Swing door drive mechanism

FD 20

Control booklet

Original

Distribution agent/
After-sales service

Manufacturer

Gilgen Door Systems AG
Freiburgstrasse 34
CH-3150 Schwarzenburg
Phone +41 31 734 41 11
Fax +41 31 734 43 79
www.gilgendoorsystems.com
info@gilgends.com

Com. no. ..... Pos. ..... Construction year .....

Operator .....

Operating place .....

0548-991/12h
2019.02

GILGEN DOOR SYSTEMS

1 GENERAL REMARKS

1.1 Target group / Competent specialists

All the activities described in the control booklet may only be carried out by competent specialists!
Competent specialists are persons who, based on their professional training and experience, have sufficient knowledge in the field of powered windows, doors and gates. They are sufficiently familiar with the relevant federal regulations for work protection and accident prevention, with the guidelines and generally recognized rules applicable for this field of technology which enables them to evaluate if powered windows, doors and gates can be safely operated.
Only the trained experts of the manufacturer or the supplier are counted among these persons.

1.2 Safety regulations

A professional installation as well as regular servicing (maintenance/checking) are decisive factors with regard to a safe operation of the automatic door. To guarantee the required safety level, only sufficiently qualified and expert staff members respectively duly authorized specialized companies are commissioned to install and service the automatic door systems (maintenance/checking).

In order to guarantee the safety of the users at all times, the installation must be checked with regard to its safe condition before the first commissioning and during normal operation, **at least once a year,** by a competent specialist. The correct service (maintenance/checking) must be confirmed by entering the date and signature into the control booklet. The control booklet has to be kept close to the installation, together with the operating instructions!

1.3 Service

This checkup work basically refers to visual and functional checking destined to evaluate the integrality, the condition and the efficiency of the components and safety devices (checking of the different elements as far as these are included in the installation).

Note:
The service must be carried out according to checklist in the Mounting and operating instructions 0548-990/02.

Warning:
To avoid jeopardizing the safety of persons, any defective safety elements may not be disonnected in order to continue the operation of the installation!
The competent specialist must make sure that the door installation has not been subject to any modifications which might cause dangerous situations:
- Check the door surroundings for any structural changes.
- Make sure that no objects (such as furniture, pallets, etc.) have been placed close to the door.

Attention:
In order to guarantee the availability of the installation, any elements showing signs of wear must be replaced as a preventive measure!

2 DATA OF THE INSTALLATION

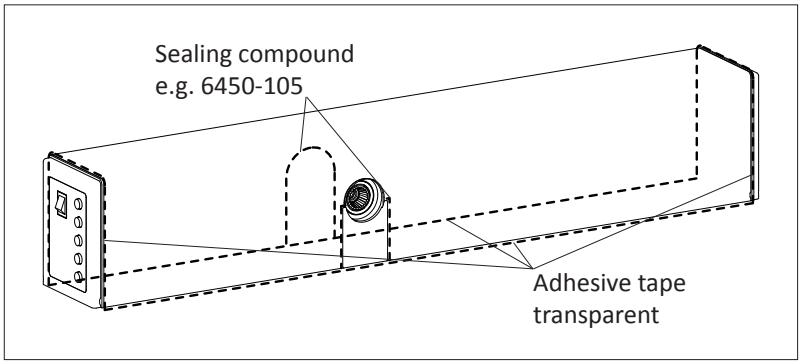
2.1 Wing

Quantity	.....
Material	.....
Clearance width	..... mm
Clearance height	..... mm
Weight/wing	..... kg

2.2 Drive unit

Drive mechanism	Standard	
Power transmission	☐ Normal rods	
	☐ Sliding rods	
Dimensions drive mechanism	Height 95 mm, Width 690 mm	
	Depth 120 mm	
Weight drive mechanism	10,5 kg	
Ambient temperature	-15...+50 °C	
May only be used in dry rooms	max. relative humidity 85 %	
Protection type	IP 40 (IP 42*)	
Operating voltage	230 VAC (+10/-15 %), 50 Hz, 10/13 A	
Power consumption drive mechanism	max. 560 W	
Motor power rating	100 W	
Power supply external comsumer	24 VDC (±10 %), 2 A	
Torque output shaft	max. 80 Nm	
Distance door hinge - Output shaft	☐ lintel mounting	280 mm
	☐ leaf mounting	380 mm
Lintel depth	☐ normal rods	max. 250 mm
	☐ sliding rods pull.	-30/+80 (+200) mm
	☐ sliding rods push.	-30/+70 (+200) mm
Door opening angle	max. 105°	
Weight of door leaf	max. 250 kg	
Width of door leaf	EN 3...7 (851...1'600 mm)	
Opening speed	2,4...20 s adjustable (max. 40°/s)	
Closing speed	2,4...20 s adjustable (max. 40°/s)	
Range of the accelerating function (foreceful closing) (without mains power)	5...15° stepless adjustable (mechanical)	
Motor damping (without mains power) within the range of the accelerationg function (forceful closing)	stepless adjustable (adjusting trimmer)	
Hold-open time	0...60 s	
Hold-open time Night	0...180 s	

* For obtaining the protection type IP 42, the drive mechanism covering must be sealed all around!



2.3 Control / Options

- ☐ D-BEDIX
- ☐ KOMBI-D-BEDIX
- ☐ Security detector side of door hinge (stop)
- ☐ Security detector opposite side of door hinge (reverse)
- ☐ Emergency stop button
- ☐ .....
- ☐ .....
- ☐ Detector
- ☐ Radar
- ☐ Push-button
- ☐ Key-operated pivoting switch
- ☐ Remote radio control
- ☐ .....
- ☐ .....

2.4 Other information

.....

.....

.....

.....

.....

.....

2.5 Modifications

Description	Dat./Vis.
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

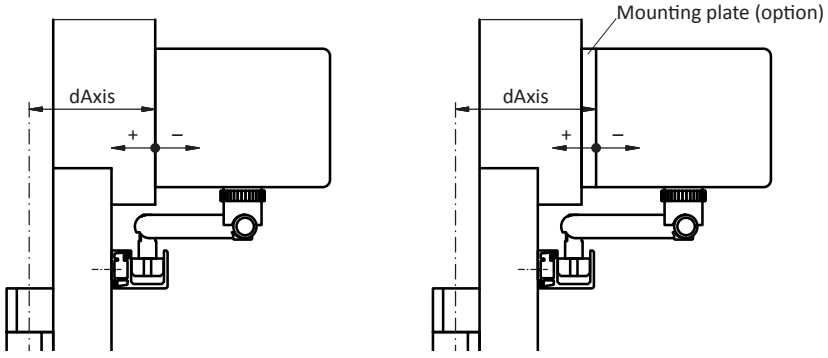
2.6 Settings

Warning:
Is the protection of the danger areas (shearing, squeezing, crushing, pushing, drawing-in points) in compliance with the presently applicable prescriptions?
If the protection is found insufficient, a respective note must be entered in chapter "Test result" and the required action must be taken!

2.6.1 Motional parameters (PARAMETER)

Parameter	Description	Setting range	Default	Adjusting
Vo	Opening speed (velocity open)	0..14 (5...50°/s)	6	.....
Vc	Closing speed (velocity close)	0..14 (5...50°/s)	4	.....
TOEx	Hold-open time opening element inside/outside (time hold opening element inside/outside)	0...60 s	3 s	.....
TKey	Hold-open time Key (time hold opening element Key)	0...180 s	5 s	.....
TDelay	Starting delay (time delay lock)	0,0...4,0 s	0,2 s	.....
FDelay	Relieving force during unlocking (force delay), only effective if TDelay is > 0	0,0...7,0 A	OFF	.....
TLock	Door rectification time (time press close)	0,0...4,0 s	0,5 s	.....
FLock	Pressing force during locking (force lock), only effective if TLock is > 0	0,0...7,0 A	2,0 A	.....
FSlam	Accelerating function (force slam)	0...10	OFF	.....
FWind	Obstacle detection optimized for exterior doors (force wind)	OFF OPEN CLOSE BOTH	OFF	.....
Fo	Opening force (force open)	0...9	4	.....
Fc	Closing force (force close)	0...9	4	.....
Foh	Hold-open force (force open hold)	0...9	0	.....
Fch	Interlocking force (force close hold) ⇨ automatically programs FLock and FDelay if these are 0	0,0...3,5 A	0	.....
Ao	Opening angle of the door (angle open) If the opening angle is changed during the operating mode OPEN, the operating mode MANUAL needs to be selected for closing the door.	20...(190°) Rod dep.	95° *	.....
Rod	Type of rod assembly (Rod) Normal rods pushing fonction Sliding rods pulling fonction Sliding rods pushing fonction Wing mounting pushing fonction without rods pushing fonction without rods pulling fonction	STD-PH SLI-PL SLI-PH WIN-PH DIR-PH DIR-PL	STD-PH *	.....
Invers	Inverse application In the event of a power failure/error, the door leaf is opened by spring power from any position (unless it has not been locked). The position of the motor connector is reversed with regard to the standard drive mechanism. The electric lock/holding magnet must be connected in reverse order in comparison to the standard drive mechanism (see wiring diagram E4-0141-713).	OFF ON	OFF *	.....
dAxis	Distance between rotation axis of the door hinges and the mounting level of the drive mechanism (distance Axis). dAxis is an approximate value. Depending on the installation situation, dAxis may have to be adapted.	-8...+25 cm Rod depending	0/+8 cm Rod dep. *	.....
FTic	Closing force in closed position before Teach (only visible if Inverse is ON).	5...14 A	5 A	.....

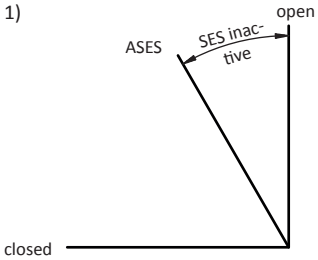
* Note:
A renewed setting-up procedure (Teach) is required.



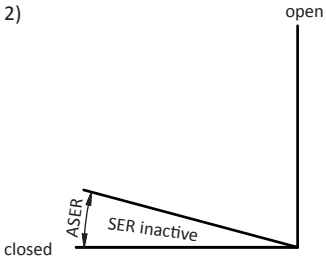
2.6.2 Configuration (CONFIG)

Parameter	Description	Setting range	Default	Adjusting
APuGo	Triggering angle Push&Go (angle push&go)	OFF, 2...10°	OFF	.....
ASES	1) Suppression point Safety Element stop (angle safety element stop). If Ao is changed, ASES is auomatically set to Ao.	45°...Ao	95° Ao depending (95°)	.....
ASER	2) Suppression range of the safety element reversing (angle safety element reversing)	0...60°	0°	.....
SeOpCo	Persistent opening (saferty element open continue) After a Safety Element Stop during the opening procedure, the door shall continue its opening move (instead of closing), as soon as SES is activated.	OFF ON	OFF	.....
SeOpTi	Waiting time till the drive mechanism closes even if SeOpCo = ON (saferty element opening time), in the event that a fixed object blocks the door (only visible if SeOpCo = ON)	PERMAN 1...60 s	20 s	.....
SESClo	Safety element Stop activated/deactivated during the closing motion (safety element stop closing)	ACTIVE INACTI	INACTI	.....
EMY-IN	Configuration of the Emergency terminal (break contact) (emergency input)	CL-SPR (spring) STOP OPEN CL-MOT (motor)	CL-SPR	.....
OExStp	Step-by-step control function (opening element step)	OFF OEI OEO KEY RADIO	OFF	.....
RC 0.1	Parametrizable relay output 1 on optional PCB 1 (relay contact) (only visible if relay PCB 0 is plugged in)	CLOSED OPENING OPEN CLOSING ERROR PSAUTO PSNIGHT PSEXIT PSOPEN PSMANU GONG LOCKED SIX30S EMY_AL	CLOSED	.....
RC 0.2	Parametrizable relay output 2 on optional PCB 1 (relay contact) (only visible if relay PCB 0 is plugged in)		OPEN	.....
RC 0.3	Parametrizable relay output 3 on optional PCB 1 (relay contact) (only visible if relay PCB 0 is plugged in)		ERROR	.....
RC 0.4	Parametrizable relay output 4 on optional PCB 1 (relay contact) (only visible if relay PCB 0 is plugged in)		GONG	.....
RC 1.1	Parametrizable relay output 1 on optional PCB 2 (relay contact) (only visible if relay PCB 1 is plugged in)		OPENING	.....
RC 1.2	Parametrizable relay output 2 on optional PCB 2 (relay contact) (only visible if relay PCB 1 is plugged in)		CLOSING	.....
RC 1.3	Parametrizable relay output 3 on optional PCB 2 (relay contact) (only visible if relay PCB 1 is plugged in)		PSAUTO	.....
RC 1.4	Parametrizable relay output 4 on optional PCB 2 (relay contact) (only visible if relay PCB 1 is plugged in)		LOCKED	.....
Unlock	Impulse/Permanent unlocking (impulse unlock)	IMPULS PERMAN	IMPULS	.....
EL-Fb	Return signal of the electric lock (electric lock feed back) N.O. ⇨ Contact open if in the unlocked state (-), .closed if iin the locked state (+) N.C. ⇨ Contact open in the locked state (+), closed in the unlocked state (-) (+) and (-) indicate the status in the diagnostic menu.	OFF N.O. N.C.	OFF	.....
LockAU	Operating mode AUTOMATIC locked (locked automat) (only visible if Unlock = Perman)	UNLOCK LOCK	UNLOCK	.....
LockEX	Operating mode EXIT locked (locked exit) (only visible if Unlock = Perman)	UNLOCK LOCK	LOCK	.....
LockMA	Operating mode MANUAL locked (locked manual) (only visible if Unlock = Perman)	UNLOCK LOCK	UNLOCK	.....
LcdDir	Orientation of the display (LCD direction)	0...1	0	.....
MovCon	Endurance test Open/Close (moving continuous)	OFF ON-FLT ON-PRM	OFF	.....
OExMAN	Acceptance of opening commands after a manual door opening (only if APuGo = OFF) (opening element inside/outside manual)	OFF ON	OFF	.....
PSKIZe	Zero position of the program setting (operating mode); fixed program position that can only be changed by means of the terminals on the control unit (program selector key in the side cover inactive). Use for external program switch (only four terminals) or for controlling the program positions via the terminals on the control unit. (program selection terminal zero)	NO ACT PSOPEN PSHAND PSAUTO PSEXIT PSNIGT	NO ACT	.....
SCBloc	Lock the program selector key in the side cover (side cover block) Toggle = Lock/unlock (press active program key during at least 5 seconds). Time = Lock (automatically after 5 minutes without any activation of the program keys), unlocking (press active program key during at least 5 seconds).	OFF TOGGLE TIME	OFF	.....

1)



2)



2.6.3 Installations with multiple door leaves (DOUBLE DOOR)

Parameter	Description	Setting range	Default	Adjusting
DubleD	Closing sequence role (Master/Slave) and interlock side (A/B)	OFF MastrA SlaveA MastrB SlaveB	OFF	.....
AoSeq	Current delay angle for opening sequence control (Slave) (only visible if DubleD is active)	0..110°	20°	.....
AcSeq	Current delay angle for closing sequence control (Master) (only visible if DubleD is active)	0..110°	20°	.....
InterL	Interlock	OFF SideA SideB	OFF	.....
ILAuto	Interlock mode Operating mode AUTOMATIC (only visible if InterL is active)	Inacti Active	Active	.....
ILExit	Interlock mode Operating mode EXIT (only visible if InterL is active)	Inacti Active	Active	.....
ILNigt	Interlock mode Operating mode NIGHT (only visible if InterL is active)	Inacti Active	Active	.....

3 TEST RESULT

Date	Test result and required measures (if necessary with reference to any added documents)	Tester Visa company	Shortcomings Acknowledgem. Visa operator	Shortcomings Elimination Date/Visa
	Commissioning			

Date	Test result and required measures (if necessary with reference to any added documents)	Tester Visa company	Shortcomings Acknowledgem. Visa operator	Shortcomings Elimination Date/Visa

Date	Test result and required measures (if necessary with reference to any added documents)	Tester Visa company	Shortcomings Acknowledgem. Visa operator	Shortcomings Elimination Date/Visa