

InTra6 2, InTra6 2.LVAC

Please keep for future reference!

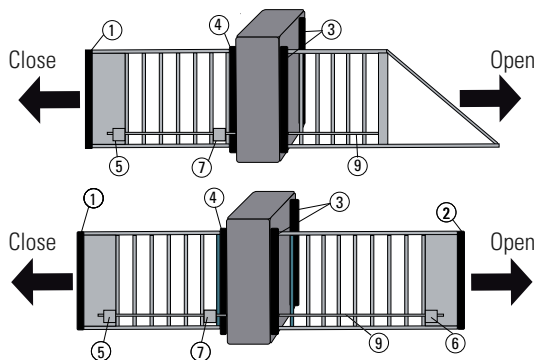
Original operating instructions

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

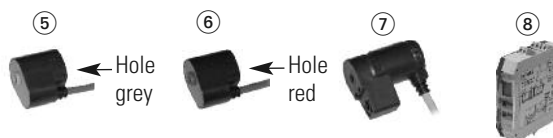
Safety and warning notices

- 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 may only be used to protect against dangers at crushing and shearing points on automatic sliding gates (designated use). Any other use is prohibited.
- Use of components not supplied by Bircher-Reglomat (including safety edges) will render the guarantee and liability null and void.

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 safety edge ②
- ⑦ INTR-FIX60, coil
- ⑧ InTra6 2, switching device
- ⑨ Steel cable (see chapter 8.3)



2 Electrical connection and terminal diagram

Version	Operating voltage	Stationary safety edge CLOSE ③	Stationary safety edge OPEN ④	Test input	Coil connection ⑦	Output CLOSE	Output OPEN
InTra6 2 InTra6 2.LVAC	+/- A1 -/- A2				YE RX GN WH TX BN		

3 Standard operation

Display after switching on:
Status LED lights up green



Display on actuation:

① actuated:
Status LED lights up orange



② actuated:



③ actuated:



④ actuated:



4 Configuration modes

⚠ Please read chapters 4.1 to 4.4 in full before attempting configuration.

4.1 Operation

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



Factory setting* :

Number of mobile safety edges, number of stationary safety edges, test signal and fall-delay time → see 4.3, 4.4 *

4.2 Activating configuration mode

1. Switch off operating voltage 2. Press and hold "Mode" button 3. Switch on operating voltage.

Status LED flashes orange, display counts down from 3 to 0.
4. Release "Mode" button within 3 s

Display counts down from 5 to 0.
5. Press "Mode" button within 5 s and hold down

Display counts down from 3 to 0.
6. Release "Mode" button within 3 s. Configuration mode is activated.

4.3 Configuration of safety edge inputs

The current edge configuration is displayed.

7. Now set the configuration by pressing the "Data" button (see table).

8. Press the "Mode" button for 2 s, the new configuration is set!
9. Switch off operating voltage.
→ The system is configured.

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			

Display	Mobile safety edge CLOSE ①	Mobile safety edge OPEN ②	Stationary safety edge CLOSE ③	Stationary safety edge OPEN ④
006	X	X	X	
007	X	X		X
008	X		X	
009	X			X
010			X	
011				X

*) Factory setting

4.4 Extended configuration mode

After «7.» under point 4.3, press the “Mode” button briefly.



Press the “Data” button repeatedly to set the corresponding test signal acc. to the table:

Code c	Test pulse
001	
002*	

*) Factory setting



Press the “Mode” button for 2 s and End appears.



Press the “Mode” button briefly. Press the “Data” button repeatedly to set the corresponding fall-delay time (acc. to the table). After setting the fall-delay time, briefly press the “Mode” button so End appears. Operating voltage off: → The system is configured.

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

*) Factory setting

5 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	E101/ E102	E200 ... E203
Error	Safety edge malfunction ①	Safety edge malfunction ②	Safety edge malfunction ③	Safety edge malfunction ④	Steel cable malfunction	Configuration ≠ config. mode	Undervoltage / overvoltage	Entry to config. mode invalid
Remedy	Check safety edge ①	Check safety edge ②	Check safety edge ③	Check safety edge ④	Check cable < 3 ohm	Check configuration	Check supply	Restart configuration

Please contact your supplier if error codes other than those specified here appear.

6 Diagnostic mode

Press the “Mode” and “Data” buttons simultaneously for 2 s → status LED flashes orange. Press “Mode” briefly to change to the next mode. Press the “Mode” button for 2 s to exit diagnostic mode.

Error display mode



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.

Mode “r” Resistance



The resistances of the safety edges are displayed one after another. Example: 8 = Resistance between 7 and 9 kohm. To access the next safety edge: Press the “Data” button.

Mode “S” Simulation CLOSE



CLOSE Output: Press the “Data” button



The CLOSE Output is deactivated



Press the “Data” button again. The CLOSE Output is activated

Mode “S” Simulation OPEN



OPEN Output: Press the “Data” button



The OPEN Output is deactivated



Press the “Data” button again. The OPEN Output is activated

Mode “S” Simulation test



Both outputs: Press the “Data” button



Both outputs are deactivated. Press the “Data”



button again. Both outputs are activated

Modus “I” Test input



Display when test input inactive



Display when test input active

Mode “C” Current configuration



Displays current configuration, see configuration table.

Mode “c” Current configuration test signal



Displays current configuration, test signal, see test pulse table.

Mode “h” Current fall-delay time



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

Change back to mode E: Press “Mode” button briefly.

7 Most important technical data

Operating voltage	InTra 6 2	24 V AC/DC ± 15%,
	InTra 6 2.LVAC	94-240 V AC 50/60 Hz
Power consumption	max. 2 VA	
SchSafety edges	8,2 kOhm	

Output	Semiconductor relay, 24 V AC/DC, 50 mA
Test input	24 V DC ± 15% 2 mA Not activated = Standard operation, activated = Test
Dimensions (W x H x D)	Switching device ⑧ 22,5x94x88 mm Coil ⑦: 50x25x22 mm Converter ⑤⑥: 40x25x22 mm

8 Mounting






8.1 Electrical installation











1. Check that electrical components are all present by referring to component list 8.3.
2. Mount switching device in designated position.
3. Mounting of mechanical parts (see chapters 8.2 and 8.3).
4. Connect electrical lines as shown in terminal diagram in chapter 2.

8.2 Mechanical mounting

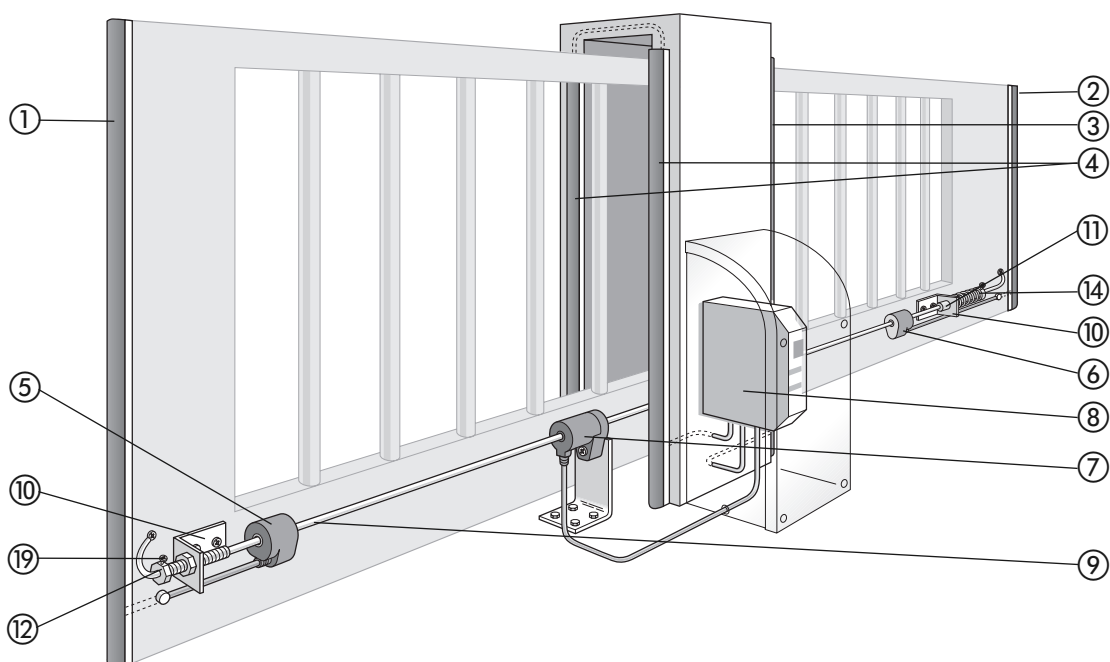
1. Check that mechanical components are all present by referring to component list 8.3
2. Mount the two mounting brackets ⑩ flush with the coil ⑦ and tension the steel cable (see chapter 8.4)
3. Mount converter INTR-MOB ⑤ or ⑥.
4. Mount the INTR-FIX60 coil ⑦. **The steel cable ⑨ must be able to move unimpeded through the INTR-FIX60 coil ⑦ along the full length of the gate.**
6. Mount steel cable ⑨ as described in chapter 8.5. Make sure the connection with the gate offers low resistance (clean the contact points and remove any paint).
7. Establish the electrical connection as shown in the terminal diagram in chapter 2.

8.3 List of electrical components

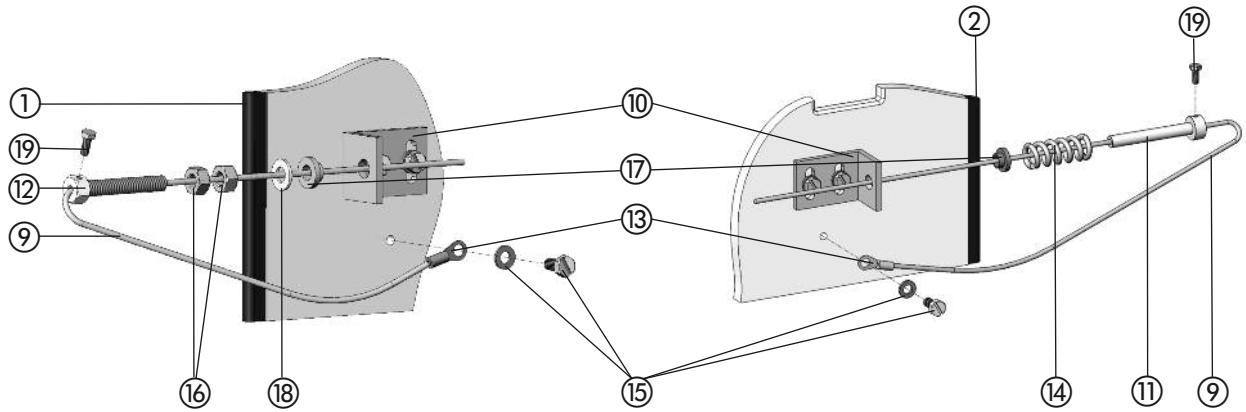
Components	Image	Qty	No.	Function
INTR-MOB61 (grey)		1	⑤	Converter, mobile sensor unit, transmits sensor status of primary closing edge
INTR-MOB62 (red)		There may be 1	⑥	Converter, mobile sensor unit, transmits sensor status of mobile secondary closing edge
INTRA6 2 switching device		1	⑧	Evaluation 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 mm ²		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

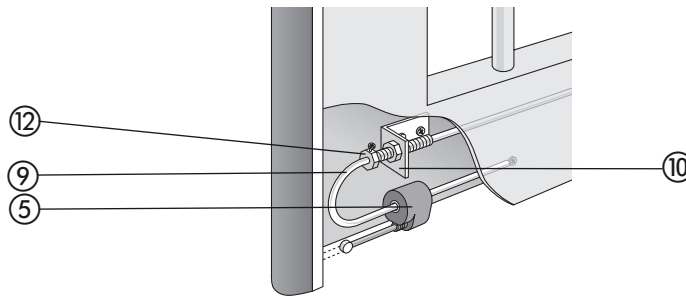
8.4 Arrangement on a gate (example)



8.5 Mounting steel cable



8.6 Mounting substructure



9 Substance of declaration of conformity

Manufacturer:
Bircher Reglomat AG,
Wiesengasse 20,
CH-8222 Beringen

declares that the products:

type: InTra6 2
model: 24 V AC/DC

type: InTra6 2.LVAC
model: 94 – 240 V AC, 50/60 Hz

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

if used as designated, fulfils the fundamental requirements
in accordance with: R&TTE Directive, Appendix III 1999/5/EG and safety category 2 according to EN 954-1.

The full version of the Declaration of Conformity can be viewed on our website: www.bircher-reglomat.com

10 Contact data

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Switzerland
www.bircher-reglomat.com