

Explosion-proof telephone

ExSafeTel MB



Operating instructions



Auer Signal

Our explosion-proof, weatherproof phone offers precision, comfort, extended service life and reliability. It is programmable and it can withstand harsh environmental conditions. The phone can be used under severe conditions including seawater, high humidity, dust and it withstands strong mechanical shock in connection with explosion protection. It is fitted with an indestructible keypad made of V4A steel and an extremely robust body made of shock and impact-resistant compression moulded plastic. All components used for making this phone are resistant against lye and lubricants. The 21-part keypad optimised for "use with gloves" and made of V4A steel is easy to operate and thus meets all requirements for a modern and reliable communications device. The ExSafeTel MB phone offers a reliable communication channel when connected to the public network or to PBX systems.

Table of contents

| | |
|---|----|
| General operating conditions..... | 5 |
| Device Overview | 6 |
| Keyboard | 9 |
| Packaging Contents | 9 |
| Explosion Protection - Device Description | 10 |
| Explosion Protection - Device Construction..... | 11 |
| Explosion Protection - Indicators..... | 14 |
| Explosion Protection - Identification..... | 15 |
| Assembly and Installation..... | 16 |
| Connection Plan..... | 17 |
| Loop Bracket | 17 |
| Hole Pattern | 18 |
| Commissioning | 18 |
| Maintenance..... | 18 |
| Receiver Operation | 19 |
| Open listening | 19 |
| Hands free | 19 |
| Working with the headset..... | 20 |
| Operation | 21 |
| Receiving calls | 21 |
| Call somebody | 21 |
| Redial | 21 |
| Execute queries | 21 |
| Change telephone configuration..... | 22 |
| Signal tones | 22 |
| Configuration..... | 23 |
| Set ring tone volume | 23 |
| Select ring tone melody | 23 |
| Set receiver volume | 23 |
| Set speaker volume for speakers | 23 |
| Set speaker volume for hands free | 23 |
| Set headset volume | 23 |
| Save or delete telephone numbers for speed dialling buttons | 24 |
| Determine dialling behaviour | 24 |
| Save or delete line access code | 24 |
| Determine duration of the break after dialling the line access code | 24 |
| Determine duration of the loop current disruption (flash duration) | 25 |
| Enable/disable change block..... | 25 |
| Enter PIN | 25 |
| Enable/disable external speaker | 26 |
| Restore state of delivery | 26 |
| State of delivery | 27 |
| Technical data | 28 |

| | |
|------------------------------------|----|
| Directives and guidelines .. | 31 |
| Service .. | 32 |
| Care and maintenance | 32 |
| Disposal | 32 |
| Warning and safety notes | 32 |
| CE certificate | 34 |
| EU Declaration of Conformity | 35 |

General operating conditions

1. The ExResistTel MB weatherproof phone can be connected to the telephone lines of analogue exchanges.
2. The handset is fitted with a stray field coil for connecting hearing aid devices. Persons wearing a hearing aid device with an inductive receiver can directly receive the signal of the earphone.
3. The optional external speaker can be used in ringer, open listening and hands-free modes. The volume of the internal speaker is reduced when the external speaker is turned on.
4. The phone has a receiver mount with a reed contact hook switch. The handset must be placed back on the mount to end the call. A conversation is ended and a new call is started by pressing the disconnect button on the keypad (see page 9).
5. If you do not make a selection within 2 minutes, the exchange can cut off the power supply. Then you will stop hearing the dial tone. In this case, please place back the handset, wait for 2 seconds and lift the handset again.
6. An acknowledgement tone confirms that the settings have been stored.
7. When you receive a call, the ExSafeTelMB phone rings with the selected volume.
8. Changing the settings can be prevented by setting a PIN number. Forgetting the PIN number is similar to losing a key. If you forgot the PIN number, please contact our technical support service.
9. There is a warranty period of 36 months from the date of purchase. In case of any problems please contact our technical support service in Austria, Vienna:

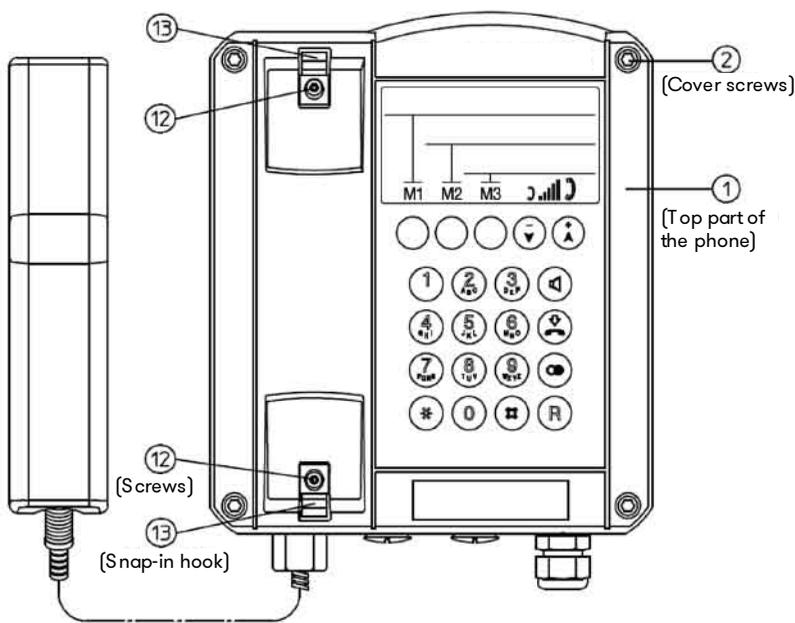
Telefon 0043 1 813 82 20 · Telefax 0043 1 815 99 54
<http://www.auersignal.com> · e-mail: office@auersignal.com

In case of issues which cannot be solved by phone, please send the complete device with a copy of the sales receipt to the following address:

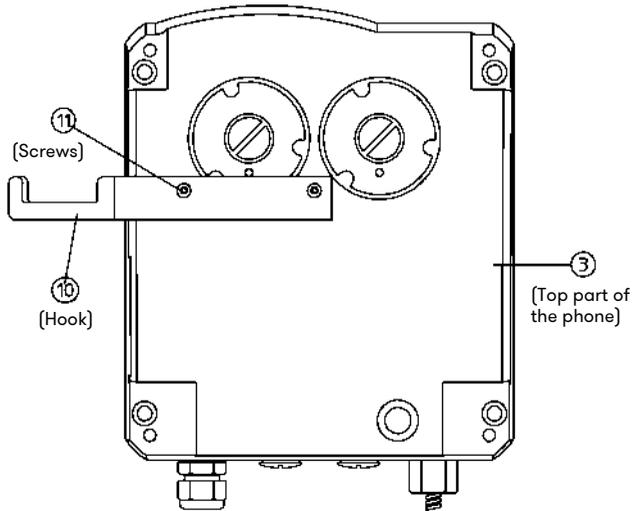
Auer Signal GmbH
Support ExSafeTelMB
Perfektastrasse 102
A-1230 Vienna

If no errors are found during the inspection, we shall issue an invoice for the processing fee.

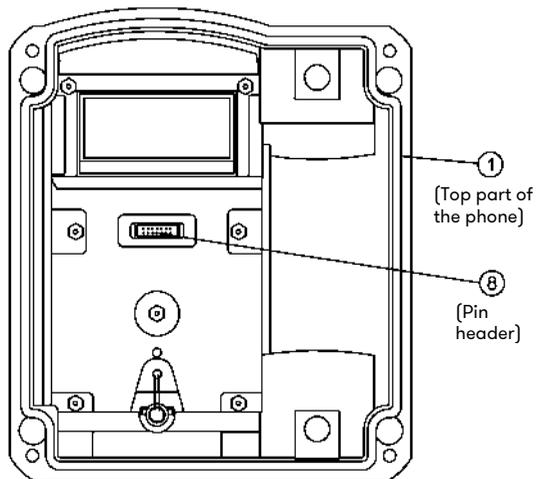
Overview of the device



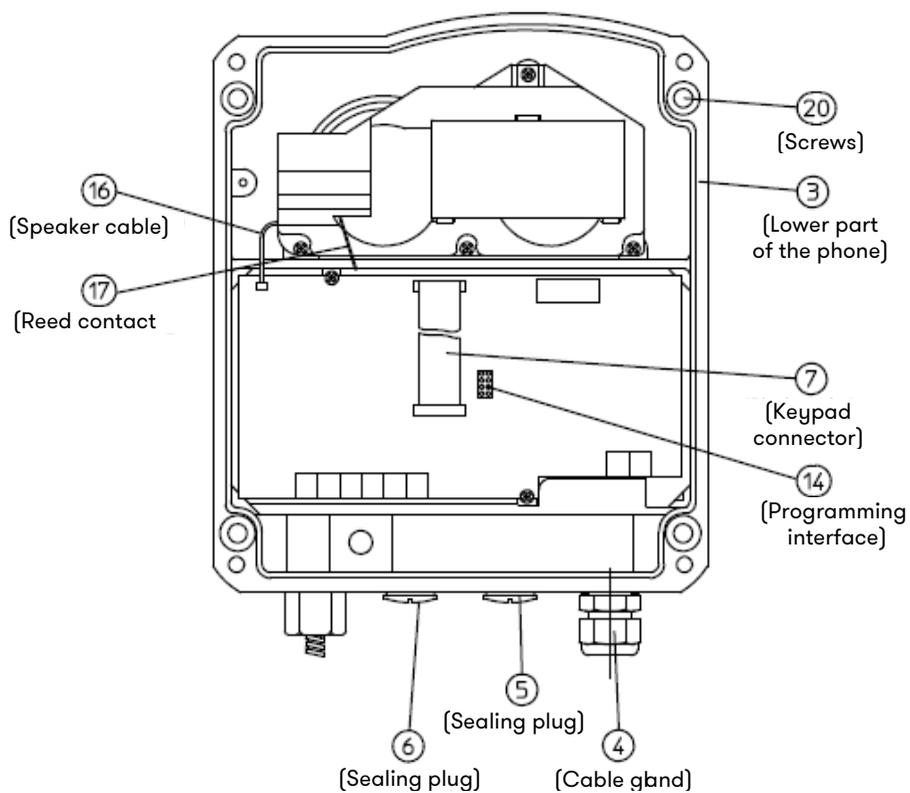
Exterior view of the lower part of the phone



Interior view of the upper part of the phone

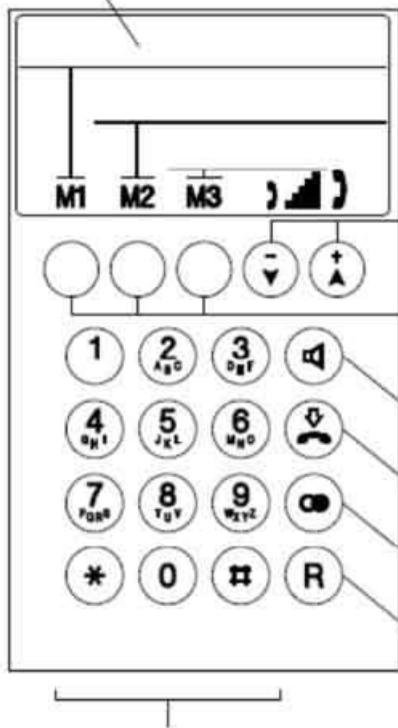


Interior view of the lower part of the phone



Keypad

Label field



Volume settings buttons for setting the volume of the handset, speaker (hands-free and open conversation)

Speed dialling

Loudspeaker

Disconnect

Redial button

Second call

Numeric keys

Package contents

The package contains:

- Telephones ExSafeTelMB
- Operating manual
- 2 sticky label panels
- MB sticker

The ExSafeTel MB serves for making calls within operating facilities in danger of explosion in the zones: Zone 1, Zone 2, Zone 21 and Zone 22.

The telephone is to be realized in the following ignition protection types:

| | |
|---------------------------------|-------------------------------|
| II 2G Ex e mb [ib] IIC T5 Gb | Ex e mb [ib] IIC T5 Gb |
| II 2D Ex tb [ib] IIIC T100°C Db | Ex tb [ib] IIIC T100°C Db |
| -25°C ≤ T _a ≤ 60°C | -25°C ≤ T _a ≤ 60°C |
| II 2G Ex e mb [ib] IIC T6 Gb | Ex e mb [ib] IIC T6 Gb |
| II 2D Ex tb [ib] IIIC T80°C Db | Ex tb [ib] IIIC T80°C Db |
| -25°C ≤ T _a ≤ 40°C | -25°C ≤ T _a ≤ 40°C |
| DMT 03 ATEX E 034 | |

The ExSafeTel MB telephone is designated to analogue telephone networks.

The non-secure voltage of the telephone network is led into increased security on the clamps 13 and 14 (A, B). In the call state, this voltage is switched through to the clamps 15 and 16 (Bell shunt1, Bell shunt) with increased security. The clamps 15 and 16 (Bell shunt1, Bell shunt) are designated for the connection of passive loads, e.g. a passive external, explosion protected second alarm.

Furthermore, from the non-secure voltage of the analogue telephone network:

- a secure listener current with clamps within the telephone casing, for the receiver connected with the telephone casing, as well as
- secure circuits with clamps within the telephone casing to connect a secure headset or optionally a secure second receiver, as well as
- a secure circuit with clamps within the telephone casing for the connection to a secure speaker.

The headset, second receiver, external speaker and external secondary alarm accessories are not a component of the ExSafeTel MB telephone, but rather can be connected as an option.

The ExSafeTelMB telephone has an unpainted casing made of electrical-static, conductive press plant material and a stainless steel keyboard.

The casing consists of a box shaped lower part, in which a tub is integrated to hold the electronic system, as well as a curved cover with a keyboard.

The cover is pressed under the medium layer of a surrounding seal with four screws on the casing lower part and forms the non-secure and secure connection space. The electronic system conductor board is located in the tub from the casing lower part, which is completely embedded in the compound.

Non-secure connection clamps with increased security:

From the casting, a 4-pin connection clamp series (See connection plan on page 18) comes out in increased security, to connect the non-secure telephone network (A, B), clamp 13 and 14 as well as for the connection for an optional, external, explosion protected second alarm (Bell shunt1, Bell shunt), clamp 15 an 16 .

Secure connection clamps:

From the casting, a 12-pin, secure connection clamp series (see connection plan on page 18) comes out to connect the receiver integrated in the telephone casing, clamps 1 to 4, as well as the secure accessories, clamps 5 to 12.

The clamps 7 and 8 are intended for the connection of dynamic earphones, as used in second receiver and headsets. This output is therefore optionally used to connect a second receiver or a headset, this means second receivers and headsets cannot be connected simultaneously as accessories.

| Clamp | Note | Usage |
|-------|--|-------------------------------------|
| 1 | Dynamic earphone connection 1 | Earphone ear piece |
| 2 | Dynamic earphone connection 2 | |
| 3 | Electret microphone connection (+) | Earpiece microphone |
| 4 | Electret microphone connection (-) | |
| 5 | Electret microphone connection (+) | Headset microphone |
| 6 | Electret microphone connection (-) | |
| 7 | Dynamic earphone connection 1 | Headset or second receiver earphone |
| 8 | Dynamic earphone connection 2 | |
| 9 | Bridges between the clamps 9 and 10 recognize the telephone as a connected headset | Headset recognition |
| 10 | | |
| 11 | Dynamic volume connection 1 | External speaker |
| 12 | Dynamic speaker connection 2 | |

To connect the accessory, the blank plugs installed in the telephone casing are to be exchanged through suitable explosion protected cable and line guides (M20x1.5).

Before the connection of the secure accessories, an evaluation of the security should be executed by the raiser corresponding with the PTB report "interconnection of nonlinear and linear security circuits", PTB-ThEx-10, November 1999 (ISBN 3-89701-440-8), provided no system certificate is provided for the designated interconnection.

The technical data for the evaluation of the security should be taken from the section "explosion protection parameters".

Further information see EN60079-14 "electrical operating equipment for gas explosion endangered areas" as well as EN50281 -1-1 "electrical operating equipment for usage in areas with flammable dust". When operating the device in explosion dangerous areas with flammable dust, the operator must observe EN50281 -1-2 (IEC61241-1-2).

In order to hang up the secure accessories of the second receiver or headset, a metal clamp is designated, which is only delivered together with the headset. In order to mount the metal clamp to the telephone, two screw sockets are placed in the ground of the casing. The metal clamp has corresponding bores, which allows for a mounting on the bottom of the casing through counter sunk bolts (see device overview on page 7). Thus, the raiser must first mount this on the bottom of the casing when using the metal clamp. After this, the wall assembly occurs.

Secure program interface

From the cast, an 8-pin, secure connecting plug comes out (14) (see device overview on page 8). It is only used by the manufacturer for programming purposes. The connecting plug is to be left blank. Programming through the raiser is not permissible.

Secure strand connection to the installed speaker

From the casting, a secure 2-pin strand line (16) (see device overview on page 8), guided to the installed speaker. It is soldered under casting and on the speaker.

Secure strand connection to the reed contact

From the casting, a secure 2-pin strand line (17) (see device overview on page 8) led to a board, on which a magnet contact (reed contact) is found. It is soldered under casting and on the conductor board with the magnet contact.

Secure keyboard connection

From the casting, a secure 14-pin flat band line with connector is guided through (7) (see device overview on page 7). This connector should be placed on the 14 pin pin in the casing cover before the device is screwed down.

1. Non - secure power circuits

1.1 Telephone network

(Clamps A/B no.: 13 – 14)

Maximum input voltage U_m (call voltage) AC 90 V

Permissible frequency range 16...54 Hz

or

Maximum input voltage U_m (supply voltage) DC 66 V

Maximum input rated current 100 mA

Maximum input short circuit current I_k 35 A

(In the input of this device is a fuse with a disconnect threshold of 35 A.)

1.2 External second alarm: only for the connection to passive conductors

(Clamps Bell shunt1, Bell shunt no.: 15 – 16)

Maximum call voltage AC 90 V

Frequency range 16...54 Hz

or

Maximum supply voltage DC 66 V

2. Secured Circuits

2.1 Headset (microphone)

(Clamp pair HSM no.: 5 – 6)

Maximum output voltage U_o 17 V

Maximum output current I_o 90 mA

Maximum output rating P_o 80 mW

Maximum external capacity C_o 375 nF

Maximum external inductance L_o 1,2 mH

2.2 Headset (earphone) or second receiver

(Clamp pair HSR No.: 7 – 8)

Maximum output voltage U_o 17 V

Maximum output current I_o 110 mA

Maximum output rating P_o 190 mW

Maximum external capacity C_o 375 nF

Maximum external inductance L_o 1,2 mH

| | | | | | |
|-----|---|---------------------|-------|-----|----|
| 2.3 | Headset (recognition) (Clamp pair HSS No.: 9 - 10) | | | | |
| | Maximum | output voltage | U_o | 17 | V |
| | Maximum | output current | I_o | 8 | mA |
| | Maximum | output rating | P_o | 33 | mW |
| | Maximum | external capacity | C_o | 375 | nF |
| | Maximum | external inductance | L_o | 100 | mH |

| | | | | | |
|-----|---|---------------------|-------|-----|---------|
| 2.4 | External speaker (Clamp pair SPK No.: 11 - 12) | | | | |
| | Maximum | output voltage | U_o | 6,6 | V |
| | Maximum | output current | I_o | 250 | mA |
| | Maximum | output rating | P_o | 370 | mW |
| | Maximum | external capacity | C_o | 22 | μ F |
| | Maximum | external inductance | L_o | 0,3 | mH |

2.5 All secure output circuits have a linear output response curve.

3. Ambient temperature range

$-25^{\circ}\text{C} < T_a < 60^{\circ}\text{C}$ for the temperature class T5

$-25^{\circ}\text{C} < T_a < 40^{\circ}\text{C}$ for the temperature class T6

Ex e mb [ib] IIC T5 Gb
 Ex tb [ib] IIIC T100°C Db
 $-25^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
 Ex e mb [ib] IIC T6 Gb
 Ex tb [ib] IIIC T80°C Db
 $-25^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

Explosion protection identification



Figure identification plate
 Telephone type ExResistTel MB

The device can be installed only on a solid and vertical wall. Loosen the screws of the cover (2) (see the overview of the device on page 6 to 8) and take off the top part of the phone (1). When using the optional accessories: headset or second headset, mount the hook (10) with two screws (11) on the rear side of the lower part of the phone (In case of the above accessories, the hook and the screws and also in case of all optional accessories the cable gland is included in the respective package). Insert four screws with a head diameter of 10 to 13 cm in the opening (20) and mount the lower part of the phone (3) on the wall or a panel.

Insert the phone wire through the cable gland (4) and connect it to the clamps 13 and 14 (A, B) according to the wiring plan. Only use wires with an outer diameter of 5 to 9 mm, the IP66 rating of the device cannot be otherwise guaranteed.

Connecting the secondary sounder (for W conductor) (optional accessory)

Remove the sealing plug (5) and screw in the M20x1.5 cable gland completely. Insert the wire of the secondary sounder through the cable gland and connect it to the clamps 15 and 16 (Bell shunt 1, Bell shunt) according to the wiring plan. Only use wires with an outer diameter of 5 to 9 mm, the IP66 rating of the device cannot be otherwise guaranteed.

Connecting the speaker (optional accessory)

Remove the sealing plug (6) and screw in the M20x1.5 cable gland completely. Insert the wire of the speaker through the cable gland and connect it to the clamps 11 and 12 (SPK+, SPK-) according to the wiring plan. Only use wires with an outer diameter of 5 to 9 mm, the IP66 rating of the device cannot be otherwise guaranteed.

Connecting the headset (optional accessory)

Remove the sealing plug (6) and screw in the M20x1.5 cable gland completely. Insert the cable with the headset socket (included in the package of the FHF headset) through the cable gland and connect it to clamps 5 to 10 (HSM+, HSM-, HSR+, HSR-, HSS1, HSS2) according to the wiring plan. Only use the cable included in the package of the headset, because the IP66 rating of the device cannot be guaranteed.

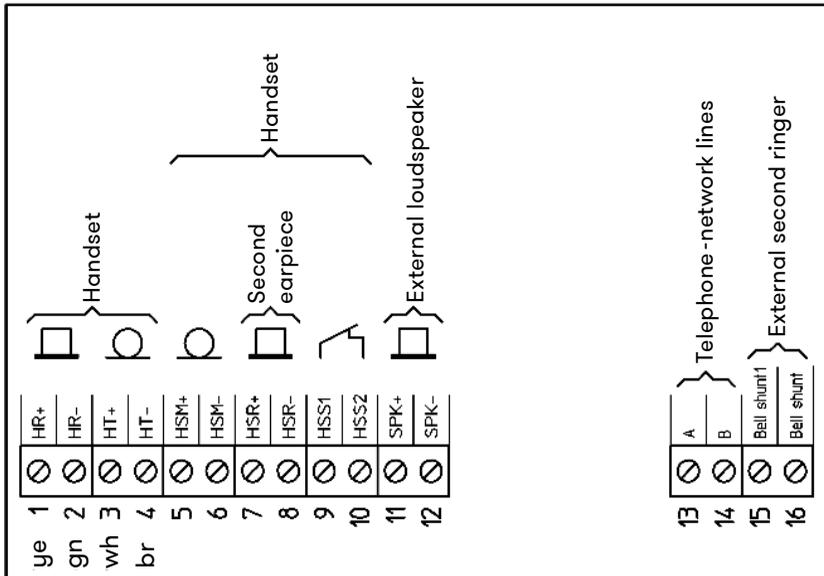
Connecting the second headset (optional accessory)

Remove the sealing plug (6) and screw in the M20x1.5 cable gland completely. Insert the wire of the second headset through the cable gland and connect it to the clamps 7 and 8 (HSR+, HSR-) according to the wiring plan.

Check the correct position of the cover seal prior to assembly. Connect the ribbon cable with the connector (7) to the pin header (8) in the upper part of the device. Mount the upper part of the phone and fasten it with four cover screws (2) to the lower part of the phone.

When optional accessories are removed, close the openings created with the EEx e II certified sealing plugs.

Wiring diagram

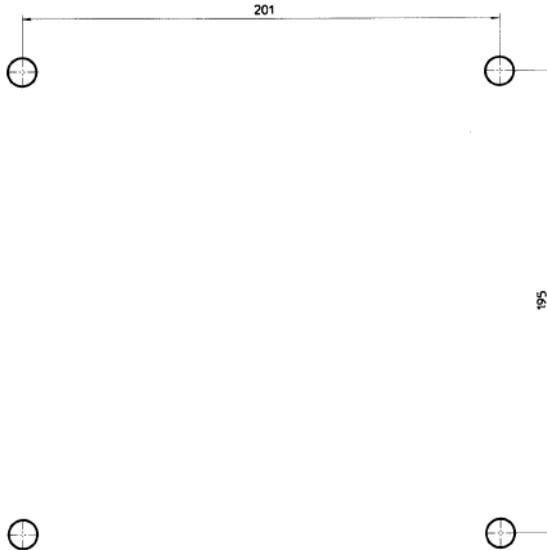


Support hook

The support force for holding the handset is infinitely adjustable. Loosen the screws (12) and slide the snap-in hook (13). If you slide the snap-in hook together, the support force increases, if you slide them apart, the force decreases. Tighten the screws again.

Hole pattern

Please use the following dimensions (in millimetre) for making a drilling template:



The diameter of the hole depends on the screws used (max. screw diameter 8 mm) and the type of the surface (steel, wood, concrete, sheetrock etc.) and please select accordingly.

Putting into service

The ExSafeTel MB phone is ready for operation immediately after connecting it to the network.

Maintenance

The ExSafeTel MB phone does not contain any components requiring maintenance.

Handset operation

If you lift the handset, the phone starts in handset mode. You can modify the handset volume for the conversation using the  and  buttons. For a permanent modification of the handset volume, please access the configuration of the phone (see page 24). You can switch to open listening with the  button. Hold down the  button and put the handset back to switch to hands-free mode.

Open listening

You can modify the volume for open listening using the  and  buttons. For a permanent modification of the speaker volume, please access the configuration of the phone (see page 24). The handset volume cannot be modified in open listening mode. You can switch to handset mode with the  button. Hold down the  button and put the handset back to switch to hands-free mode.

Hands-free mode

If you turn on the ExSafeTel MB phone with the  button, it starts up in hands-free mode. You can modify the speaker volume of the conversation using the  and  buttons. For a permanent modification of the speaker volume, please access the configuration of the phone (see page 24). You can end the conversation with the  button. If you lift the handset, the phone switches to handset mode.

Using the headset

If the headset is connected, the phone switches from open conversation to headset mode. Open conversation is therefore not possible with the headset. If you turn on the ExSafeTel MB phone with the  button, it starts up in headset mode. If you lift the handset in the headset mode, the handset is given priority. This means that you can listen and speak using the handset, and you can only listen with the headset.

Compare the operation without and with the headset connected:

| Operation without the headset | Operation with the headset |
|-------------------------------|---|
| Handset operation | Handset operation with the headset <ul style="list-style-type: none">- Handset is used for speaking and listening- headset is used for listening only- Speaker is turned off |
| Open listening | Open listening with the headset <ul style="list-style-type: none">- Handset is used for speaking and listening- headset is used for listening only- Speaker is turned on |
| Hands-free mode | Headset mode <ul style="list-style-type: none">- Handset is placed back- headset is used for speaking and listening- Speaker is turned off |

You can modify the headset volume of the conversation using the  and  buttons. For a permanent modification of the headset volume, please access the configuration of the phone (see page 24). You can end the conversation with the .

You can specify the operation of the ExSafeTel MB phone after disconnecting the headset in the configuration.

Receiving calls

Calls received are indicated with acoustic signals of the built-in speaker. If the external speaker is connected and activated, the external speaker is used for acoustic signalling. Lift the handset to establish the connection with the caller. For activating the hands-free mode or headset mode press the speaker button instead.

Making a call

Lift the handset, and you can hear the dial tone (dial ready tone) of the public network or of the PBX network respectively.

Press the speed dialling button or the redial button or use the numeric keys to select the phone number of the other party automatically or manually.

Instead of lifting the handset, you can press the speaker button to make a call in open conversation or headset mode.

For selecting a new phone number, you do not need to place the handset back, you can press the disconnect button. The present conversation is ended and you can hear the dial tone to select a new phone number.

Redialling

If you press the redial button, the phone selects the last phone number dialled after lifting the handset or pressing the speaker button.

Making a second call

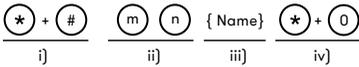
During the conversation, you can disconnect and place the present conversation on hold to make a second call with a different party. Press the second call button and you will hear the dial tone. Dial the phone number of the second party. After ending the second call, you can return to the first call on hold by pressing the second call button again. You can also connect the two parties of the first and second call with each other: Place the handset back or press the speaker button in hands-free or headset mode.

Making a second call is an additional service of the network operator or of the PBX you use.

Changing the phone settings

The phone is fitted with a programmable memory which permanently stores the settings like dialled numbers, volume settings, time data etc. These settings are adjustable to ensure that the phone can be adapted to diverse operating conditions.

All adjustable settings of the phone configuration are presented in the Configuration section below.



v) Name: = 0 | 1 | 2

i) All modifications are made by pressing the * and # buttons at the same time.

The setting is selected for modification with the ii) buttons, and the settings range is shown by the symbolic name iii). The additional row v) contains the list of buttons which can be used here. If you press iv) twice then the configuration is ended and the modified settings are stored in the memory.

The symbolic name is enclosed with { } brackets, and 0, 1 or several buttons of the list v) can be pressed, otherwise the user can press exactly one button.

Signal tones

- Acknowledgement sound
- - - - Error sound
- ■ ■ PIN -Ping, Request to introduce the PIN number
- Indication sound, selected speed dialling memory is not empty

Setting the ringer volume

$\textcircled{*} + \textcircled{\#} \textcircled{1} \textcircled{0} \{ \text{Volume} \} \textcircled{*} + \textcircled{0}$
Volume:= $\textcircled{1} | \textcircled{2} | \textcircled{3} | \textcircled{4} | \textcircled{5} | \textcircled{6} | \textcircled{7}$

Factory setting:7

Settings range: 1 - 6

Selecting a ringtone

$\textcircled{*} + \textcircled{\#} \textcircled{1} \textcircled{1} \{ \text{Tune} \} \textcircled{*} + \textcircled{0}$
Tune:= $\textcircled{0} | \textcircled{1} | \textcircled{2} | \textcircled{3} | \textcircled{4} | \textcircled{5} | \textcircled{6} | \textcircled{7} | \textcircled{8} | \textcircled{9}$

Factory setting:0

Selection range: 0 - 9

Setting the handset volume

$\textcircled{*} + \textcircled{\#} \textcircled{2} \textcircled{0} \{ \text{Handset volume} \} \textcircled{*} + \textcircled{0}$
Handset volume:= $\textcircled{1} | \textcircled{2} | \textcircled{3} | \textcircled{4} | \textcircled{5} | \textcircled{6} | \textcircled{7}$

Factory setting:1

Settings range: 1 - 7

Setting the speaker volume for open listening

$\textcircled{*} + \textcircled{\#} \textcircled{2} \textcircled{2} \{ \text{Open listening volume} \} \textcircled{*} + \textcircled{0}$
Open listening volume:= $\textcircled{1} | \textcircled{2} | \textcircled{3} | \textcircled{4} | \textcircled{5} | \textcircled{6} | \textcircled{7}$

Factory setting:5

Settings range: 1-7

Setting the volume for hands-free operation

$\textcircled{*} + \textcircled{\#} \textcircled{2} \textcircled{4} \{ \text{Hands-free volume} \} \textcircled{*} + \textcircled{0}$
Hands-free volume:= $\textcircled{1} | \textcircled{2} | \textcircled{3} | \textcircled{4} | \textcircled{5} | \textcircled{6} | \textcircled{7}$

Factory setting:5

Settings range: 1 - 7

Setting the headset volume

$\textcircled{*} + \textcircled{\#} \textcircled{2} \textcircled{6} \{ \text{Headset volume} \} \textcircled{*} + \textcircled{0}$
Headset volume:= $\textcircled{1} | \textcircled{2} | \textcircled{3} | \textcircled{4} | \textcircled{5} | \textcircled{6} | \textcircled{7}$

Factory setting:3

Settings range: 1 - 7

Setting or deleting phone numbers for speed dialling

*+Ⓚ Speed dial button { Speed dial no. } *+Ⓚ
 Speed dial button:= M1|M2|M3| *+M1| *+M2| *+M3
 Speed dial number:= 0|1|2|3|4|5|6|7|8|9|*|#

Factory setting: Memory empty
 Maximum phone number length: 32 digits

*+Ⓚ Speed dial button *+0
 The selected speed dialling memory will be deleted.

Setting the call procedure

*+Ⓚ 50 { Call procedure } *+0
 Call procedure:= |1|2|3|4|5
 1 Tone dialling procedure: Tone as long as button is pressed down
 2 Tone dialling procedure: Tone length 70 ms
 3 Tone dialling procedure: Tone length 90 ms
 4 Impulse dialling procedure: Impulse/Pause ratio 1.5:1
 5 Impulse dialling procedure: Impulse/Pause ratio 2:1

Factory setting: 3

Storing or deleting a trunk access code

*+Ⓚ 60 { Trunk access code } *+0
 Trunk access code:= 0|1|2|3|4|5|6|7|8|9|*|#

Factory setting: no trunk access code
 Maximum length of trunk access code: 5 digits

*+Ⓚ 60 *+0
 The trunk access code will be deleted.

Setting the length of pause after dialling a trunk access code

*+Ⓚ 64 { Trunk access code pause } *+0
 Trunk access code pause:= 1|2|3|4|5
 1 1 s
 2 2 s
 3 3 s
 4 4 s
 5 5 s

Factory setting: 3

Setting the duration of a loop current interruption (flash time) when pushing the second call button ®

*+ # 6 5 { Flash time } *+ 0

Flash time:= 1|2|3

1 80 ms

2 120 ms

3 600 ms

Factory setting: 2

Activating/deactivating the change lock

*+ # 7 0 PIN { change lock } *+ 0

Change lock:= 0|1

0 Change lock deactivated, all settings can be modified

1 Change lock activated, settings are locked

Factory setting: 0

Setting the PIN number

*+ # 7 9 PIN { new PIN } { new PIN } *+ 0

PIN:= 0000

New PIN:= 0|1|2|3|4|5|6|7|8|9|*|#

Factory setting: 0000

PIN length: always 4 digits

If you modify the PIN number, be careful not to forget the PIN you have set. Forgetting the PIN number is similar to losing a key. If you forgot the PIN number, please contact our technical support service.

Technical support service in Vienna

Telefon 01 813 82 20 · Telefax 01 815 99 54

<http://www.auersignal.com> · e.mail: office@auersignal.com

Please use the country code if calling from outside Austria:

Telefon 0043 1 813 82 20 · Telefax 0043 1 815 99 54

<http://www.auersignal.com> · e.mail: office@auersignal.com

Activating/deactivating the external speaker

*+ # 4 0 { ext. speaker } *+ 0

Ext. speaker:= 0|1

0 External speaker deactivated

1 External speaker activated

Factory setting:0

Restoring factory settings

*+ # 9 0 PIN *+ 0

PIN:=0000

Setting the procedure when disconnecting the headset

*+ # 2 8 { Optional headset } *+ 0

Optional headset:=0|1

0 Disconnect (hang up) if the headset is disconnected
in case of headset mode activated.

1 Maintain the connection if the headset is disconnected
in case of headset mode activated.

Factory settings

The device is set for general conditions of use to ensure that it can be used immediately after connecting it.

These preliminary settings can be modified according to your personal requirements and connection conditions in the configuration settings.

The following preliminary settings are included in the factory settings of the device:

- Ring tone volume 7 (maximum)
- Ring tone tune 0
- Speaker volume 1 (normal speaker volume)
- Speaker volume for open listening 5
- Speaker volume for hands-free operation 5
- Headset volume 3
- Redialling deleted
- Speed dialling memory deleted
- Call procedure: tone dialling with 90 ms tone length
- Trunk access code deleted
- Dialling pause after trunk access code 3 seconds
- Flash duration 120 ms
- Modification lock deactivated
- PIN 0000
- External speaker: deactivated
- Optional headset 0

Technical Data

Attention!

The information listed on pages 14 and 15 in the "explosion protection - parameters" section must be observed to comply with the explosion protection.

| Connection data | |
|------------------------------------|--|
| Supply voltage | 24 V _{DC} up to 66 V _{DC} |
| Supply current | 15 mA _{DC} up to 100 mA _{DC} |
| Ringling alternating current | 24 V _{AC} up to 90 V _{AC} (at 21...54 Hz ring tone frequency) 30 V _{AC} up to 90 V _{AC} (at 16.6...54 Hz ring tone frequency) |
| Tone call impedance | Over 6.0 kΩ at 25 Hz and 24...90 V _{AC} Over 4.0 kΩ at 50 Hz and 24...90 V _{AC} |
| Second call button | Flash length can be selected from 80 ms, 120 ms and 600 ms |
| Dialling procedure | Tone dialling and impulse dialling Tone dialling according to ITU-T Q.23. Impulse dialling at an impulse to pause ratio of 1.5:1 or 2:1. |
| Trunk access code | One trunk access code, maximum 5 digits |
| Dial pause after trunk access code | 1 s up to 5 s |
| W conductor | For connecting an external secondary sounder |
| External speaker | Clamps for connecting an external speaker (optional accessory) |
| Headset | Clamps for connecting a headset (optional accessory) Note: You can connect a headset or a second headset, but not both at the same time! |
| Second headset | Clamps for connecting a second headset (optional accessory) Note: You can connect a headset or a second headset, but not both at the same time! |
| Connection terminals | Up to 4 mm ² rigid Up to 2.5 mm ² flexible |
| Housing | |
| Material | Fibreglass reinforced polyester |
| Height x Width x Depth | Approx. 260 mm x 228 mm x 135 mm |
| Weight | Approx. 5,5 kg |

| | |
|-------------------------------------|---|
| Keypad | - Metal keypad protected against icing - 21 keys with the appropriate inscription |
| Operating position | Vertical wall-mounted. The device can be installed only on a level surface. |
| Handset | |
| Support hook protection | Integrated, adjustable support hook protection |
| Handset cord | Steel-reinforced armoured cord made of stainless steel |
| Earphone | Dynamic earphone with a stray field coil for the inductive connection of hearing aid devices |
| Mouthpiece | Electret microphone |
| Noise cancellation | Over 3 dB with the integrated speaking funnel |
| Environmental conditions | |
| Protection rating: | IP66 according to EN60529 |
| Protection against mechanical wear: | Protection rating IK09 according to EN50102 |
| Operating temperature: | -25°C to +60°C |
| Storage temperature: | -25°C to +70°C according to IEC60721 |
| Other characteristics | |
| Disconnect button | Separate button |
| Hook switch | Reed contact without a mechanical hook |
| Supply | - From the analogue phone network - No additional power supply required |
| Call-charge impulse lock | - Electrical damping for 12 kHz and 16 kHz at the earphone of over 30 dB related to 1 kHz - Impedance (at the phone connections A, B): approx. 13 kΩ { 1 V _{eff} ; 12 kHz; idle state} approx. 4 kΩ { 10 V _{eff} ; 12 kHz; idle state} approx. 2.5 kΩ { 1 V _{eff} ; 12 kHz; conversation state} approx. 2.3 kΩ { 10 V _{eff} ; 12 kHz; conversation state} approx. 11 kΩ { 1 V _{eff} ; 16 kHz; idle state} approx. 4 kΩ { 10 V _{eff} ; 16 kHz; idle state} approx. 2.5 kΩ { 1 V _{eff} ; 16 kHz; conversation state} approx. 2.3 kΩ { 10 V _{eff} ; 16 kHz; conversation state} |
| Ring tone volume | - approx. 90 dB(A) in 1 m distance at 50 V _{AC} / 50 Hz In the deliver state setting. (The maximum volume depends also on the selected tune and the feeding conditions.) - 6 levels can be selected including muted (The ring tone volume is reduced by approx. 12 dB(A) when the optional external speaker is turned on.) |

| | |
|---|--|
| Ring tone tunes | 10 tunes can be selected |
| Speaker volume for open listening | <ul style="list-style-type: none"> - maximum volume is approx. 68 dB(A) at 1 m distance - 7 levels can be selected permanently or temporarily (The speaker volume is reduced if the optional external speaker is connected.) |
| Speaker volume for hands-free operation | <ul style="list-style-type: none"> -Function with ambient noises up to approx. 68 dB(A). (With higher sound levels, it is no longer to understand the speaker in speaker phone mode). - maximum volume is approx. 68 dB(A) at 1 m distance - 7 levels can be selected permanently or temporarily (The speaker volume is reduced if the optional external speaker is connected.) |
| Handset volume | <ul style="list-style-type: none"> - Handset volume between 0 db and +12 db - adjustable in 7 levels permanently or temporarily |
| Headset volume | - adjustable in 7 levels permanently or temporarily |
| Signal tones | - Signal tone in case of successful or incorrect configuration, when requesting the PIN number and changes of data stored in the memory |

| Directives and standards | |
|---|--|
| Conformity with the following directives and standards: | <ul style="list-style-type: none">- ATEX-directive 2014/34/EU- R&TTE 2014/53/EU- EMC Directive 2014/30/EU- Low Voltage Directive 2014/35/EU- RoHS Directive 2011/65/EU |

Service

You acquired a modern product manufactured by **Auer** which was subject to a strict quality assurance process. If you have any questions concerning the phone, or in the event of a fault, even after the warranty period, please contact **Auer** (see page 5). Please keep the type number and item number at hand (you can find these code numbers on the rating plate).

Care and Maintenance

The telephone is maintenance free. However, if the phone is used in areas with heavy pollution with dust, grease, oil etc. it should be cleaned regularly. Wipe the handset and the device with a damp cleaning cloth. **Attention!** Never use sharp objects for cleaning.

Disposal

The device is disposed of as electronic waste. Plastic, metal and electronic parts are to be disposed of separately upon disassembly. The requirements concerning disposal of the country of application are to be observed.

Warnings and safety instructions

This is an explosion protected, weatherproof phone specifically developed for use in rough industrial conditions. Please observe the following warnings and safety instructions:

1. The phone can only be connected and operated with the specified voltage. The connecting wire shall be routed not to cause a tripping hazard.
2. The phone may only be operated under the above-mentioned environmental conditions (see chapter "Technical data"). Adverse environmental conditions, for example environmental temperature too high or too low, are not permitted because they can cause the breakdown of electronic components.
3. Care must be taken to ensure that the phone and the connecting wires etc. are not damaged. Do not use the phone if damaged.
4. The circuits of the telephone may not be grounded.
5. For the operation of the phone, legal and industrial requirements, regulations for the prevention of accidents and electrical specifications must be observed.
6. Use only original parts for repair, which were replaced professionally. Other replacement parts can cause damage, negate the explosion protection and it will void the warranty.
7. Requirements on the position of the device must be met. The device can only be mounted vertically on a flat area.
8. Power frequency magnetic fields can have a slight influence on the sound quality. Please take care to select the correct place of installation in this case.

9. The explosion protection type of the telephone is:
- | | |
|---------------------------------|-------------------------------|
| II 2G Ex e mb [ib] IIC T5 Gb | Ex e mb [ib] IIC T5 Gb |
| II 2D Ex tb [ib] IIIC T100°C Db | Ex tb] IIIC T100°C Db |
| -25°C ≤ T _o ≤ 60°C | -25°C ≤ T _o ≤ 60°C |
| II 2G Ex e mb [ib] IIC T6 Gb | Ex e mb [ib] IIC T6 Gb |
| II 2D Ex tb [ib] IIIC T80°C Db | Ex tb [ib] IIIC T80°C Db |
| -25°C ≤ T _o ≤ 40°C | -25°C ≤ T _o ≤ 40°C |
- DMT 03 ATEX E 034
10. The telephone must have zero potential to open the device. The waiting time before opening the telephone after de-energizing the voltage is at least 2 minutes!
11. Dust must not enter the device while it is open!
12. The cover seal and the collar of the lower part of the housing required for the tightness of the housing cannot be damaged during assembly or disassembly.
13. During the commissioning of the operating equipment for use in dust, the commissioned parts should be subject to a new piece inspection.
14. The speaking funnel from the receiver consists of non-conductive plastic. It may charge up dangerously with high air speed. Thus, it is forbidden to clean the speaking funnel with compressed air.
15. A rust film can form in case of a high concentration of sulphurous gases in the air.
16. We reserve the right to modify the product for its technical development without preliminary notice.

CE marking

The ExSafeTel MB phone complies with the following directives:

R&TTE Directive 2014/53/EU

Low Voltage Directive 2014/35/EU

ATEX-directive 2014/34/ EU

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EC

The CE marking is proof of conformity with the above specified directives.

EU-KONFORMITÄTSERKLÄRUNG

EU DECLARATION OF CONFORMITY

DECLARATION UE DE CONFORMITE

DECLARACIÓN DE CONFORMIDAD UE



Hiermit erklären wir, dass das ATEX Produkt aufgrund seiner Konzipierung und Bauart sowie in der von uns in Verkehr gebrachten Ausführung den grundlegenden Sicherheits- und Gesundheitsanforderungen der genannten Richtlinie entspricht.

Bei einer nicht mit uns abgestimmten Änderung des Produktes, verliert diese Konformitätserklärung Ihre Gültigkeit.

We herewith declare that the ATEX product, based on its development and type as well on the specific design we have placed on the market, conforms to the Essential Health and Safety Requirements of the mentioned directive.

This declaration shall become invalid if any modification we have not authorised is made to the product.

Nous attestons, par le présent document, que le produit ATEX été conçu et fabriqué, quant au modèle mis en circulation par nos services, conformément aux exigences fondamentales de sécurité et de santé en vigueur de la ou des directives citées.

En cas de modification du produit non convenue avec nos services, la présente déclaration perd sa validité.

Por la presente declaramos que el producto ATEX satisface por su diseño tipo constructivo así como en la versión comercializada por nosotros los requisitos de seguridad y salud fundamentales y pertinentes de la directiva indicada.

En caso de una modificación del producto no acordada con nosotros, la presente declaración pierde su validez.

| | |
|---|--|
| Bezeichnung des Erzeugnisses | Robustes ExII-Telefon |
| Name of product | Ruggedized ExII-telephone |
| Titre Produit | ExII-téléphone robuste antidéflagrant |
| Nombre del producto | Robusto teléfono para ExII |
| Typ / Type / Modèle / Tipo | dSTMB |
| Richtlinie / Directive / Directiva | Normen / Standards / Normes / Normas |
| 2014/34/EU Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen Equipment and protective system intended for use in potentially explosive atmospheres Appareils et système de protection destinés à être utilisés en atmosphères explosibles Aparatos y sistemas de protección para uso en atmósferas potencialmente explosivas | EN 60079-0:2012 + A11:2013 EN 60079-7:2015 EN 60079-11:2012 EN 60079-18:2015 EN 60079-31:2014 |
| Die hier angewandten Normen sind mit dem Normenstand aus der EG-Baumusterprüfbescheinigung verglichen worden. Es gibt keine Änderungen des anerkannten Standes der Technik in Bezug auf dieses Gerät. The edition of applied standards here has been compared with the edition in the EC-Type Examination Certificate. There are no changes in the state of the art apply to this equipment. Les normes appliquées ont été comparées avec les informations du certificat d'essai de type CE. Aucune modification de l'état de la technique reconnue n'est à noter concernant cet appareil. Las normas aplicadas fueron comparadas con las normas vigentes del certificado CE de examen de tipo. No hay cambios del estado reconocido de la técnica relativos a este aparato. | |
| EG Baumusterprüfbescheinigung EC-type-examination certificate Attestation examen CE Certificado de examen CE | DMT 03 ATEX E 034 |
| Benannte Stelle für die Bescheinigung Notified body of the certificate Organisme notifié de l'attestation Organismo encargado del certificado | DEKRA EXAM GmbH Fachstelle für Sicherheit elektrischer Betriebsmittel – BVS Carl-Beyling-Haus Dinnendahlstraße 9 D-44809 Bochum |
| Benannte Stelle für die Überwachung Notified body of the inspection Organisme notifié de contrôle Organismo encargado del examen Kennummer Inspection number / Numéro d'identification / Número de examen | TÜV AUSTRIA SERVICES GMBH Deutschstraße 10 A-1230 Wien 0408 |
| Hersteller / Anschrift Manufacturer / Factory address Fabricant / fabricante | Auer Signal GmbH Perfektastr. 102 A-1230 Wien |

Geschäftsführer:

Managing director / Direction / Gérant / Gerente:

Mag. Christian Auer

(Name, Vorname / name, prename / nom, prénom / apellido y nombre)

Wien

(Ort / place / lieu / población)

15.05.2018

(Datum / date / date / fecha)

(Unterschrift / signature / signature / Firma)

Subject to alterations or errors



Auer Signal

Perfektastr.102 · A-1230 Vienna
Telefon (0043) 1 813 82 20 · Telefax (0043) 1 815 99 54
<http://www.auersignal.com> · e-mail: office@auersignal.com