSE
④ Stationary safety edge OPEN
⑤ INTR-MOB61, converter for safety edge ①
⑥ INTR-MOB62, converter for mobile safety edge ②
⑦ INTR-FIX60, coil
⑧ InTra6 3, switching device
⑨ Steel cable (see chapter 9.3)



2 Electrical connection and terminal diagram

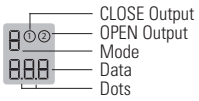
Version	Operating voltage	Stationary safety edge CLOSE ③	Stationary safety edge OPEN ④	Coil connection ⑦	Output CLOSE*	Output OPEN*
InTra6 3 **InTra6 3.LVAC**	+/~ A1 –/~ A2	1 2	3 4	YE RX GN WH BN TX	14 11	24 21

* The outputs are monitored ➔ need to be connected, otherwise an error code is displayed (E007)!

3 Operation

Control buttons on device: «Mode» button Mode; «Data» button Data

Display



= Symbol for display flashes

4 Standard operation

When everything is connected correctly:

Display after switching on: 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 ③ actuated: P① 3 ④ actuated: P② 4

5 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 18 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 CLOSE

S① 00 – CLOSE output is deactivated – No current flow ➔ OK
S① 0E – Current flow ➔ error
– Press the «Data» button
S① 11 – CLOSE output is activated – Current flow ➔ OK
S① 1E – No current flow ➔ Error (consumer missing)

Mode «S» Output OPEN

S② 00 – OPEN output is deactivated – No current flow ➔ OK
S② 0E – Current flow ➔ error
– Press the «Data» button
S② 11 – OPEN output is activated – Current flow ➔ OK
S② 1E – No current flow ➔ Error (consumer missing)

Mode «S» Both outputs

S①② 000 – Both outputs deactivated – No current flow ➔ OK
S①② 00E – At least 1 output with current flow ➔ Error
– Press the «Data» button
S①② 111 – Both outputs are activated – Current flow ➔ OK
S①② 1IE – At least 1 output without current flow ➔ Consumer missing

Mode «C» current configuration

C 001 Displays current configuration of safety edge inputs, see configuration table.

Configuration ➔ chapter 6

Mode «h» current fall-delay time

h 002 Displays current fall-delay time, see fall-delay time table.

Configuration ➔ chapter 6

To access the configuration mode: Press the «Mode» button

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

⚠ Please read chapters 6.1 to 6.3 in full before attempting configuration.

6.1 Activating configuration menu

Status LED flashes orange, press «Data» button

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.

6.2 Configuration of safety edge inputs

The current setting for the safety edge inputs is displayed.

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

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

Display	Mobile safety edge **CLOSE** ①	Mobile safety edge **OPEN** ②	Stationary safety edge **CLOSE** ③	Stationary safety edge **OPEN** ④
unc	not configured			
001*	X		X	X
002	X	X	X	X
003			X	X
004	X	X		
005	X			
006	X	X	X	
007	X	X		X
008	X		X	
009	X			X
010			X	
011				X

*) Factory setting

Table 1

6.3 Configuration fall-delay time

Press the «Mode» button briefly.
Use the «Data» button to set the required **fall-delay time** (according to Table 2).
Then briefly press the «Mode» button and End appears.

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

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

*) Factory setting

Table 2

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	E003	E004	E005	E006	E007	E101/ E102
Error	Safety edge (SE) malfunction ①	SE malfunction ①	SE malfunction ①	SE malfunction ①	Cable circuit malfunction	Mounting ≠config. mode	Outputs not OK	Undervoltage/ overvoltage
Remedy	Check safety edge ①	Check SE ②	Check SE ③	Check SE ④	Check cable circuit < 3 ohm	Check configuration	Check connection for outputs	Check supply

Should other fault messages appear, please contact your supplier.

8 Most important technical data

Operating voltage	InTra6 3	24 V AC/DC ± 15%,
	InTra6 3.LVAC	100-240 V AC 50/60 Hz
Power consumption		max. 3 VA
Safety edges		8,2 kOhm

Outputs	Semiconductor relay, 24 V DC, max. 50 mA
Dimensions (W x H x D)	Switching device ⑧ 22,5x94x88 mm Coil ⑦: 50x25x22 mm Converter ⑤⑥: 40x25x22 mm

9 Mounting

9.1 Electrical installation

1. Check that electrical components are all present by referring to component list 9.3.
2. Mount switching device in designated position.
3. Mounting of mechanical parts (see chapters 9.2 and 9.3).
4. Connect electrical lines as shown in terminal diagram in chapter 2.

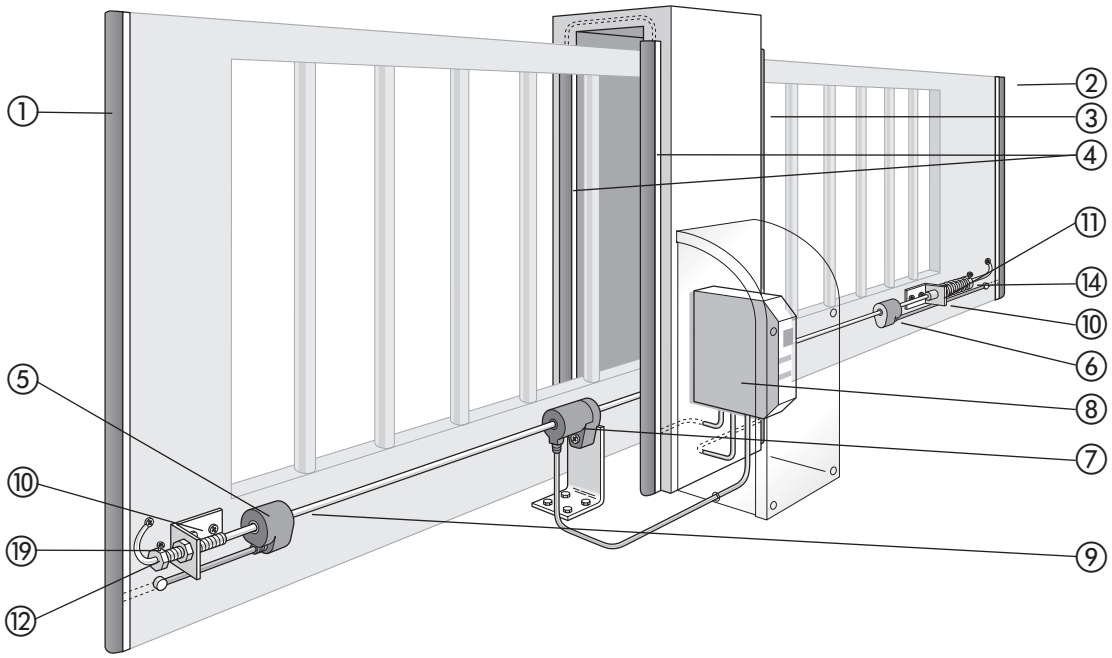
9.2 Mechanical mounting

1. Check that mechanical components are all present by referring to component list 9.3
2. Mount the two mounting brackets ⑩ and the coil ⑦.
3. Pull in the steel cable (see chapter 9.4 and 9.5). Mount converter INTR-MOB ⑤ or ⑥.
4. Tension the steel cable ⑨ cable and fix it via the retaining screw ⑲. **The steel cable ⑨ must be able to move unimpeded through the INTR-FIX60 coil ⑦ along the full length of the gate.**
5. Connect steel cable ⑨ as described in chapter 9.5. Make sure the connection with the gate offers low resistance (clean the contact points and remove any paint).
6. Establish the electrical connection as shown in the terminal diagram in chapter 2.

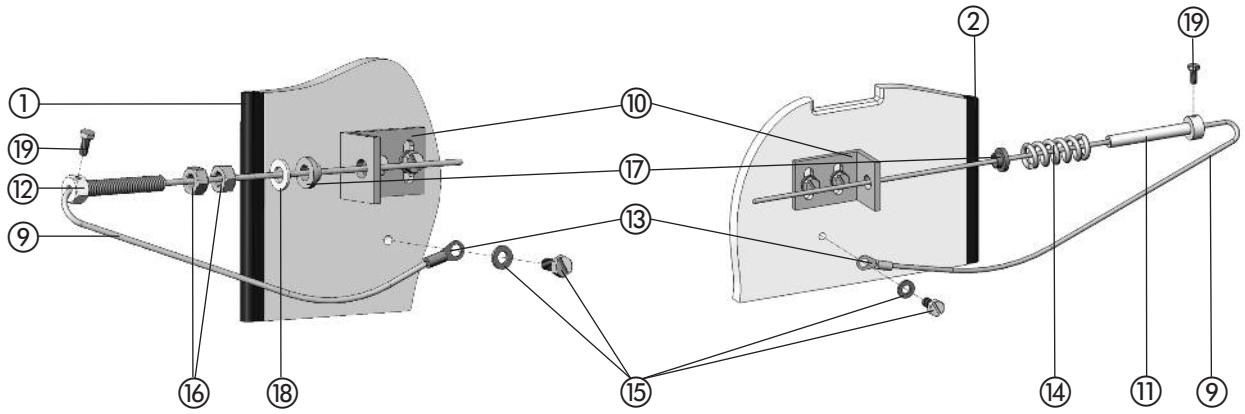
9.3 List of electrical components

Components	Image	Qty	No.	Function
INTR-MOB61 (grey)		1	⑤	Converter, mobile sensor unit, transmits sensor status of primary closing edge
INTR-MOB62 (red)		evt. 1	⑥	Converter, mobile sensor unit, transmits sensor status of mobile secondary closing edge
INTRA6 3 switching device		1	⑧	Evaluation and switching device
INTR-FIX		1	⑦	Coil, transmits energy and information
Steel cable		1	⑨	Steel cable, forms the low-resistance cable circuit together with the gate structure (< 3 ohm!)
INTR-ASK60 components				
Mounting bracket		2	⑩	For fastening the cable to the gate
Banjo bolt, smooth, 8x60 with steel cable fixing screw (M4x10)		1	⑪	Part of cable tensioning device
Banjo bolt		1	⑫	Part of cable tensioning device
Cable lug 2.5 mm2		2	⑬	For connecting steel cable to gate
Compression spring		1	⑭	Part of cable tensioning device
Hexagon bolt M6x12 including washer		6	⑮	For fastening bracket / cable to gate
Hexagon nut M6		2	⑯	Part of cable tensioning device (on banjo bolt)
Plastic sleeve		2	⑰	For insulation between banjo bolt / hollow pin and mounting bracket
U-shaped washer for M8		2	⑱	Part of cable tensioning device (on banjo bolt)
Screw M4 x 10		2	⑲	For fixing the cable in the banjo bolt / hollow pin

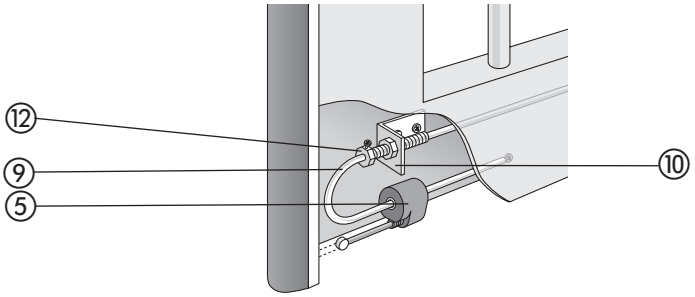
9.4 Arrangement on a gate (example)



9.5 Mounting steel cable



9.6 Mounting substructure



10 EC Declaration of conformity, date of production

10.1 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:	Inductive signal transmission system, switching device
Models:	InTra6 2, InTra6 3
Notified Body:	Suva, Bereich Technik, SCESp 008, Kenn-Nr. 1246
Txpe-examination certificate:	E 6934, E 6935
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

10.2 Date of production

See shield ➔ week/year, e.g. 12/10 = week 12, 2010

11 Contact data

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