Swing door drive mechanism
with fire protection rating

ETS 64-R

Control booklet

Original

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

Operator ....

Operating place ....

ECO

TABLE OF CONTENTS

1   GENERAL REMARKS

The following basic documents are associated with this installation:
- Mounting and operating instructions   0548-990/62   onto the installation
- Operator manual   0548-991/62   by the operator
- **Control booklet**   **0548-991/72**   onto the installation

1.1   Target group

All the activities described in the control booklet may only be carried out by competent specialists!

1.2   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.

1.3   Safety regulations

The design and manufacture of the ETS 64-R is based on the latest state of the art and fully answers the safety requirements to be met by door systems powered by an external energy source.

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.

1.4 Where to keep the control booklet

The control booklet has to be kept close to the installation, together with the operating instructions!

1.5 Adresses

Distribution agent/
After-sales service
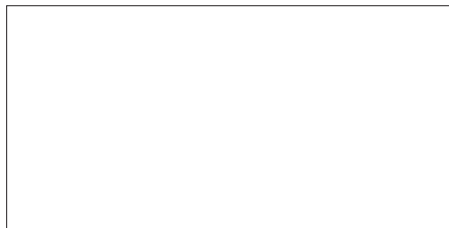
Distribution

ECO Schulte GmbH & Co. KG
Iserlohner Landstrasse 89
D-58706 Menden
Tel.　+49 23 73 / 92 76-0
Fax　+49 23 73 / 92 76-40
www.eco-schulte.de

2   DATA OF THE INSTALLATION

2.1   Leaf

Quantity   ....

Material   ....

Clearance width   .... mm

Clearance height   .... mm

Weight/leaf   .... kg

2.2   Drive unit

| Drive mechanism	Standard
	GSd (special gear for sliding rods pushing function)
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	80 Nm permanent
	240 Nm max.
Distance Door hinge - Output shaft	all 280 mm
Lintel depth	☐ Normal rods pushing funct. 0...240 mm
	☐ Slid. rods pull. funct. -30/+70 (+190) mm
	☐ Slid. rods push. funct. -30/+60 (+190) mm
	(DIBt tested -30/+30 mm)
	☐ Normal rods RS push. funct. 0...240 mm
	☐ Slid. rods RG pulling funct. -30/+110 mm
	☐ Slid. rods RG push. function -30/+40 mm
	(DIBt tested -30/+30 mm)
Door opening angle	max. 105°
Weight of door leaf	max. 250 kg
Width of door leaf	EN 3...6 (851...1'400 mm)
Opening speed	2,4...20 s adjustable (max. 40°/s)
Closing speed	2,4...20 s adjustable (max. 40°/s)
Foreceful closing range (without mains power)	5...15° stepless adjustable (mechanical)
Forceful closing cushioning (without mains power)	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!

Sealing compound e.g. 6450-105

Adhesive tape transparent
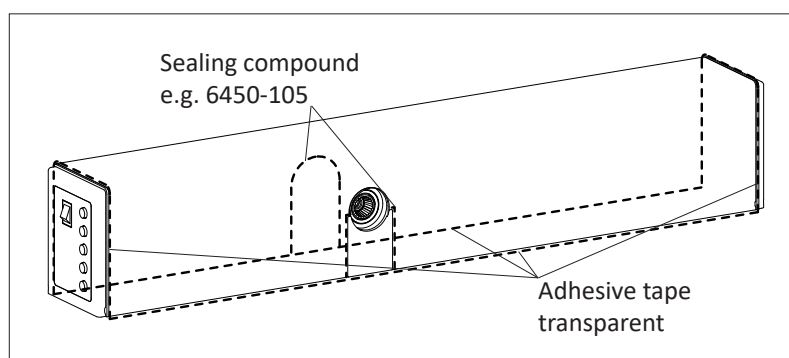
2.3   Control / Options

☐ D-BEDIX   ☐ Detector

☐ KOMBI-D-BEDIX   ☐ Radar

☐ Security detector side of door hinge (stop)   ☐ Push-button

☐ Security detector opposite side of door hinge (reverse)   ☐ Key-operated pivoting switch

☐ Emergency stop button   ☐ Remote radio control

... Fire detector   ☐ ....

☐ Manual triggering button "Close the door"   ☐ ....

☐ Control button "Close the door/Restart"   ☐ ....

☐ ETS 64-R SRI Integrated closing sequence regulator ☐ ....

☐ ETS 64-R IRM Integrated smode detector   ☐ ....

☐ Delayed door leaf with mecanical door closer EN 1154 by customer

☐ ....   ☐ ....

☐ ....   ☐ ....
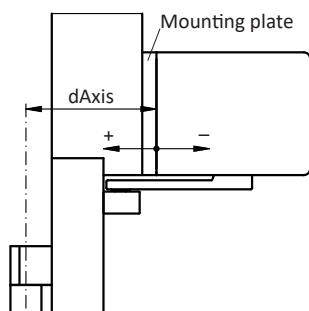
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2.4 Settings

STOP

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!

2.4.1 Motional parameters (PARAMETER)

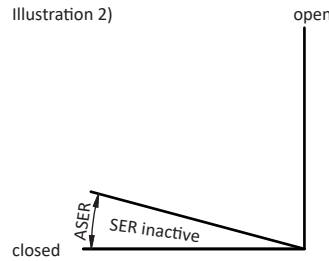| Parameter	Description				Setting range	Default	Adusting
Vo	Opening speed (velocity open)				0...14 (5...50°/s)	6	
Vc	Closing speed (velocity close)				0...14 (5...50°/s)	4	
TOEx	Hold-open time opening element inside/outside (time hold opening element inside/outside)				0...60 s	3 s	
TKey	Hold-open time Key (time hold opening element Key)				0...180 s	5 s	
Obst	Adjustable obstacle detection: Upon reaching the adjusted number of obstacles in sequence, the drive mechanism switches to manual operation.				1...5	5	
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 in automatic mode (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	
LowEn	Low-energy operation (Low-Energy) according to EN16005				OFF BOTH CLOSE OPEN	OFF	
Width	Width door leaf to be adjusted ⇨ only if LowEn is active				90...160 cm	100 cm	
Weight	Weight door leaf to be adjusted ⇨ only if LowEn is active				50...250 kg	100 kg	
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 depending	95° *	
Rod	Type of rod assembly (Rod)	Lintel mounting Leaf mounting Direct drive	Normal rods Sliding rods Sliding rods Sliding rods Sliding rods Normal rods	pushing fonction pulling fonction pushing fonction pushing fonction pulling fonction pushing fonction pushing fonction pulling fonction	STD-PH SLI-PL SLI-PH WIN-PH WIN-PL WIN-ST 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_ECO).				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 depend. *	
Fos	Limitation of the opening force Must not be increased in Germany!				5...14 A	5 A	
FTic	Closing force in closed position before Teach ⇨ only visible if Invers is ON				5...14 A	5 A	

Mounting plate

dAxis

+   −

* Note:
  A renewed teach-in procedure (Teach) is required.

2.4.2   Configuration (CONFIG)

Parameter	Description	Setting range	Default	Adjusting
Servo	Support for manual push to open. The key opens automatically. Five-position adjustment, depending on the width and weight of the door leaf.	OFF / 1...5	OFF	
APuGo	Triggering angle Push&Go (angle push&go)	OFF / 2...10°	OFF	
ASES	Suppression point Safety Element Stop (angle safety element stop) ⇨ see illustration 1) If Ao is changed, ASES is automatically set to Ao.	45°...Ao	95° Ao depending (95°)	
ASER	Suppression range of the safety element reversing (angle safety element reversing) ⇨ see illustration 2)	0...60°	0°	
SeOpCo	Persistent opening (safety 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 (safety 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	
FPReset	Acknowledgment of the fire alarm by the fire alarm central (only allowed in cases were the door is within sight distance of the fire alarm central)	OFF ON	OFF	
RC 0.1	Parametrizable relay output 1 on optional PCB 1 (relay contact) (only visible if relay PCB 0 is plugged in)	CLOSED OPENNG	CLOSED	
RC 0.2	Parametrizable relay output 2 on optional PCB 1 (relay contact) (only visible if relay PCB 0 is plugged in)	OPEN CLOSNG	OPEN	
RC 0.3	Parametrizable relay output 3 on optional PCB 1 (relay contact) (only visible if relay PCB 0 is plugged in)	ERROR PSAUTO PSNGHT	ERROR	
RC 0.4	Parametrizable relay output 4 on optional PCB 1 (relay contact) (only visible if relay PCB 0 is plugged in)	PSEXIT PSOPEN	GONG	
RC 1.1	Parametrizable relay output 1 on optional PCB 2 (relay contact) (only visible if relay PCB 1 is plugged in)	PSMANU GONG	OPENNG	
RC 1.2	Parametrizable relay output 2 on optional PCB 2 (relay contact) (only visible if relay PCB 1 is plugged in)	LOCKED SIX30S	CLOSNG	
RC 1.3	Parametrizable relay output 3 on optional PCB 2 (relay contact) (only visible if relay PCB 1 is plugged in)	EMY_AL	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	
UnloCl	Retract the motor lock before closing (unlock) and lock, after the door leaf has been closed. By engaging the lock latch, the closing noise of the door is reduced. (unlock while closing)	Inactive Active	Inactive	
EL-Fb	Return signal of the electric lock (electric lock feed back) N.O. ⇨ Contact open if in the unlocked state (−), closed if in 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	
OEOSIR	Safety device on opposite side to door hinge as opening element (only from Closed position). Note: This parameter must be set to OFF for teaching-in of the LZR-FLATSCAN. (SER as OEO)	OFF ON	OFF	
FPMaOp	Fire alarm acknowledgement by manually opening and holding the door leaf in the taught-in open position. (fire protection manual opening)	OFF ON	OFF	
FPMaCl	Fire alarm triggering by manual closing of the door leaf from the open position. (fire protection manual closing)	OFF ON	OFF	

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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	
Buzzer	The buzzer signals the door leaf movement (persons with amblyopia/without hindrance)	OFF BOTH OPEN CLOSE	OFF	

Illustration 1)

Illustration 2)
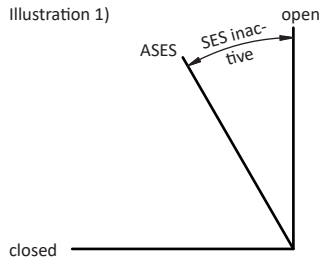
2.4.3   Installations with multiple door leaves (DOUBLE DOOR)

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 active)		0...110°	20°	
AcSeq	Current delay angle for closing sequence control (Master) (only visible if DubleD active)		0...110°	20°	
InterL	Interlock		OFF SideA SideB	OFF	
ILAuto	Interlock mode ⇨ Operating mode AUTOMATIC (only visible if InterL active)		Inacti Active	Active	
ILExit	Interlock mode ⇨ Operating mode EXIT (only visible if InterL active)		Inacti Active	Active	
ILNigt	Interlock mode ⇨ Operating mode NIGHT (only visible if InterL active)		Inacti Active	Active	
ILType	Safety	The two doors function as an interlock (in all operating modes). The second door only opens when the first one is closed. This applies to both doors.	Safety Spital NL	Safety	
	Spital	Automatic sequence ⇨ whenever a door opening command is issued, the door receiving the command is opened. Once it has closed again, the second door opens automatically.			
	NL	The second door only opens when the first one is closed, or after the override period has elapsed.			
TOverd	Only visible in ILType NL When the override period has elapsed, the interlock function is cancelled. Once both doors are closed, the interlock function is activated (override time).		OFF 1...60	25	
RdrOEI	OFF	OEO/OEI radar function activates normally. The door closes if both are inactive.	OFF ON	OFF	
	ON	The OEO deactivates the (OEI) radar inside smaller interlocks to prevent it from keeping the door open.			
ILCdRc	Active	Open commands are temporarily stored, and then carried out as soon as the second door is closed.	Active Inactive	Active	
	Inactive	Open commands are not carried out until the second door is closed. (interlock open command recording)			

2.4.4   Low-Energy mode

If the Low-Energy mode is activated, the operator must make sure by means of control measurements that the static force of 67 N is not exceeded (during the entire opening and closing movement) (this is not applicable for the Closed position).
The force must be measured (in the automatic operation) on the main closing edge (at right angles to the door leaf) at a height of 1'000 mm (±10 mm).

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2.5   Other information

.... 0548-991/72h

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2.6   Modifications

Description   Dat./Vis.

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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 0548-990/62.

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!

4   TEST RESULT

The "Test result" in this form is only given as a sample. Inasmuch as the manufacturer or the operator base the checkup on different equivalent documents (checklists), these documents may replace the test result form. They have to be continuously added to the present control chart.

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

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

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

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

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5   NOTES

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