# The innovative pushbar for one-handed operation





eBar 1.2 598X



Installation and Operating Instructions

D0125000

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EN

Carefully read through this manual before use and keep it safe for later reference. The manual contains important information about the product, particularly for the intended use, safety, mounting, use, maintenance and disposal. Hand the manual over to the user after the product after it has been mounted and hand it over to the purchaser in the event that the product is re-sold.



An up-to-date version of this instruction manual is available online: http://virtual-publisher.de/viewer/document?id=6189

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### **Notes**

### Notes on these installation instructions

Observing these instructions is essential for the successful installation of the product. The installation may only be carried out by qualified specialist personnel.

The installation instructions are aimed at:

- · the installer of the product
- · the operator of the product

Both groups of people must ensure that:

- All specifications from the installation instructions are observed. Deviations or variations are not permitted.
- The installation instructions must be handed over to the operator after installation.
- The operator must keep the instructions through to the disposal of the product and pass them on to the new operator following a change in operator.
- The product must be maintained at regulator intervals.

Notes

## Meaning of symbols



## Danger!

**Safety notice:** Non-observance will result in death or severe injuries.



## Warning!

**Safety notice:** Non-observance may result in death or severe injuries.



### Caution!

Safety notice: Non-observance may lead to injury.



### Attention!

**Notice:** Failure to observe these warnings may lead to property damage and impair the function of the product.



### Note!

**Notice:** Supplementary information for the operation of the product.

## Safety instructions and dangers

The MSL eBar 1.2 in accordance with DIN SN EN 1125 and DIN SN EN 1634 (use on fire doors) guarantees an extremely high quality and safety standard. To ensure this, the doors must be in fault-free state during and after the installation.

The MSL eBar 1.2 may only be mounted in accordance with the specifications of these installation instructions:

- · The door must move smoothly without warping
- · The door leaf must be flat and stable
- · Existing door seals must not impair the function of the door
- · The MSL eBar 1.2 may only be installed horizontally on outwards opening doors
- The MSL eBar 1.2 may only be used with approved panic locks and fittings (SN EN 1125)
- The MSL eBar 1.2 should be cut to length as necessary in accordance with the installation instructions
- · For use on glass doors, safety glazing should be present
- · The MSL eBar 1.2 is not suitable for use on swing doors



### Attention!

When replacing a cylinder, only use half cylinders with lockable tail piece! (Type reference techn. data).

Protect against water and vandalism!

Notes

## **General functions**

Function	MSL eBar 1.2 mechanical 5980	MSL eBar 1.2 mechanical with contacts 5981	MSL eBar 1.2 mechatronic 5982	MSL eBar 1.2 mechatronic and emer- gency switch 5983
Viewing win- dow/display acoustic/visual			Х	Х
DIN L and DIN R compatible	Χ	X	X	X
Battery ope- ration (incl. monitoring)			X	
External supply			X	X
Main alarm with potential-free changeover contact		х	Х	X
Pre-alarm with potential-free NO contact		X (changeover contact)	X	X
Individual release (on-site or externally)			Х	X
Permanent release (on-site or externally)			X	X
Acoustic/visual "Door open too long" alarm			X	Х

Function	MSL eBar 1.2 mechanical 5980	MSL eBar 1.2 mechanical with contacts 5981	MSL eBar 1.2 mechatronic 5982	MSL eBar 1.2 mechatronic and emer- gency switch 5983
Breaking and monitoring alarm			Х	X
Integrated emergency switch				X
Switching colour code display green/red (not in battery operation)			X	X
RS 485 interface			X	X
Version DIP switch			X	X

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## Function notes eBar 1.2 5982/5983

### Alarm statuses of the eBar

### MSL eBar 1.2 activated

Fig. 1: Display activated



In activated mode, the MSL eBar 1.2 supplied externally with power lights up green. Green signals that the door is alarm-secured, but can be opened at any time. If the MSL eBar 1.2 is supplied decentrally via a battery, the display is no longer backlit green after 15 sec. to save energy. (Switching the display lighting from green to red, see "Changing the display colour from green to red", page 40.)

### Pre-alarm

Fig. 2: Display pre-alarm



If the MSL eBar 1.2 is only pressed lightly, the backlit display pulses (running light) red. An acoustic signal (95dBA/1m) sounds, which stops as soon as the MSL eBar 1.2 is released. This pre-alarm only sounds on the first mm of the pressing of the pushbar. The correct switching point between the pre- and main alarm can be set via an adjusting screw (see page 10). Ideally, the main alarm should be set so that the MSL eBar 1.2 is pressed far enough that the door is released. This alarm can be forwarded to a control centre.

### Main alarm in the event of an emergency opening or unauthorised use

Fig. 3: Display main-alarm



If the MSL eBar 1.2 is pressed completely, emergency opening of the door takes place. At the same time, the display flashes green, a main alarm with 95 dBA is triggered. This main alarm sounds visually and acoustically until the alarm is acknowledged on the integrated key switch. The main alarm can be forwarded to a control centre.

If wireless technology is used, this signal is forwarded on channel 1.

### Battery-is-empty alarm

If the MSL eBar 1.2 is operated via battery, a low acoustic signal, which sounds in intervals of 60 sec., sounds as soon as the value falls below 7V. The signal flashes blue briefly with a short acoustic signal. This alarm is given until the battery is replaced. The battery monitoring alarm can not be forwarded to a control centre.

### Door-open-too-long alarm

The door-open-too-long alarm is given when the reed contact mounted on the MSL eBar 1.2 is connected. If the door remains open for longer than 15 sec. in individual release mode, a low, short door-open-too-long alarm sounds in intervals of 3 sec. This alarm acts as information that the door was left open for too long by an authorised person. The signal goes out as soon as the door is closed.

## Operating the eBar 1.2

### Acknowledging a main alarm

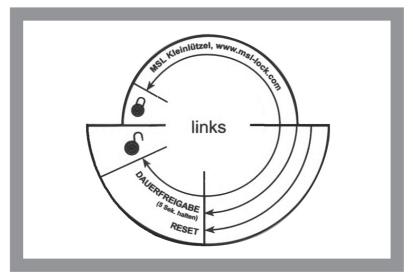
Fig. 4: Deactivate main-alarm



The main alarm can only be deactivated by actuating the integrated key switch by turning the key approx. 90° in the stop (Pos. RESET), turning it back and removing it. 15 sec. after the alarm is acknowledged, the MSL eBar 1.2 bar is activated again. The flashing green display is backlit permanently green again (external power supply) or is backlit green again for 15 sec, then goes out (battery operation).

### Individual release

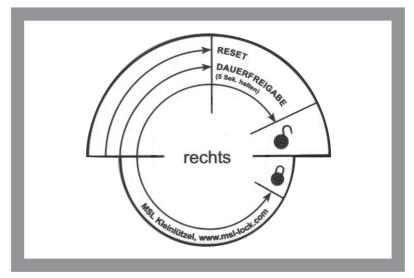
Fig. 5: Individual release



Authorised persons use the door, via pulse signal in the integrated key switch of the MSL eBar 1.2, without triggering an alarm. To this end, the key is turned briefly in the integrated key switch by approx. 90° (Pos. RESET), turned back and removed. If a reed contact is mounted for monitoring the door and connected to the MSL eBar 1.2, the MSL eBar 1.2 is activated again as soon as the door is closed. If the door is opened for longer than 15 sec., a low, short "door-open-too-long alarm" sounds for 3 sec. The individual release can be activated or deactivated via an external signal (PIN 7-2 with button, access control etc.) (see "Principle and connection diagram eBar 1.2 type 5982", page 36 and "Principle and connection diagram eBar 1.2 5983 (with connecting terminal for supplementary locking)", page 38). Alternatively, access via the door lock is possible.

### Permanent release

Fig. 6: Permanent release

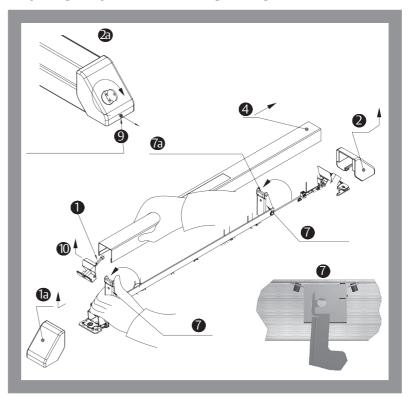


If the door is to be accessible for an extended period, the key is rotated by approx. 90° in the integrated key switch for approx. 5 sec. (Pos. RESET), held until the green light goes out, turned back and removed again. The display backlit in green blends in and out while the permanent release mode is activated. When accessing the door, no alarm is triggered until the function is reset via a short signal pulse of the key in the integrated key switch. Permanent release can be activated and deactivated via a control centre or via an external signal (PIN 7 – 2 via timer, access control etc.) (see "Principle and connection diagram eBar 1.2 type 5982", page 36 and "Principle and connection diagram eBar 1.2 5983 (with connecting terminal for supplementary locking)", page 38).

## Installation

## Preparing the profiles for cutting to length

Fig. 7: Preparing the profiles

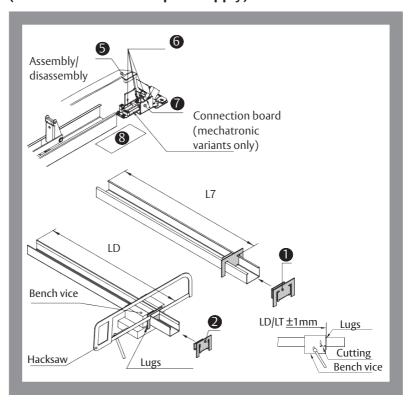


- 1 With the pushbar 4 pressed, remove the cylinder screw M5 x 20 1.
- 2 Pull the lid a out of the bayonet lock towards the lock side.
- Mechatronic variants: First unscrew the screw M3 x 8 **9**, then release the lid by moving the key to the right.
- 2a Mechanical variants: With the pushbar 4 pressed, remove the cylinder screw M5 x 8 in the same way as the lock side. Then remove the lid 2 towards the hinge side. Remove the protective plate 10.
- 3 Lift the pushbar 4 to the stop in direction of rotation. With one hand, block the lift arm 7 on the follower side, with the other hand remove the pushbar from the fixing bolts in the opposite direction.

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## Cutting the profiles to length with the cutting set (not included in the scope of supply)

Fig. 8: Cutting the profiles





### Attention!

Always shorten on the hinge.

Installation

Ordered length	Length support profile	Length pressure profile
BA 940	BA-67 mm	BA-104 mm
BA 1100		
BA 1260		

### Mechatronic variants only:

- 1 Lift the connector of the ribbon cable **5** prearefully off the connection board.
- 2 Stow the ribbon cable **5** well protected in the support profile.
- 3 Loosen the four threaded pins M4x4 **6** and bracket **7** from the support profile.
- 4 Keep the washer plate **8** for the subsequent assembly.
- 5 Push the cutting gauge **1** and **2** in the relevant profile.
- 6 Clamp the profile in a bench vice as shown.

The clamping jaws are used as a stop for the lugs of the cutting gauge.



## Warning!

To avoid scratches on the surface of the profiles, the clamping area must be protected with suitable washer plates (wood, plastic)!

- 7 Position a conventional handsaw for metal on the lugs.
- 8 Cut the profile carefully with a parallel cut to the surface.

A slight pressure with the saw blade in the direction of the lugs makes it easier to achieve a straight cut along the saw blade guide.

9 After cutting to length, deburr the cutting edges to avoid cutting injuries!



## Warning!

With the mechatronic variants, no lubricant or coolant may be used for the cutting process! No metal chips must remain in the eBar 1.2! Risk of short circuit!

- 10 After cutting to size, push the bracket 7 into the support profile again.
- 11 Place a washer plate (\$\infty\$ (thickness 0.8 mm) between the support profile and the bracket.



### Attention!

The washer plate **3** helps to prevent pressure marks and deformation caused by the clamping connection!

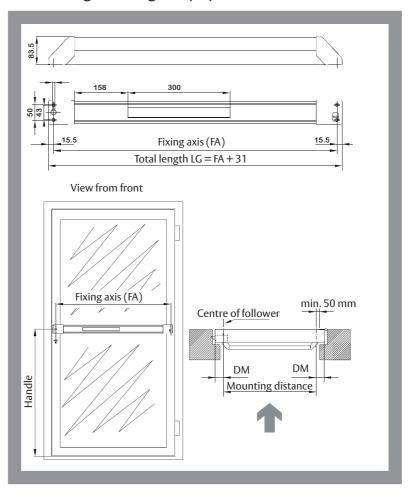
12 Fasten the threaded pins M4x4 **6** with a torque of 0.4 to max. 0.5 Nm! Mechatronic variants only:

13 Fix the connector of the ribbon cable **5** carefully in the connection board.

Installation

## Determining the fixing axis (FA)

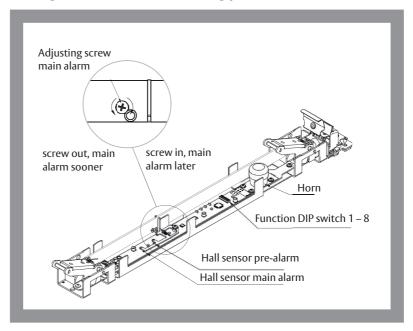
Fig. 9: Fixing axis



Ordered length	Max. shortening
FA 940	180 mm
FA 1100	160 mm
FA 1260	160 mm

## Setting the main alarm switching point

Fig. 10: Main alarm switching point



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## Note!

Pre-alarm can not be switched on! (adjusted at the factory!)

Installation

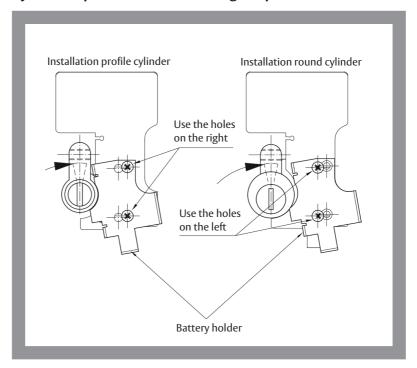
## **Functions of the DIP switch**

DIP switch main board	DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8
Open time sec. Default 10 sec.*	* OFF	*OFF	*OFF	* OFF	*OFF	*OFF	*OFF	*OFF
Open time + 6 sec.	ON	OFF						
Open time + 12 sec.	OFF	ON						
Illumination during permanently open dark			ON					
Acoustic alarm OFF (silent)				ON				
Timer acoustic alarm 3 min.					ON			
Door break-in monitoring OFF						ON		
Alarm delay active							ON	
Input DIMM (terminal 3) becomes input pre-alarm								ON

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## Cylinder replacement with locking tail piece

Fig. 11: Cylinder replacement





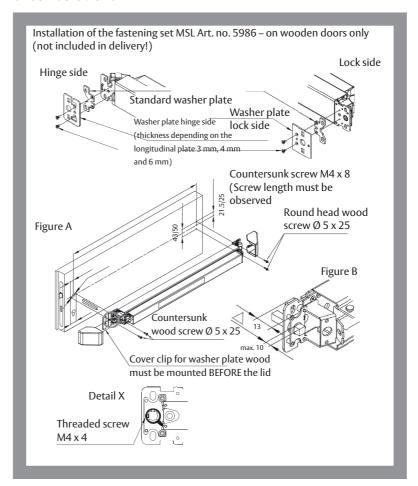
## Note!

During cylinder replacement, note: set tail piece to 0°!

Installation

## Installation on wooden doors in conjunction with escutcheon solutions

Fig. 12: Installation on wooden doors



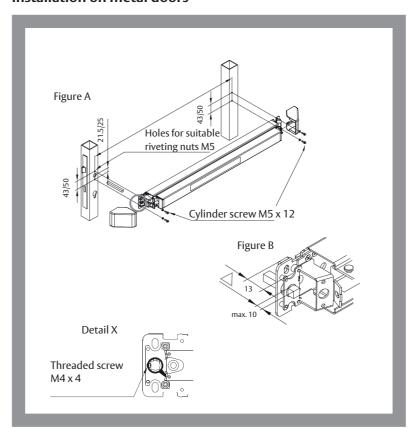


### Note!

Always note the follower position during installation! Cam must be orientated on the ground!

## **Installation on metal doors**

Fig. 13: Installation on metal doors





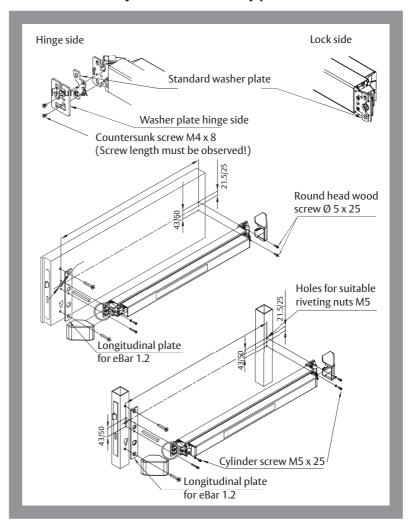
## Note!

Always note the follower position during installation! Cam must be orientated on the ground!

Installation

## Installation in conjunction with safety plate 4 mm internal

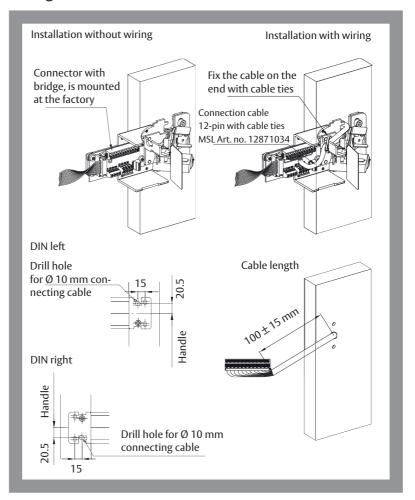
Fig. 14: Installation with safety plate



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## Battery operation/external control Wiring of the eBar 1.2

Fig. 15: Wiring

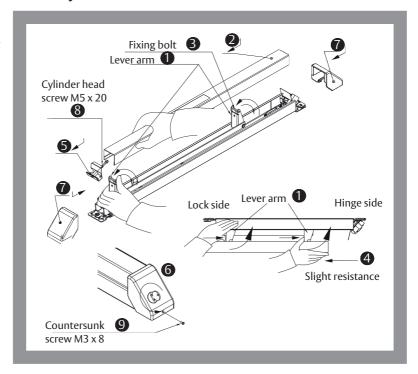


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Installation

## Assembly of the eBar 1.2

Fig. 16: Assembly



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- 1 Lift the lever arm 1 to the stop in vertical position.
- 2 Place the pushbar 2 on the fixing bolts 3 from the hinge side until you feel it engage slightly.
- 3 Use both thumbs to tilt the lever arm 1 synchronous to the hinge side.
- 4 With one hand, apply slight resistance on the pushbar 4 to prevent the bayonet lock from releasing.



### Note!

The pushbar must noticeably engage when a slight force is applied.

Do not engage with force! In case of doubt, start again and repeat the process.

- 5 Mount protective plate **5** on the fixing bar.
- 6 Insert lid 7 in the bayonet lock and push it onto the profile completely to the stop. Fix with M5 x 20 cylinder head screw 8.

Mechatronic variants 6:

7 Lock the lid with a key movement to the left and then turn the screw M3 x 8 **9** again.

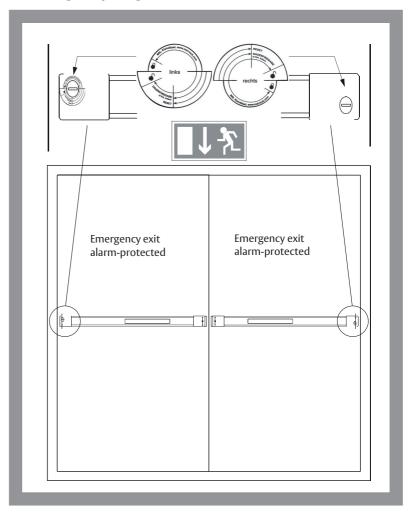
Mechanical variants:

8 Fix with M5 x 8 cylinder head screw (in the same way as the lock side).

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## Mounting the pictograms

Fig. 17: Mounting the pictograms

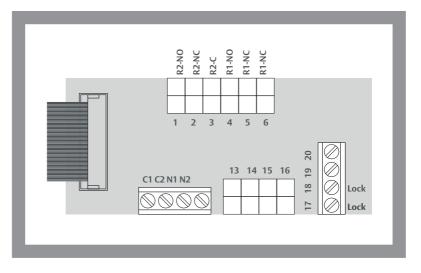


## **Electrical connection**

eBar 1.2 with new detector circuit board 5981 with key switch

Terminal	Signal	Cable colour	Function
1	NO		Output relay pre-alarm
2	NC		30 V/850 mA
3	С		
4	NO		
5	NC		
6	С		
17	OV		Output key switch
18			(reset/program)
19	_		Key switch (reset/program)
20	_		

Fig. 18: Circuit board 5981



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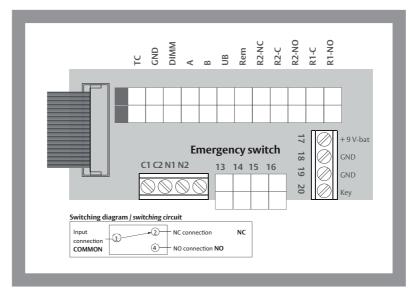
Electrical connection EN

eBar 1.2 5982/5983 with new electronics 12 pin Plug with RS 485 interface

1 OV White TC external door contact is strongly recommended, otherwise bridge (1-2) Cancellation of the hold-open time 2 GND Black Operating voltage ground GND 3 OV Brown DIMM input eBar 1.2 illumination only 10% (DIP8 OFF) or input pre-alarm, e.g. radar (DIP8 ON) 4 A Green RS 485 interface (mod BUS) 5 B Yellow RS 485 interface (mod BUS) 6 +10V-30V Red External operating voltage 10V-30V DC 7 OV Purple Release eBar 1.2 impulse or permanent signal input for single permanently open (2-7) 8 NC Grey Output relay main alarm 30V/850mA 9 C Blue Output relay main alarm 30V/850mA 10 NO Pink Output relay main alarm 30V/850mA 11 C Red/blue Output relay pre-alarm 30V/850mA 11 C Red/blue Output relay pre-alarm 30V/850mA 12 NO Grey/pink Output relay pre-alarm 30V/850mA 13 NC Internal emergency switch 1 min AWG24 14 NC Internal emergency switch 1 min AWG24 15 C Internal emergency switch 1 min AWG24 16 C Internal emergency switch 2 min AWG24 17 +9V red +9V battery 18 GND Black GND battery 19 GND Key switch (reset/program) 20 OV Key switch (reset/program)	Terminal	Signal	Colour	Function
DIMM input eBar 1.2 illumination only 10% (DIP8 OFF) or input pre-alarm, e.g. radar (DIP8 ON)  A Green RS 485 interface (mod BUS)  B Yellow RS 485 interface (mod BUS)  H10V-30V Red External operating voltage 10V-30V DC  Purple Release eBar 1.2 impulse or permanent signal input for single permanently open (2-7)  NC Grey Output relay main alarm 30V/850mA  C Blue Output relay main alarm 30V/850mA  Output relay main alarm 30V/850mA  C Red/blue Output relay pre-alarm 30V/850mA  C Red/blue Output relay pre-alarm 30V/850mA  C Red/blue Output relay pre-alarm 30V/850mA  Internal emergency switch 1 min AWG24  NC Internal emergency switch 1 min AWG24  Internal emergency switch 1 min AWG24  Internal emergency switch 1 min AWG24  Internal emergency switch 2 min AWG24  Internal emergency switch 2 min AWG24  Internal emergency switch 2 min AWG24  H9V red +9V battery  Rey switch (reset/program)	1	0V	White	mended, otherwise bridge (1-2) Cancellati-
(DIP8 OFF) or input pre-alarm, e.g. radar (DIP8 ON)  4 A Green RS 485 interface (mod BUS)  5 B Yellow RS 485 interface (mod BUS)  6 +10V-30V Red External operating voltage 10V-30V DC  7 OV Purple Release eBar 1.2 impulse or permanent signal input for single permanently open (2-7)  8 NC Grey Output relay main alarm 30V/850mA  9 C Blue Output relay main alarm 30V/850mA  10 NO Pink Output relay main alarm 30V/850mA  11 C Red/blue Output relay pre-alarm 30V/850mA  12 NO Grey/pink Output relay pre-alarm 30V/850mA contact closed during pre-alarm  13 NC Internal emergency switch 1 min AWG24  14 NC Internal emergency switch 1 min AWG24  15 C Internal emergency switch 1 min AWG24  16 C Internal emergency switch 2 min AWG24  17 +9V red +9V battery  18 GND Black GND battery  19 GND Key switch (reset/program)	2	GND	Black	Operating voltage ground GND
5BYellowRS 485 interface (mod BUS)6+10V-30VRedExternal operating voltage 10V-30V DC70VPurpleRelease eBar 1.2 impulse or permanent signal input for single permanently open (2-7)8NCGreyOutput relay main alarm 30V/850mA9CBlueOutput relay main alarm 30V/850mA10NOPinkOutput relay pre-alarm 30V/850mA11CRed/blueOutput relay pre-alarm 30V/850mA12NOGrey/pinkOutput relay pre-alarm 30V/850mA contact closed during pre-alarm13NCInternal emergency switch 1 min AWG2414NCInternal emergency switch 2 min AWG2415CInternal emergency switch 1 min AWG2416CInternal emergency switch 2 min AWG2417+9Vred+9V battery18GNDBlackGND battery19GNDKey switch (reset/program)	3	0V	Brown	(DIP8 OFF) or input pre-alarm, e.g. radar
6 +10V-30V Red External operating voltage 10V-30V DC 7 0V Purple Release eBar 1.2 impulse or permanent signal input for single permanently open (2-7) 8 NC Grey Output relay main alarm 30V/850mA 9 C Blue Output relay main alarm 30V/850mA 10 NO Pink Output relay main alarm 30V/850mA 11 C Red/blue Output relay pre-alarm 30V/850mA 12 NO Grey/pink Output relay pre-alarm 30V/850mA 13 NC Internal emergency switch 1 min AWG24 14 NC Internal emergency switch 2 min AWG24 15 C Internal emergency switch 1 min AWG24 16 C Internal emergency switch 2 min AWG24 17 +9V red +9V battery 18 GND Black GND battery 19 GND Key switch (reset/program)	4	Α	Green	RS 485 interface (mod BUS)
7 OV Purple Release eBar 1.2 impulse or permanent signal input for single permanently open (2-7)  8 NC Grey Output relay main alarm 30V/850mA  9 C Blue Output relay main alarm 30V/850mA  10 NO Pink Output relay main alarm 30V/850mA  11 C Red/blue Output relay pre-alarm 30V/850mA  12 NO Grey/pink Output relay pre-alarm 30V/850mA contact closed during pre-alarm  13 NC Internal emergency switch 1 min AWG24  14 NC Internal emergency switch 2 min AWG24  15 C Internal emergency switch 1 min AWG24  16 C Internal emergency switch 2 min AWG24  17 +9V red +9V battery  18 GND Black GND battery  19 GND Key switch (reset/program)	5	В	Yellow	RS 485 interface (mod BUS)
nal input for single permanently open (2-7)  8 NC Grey Output relay main alarm 30V/850mA  9 C Blue Output relay main alarm 30V/850mA  10 NO Pink Output relay main alarm 30V/850mA  11 C Red/blue Output relay pre-alarm 30V/850mA  12 NO Grey/pink Output relay pre-alarm 30V/850mA contact closed during pre-alarm  13 NC Internal emergency switch 1 min AWG24  14 NC Internal emergency switch 2 min AWG24  15 C Internal emergency switch 1 min AWG24  16 C Internal emergency switch 2 min AWG24  17 +9V red +9V battery  18 GND Black GND battery  19 GND Key switch (reset/program)	6	+10V-30V	Red	External operating voltage 10V-30V DC
9 C Blue Output relay main alarm 30V/850mA 10 NO Pink Output relay main alarm 30V/850mA 11 C Red/blue Output relay pre-alarm 30V/850mA 12 NO Grey/pink Output relay pre-alarm 30V/850mA contact closed during pre-alarm 13 NC Internal emergency switch 1 min AWG24 14 NC Internal emergency switch 2 min AWG24 15 C Internal emergency switch 1 min AWG24 16 C Internal emergency switch 2 min AWG24 17 +9V red +9V battery 18 GND Black GND battery 19 GND Key switch (reset/program)	7	0V	Purple	
10 NO Pink Output relay main alarm 30V/850mA  11 C Red/blue Output relay pre-alarm 30V/850mA  12 NO Grey/pink Output relay pre-alarm 30V/850mA contact closed during pre-alarm  13 NC Internal emergency switch 1 min AWG24  14 NC Internal emergency switch 2 min AWG24  15 C Internal emergency switch 1 min AWG24  16 C Internal emergency switch 2 min AWG24  17 +9V red +9V battery  18 GND Black GND battery  19 GND Key switch (reset/program)	8	NC	Grey	Output relay main alarm 30V/850mA
11 C Red/blue Output relay pre-alarm 30V/850mA  12 NO Grey/pink Output relay pre-alarm 30V/850mA contact closed during pre-alarm  13 NC Internal emergency switch 1 min AWG24  14 NC Internal emergency switch 2 min AWG24  15 C Internal emergency switch 1 min AWG24  16 C Internal emergency switch 2 min AWG24  17 +9V red +9V battery  18 GND Black GND battery  19 GND Key switch (reset/program)	9	С	Blue	Output relay main alarm 30V/850mA
12 NO Grey/pink Output relay pre-alarm 30V/850mA contact closed during pre-alarm  13 NC Internal emergency switch 1 min AWG24  14 NC Internal emergency switch 2 min AWG24  15 C Internal emergency switch 1 min AWG24  16 C Internal emergency switch 2 min AWG24  17 +9V red +9V battery  18 GND Black GND battery  19 GND Key switch (reset/program)	10	NO	Pink	Output relay main alarm 30V/850mA
tact closed during pre-alarm  NC Internal emergency switch 1 min AWG24  NC Internal emergency switch 2 min AWG24  Internal emergency switch 1 min AWG24  C Internal emergency switch 1 min AWG24  Reference to the company of the compa	11	С	Red/blue	Output relay pre-alarm 30V/850mA
14NCInternal emergency switch 2 min AWG2415CInternal emergency switch 1 min AWG2416CInternal emergency switch 2 min AWG2417+9Vred+9V battery18GNDBlackGND battery19GNDKey switch (reset/program)	12	NO	Grey/pink	
15 C Internal emergency switch 1 min AWG24 16 C Internal emergency switch 2 min AWG24 17 +9V red +9V battery 18 GND Black GND battery 19 GND Key switch (reset/program)	13	NC		Internal emergency switch 1 min AWG24
16 C Internal emergency switch 2 min AWG24 17 +9V red +9V battery 18 GND Black GND battery 19 GND Key switch (reset/program)	14	NC		Internal emergency switch 2 min AWG24
17 +9V red +9V battery 18 GND Black GND battery 19 GND Key switch (reset/program)	15	С		Internal emergency switch 1 min AWG24
18 GND Black GND battery 19 GND Key switch (reset/program)	16	С		Internal emergency switch 2 min AWG24
19 GND Key switch (reset/program)	17	+9V	red	+9V battery
	18	GND	Black	GND battery
20 OV Key switch (reset/program)	19	GND		Key switch (reset/program)
	20	OV		Key switch (reset/program)

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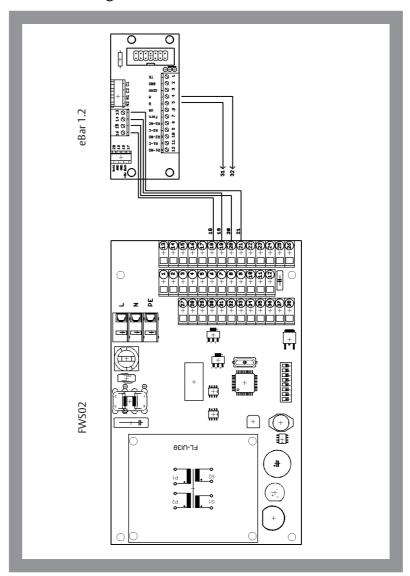
Fig. 19: RS 485 interface



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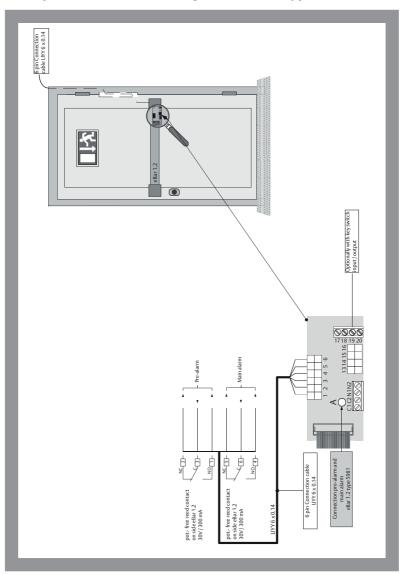
## Interconnecting an eBar 1.2 with a FWS02

Fig. 20 Interconnecting an eBar 1.2 with a FWS02



## Principle and connection diagram eBar 1.2 type 5981

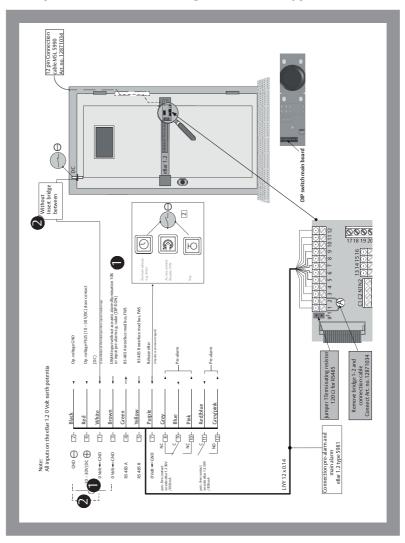
Fig. 21: Principle and connection diagram eBar 1.2 type 5981



Electrical connection

## Principle and connection diagram eBar 1.2 type 5982

Fig. 22 Principle and connection diagram eBar 1.2 type 5982

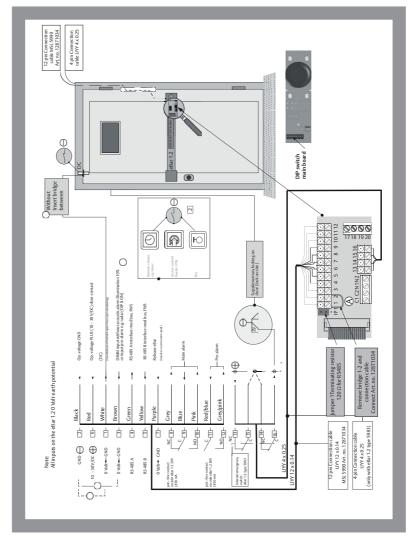


36 FN

DIP switch main board	DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8
Open time 3 sec. Default setting	* OFF	*OFF	*OFF	* OFF	*OFF	*OFF	*OFF	*OFF
Open time + 6 sec.	ON	OFF						
Open time + 12 sec.	OFF	ON						
Illumination during permanently open dark			ON					
Acoustic alarm OFF (silent)				ON				
Timer acoustic alarm 3 min.					ON			
Door break-in monitoring OFF						ON		
Alarm delay active							ON	
Input DIMM (terminal 3) becomes input pre-alarm								ON

# Principle and connection diagram eBar 1.2 5983 (with connecting terminal for supplementary locking)

Fig. 23 Principle and connection diagram eBar 1.2 type 5983 (with connecting terminal for supplementary locking)



DIP switch main board	DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8
Open time 3 sec. Default setting	* OFF	*OFF	*OFF	* OFF	*OFF	*OFF	*OFF	*OFF
Open time + 6 sec.	ON	OFF						
Open time + 12 sec.	OFF	ON						
Illumination during permanently open dark			ON					
Acoustic alarm OFF (silent)				ON				
Timer acoustic alarm 3 min.					ON			
Door break-in monitoring OFF						ON		
Alarm delay active							ON	
Input DIMM (terminal 3) becomes input pre-alarm								ON

# Description of the functions

## Changing the display colour from green to red

#### Switching the colour code of the MSL eBar 1.2:

The user/dealer can define whether the viewing window lights up red or green in activated state. The setting must be carried out as follows:

- 1 Switch on the eBar 1.2 with the power supply unit, the procedure is not possible in battery operation!
- 2 Switch the eBar 1.2 into the permanent release mode with the key switch (5 seconds pos. RESET).
- 3 Press the pushbar of the eBar 1.2 completely within the next 60 seconds and hold, turn the key switch back to the removal position. Continue to hold the pushbar pressed for min. 15 seconds.
- 4 Display colour switches between green and red, release the pushbar.
- 5 With the desired colour in place, turn the key switch briefly to the RESET position within 6 seconds.
- ⇒ Display colour is now programmed.
- ⇒ eBar 1.2 is now in individual release mode.

To change the display again, you have to start again from the beginning!

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## Setting the alarm switch-off

With DIP switch 5 ON, the main alarm switches off automatically after 3 minutes. Default setting DIP 5 OFF corresponds to without acoustic timer.

## Default settings on the MSL eBar 1.2

- · Display colour green
- · Colour intensity
- · Duration of the alarm
- · Volume of the alarm
- · Delayed alarm
- · Time until "Door-open-too-long" alarm is triggered, etc.

# Single-mode in mains operation

Door closed (DC connected), eBar 1.2 is mechanically in the initial position (not pressed) relays 1 and 2 are deactivated, eBar 1.2 lights up permanently green (or red, see "Changing the display colour from green to red", page 40). Optional escape relay is deactivated.
Provide impulse on key switch input (< 5 sec.). Open time is initiated, eBar 1.2 can be pressed without triggering an alarm. eBar 1.2 flashes green slowly. Open time is cancelled as soon as the eBar is activated (pre-alarm is "glossed over") or/and the door contact is interrupted.
Issue impulse on remote input. Open command remains active for as long as the command is in place plus open time. The LEDs are dimmed and lit up again slowly.
After the open time has elapsed (default 5 sec., can be changed), an attempt is made to restore the live state. If the door contact is closed and the eBar 1.2 is no longer pressed, live state is restored. If there is no longer an active open command and the door contact is interrupted during the open time (door is opened), the open time is cancelled. The status switches immediately to "Wait for door closed".
After the open time has elapsed, the eBar 1.2 wants to switch to live mode. A check is carried out to determine whether all conditions for live state are met (no open inputs actuated, no alarm sensors actuated, door contact closed). If all conditions are met, the eBar 1.2 switches to live state after a safety wait time of approx. 2 sec.
15 sec. after Wait for door closed, the Door open too long alarm is triggered. Relay 1 is activated. The internal horn is activated briefly every 3 sec. End the alarm: Close the door (close DC) or issue open command again (both open command 1 and 2 possible).

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Pre-alarm	Press the eBar 1.2 lightly in live state. The horn is activated and the LEDs light up quickly from left to right. Relay 1 is activated.
Main alarm	Actuate eBar 1.2 in live state (press completely), horn is activated, green LEDs flash quickly, relay 2 is activated, alarm can only be stopped with the key switch.
Door opening	Interrupt the door contact in live state. Horn and relay 2 are activated. Can only be stopped with the key switch. (Active if DIP 6 OFF)
Permanently open 1	Open command is active while "remote" input is active. The LEDs are dimmed and lit up again slowly.
Permanently open 2	Press the key switch > 5 sec. (until green LEDs go out), press the key. The status is ended by briefly pressing the key switch or remote input. The LEDs are dimmed and lit up again slowly.

## **Functions of the DIP switch**



#### Attention!

Changes to the DIP switches are only active after they are switched on again! DIP switch positions are overwritten dynamically by the ModBus (when networked), but not during FWS operation.

DIP no.	Function	ON	OFF (default)
1	Hold open time	+ 6 seconds	
2	Hold open time	+ 12 seconds	
3	Light during perma- nently open	Dark	Pulsating
4	Acoustic alarm	Off	On
5	Timer acoustic Alarm 3 min.	On	Off
6	Door open monitoring	Off	On
7	Alarm delay	Enabled	Disabled
8	Dim input	Pre-alarm	Dim

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#### Mode external networking

Where necessary, up to 127 eBar 1.2 can be networked to create one system. For this, all eBar 1.2 must be connected with their relevant RS485 interfaces.

A master is always required here, that controls the communication between the individual units and enables visualisation of the doors, as well as the option of releasing individual eBar 1.2 with authorisation or releasing all eBar 1.2 centrally. This enables monitoring of a delayed opening (e.g. cancellation of the opening after a relevant check with the camera).

The master must be created on a project-specific basis for the relevant application. The external networking mode is prepared, but requires a separate integration (to suit the requirements).

#### Adjusting the brightnesses

The eBar 1.2 has 3 different brightnesses in total:

- · Maximum brightness based on the hardware Brightness 1: Cannot be changed
- · Dim brightness Brightness 2: Can be changed
- · Basic brightness when active (not dimmed) Brightness 3: Can be changed

Maximum brightness is always applied with all functions except for active state, regardless whether dimming is active or not. Dim brightness is applied in active state and with active dim input.

Basic brightness with active state and inactive dim input is applied in active state with the dim input not active. The latter setting option is mainly used for operating an eBar 1.2 in a dark environment, while the dim input is also set as a pre-alarm input, meaning that no dimming function is present. This means that the brightness can also be adjusted to suit different requirements, even if the dimming function is available. Because both adjustable values can be set from completely dark to maximum brightness, this offers a wide range of usage options.

Before setting the brightnesses, first set the desired colour (red or green display when active), as the individual perception of the colours is different.

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#### Setting brightness 2

- Switch off eBar 1.2.
- 2 Press eBar 1.2 completely (main alarm!).
- 3 Switch on eBar 1.2, continue to hold main alarm for min. 10 seconds until all LEDs light up (green or red, depending on the parameter).
- 4 Release main alarm and observe LEDs.
- 5 Dim the LEDs up and down slowly from the minimum to the maximum brightness (only 3 times in total, then the process is cancelled).
- 6 When the desired brightness is reached, press the key switch for at least 1 second.
- ⇒ The value is saved and remains in place during the next switch-on.
- ⇒ Setting is complete, eBar 1.2 starts.



#### Note!

The maximum brightness and the dark state remain in place for approx. 1 second to ensure that these two values can be confirmed with the key switch.

#### Setting brightness 3

As with setting brightness 2, but before switching on, only confirm the pre-alarm and hold for min. 10 sec.

## Technical data



#### Attention!

On the FWS, the coding switch for selecting the hold open time must be on "zero". When the eBar 1.2 is released with the key switch, it issues a command to the FWS for the magnet to release the door. After the 15 sec. have elapsed and after the door is closed, the magnet is activated again. An additional reed door contact on the door is required or this. Otherwise, a bridge must be used. However, there is then the risk of an alarm being triggered unintentionally if the eBar 1.2 is pressed again while the door is still open, but has already been activated.

Voltage/current consumption	
Operating voltage:	9 V block battery or/and 12 – 30 V DC power supply unit
Battery-too-weak display:	Below 7V (measured under load)
Switch-off of the horn:	If DIP 5 on ON: 3 minutes
Open time during FWS operation:	And FWS02 set
Power supply unit:	230V AC / 12 – 30V DC (MSL Art. no. 14471406/14471405)
Reed door contact:	With sabotage line, incl. 2 m cable
Current consumption during battery	operation
In active state:	14 μ Α
In open state:	0.5 mA, briefly 90 mA pulsating
With pre-alarm:	190 mA
With main alarm:	On average 160 mA pulsating
Current consumption during mains o (external power supply unit or FWS)	peration
In active state:	130 mA
In open state:	6 mA, briefly 130 mA pulsating
With pre-alarm:	235 mA
With main alarm:	On average 190 mA pulsating

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Voltage/current consumption	
Follower angle	
Up to 40°	Standard, 9 mm follower
Lock at 30°	Optional, 9 mm follower
Up to 45°	Optional, 9 mm follower
Cable with eBar 1.2 models	
eBar 1.2 mechanical /mechatronic:	Recommendation: 12-wire, LIYY 12 x 0.14 (MSL Art. no. 12871034)
eBar 1.2 mechatronic + emergency switch:	Recommendation: 12-wire, LIYY 12 x 0.14 (MSL Art. no. 12871034), 4-wire, LIYY 4 x 0.25
Suitable cable guards:	Cable guard 480 / Cable guard 300 20 pin pluggable

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# Maintenance

# Handover report (operator)

eBar 1.2:
Property:
Manufacturer/lock type:
Panic function: D E B E-SV B-SV
Installation was carried out correctly.
Only products that correspond to DIN SN EN 1125 are used.
The products have been tested for suitability and are functional.
Special features on-site:
During hand-over to the operator, all products are freely accessible.
The system has been tested and accepted:
Place, Date Signature
Comp

# Handover report (installation company)

eBar 1.2:
Property:
Manufacturer/lock type:
Panic function: D E B E-SV B-S
The installation company has informed the operator of the following content:
Function and handling
Alarm acknowledgement
Special functions
Special functions Options for battery or mains operation Forwarding options
Forwarding options
Hand-over of the operating and installation instructions to the operator
The operator has been informed that the following maintenance/inspections must be carried out:
Battery inspection (recommended annually)
Function check (recommended annually)
Visual inspection (recommended annually)
Place, Date Signature
Comp

Maintenance

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## Notes

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EN

Notes EN 55

Die ASSA ABLOY Gruppe ist der Weltmarktführer in Zugangslösungen. Jeden Tag helfen wir Menschen sich sicherer und geborgener zu fühlen und eine offenere Welt zu erleben.

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Fechnische Änderungen vorbehalten.