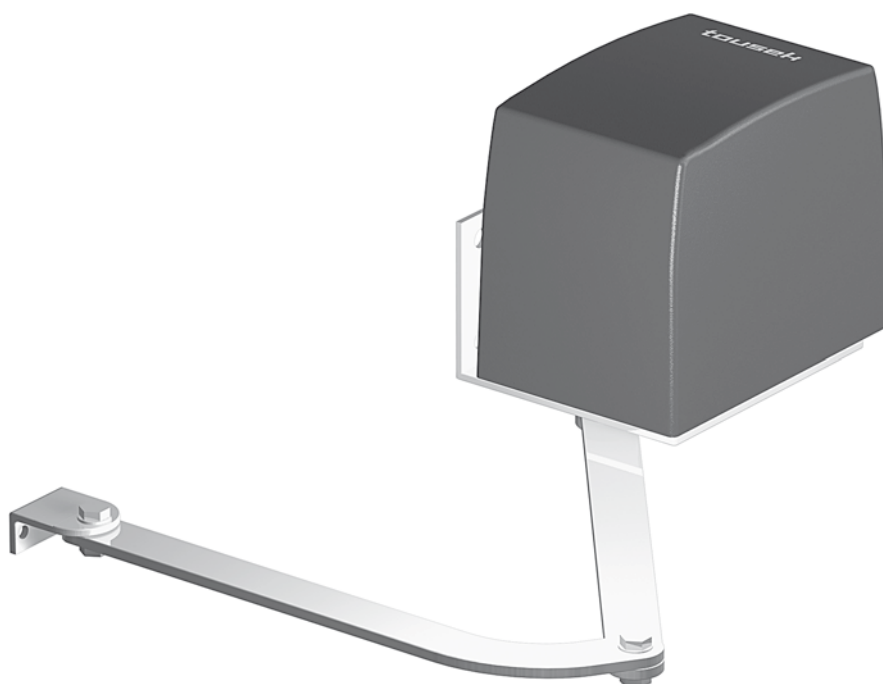


Installation- and Operating Instructions

swing gate operator SPIN



tousek[®]
G A T E A U T O M A T I O N





Important warning and safety notes for installation and operation

- These installation- and operating instructions form an integral part of the product "gate operator". They have been specifically written for professional installers trained and skilled in the trade and should be carefully read in their full length before carrying out the installation. They describe the proper installation and operation of the sliding gate operator only, not of the overall device "automatic gate". After the installation this manual has to be handed over to the user.
- **Installation, connection, adjustments, putting into operation, and servicing may only be carried out by trained professionals in full accordance with these installation- and operating instructions.**
- The EU Machine Directive, laws and rules concerning the prevention of accidents, and laws and standards which are in force in the EU and in the individual countries have to be strictly followed.
- The TOUSEK Ges.m.b.H. cannot be held liable for any claims resulting from disregards of the laws and standards in force during the installation and operation.
- The product may only be used in accordance with its original purpose, for which it has been exclusively designed, and which is described in these installation and operating instructions. The TOUSEK Ges.m.b.H. rejects any liability if the product is used in any way not fully conforming to its original purpose as stated herein.
- **The product is not suitable for installation in explosion-hazardous areas. The existence of inflammable gas and steam is of great danger!**
- The packaging materials (cardboard, plastic, EPS foam parts and filling material etc.) have to be properly disposed of in accordance with the applying recycling- and environmental protection laws. They may be hazardous to children and therefore have to be stored out of children's reach.
- Before beginning with the installation the installer has to make sure that all mechanical components of the gate facility, like carrier profile/rail, gate frame and panels, guiding elements etc. are sufficiently supportive and resistant for the purpose of gate automation. Check also whether the product has transport damages.
- All electrical installations have to be made in full conformity with the applying rules and laws (e.g. using a fault current circuit breaker, proper grounding etc.).
- An all-pole disconnecting main switch with a contact opening-gap of minimum 3 mm has to be foreseen.
- When installing the safety device (photocells, safety edges, emergency-stops etc.) please comply with the valid directives/standards, the criteria of practical rules of conduct, the installation environment, the operating logic of the system and the effected force of the motorised gate. .
- The safety devices must secure possible bruise, shear and general danger areas of the motorised gate.
- **After installation the proper function of the gate facility and the safety devices has to be checked!**
- **After putting the gate in operation, the gate system must be checked with a suitable force measuring device in accordance with the applicable standards EN 12453 or national regulations.**
- Place warning signs and notes of the valid regulations to indicate danger areas .
- With each installation the identification data of the motorised gate has to be placed in a visible place.
- The label for the Handauslöser has to be placed next to its operating element.
- The electric motor heats up during operation. Therefore the device should only be touched after it has cooled off.
- Please make sure that no other persons are on site of the motorised gate area, especially in when operating the facility in hold to run mode (switch with OFF-pre adjustment) . The pre-adjusted OFF-button/switch has to be placed in sight of the actuated gate but away from moving parts. This switch/button (except key-switch) has to be mounted in min. 1,5m height and non-accessible to the public.
- **Children have to be instructed, that the gate facility as well as the belonging parts may not be used improperly, e.g. for playing. Furthermore handheld transmitters have to be kept in safe places and other impulse emitters as buttons and switches have to be installed out of children's reach.**
- Only original spare- and replacement parts may be used for repair of the product.
- The TOUSEK Ges.m.b.H. rejects any liability for claims resulting from usage of the product in combination with components or devices which do not fully conform to the applying safety laws and rules.
- The installer has to inform the user about all aspects of the automatic operation of the complete gate facility, as well as about emergency operation. The installer further has to supply to the user all instructions relating to the safe operation of the gate facility. The installation and operating instructions also have to be handed over to the user.
- The user has to be informed that he has to turn off the main power switch in case of malfunction of the product and that he can use the facility again after repair and adjustment works have been completed.
- **Please notice that the warranty will not be applicable if the label with the engine number has been removed or damaged.**



Maintenance

- **Disconnect the power supply during mounting, maintenance and repair works.**
- **Maintenance works may only be carried out by qualified personnel.**
- **With every maintenance, the door system must be checked with a suitable force measuring device in accordance with the applicable standards EN 12453 or national regulations.**
- **Check the proper function of the emergency release mechanism periodically.**
- **Check if all mounting screws are securely fastened periodically.**
- **Remove dirt from the operator periodically.**
- **Lubricate the pivot points of the operator with grease (twice a year or as needed).**
- **Maintenance and servicing of the complete gate facility has to be carried out according to the gate builder's/ installer's instructions.**

Electromechanical operator for swing gates

- for 230V a.c.
- max. wing weight 200 kg
- suitable for subsequent installation
- incl. assembly parts
- for private use approx. 20 cycles/day




General features

The swing gate operator SPIN is suitable for quick and easy installation at new or already existing swing gate facilities. Its electromechanical operating unit consists of a powerful single phase motor with limit switches and lever arm. The operator ensures the blocking of the gate and so usually no e-lock is required. But according to the individual case of mounting an additional locking device (e.g. e-lock) may also be necessary at blocking gate operators to ensure the latching of the gate. A key for emergency release permits the manual opening of the gate in case of a power failure.

Delivery scope

- operator SPIN
- mounting angles
- motor arm, lever arm and gate fitting
- emergency release key
- assembly parts

Technical data

Swing gate operator SPIN			
max. gate wing width	2,5m	max. opening angle	120°
max. gate wing weight	200kg	capacitor	8µF
supply voltage	230Va.c., ±10%,50Hz	cycles/day	20
max. current consumption	1,7A	Article no.	left: 11260290
max. torque	400Nm		right: 11260300
max. travel speed	9°/s		
other	mechanical system with self locking in OPEN and CLOSED gate position • force adjustment through control unit • built-in limit switches • emergency release		
	<ul style="list-style-type: none">• Max. wing widths do neither apply to full-panel gates (but to stave or trellised gates) nor to non-horizontal gates!• Note the space requirement D of the drive arms in rotating movement ! (see page4)		

2. Mounting

Swing gate operator SPIN

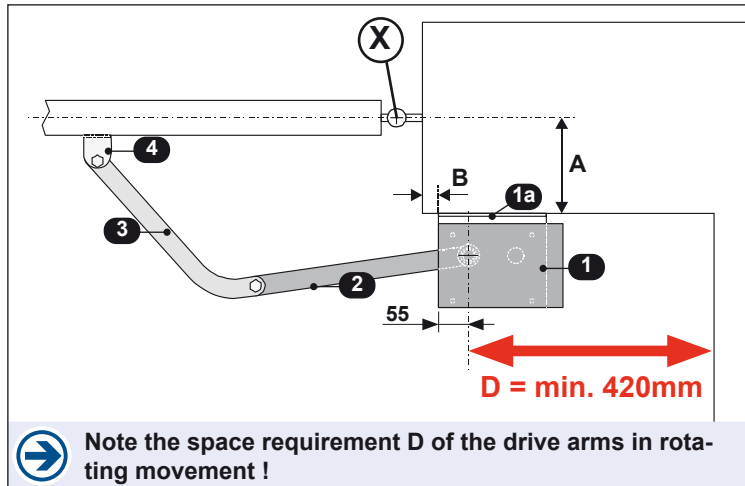
Attention



Before installation please make sure that customer-mounted floor stops fix the end positions gate opened and closed.

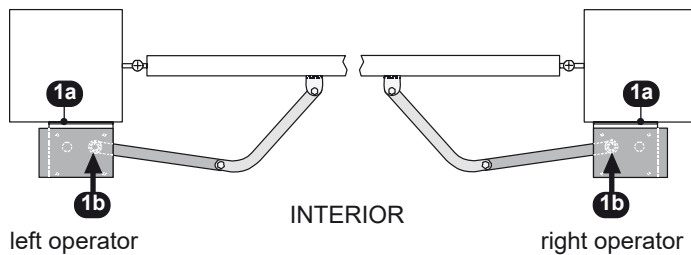
Otherwise it's necessary to mount floor stops. Alternatively Tousek piston rod travel limiters may be used.

The operator (1) has to be mounted at the gate column with the mounting angles (1a) and in regard to the below described mounting measurements A and B. The part consisting of motor arm (2), lever arm (3) and gate fitting (4) has to be connected with the swing gate. (X) = pivot point of gate wing.

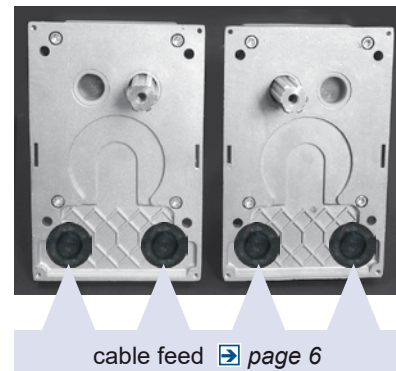


Attention: Left operator differs from right one!

Thus, please take care at mounting that the operator shaft of left as well as right operator is always lead through the boring (1b) of the mounting angle (1a) which is next to the gate panel.

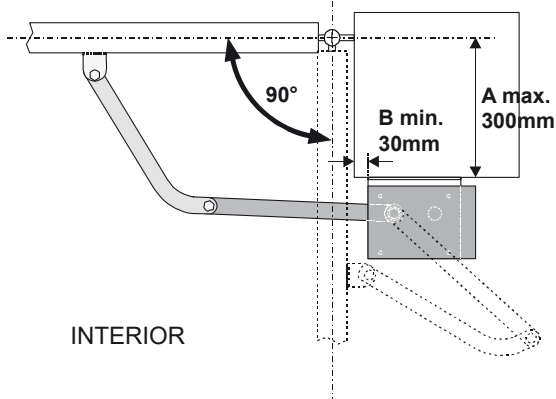


left operator right operator

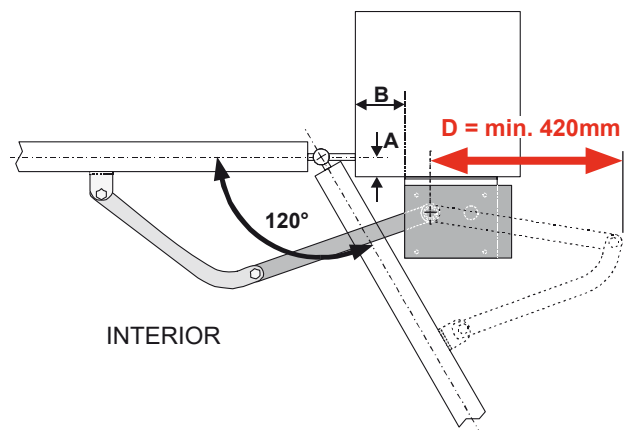


Possible installations

Swing gate opens in a 90° angle to the inside:



Swing gate opens in a 120° angle to the inside:



Important



Dimension A names the distance between gate column edge and axis of the gate. For a proper function A has to be kept smaller than 300 mm.

Dimension B describes the gap between the edge of the mounting angle and the gate column edge and should at least have 30 mm. In order to assure a maximum leverage effect, B shouldn't be larger than absolutely necessary.

For achieving a larger opening angle than 90°, the gate axis has to be shifted further to the inside (dimension A has to be kept so large that the column edge won't get broken or damaged) and dimension B has to be increased so that a collision of operator and gate is impossible (see above picture ...opens 120°)

Fixing the mounting angle

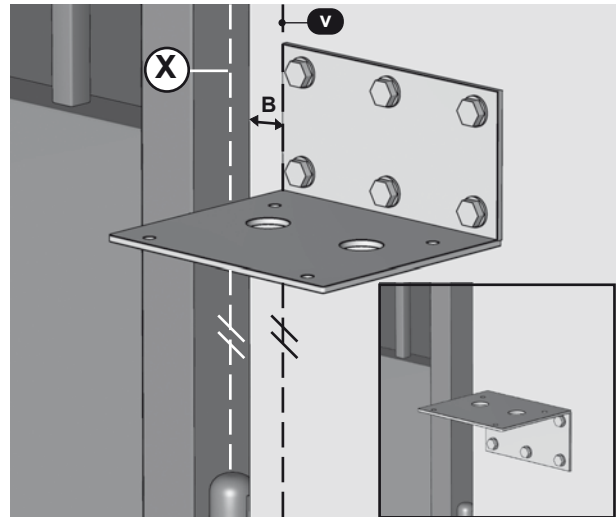
- The position of the mounting angle depends on the former described installation cases. In vertical direction it should be set as concentric to the gate height as possible. The mounting angle is therefore fixed at the gate column with screws in one of the two shown manners (see picture).

Important



The vertical axis (**v**) of the mounting angle must be adjusted parallel to the pivot point (**X**) of the gate wing.

Pay attention to dimension B!



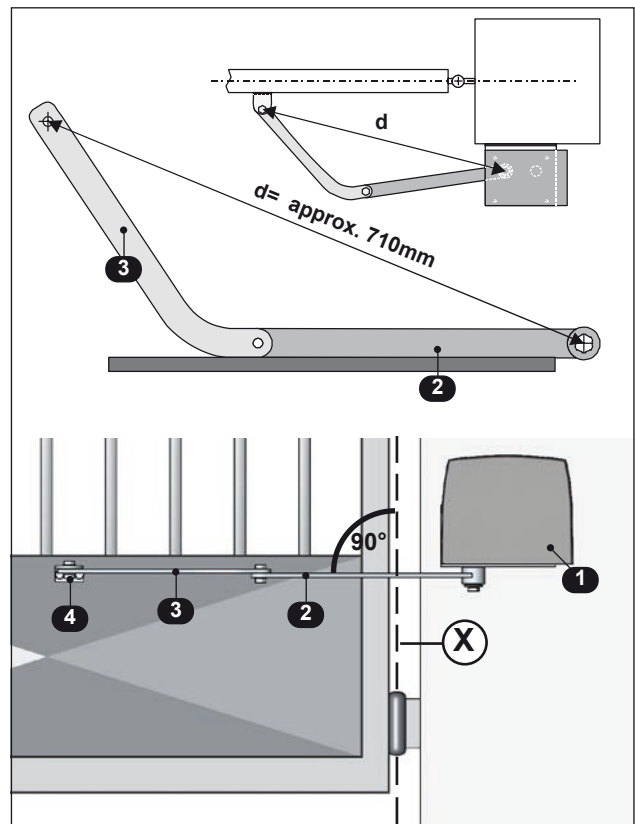
Fixing the gate fitting

- Fully close gate.
- The installation-position of the gate fitting (**4**) on which the lever arm (**3**) has to be mounted, is detected as follows: When the gate is fully closed, motor arm (**2**) and lever arm (**3**) have to take in the besides shown position (maybe adjust with a lath). So the distance *d* (length between motor shaft and pivot point of gate fitting) is already given.
- The vertical adjustment of the gate fitting depends on the mounting position of the operator (**1**). Mount the gate fitting in a way that motor arm (**2**) and lever arm (**3**) stand in an angle of 90° towards the gate axis.
- After detecting the correct position, the fitting is fixed at the gate wing with screws.

Important

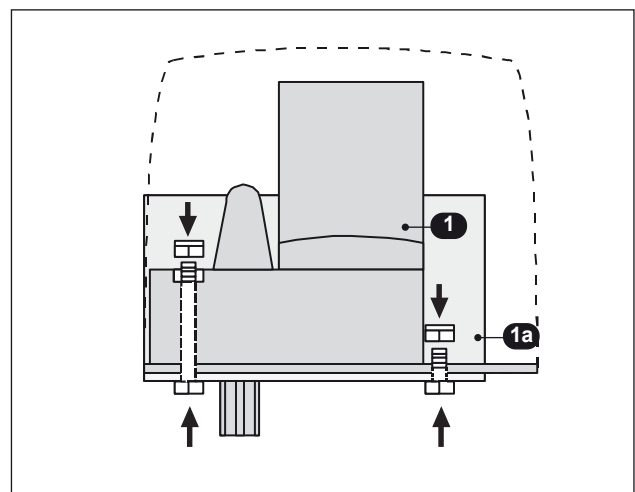


At thin-walled or wooden gates the fitting may not be mounted directly onto the gate panel, but a flat bar has to be laid under.



Mounting the motor

- Set motor (**1**) on the already fixed mounting angle (**1a**). **Please differentiate between left and right operator!**
- Take off operator cover
- Lead 4 hexagon screws (2 longer and 2 shorter) from below through the mounting holes and fix them with nuts.



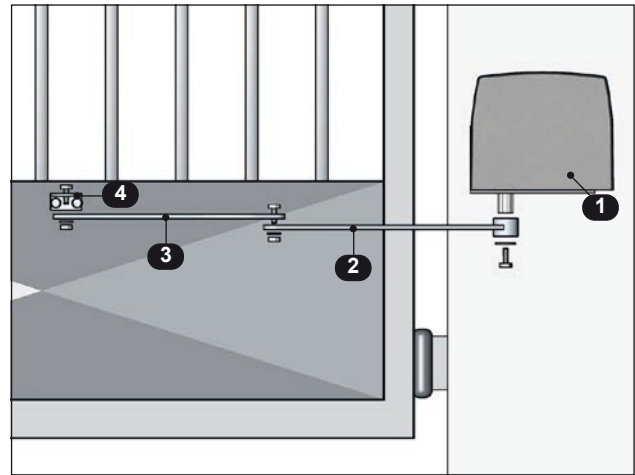
Mounting motor- and lever arm

- Emergency release operator
(see *chapter emergency release*)
- Now set motor arm (2) onto the motor shaft and fix it with washer and screw.
- Set lever arm (3) onto motor arm and connect it with screw, washer and nut.
- Finally connect lever arm with gate fitting (4) with screw, washer and nut.

Important



The pivot points of operator and linkage have to be slightly greased.



Electrical connection and force adjustment

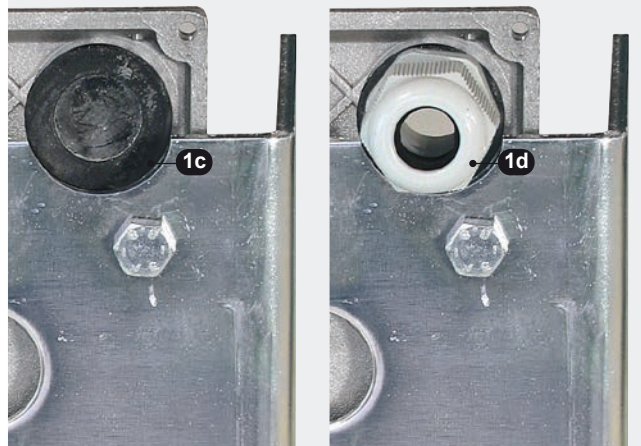
- Connect operator according to the manual of the control. Therefore open the rubber seal (1c) and fix the screw joint (1d) in the opening. Then lead motor supply through screw joint (1d) to the terminal strips (1e) and carry out the according connections (refer to the below picture). Now tighten the screw joint to fix the cable.
- Carry out connection of various safety devices, impulse emitters and other accessories according to their manuals (pay attention to cable plan).
- The operator force is adjusted at the control (see *manual of control*).

Attention



Before carrying out the electrical connections, the power supply of the swing gate facility must be turned off.

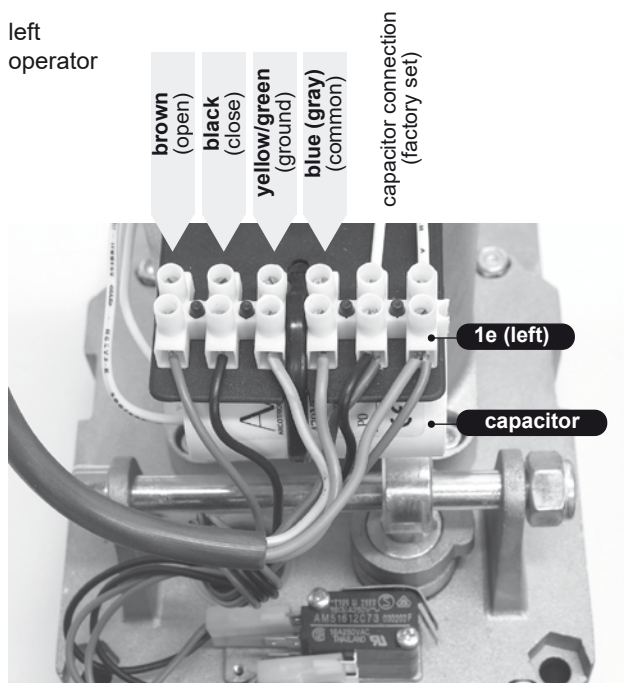
underside of operator



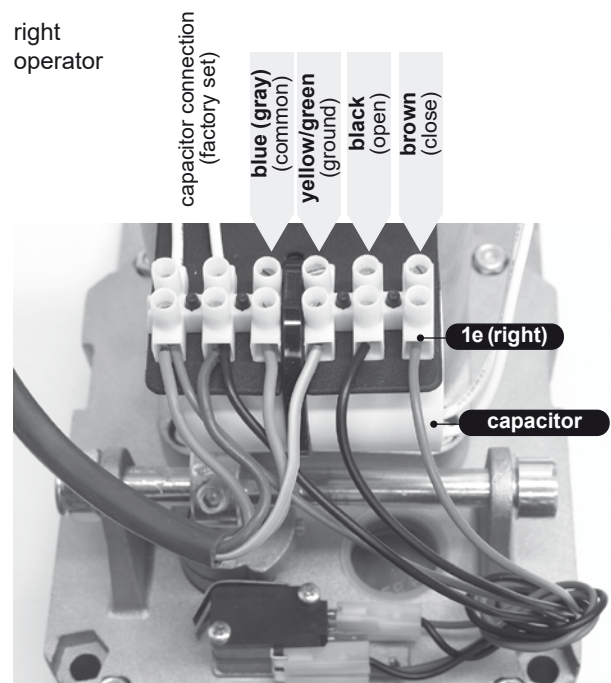
Attention

At force adjustment the valid standards and safety regulations have to be kept.

left operator



right operator



EMERGENCY RELEASE of operator in case of power failure

- Take off protective cap
- Turn the screw with the emergency release key clockwise until you can feel a latching. (Valid for left and right operator.)
- Now slowly move the gate (not faster than in motor operation).
- For re-engaging the operator, turn the key of the emergency release back counter-clockwise.
- Finally put on protective cap again.



Adjustment of limit switches

- Turn off power supply of gate facility.
- Emergency release operator (see chapter emergency release).

Adjustment for gate position closed:

- fully close gate
- Turn limit switch tappet for position closed (**NG**) just so far (in direction of the black arrow) that it triggers limit switch closed (**ESG**). Fix limit switch tappet in this position by fastening the Allen screw.

Adjustment for gate position opened:

- fully open gate
- Turn limit switch tappet for position opened (**NO**) just so far (in direction of the white arrow) that it triggers limit switch opened (**ESO**). Fix limit switch tappet in this position by fastening the Allen screw.
- Re-engage operator (see emergency release).
- Carry out a test run and if necessary re-adjust the limit switches.

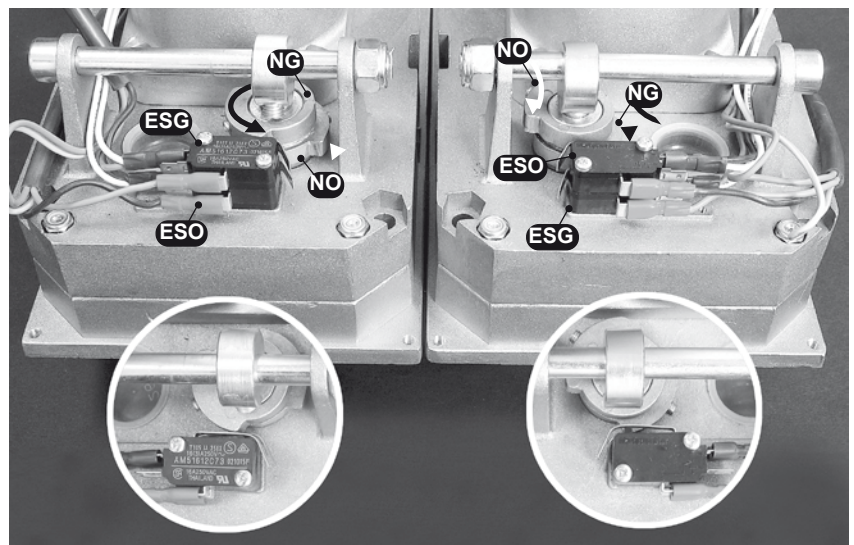
Attention



Before carrying out the limit switch adjustment, the power supply of the gate facility must be turned off.

left operator

right operator

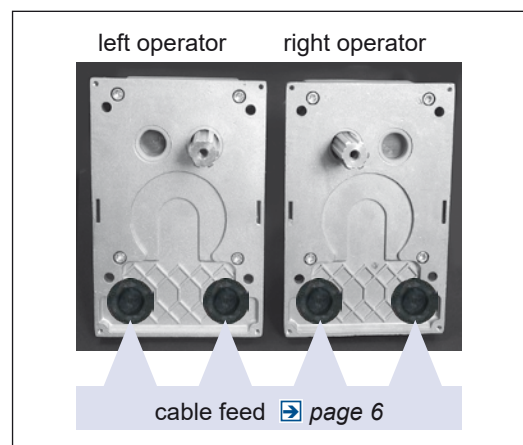
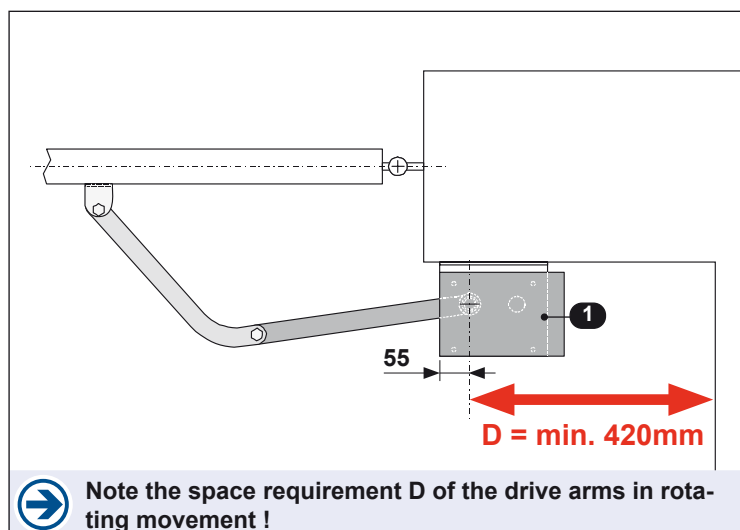
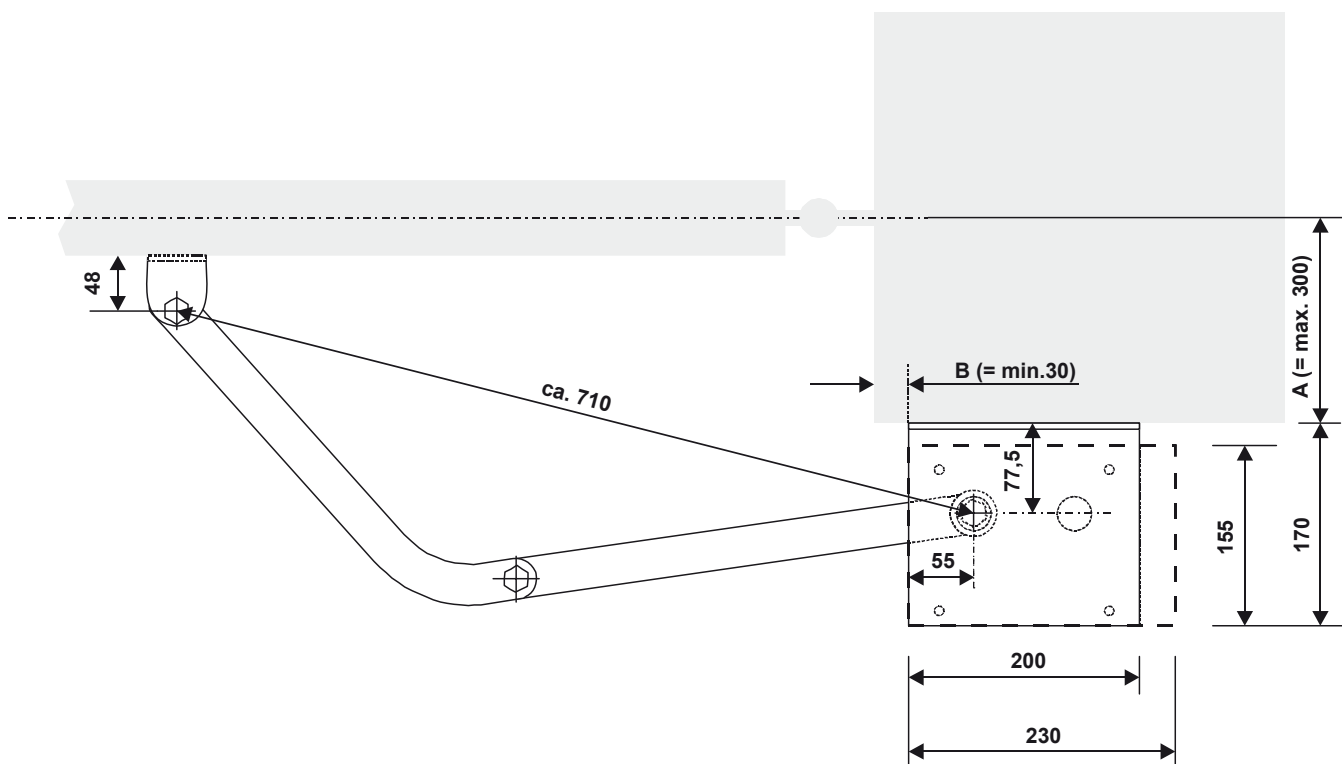


LIMIT SWITCH for position	LEFT OPERATOR	RIGHT OPERATOR
CLOSED (ESG)	upper	lower
OPEN (ESO)	lower	upper

Dismounting

Dismounting the operator is done in the reverse assembly order.
Before dismounting, the power supply of the operator must be turned off.

Swing gate operator SPIN



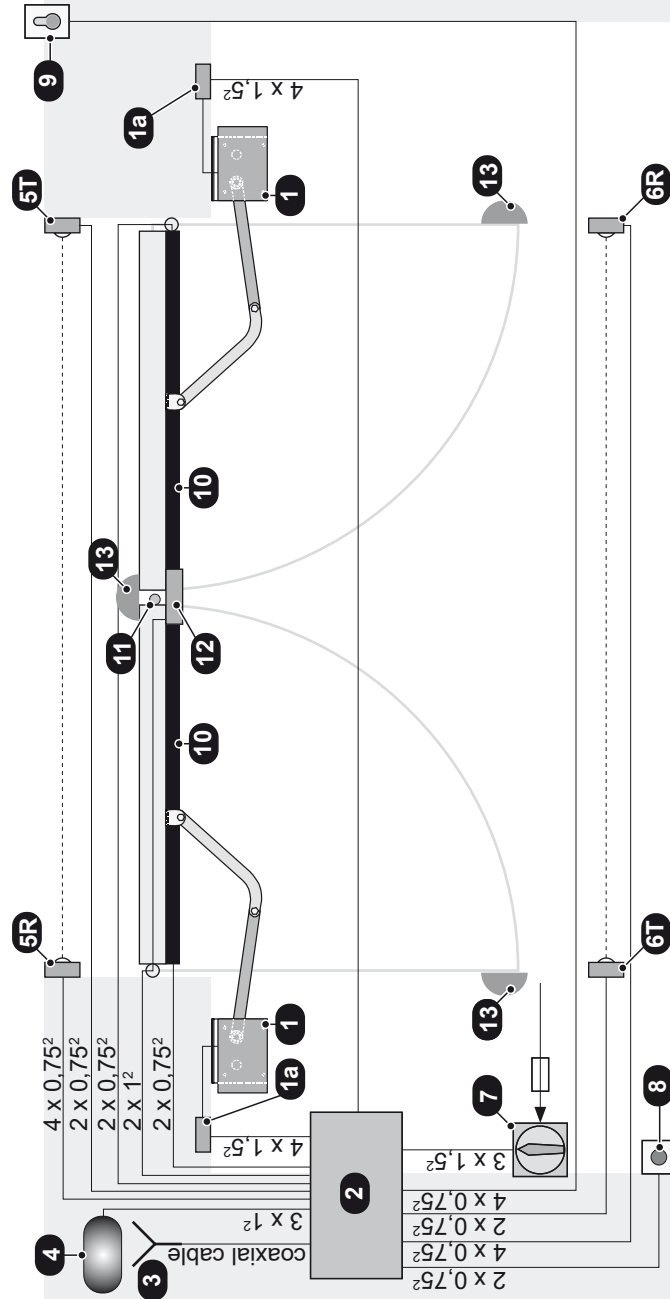
- 8 -

4. Cable plan

Swing gate operator SPIN

- 1 operator Tousek SPIN
- 1a connection box
- 2 electronic logic control
(optional with integrated radio receiver)
- 3 external antenna (for increased range)
- 4 signal light
- 5 external photocell
- 6 internal photocell
(T: transmitter, R: receiver)

- 7 main power switch and fuse 12A
Note: An all-pole disconnecting main switch with a contact opening-gap of minimum 3 mm has to be foreseen.
- 8 pushbutton momentary contact switch
- 9 key-operated momentary contact switch
- 10 safety sensing edges
- 11 hinged locking bar
- 12 electric lock
- 13 floor stops



NOTE concerning cable laying

The electric cables have to be laid in insulating sleeves which are suitable for underground usage. The insulating sleeves have to be lead into the inner of the operator housing.

230 V cables and control lines have to be laid in separate sleeves.

Only double-insulated cables, which are suitable for underground usage may be used.

In case that special regulations require another type of cable, cables according to these regulations have to be used.



SAFETY NOTE

Please be aware that the beside picture is only a symbolic sample illustration of a gate facility and may therefore not show all safety devices required for your specific application.

To achieve an optimum safety level at your gate facility, please make sure that all safety components and accessories which - according to the applying safety rules and laws - are required in your particular case (e.g. photocells, induction loops, sensing edges, signal lamps, traffic lights, mains- and emergency power off switches etc.) are properly installed, operated, and serviced.

In this context please follow the EU Machine Directive, accident prevention rules and laws, as well as applying EU- and national standards in force at the time of installation and operation of the gate facility.

The Tousek Ges.m.b.H. cannot be held responsible for any consequences resulting from disregard of applying standards and laws during installation or operation of the gate facility.

The 0.75mm² control lines are shown without ground lead. In order to facilitate connections we recommend using flexible wires and not using thicker wires for the control lines.



Declaration of incorporation

In compliance with EC Machine Directive 2006/42/EC, Annex II B for the installation of an incomplete machine.

We hereby declare that the following product, as well as its version, put by us into circulation, complies with the essential requirements of the Machinery Directive (2006/42/EC), due to its design and type of construction.

The validity of this declaration will cease in case of any unauthorized modifications to the products.

The product:

Swing gate operator SPIN

is developed, designed and manufactured in accordance with:

Machinery Directive 2006/42/EG
Low Voltage directive 2014/35/EU
Electromagnetic compatibility 2014/30/EU

Applied and used standards and specifications:

EN 60335-1
EN 60335-2-103
EN 61000-6-3
EN 61000-6-2

Following requirements of Annex I of the EC Directive 2006/42/EC are met:

1.1.2, 1.1.3, 1.1.5, 1.2.1, 1.2.2, 1.2.3, 1.2.6, 1.3.2, 1.3.4, 1.3.7, 1.5.1, 1.5.4, 1.5.6, 1.5.8, 1.7

The relevant technical documentation is compiled in accordance with Annex VII, Part B of the EC Machinery Directive 2006/42/EC.

We undertake to submit it in electronic form and within a reasonable time to the market surveillance authorities in response to a duly substantiated request.

TOUSEK Ges.m.b.H., A1230 Wien, Zetschegasse 1, Austria

is authorized to compile the technical documentation.

The incomplete machine cannot be put into service, until it is determined that the machine, into which the incomplete machine has to be inserted, complies with the the Machine Directive 2006/42/EC.

Eduard Tousek, CEO

Vienna, 01. 01. 2013



EC Declaration of Conformity

In compliance with EC Machine Directive 2006/42/EC, Annex II, Part 1 A.

When the described operators are connected to a gate they form a machine in the sense of the EC Machine Directive.

Relevant EU directives:

Construction Products Directive 89/106/EWG
Machinery Directive 2006/42/EG
Low Voltage directive 2014/35/EU
Electromagnetic compatibility 2014/30/EU

We hereby declare that the following product, in the version put by us into circulation, complies with the essential requirements of the Directives mentioned above. The validity of this declaration will cease in case of any unauthorized modifications to the products.

Product:

Gate description

Motor description

The incomplete machine cannot be put into service, until it is determined that the machine, into which the incomplete machine has to be inserted, complies with the the Machine Directive 2006/42/EC.

Installation company

Address, ZIP code, Place

Date/ Signature

Motor number (Type plate):

Other components:

tousek PRODUCTS

- sliding gate operators
- cantilever systems
- swing gate operators
- garage door operators
- folding door operators
- traffic barriers
- electronic controls
- radio remote controls
- key operated switches
- access control
- safety devices
- accessories

Tousek Ges.m.b.H. Austria
A-1230 Vienna
Zetschegasse 1
Tel. +43/ 1/ 667 36 01
Fax +43/ 1/ 667 89 23
info@tousek.at

Tousek GmbH Germany
D-83395 Freilassing
Traunsteiner Straße 12
Tel. +49/ 8654/ 77 66-0
Fax +49/ 8654/ 57 196
info@tousek.de

Tousek Benelux NV
BE-3930 Hamont - Achel
Buitenheide 2A/ 1
Tel. +32/ 11/ 91 61 60
Fax +32/ 11/ 96 87 05
info@tousek.be

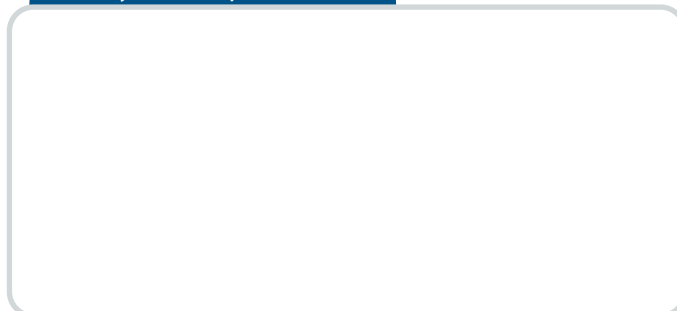
Tousek Sp. z o.o. Poland
PL 43-190 Mikołów (k/Katowic)
Gliwicka 67
Tel. +48/ 32/ 738 53 65
Fax +48/ 32/ 738 53 66
info@tousek.pl

Tousek s.r.o. Czech Republic
CZ-252 61 Jeneč u Prahy
Průmyslová 499
Tel. +420 / 777 751 730
info@tousek.cz

tousek
EN_SPIN_42000802
15. 09. 2020



your service partner:



We reserve the right to change dimensions and/or technical specifications without prior notice. Claims resulting from misprints or errors cannot be accepted.

