E.L.B. EX-GERÄTE
Bachmann GmbH

Technical Documentation
FT-30

CordlessDesktop

Ex

FT-30

Rev. 1.9

Index:

FT-30

1 Commissioning

Please follow the steps listed before install the desktop in the Ex-area:

- Equipment or machine has to be stress-free !

- Connect the interconnection cable between receiver and keyboard-, mouse port of the PC.

- Check all function of the desktop.

- Power the equipment.

- Log on keyboard and mouse at the PC.

- Check functions of the whole equipment.

Instructions and warning notes

- Parts working under voltage with the exception of intrinsically safe current circuits are forbidden as a matter of principle because of the given explosion risk.

- Before switching on it has to be ensured that the batteries correspond with the named type.

- Energized parts can be exposed when opening guards or removing parts except when this is possible by hand. Connection parts can also be under voltage.

- If it is supposed that a operation without danger is not possible, than the equipment has to be set out of operation and secured against reclosing.

- For the installation of the equipment notice the main ordinance and regulations in Ex-areas.
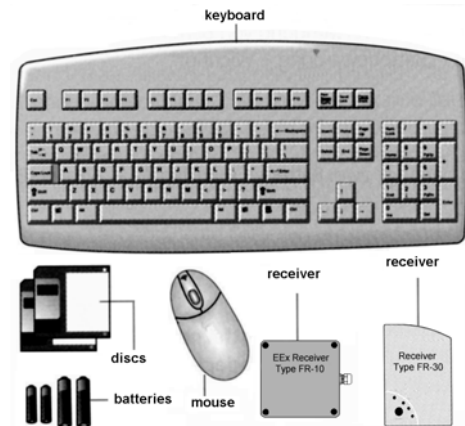
2 Delivery amount / System requirements

System Requirements:
- IBM- or compatible PC
- Windows® 95, Windows® 98 or
  Windows® NT 4.0/5.0 required for Scrolling
- With Windows® 3.1 the Mouse acts like a Cordless three-button-mouse
- 3,5"-Floppydisk

The Package contains:
- EEx-Mouse Type FM-20
- EEx-Keyboard Type FT-30
- Receiver Type FR-10/30 (EEx or non-Ex)
- 2x AAA Batteries (Duracell type MN2400)
- 2x AA Batteries   (Duracell type MN1500)
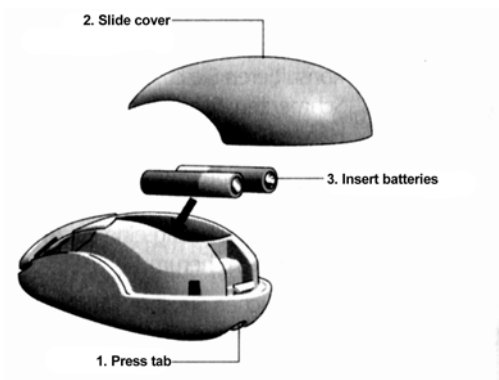- 2x Softwarediscs
- Technical documentation

3 Installing the Batteries

Cordless Wheel Mouse

The Cordless EEx-Mouse uses two AAA alkaline batteries (Duracell Alkaline-Batteries Type MN2400). It's not allowed to use other types of batteries.

1. **Remove the battery compartment cover <u>outside the Ex-area</u> on top of the mouse.** To release the cover, press the tab on the bottom of the mouse.

2. **Slide the cover away from the mouse.**

3. **Insert the two AAA batteries.** A diagram in the battery compartment shows the correct battery installation.
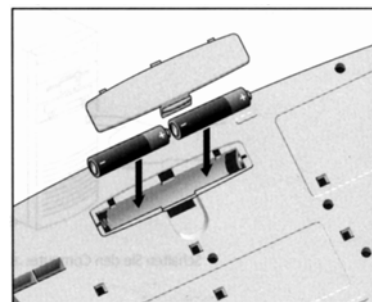
4. **After the batteries are installed, carefully replace the cover.**

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Cordless Keyboard

The EEx-Keyboard uses two AA alkaline batteries (Duracell Alkaline-Batteries type MN1500). It's not allowed to use other types of batteries.

1. **Remove the battery compartment cover <u>outside the Ex-area</u> on the bottom of the Cordless Keyboard.** To remove the cover, squeeze the cover in from the tab to release it..
2. **Place the flat end (negative pole) of one AA battery against the spring, then insert the next battery as shown.** A diagram in the battery compartment shows the correct battery installation.

3. **After the batteries are installed, carefully put the cover back into place.**

Battery Warning – Important!

When battery power is low for the mouse or keyboard, the MouseWare' software displays a dialog box under Windows' 95/Windows' 98 and Windows NT'4.0 suggesting that you change the batteries. It is recommended that when you change batteries you change them for the mouse and keyboard at the same time to optimize performance. When replacing the batteries, use only Duracell alkaline batteries. Note that the battery level indicator in the Cordless tab of the Keyboard Properties or the Mouse Properties is calibrated for Duracell alkaline batteries only.

Discard all used batteries according to the battery manufacturer's instructions. Exercise care when handling batteries. When batteries are misused, they may explode or leak, causing burns and personal injury. Do not open a battery or mutilate, dispose of in a fire, expose to heat above 212° F (100° C), immerse in water, install improperly, or recharge. Conducting materials, such as rings, bracelets, and keys, can short out a battery causing it to overheat and possibly leak or explode. When you are not using your cordless device for long periods of time, remove the batteries and store them in a dry place at normal room temperature.
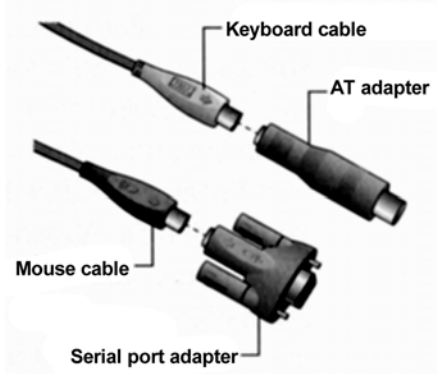
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4 Connecting the Receiver

The Logitech Cordless Desktop uses digital radio technology. Communication between the Logitech Cordless Desktop – keyboard and mouse – and your computer is achieved with great reliability using radio waves. The Cordless Keyboard and Cordless Wheel Mouse do not have bulky cables that can get in the way, nor do they use infrared technology, which requires line-of-sight placement and usage. Instead, both the keyboard and mouse with radio frequencies as a means of communicating, which are picked up by the receiver and passed on to your computer.

The receiver is connected to your computer via two color-coded cables. The cable with the orange end is for the keyboard, and it plugs into your computer's keyboard port. (A 5-pin DIN adapter is provided should you need to plug this cable into an IBM AT keyboard port.) And the cable with the green end is for the mouse, and it plugs into your computer's mouse port. A 9-pin serial port adapter is provided should you need to connect this cable to your computer's serial port.

CAUTION: **Before installing the receiver's cables, turn off your computer. Plugging or unplugging cables to your computer's mouse port while the computer is on can damage the mouse port or your computer.**

1. **Make sure that your computer is turned off.**

2. **Note the difference between the mouse and keyboard cable ends.** The mouse cable end is green and has a mouse icon. The keyboard cable end is orange and has a keyboard icon. You will plug each cable end into different ports on your computer. (Also note the serial port adapter for the mouse cable and the AT adapter for the keyboard cable.)
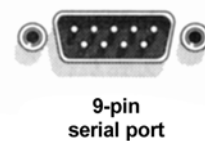
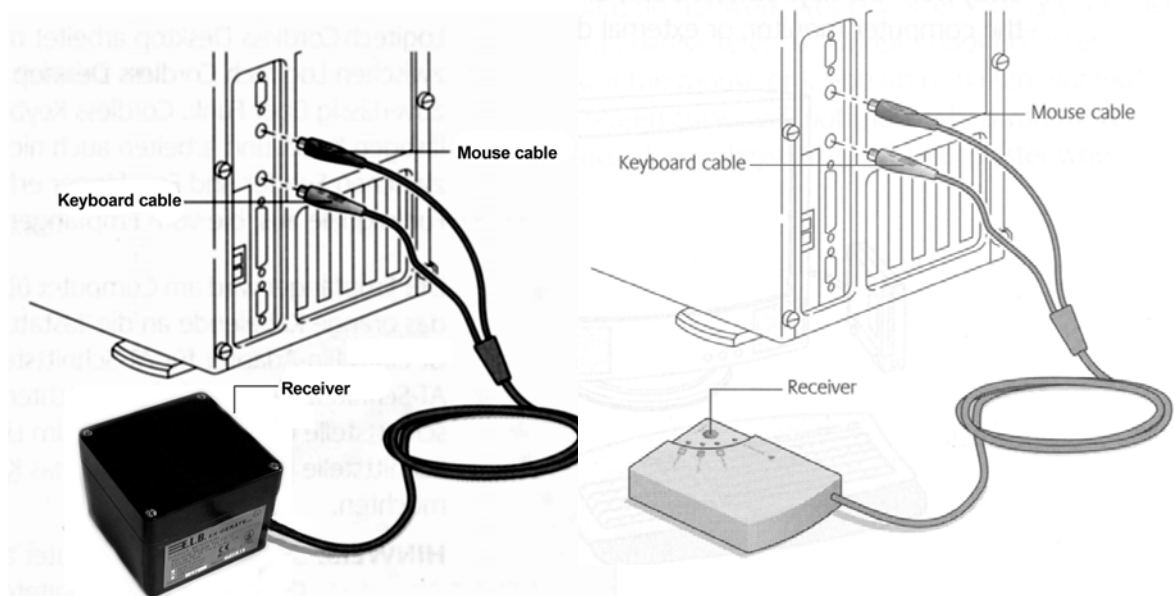3. **Connect the receiver's green mouse cable to the computer's 6-pin mouse port or its 9-pin serial port using the 9-pin adapter.** Make sure to match up the mouse icon on the cable end with the mouse icon next to the mouse port on your computer. (Some computers may not have this mouse icon.)

   If you are connecting the mouse cable to the mouse port, remove the serial port adapter. When using the 9-pin serial port adapter, connect the adapter to the computer port, tighten the thumb screws, and connect the mouse cable to the adapter. Be sure to line up the arrows on both the cable and the adapter.

4. **Connect the receiver's orange keyboard cable to the computer's keyboard port.** Make sure to match up the keyboard icon on the cable end with the keyboard icon next to the keyboard port on your computer. (Some computers

may not have this keyboard icon.)

If you are installing the keyboard cable to an IBM AT keyboard port, use the 5-pin DIN connector already attached to the keyboard cable. If you are connecting the cable to a 6-pin mini-Din port, remove the AT adapter.

5 Installing the Software

To take advantage of all the features of your Cordless Desktop, please install the software that comes with the product.

1. **Turn on your computer and Start Windows 95/Windows 98 (or Windows 3.1x or Windows NT 4.0).**

2. **Insert the software diskette into drive A or B.**

3. **For Windows 95, Windows 98 or Windows NT 4.0, press Start on the Taskbar and select Run.**

4. **For Windows 3.1x, open the File menu and choose the Run command.** Windows displays the Run dialog box.

5. **For Windows 95, Windows 98, or Windows NT 4.0, from the Run dialog box, select (or type) A:\SETUP or B:\SETUP in the Run dialog box.** Click OK.

6. **For Windows 3.1x, in the Command Line text box, type: A:\SETUP (or B:\SETUP).** Click OK.
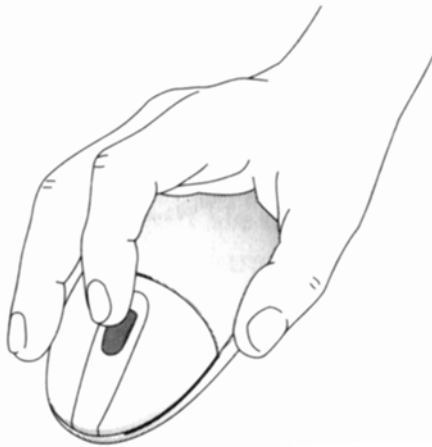
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7. **Follow the on-screen instructions.**

   Note: If either the mouse or keyboard do not work properly after you have installed the Cordless Desktop, please refer to "Troubleshooting" later in this manual. You will notice if the mouse or keyboard is malfunctioning because for the mouse the screen cursor will not move when you move the mouse. And for the keyboard, your keystrokes will not register when you type.

6 Using Your Cordless Desktop

By assigning the scrolling function to a mouse button, you can scroll in Windows 95, Windows 98, and Windows NT4.0 using your Cordless Wheel Mouse. The following table tells you how to scroll.
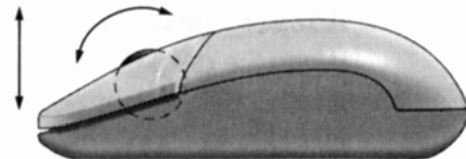
Using Your Cordless Wheel Mouse

Your mouse has a wheel that functions both as a wheel and as a button. Simply click the wheel like you would with a standard mouse button.

- To scroll, simply move the wheel.
- To use the wheel like a standard mouse button, click (press down) the wheel.

The mouse wheel simplifies scrolling
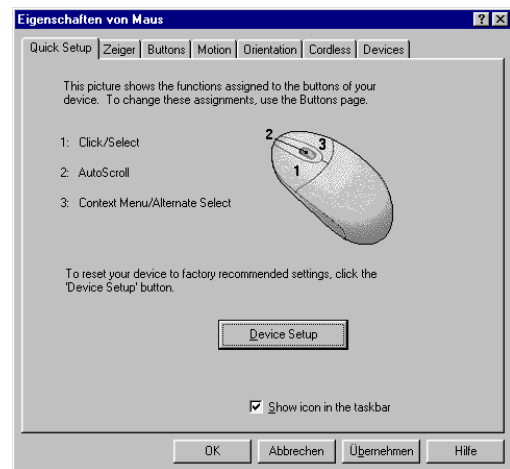

The mouse wheel also works like a button.

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Scrolling and Zooming with the Mouse

Task	What is It?	How to Do It?
Wheel Scroll	Use Wheel Scroll for precise up and down movement,	To scroll up, move the wheel forward; to scroll down, move the wheel back.
AutoScroll	Use AutoScroll in Windows 95, Windows 98, Windows NT 4.0, and Microsoft' Office 97 compatible applications to scroll through large documents. AutoScroll allows you to scroll a document automatically without having to move the mouse continuously.	Assign AutoScroll to a button on the mouse if it is not already assigned. Place the cursor in an application. Press the mouse button assigned to AutoScroll. The AutoScroll icon appears. Move the mouse once in the direction you want to scroll (vertical, horizontal, or diagonal). The farther you move the pointer from the starting point, the faster the scrolling. To stop AutoScroll, press any mouse button.
Zoom	Use Zoom to either magnify or demagnify the view of a document in an application that supports it.	Place the cursor in an application that is Microsoft Office 97 compatible. Press and hold the Ctrl key on the keyboard, then to zoom in, move the wheel forward; to zoom out, move the wheel backwards.

Using the Software under Windows 95, Windows 98, and Windows NT 4.0

The Mouse Ware software includes features for making button assignments, controlling cursor movement, and setting up the mouse. To access the MouseWare software, double-click the mouse icon on the Windows Taskbar, or start MouseWare from the Control Panel. The Mouse Properties tabs display, as shown below. Choose from the available options to configure the mouse.
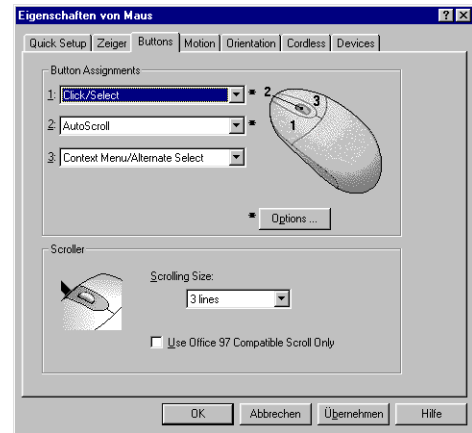

Choosing Options for the Mouse

Need help choosing options? Let the Mouse Wizard show you how. To begin, go to Mouse Properties. To do this, click Start on the Windows Taskbar, then select Settings, Control Panel, then double-click the Mouse icon. Now choose the Quick Setup tab and click the Device Setup button. Follow the on-screen instructions.

Making Button Assignments
Assign special functions to mouse buttons, by using the Buttons tab. The Buttons tab is part of Mouse Properties. Click the down arrow to select a function for a button. Click the Options button to specify settings for AutoScroll, Universal Scroll, CyberJump' and HyperJump, and double-click Timing. For more information click the Help button.

Using the Cordless Tab for the Cordless Keyboard
Access the Windows Keyboard Properties tabs by selecting Start on the Windows Taskbar, followed by Settings, Control Panel, then Keyboard. To display the page shown, click the Cordless tab. The Cordless tab shows battery level for the keyboard (alkalines only), and allows you to display icons on the Windows Taskbar for the keyboard and for Caps Lock, Num Lock, and Scroll Lock. By clicking the Connect button, you can use the software to help you establish communication between the keyboard and the receiver.

Using the Cordless Desktop Icons on the Windows Taskbar
Various Cordless Desktop icons appear on the Windows Taskbar. These icons provide valuable information about the Cordless desktop, and make it possible for you to display keyboard and mouse property sheets easily and quickly. Clicking either the keyboard or mouse icon launches its respective property sheet in which you can specify options. Standard keyboard functions are also conveniently displayed on the Taskbar, which give the status of Num Lock, Caps Lock, and Scroll Lock. When mouse or keyboard battery power is low, a warning icon appears to let you know that it is time to change the batteries. Whenever you change the batteries, it is a good idea to change the batteries in both the keyboard and mouse at the same time for best performance.

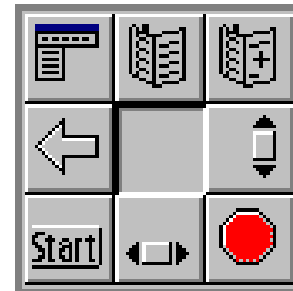**Executing CyberJump and HyperJump Commands**

CyberJump and HyperJump combine eight commonly used tasks for Windows 95, Windows 98 and Windows NT 4.0 into one convenient grid so you do not have to point to various parts of the screen to execute commands. Before you can use CyberJump or HyperJump, you must first assign either function to a mouse button. With your mouse, press the assigned button to display the CyberJump or HyperJump grid. (Both grids are shown on the next page.) Move the cursor to an icon on the grid, then click to execute a command.

Note: To perform a double-click with the button assigned to CyberJump or HyperJump, first choose the Double-Click Option in the CyberJump or HyperJump options dialog box. (You can access this options dialog box by displaying the Buttons tab of the Mouse Properties, by clicking the Options button on the Buttons tab, then by selecting the HyperJump/CyberJump tab within the Options dialog box.) then press and release the button quickly. To display the CyberJump or HyperJump grid, press and hold down the assigned button.

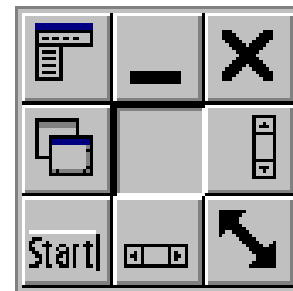## CyberJump for the Internet' under Windows 95, Windows 98, and Windows NT 4.0
Designed for Netscape 3.x/4.0, Microsoft Internet Explorer 3.x.

Menu	Activates the HyperMenu.
Go to Bookmark	Displays bookmark window.
Add Bookmark	Adds current page to bookmark window.
Vertical Scroll	Jumps to the vertical scroll bar.
Stop	Halts current page from downloading.
Horizontal Scroll	Jumps to the horizontal scroll bar.
Start	Activates the Windows Start Menu.
Go Back	Returns to previous page.

HyperJump for Windows 95, Windows 98, and Windows NT 4.0

Menu	Activates the HyperMenu.
Minimize	Minimizes the window.
Close	Closes the window.
Vertical Scroll	Jumps to the vertical scroll bar.
Resize	Jumps to the Size Grip (resizes window).
Horizontal Scroll	Jumps to the horizontal scroll bar.
Start	Activates the Windows Start Menu.
Recall	Recalls the last active window.

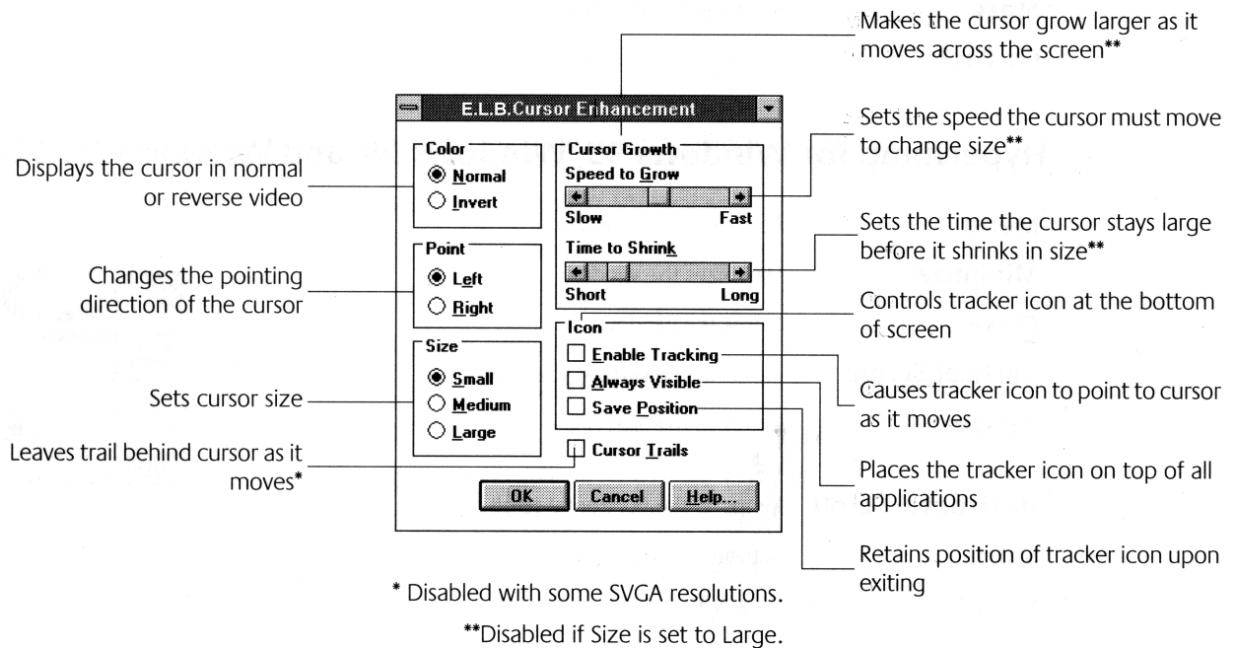### Using the Software under Windows 3.1x

Double-click the MouseWare icon located in the Logitech MouseWare group window (or in the Windows Control Panel). Choose from the available options to configure the mouse.

The MouseWare Control Center under Windows 3.1x

Cursor Enhancement under Windows 3.1x

Displays the cursor in normal or reverse video

Changes the pointing direction of the cursor

Sets cursor size

Leaves trail behind cursor as it moves*

Makes the cursor grow larger as it moves across the screen**

Sets the speed the cursor must move to change size**

Sets the time the cursor stays large before it shrinks in size**

Controls tracker icon at the bottom of screen

Causes tracker icon to point to cursor as it moves

Places the tracker icon on top of all applications

Retains position of tracker icon upon exiting

E.L.B.Cursor Enhancement

Color
● Normal
○ Invert

Point
● Left
○ Right

Size
● Small
○ Medium
○ Large

Cursor Growth
Speed to Grow
Slow — Fast
Time to Shrink
Short — Long

Icon
☐ Enable Tracking
☐ Always Visible
☐ Save Position

☐ Cursor Trails

OK Cancel Help...

* Disabled with some SVGA resolutions.

**Disabled if Size is set to Large.

Use the Cursor Enhancement dialog box to customize the cursor. To display the dialog box, click the Cursor button in the MouseWare Control Center.

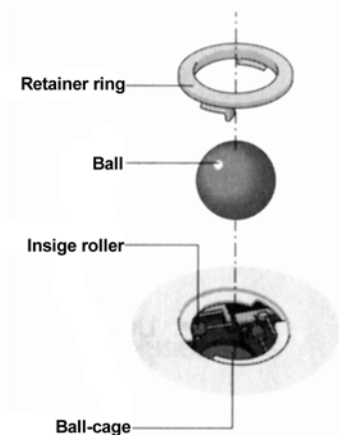### Button Assignments under Windows 3.1x

MouseWare allows you to assign functions to three mouse buttons only and replaces frequently used tasks, such as Double-Click, DragLock, etc., to a single button click. To override a button assignment temporarily so you can use an application specific feature, press the Control key while clicking the button to be overridden.
Note that scroll and zoom functions are not supported under Windows 3.1x, as well as Cordless Desktop battery warning icons and keyboard status icons on the Windows Taskbar.

7 Desktop Maintenance

If the cursor skips or moves abnormally, clean the ball of your mouse.

1. **Remove the retainer ring to remove the ball.** On the bottom of the Cordless Wheel Mouse, press in the direction of the arrow imprinted on the retainer-ring cover.

2. **Wipe the ball with a clean, lint-free cloth, then blow carefully into the ball-cage to dislodge dust and lint.** Look for a build-up of dirt on the rubber roller(s) inside the ball-cage.
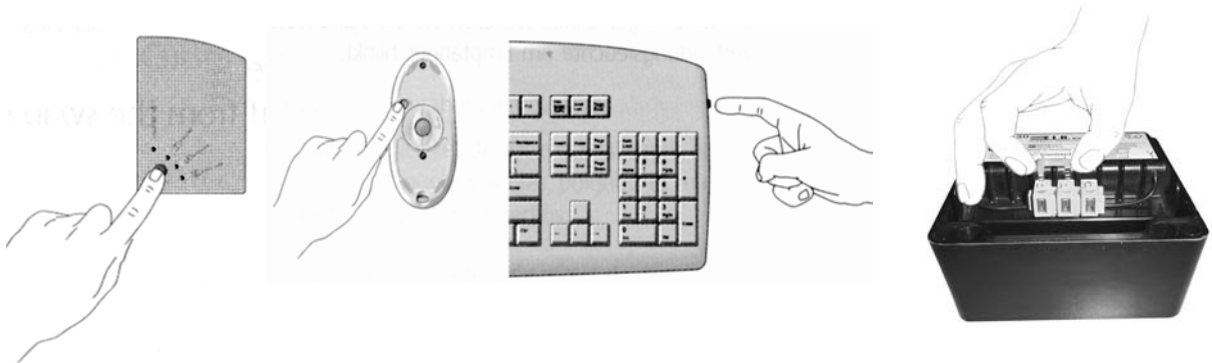
Retainer ring

Ball

Insige roller

Ball-cage

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3. **If dirty, clean the roller(s) using a cotton swab moistened lightly with isopropyl (rubbing) alcohol.** After cleaning, make sure the roller(s) are still centered in their channels. Make sure that fluff from the swab is not left on the roller(s).

4. **Replace the ball and retainer ring.**

8 Troubleshooting

Mouse or Keyboard Does Not Work upon Installation

Try one or more of the following:
- Make sure you have connected the receiver correctly. The orange cable end goes into the computer's keyboard port and the green cable end goes into either a mouse or serial port.

- For optimal performance, place the receiver at *least* eight inches or 20 centimeters away from the keyboard, mouse, or other electrical devices, such as the computer, the computer monitor, or external drives.

- Make sure you have installed the batteries correctly.

- Manually establish communication between the receiver and the mouse/keyboard:

  Non Ex version of receiver (FR-30):

  Press the Connect button on the receiver, then press the channel button on the mouse (see picture). Press the Connect button again on the receiver, then press the channel button on the keyboard.

  Ex version of receiver (FR-10):

  Open the cover of the EEx receiver box type FR-30 and connect terminal 1 with terminal 2 for a short moment until a message box appears on the screen, then press the channel button on the mouse. Connect terminals again on the EEx receiver, then press the channel button on the keyboard.

- If you are working on a metallic surface, try using a mouse pad and turning the receiver on its side for better reception.

- Refer to "Mouse Not Detected" for additional remedies.

Mouse Not Detected

When using the mouse, it may not be detected by the computer. To remedy this problem, try the following:

- Make sure the mouse receiver cable (with the green end) is plugged into the right port – serial or mouse port.

- Make sure your serial (or mouse) port has the proper configuration. Refer to your computer documentation for the correct port configuration.

- You may have other system devices (e.g. a modem card) that conflict with the mouse. Check the IRQ/address settings of these devices for conflicts, and change the settings as required.

The Screen Cursor Does Not Move Properly or the Keyboard Does Not Display Characters on the Screen When You Type

Clean the mouse ball and roller(s). See "Mouse Maintenance" for more information. Also change the position of your radio receiver, because it may be too far from the mouse or keyboard or the computer monitor or a large metal object may be interfering with the receiver's radio reception. Try moving the receiver and/or mouse to improve reception. Or the mouse batteries may be nearly dead. Check the mouse batteries as described in "Mouse or Keyboard Does Not Work upon Installation," and replace the batteries if required.
You may also need to change the channel for the keyboard/mouse. The computer must be on and the receiver plugged in correctly. Press and release the Channel button on the keyboard; the green Connect light on the receiver should blink. Press and release the Channel button on the mouse; the green Connect light should blink on the receiver.
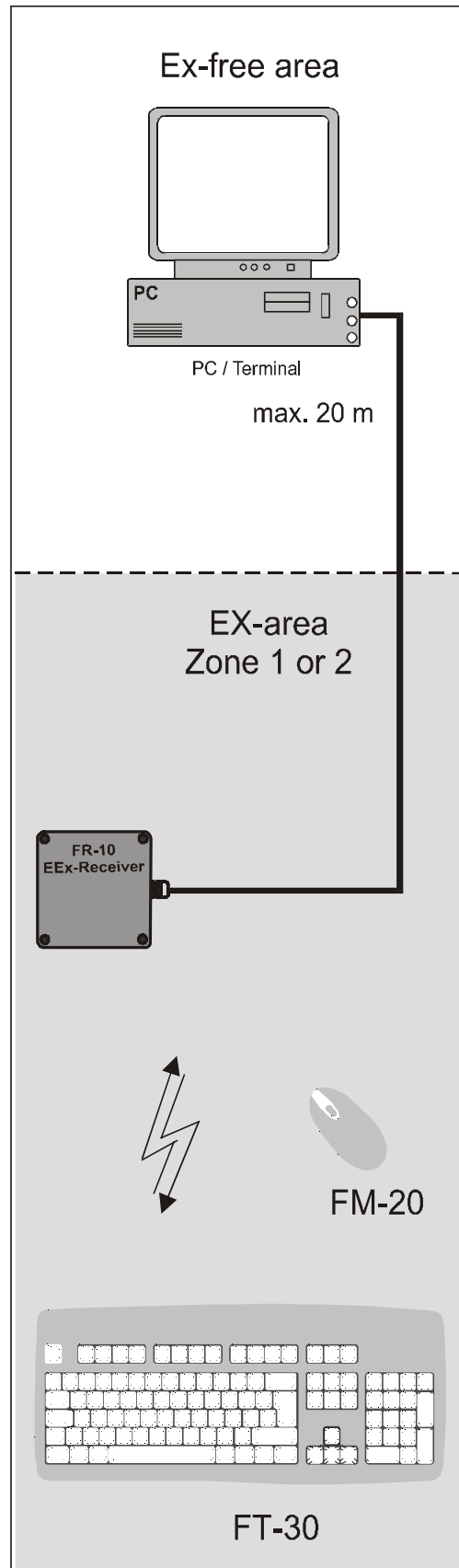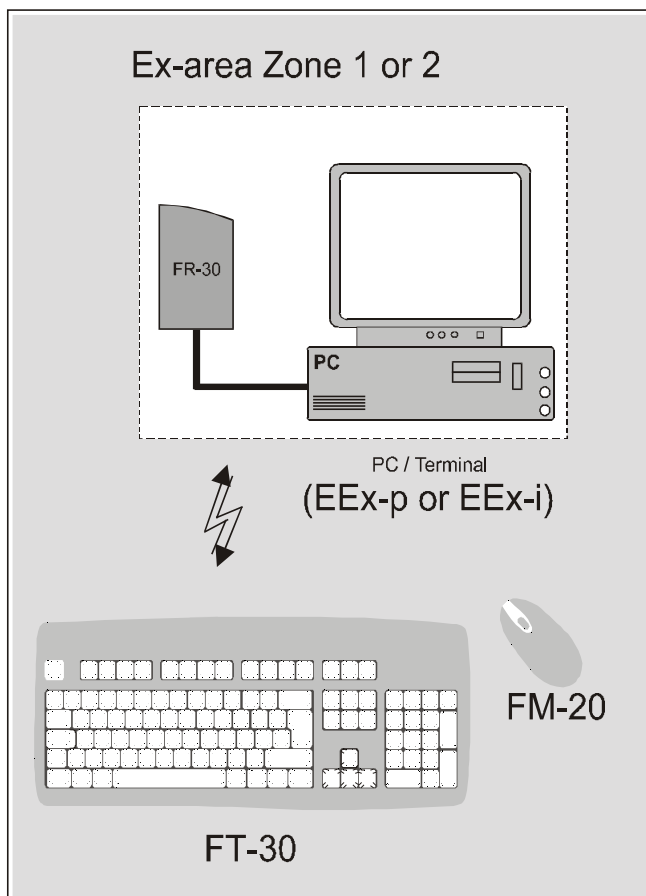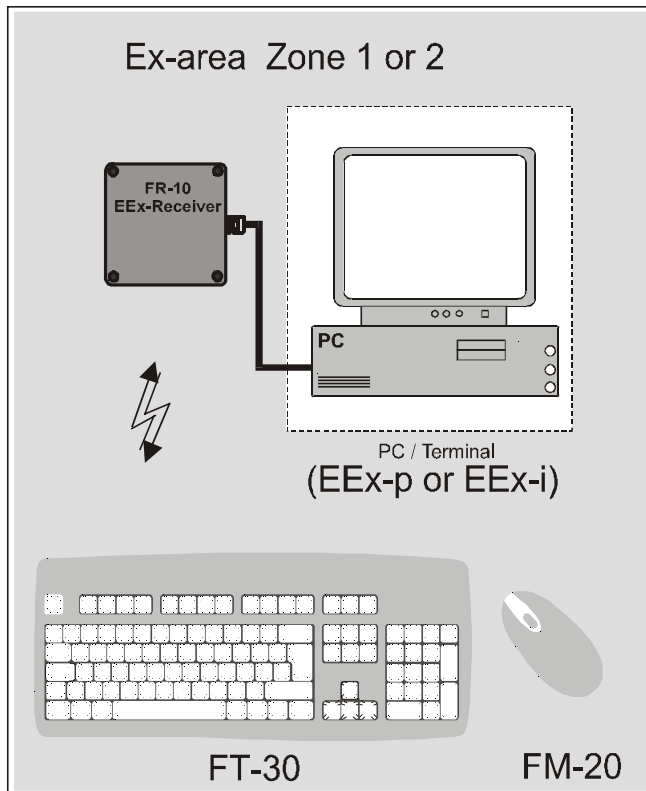
9 Realizations

The Cordless EEx-Desktop (keyboard and mouse) can be delivered in the following versions:

Description	Order Nr.
Ex-Mouse with EEx-Receiver	FM20-ER
Ex-Mouse with Receiver	FM20-NE
EEx-Cordless Desktop with EEx-Receiver US Layout	FT30-ER
EEx-Cordless Desktop with EEx-Receiver German Layout	FT30-ED
EEx-Cordless Desktop with Receiver US Layout	FT30-NE
EEx-Cordless Desktop with Receiver German Layout	FT30-ND

In case of an order please mention the length of the cable (1 m, 5 m, 10 m) of the EEx-Receivers!

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10   Connecting examples

Ex-area Zone 1 or 2

FR-10
EEx-Receiver

PC

PC / Terminal
(EEx-p or EEx-i)

FT-30   FM-20

Ex-area Zone 1 or 2

FR-30

PC

PC / Terminal
(EEx-p or EEx-i)

FM-20

FT-30

Ex-free area

PC

PC / Terminal

max. 20 m

EX-area
Zone 1 or 2

FR-10
EEx-Receiver

FM-20

FT-30

FT-30

11   Technical Data

EEx-Keyboard	Type FT-30
● Voltage:	3 VDC (2x AA primary cells á 1,5 VDC)
● Current:	1 mA
● Capacity of Batteries:	2850 mAh
● Transmitting power:	<25 mW
● Transmitting frequency:	26.995 – 27.195 MHz
● Ex-approval:	II 2G EEx ia IIC T4
	T_{amb}= -20...+40° C
	DMT 00 ATEX E 048
● other approvals:	FCC ID: DZL122799
	CEPT LPD-D BZT-G133-003K
	SRD-MPT- 1346-GB
	BAKOM 98.0013.K.P.

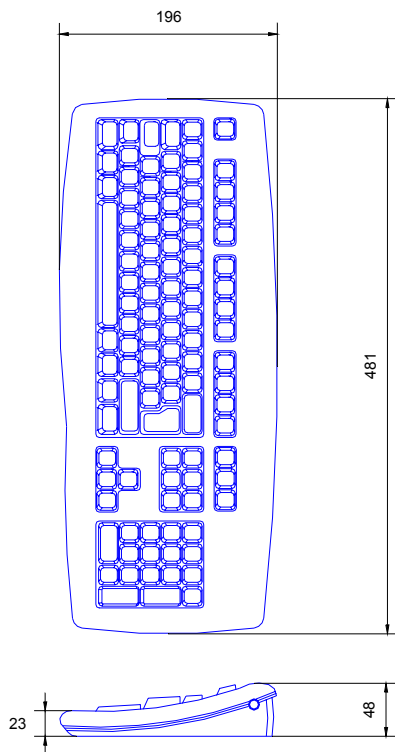| EEx-Mouse	Type FM-20
● Voltage:	3 VDC (2x AAA primary cells á 1,5 VDC)
● Current:	1 mA
● Capacity of Batteries:	1150 mAh
● Transmitting power:	<25 mW
● Transmitting frequency:	26.995 – 27.195 MHz
● Ex-approval:	II 2G EEx ia IIC T4
	T_{amb}= -20...+40° C
	DMT 00 ATEX E 047
● other approvals:	FCC ID: DZL201135
	ICP-032TC-98
	CEPT-LPD I-DGPGF/4/2/03/339503/F0/0002097
	CEPT/LPD/DK/9814
	CEPT LPD-D CTC-R000-003K
	CEPT LPD-NL ISC: RSS/CNR210 RTT/D/X 1624
	SRD-MPT- 1346-GB
	BAKOM 98.0085.K.P.L 2438/10371-01I

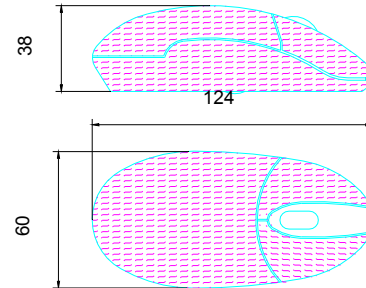| EEx-Receiver	Type FR-10
● Voltage:	5 VDC
● Current:	20 mA
● Connection:	2, 5, 10 m cable
● Port:	Serial, PS/2, (USB)
● Ex-approval:	EEx de IIC T6
	T_{amb}= -20...+60° C
	PTB 89.C.1018
● other approvals:	FCC ID: DZL201125
	CEPT LPD-I-DGPGF/4/2/03/339505/F0/0002096
	CEPT LPD-NL ISC: RSS/CNR210
	CEPT LPD-D BZT-G133-807H

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12   Safety Advice

- It is highly recommended to read this technical documentation before putting the devices into operation.

- Only instructed personnel is permitted to install and operate the devices!

- The devices are in accordance with the technical standards and might only be connected to systems which are in accordance with E.L.B. Ex-Geräte Bachmann GmbH.

- It is not permitted to open the devices res. only from authorized personnel of E.L.B. Ex-Geräte Bachmann GmbH.
  E.L.B. Ex-Geräte Bachmann GmbH is not responsible for any damage which results in disregard of this direction.

- **Use only battery type Duracell Alkaline MN1500 for keyboard and MN2400 for mouse.**

- **Change the batteries only outside the Ex-area.**

- Alterations and changes on the devices are not allowed.
  E.L.B. Ex-Geräte Bachmann GmbH is not responsible for any damage which results in disregard of this direction.

- Only the newest technical documentation or technical supplement is valid.

- The operating voltage of the device has to be in the limits that are given in this technical documentation under technical data. **In case of not complying E.L.B. Ex-Geräte Bachmann GmbH is not responsible for any damage which results in disregard of this direction.**

- The valid Ex-Regulations (VDE 0160, VDE 0165 e.g. EN 60079-14, EN 50014 – 50039) and the accident safety codes of your country have to be observed .

- The above-mentioned technical data accords with the certified data of the European EEx admission. The verification of suitability for the usage and the environment applies to the user. **E.L.B. Ex-Geräte Bachmann GmbH gives therefore no warranty.**
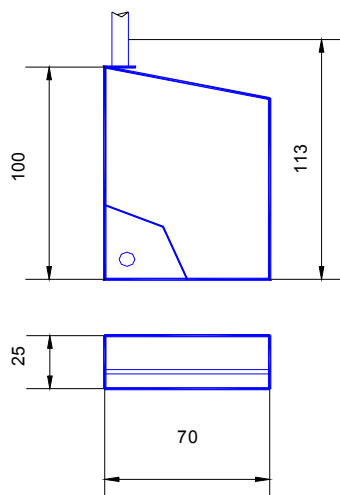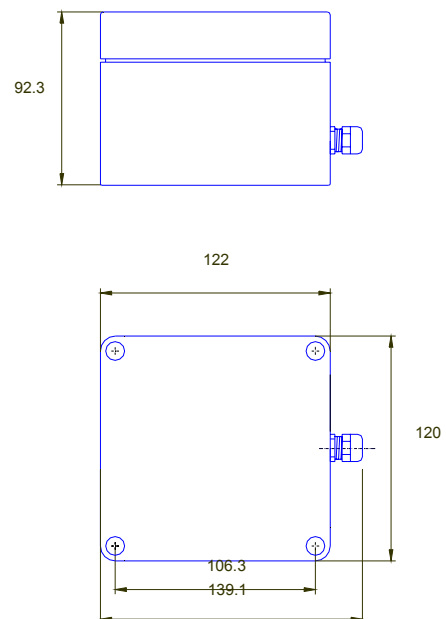
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13   Dimensions

EEx- Cordless keyboard FT-30

EEx-Cordless mouse FM-20

Non EEx-receiver FR-30

EEx-receiver type FR-10

14 Certificate of conformity

Certificate DMT 00 ATEX E 047

(1) **EG-Baumusterprüfbescheinigung**

(2) - Richtlinie 94/9/EG -
Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung
in explosionsgefährdeten Bereichen

(3) **DMT 00 ATEX E 047**

(4) Gerät: **Funkmaus Typ FM-20**

(5) Hersteller: **E.L.B.-Ex-Geräte Bachmann GmbH + Co.**

(6) Anschrift: **64825 Bensheim**

(7) Die Bauart dieses Gerätes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Baumusterprüfbescheinigung festgelegt.

(8) Die Zertifizierungsstelle der Deutsche Montan Technologie GmbH, benannte Stelle Nr. 0158 gemäß Artikel 9 der Richtlinie 94/9/EG des Europäischen Parlaments und des Rates vom 23. März 1994, bescheinigt, dass das Gerät die grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie erfüllt.
Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht Nr. BVS PP 00.2044 EG niedergelegt.

(9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit

EN 50014-1997   (VDE 0170/0171 Teil 1/2.2000)   Allgemeine Bestimmungen
EN 50020-1994   (VDE 0170/0171 Teil 7/4.96)   Eigensicherheit 'i'

(10) Falls das Zeichen „X" hinter der Bescheinigungsnummer steht, wird in der Anlage zu dieser Bescheinigung auf besondere Bedingungen für die sichere Anwendung des Gerätes hingewiesen.

(11) Diese EG-Baumusterprüfbescheinigung bezieht sich nur auf die Konzeption und den Bau des beschriebenen Gerätes. Für Herstellung und Inverkehrbringen des Gerätes sind weitere Anforderungen der Richtlinie 94/9/EG zu erfüllen.

(12) Die Kennzeichnung des Gerätes muss die folgenden Angaben enthalten:

II 2G EEx ia IIC T4

Deutsche Montan Technologie GmbH
Essen, den 20. Juli 2000

DMT-Zertifizierungsstelle   Fachbereichsleiter

Seite 1 von 2 zu DMT 00 ATEX E 047
Dieses Zertifikat darf nur unverändert weiterverbreitet werden.
Am Technologiepark 1, 45307 Essen, Telefon (0201)172-1416, Telefax (0201)172-1716

Anlage zur Certificate DMT 00 ATEX E 047

(13)   Anlage zur

(14) **EG-Baumusterprüfbescheinigung**

DMT 00 ATEX E 047

(15) 15.1 Benennung und Typ

Funkmaus Typ FM-20

15.2 Beschreibung

Die Funkmaus Typ FM-20 dient zur kabellosen Bedienung eines Computers.
Die Maus besteht aus einem Kunststoffgehäuse, in dem die elektronischen Komponenten gesichert befestigt eingebaut sind.
Die Stromversorgung der Funkmaus erfolgt über 2 Primärzellen der Baugröße AAA, die in den darstellenden Unterlagen festgelegt sind.

15.3 Elektrische, mechanische und thermische Kenngrößen

Stromversorgungsbatterie

Nennspannung	U_N	2 x 1,5	V
Nennkapazität		1150	mAh
Sendeleistung		< 25	mW
Sendefrequenz		26,995 – 27,195	MHz
Umgebungstemperaturbereich	T_a	–20°C bis +40°C	

(16) Prüfbericht

Nr. BVS PP 00.2044 EG, 13 Seiten

(17) Besondere Bedingungen für die sichere Anwendung

Entfällt

Seite 2 von 2 zu DMT 00 ATEX E 047
Dieses Zertifikat darf nur unverändert weiterverbreitet werden.
Am Technologiepark 1, 45307 Essen, Telefon (0201)172-1416, Telefax (0201)172-1716

Certificate DMT 00 ATEX E 048

(1) **EG-Baumusterprüfbescheinigung**

(2) - Richtlinie 94/9/EG -
Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung
in explosionsgefährdeten Bereichen

(3) **DMT 00 ATEX E 048**

(4) Gerät: **Funk-Tastatur Typ FT-30**

(5) Hersteller: **E.L.B.-Ex-Geräte Bachmann GmbH + Co.**

(6) Anschrift: **64825 Bensheim**

(7) Die Bauart dieses Gerätes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Baumusterprüfbescheinigung festgelegt.

(8) Die Zertifizierungsstelle der Deutsche Montan Technologie GmbH, benannte Stelle Nr. 0158 gemäß Artikel 9 der Richtlinie 94/9/EG des Europäischen Parlaments und des Rates vom 23. März 1994, bescheinigt, dass das Gerät die grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie erfüllt.
Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht Nr. BVS PP 00.2043 EG niedergelegt.

(9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit

EN 50014-1997   (VDE 0170/0171 Teil 1/2.2000)   Allgemeine Bestimmungen
EN 50020-1994   (VDE 0170/0171 Teil 7/4.96)   Eigensicherheit 'i'

(10) Falls das Zeichen „X" hinter der Bescheinigungsnummer steht, wird in der Anlage zu dieser Bescheinigung auf besondere Bedingungen für die sichere Anwendung des Gerätes hingewiesen.
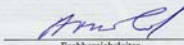
(11) Diese EG-Baumusterprüfbescheinigung bezieht sich nur auf die Konzeption und den Bau des beschriebenen Gerätes. Für Herstellung und Inverkehrbringen des Gerätes sind weitere Anforderungen der Richtlinie 94/9/EG zu erfüllen.

(12) Die Kennzeichnung des Gerätes muss die folgenden Angaben enthalten:

II 2G EEx ia IIC T4

Deutsche Montan Technologie GmbH
Essen, den 20. Juli 2000

DMT-Zertifizierungsstelle   Fachbereichsleiter

Seite 1 von 2 DMT 00 ATEX E 048
Dieses Zertifikat darf nur unverändert weiterverbreitet werden.
Am Technologiepark 1, 45307 Essen, Telefon (0201)172-1416, Telefax (0201)172-1716

Anlage zur Certificate DMT 00 ATEX E 048

(13)   Anlage zur

(14) **EG-Baumusterprüfbescheinigung**

DMT 00 ATEX E 048

(15) 15.1 Benennung und Typ

Funk-Tastatur Typ FT-30

15.2 Beschreibung

Die Funk-Tastatur Typ FT-30 dient zur kabellosen Bedienung eines Computers.
Die Tastatur besteht aus einem Kunststoffgehäuse, in dem die elektronischen Komponenten gesichert befestigt eingebaut sind.
Die Stromversorgung der Funk-Tastatur erfolgt über 2 Primärzellen der Baugröße AA, die in den darstellenden Unterlagen festgelegt sind.

15.3 Elektrische, mechanische und thermische Kenngrößen

Stromversorgungsbatterie

Nennspannung	U_N	2 x 1,5	V
Nennkapazität		2850	mAh
Sendeleistung		< 25	mW
Sendefrequenz		26,995 – 27,195	MHz
Umgebungstemperaturbereich	T_a	–20°C bis +40°C	

(16) Prüfbericht

Nr. BVS PP 00.2043 EG, 13 Seiten

(17) Besondere Bedingungen für die sichere Anwendung

entfällt

Seite 2 von 2 zu DMT 00 ATEX E 048
Dieses Zertifikat darf nur unverändert weiterverbreitet werden.
Am Technologiepark 1, 45307 Essen, Telefon (0201)172-1416, Telefax (0201)172-1716

FT-30

Certificate of conformity for Ex receiver

Certificate 1 (top left)

Physikalisch-Technische Bundesanstalt

(1) KONFORMITÄTSBESCHEINIGUNG

(2) PTB Nr. Ex-89.C.1018

(3) Diese Bescheinigung gilt für das elektrische Betriebsmittel

Steuerung Typ F-2.....

(4) der Firma E.L.B.-Ex-Geräte Bachmann GmbH + Co.
D-6140 Bensheim

(5) Die Bauart dieses elektrischen Betriebsmittels sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Konformitätsbescheinigung festgelegt.

(6) Die Physikalisch-Technische Bundesanstalt bescheinigt als Prüfstelle nach Artikel 14 der Richtlinie des Rates der Europäischen Gemeinschaften vom 18. Dezember 1975 (76/117/EWG) die Übereinstimmung dieses elektrischen Betriebsmittels mit den harmonisierten Europäischen Normen

Elektrische Betriebsmittel für explosionsgefährdete Bereiche

EN 50 014:1977 + A1...A5 (VDE 0170/0171 Teil 1/1.87) Allgemeine Bestimmungen
EN 50 018:1977 + A1...A3 (VDE 0170/0171 Teil 5/1.87) Druckfeste Kapselung "d"
EN 50 019:1977 + A1...A3 (VDE 0170/0171 Teil 6/1.87) Erhöhte Sicherheit "e"

nachdem das Betriebsmittel mit Erfolg einer Bauartprüfung unterzogen wurde. Die Ergebnisse dieser Bauartprüfung sind in einem vertraulichen Prüfprotokoll festgelegt.

(7) Das Betriebsmittel ist mit dem folgenden Kennzeichen zu versehen:

EEx de IIC T6

(8) Der Hersteller ist dafür verantwortlich, daß jedes derart gekennzeichnete Betriebsmittel in seiner Bauart mit den in der Anlage zu dieser Bescheinigung aufgeführten Prüfungsunterlagen übereinstimmt und daß die vorgeschriebenen Stückprüfungen erfolgreich durchgeführt wurden.

(9) Das elektrische Betriebsmittel darf mit dem hier abgedruckten gemeinschaftlichen Unterscheidungszeichen gemäß Anhang II der Richtlinie des Rates vom 6. Februar 1979 (79/196/EWG) gekennzeichnet werden.

Im Auftrag   Braunschweig, 16.03.1989

Dipl.-Ing. Dobel

Prüfbescheinigungen ohne Unterschrift und ohne Dienststempel haben keine Gültigkeit.
Die Bescheinigungen dürfen nur unverändert weiterverbreitet werden.
Auszüge oder Änderungen bedürfen der Genehmigung der Physikalisch-Technischen Bundesanstalt, Bundesallee 100, Postfach 3345, D-3300 Braunschweig.

Certificate 2 (top right)

Physikalisch-Technische Bundesanstalt

ANLAGE
zur Konformitätsbescheinigung PTB Nr. Ex-89.C.1018

Bauart

Steuerung Typ F-2..... bestehend aus Aluminiumgehäuse in zwei Baugrößen in Zündschutzart Erhöhte Sicherheit "e" mit Einbau von ein oder zwei Kunststoffgehäusen Typ F-2011 in Zündschutzart Druckfeste Kapselung "d" mit Anschlußklemmen in Zündschutzart Erhöhte Sicherheit "e".

Unter Berücksichtigung der unten genannten Grenzwerte ist der Einbau von beliebigen elektrischen Bauelementen in das Gehäuse Typ F-2011 zulässig.

Nähere Angaben sind den Prüfungsunterlagen zu entnehmen.

Elektrische Grenzwerte

Nennspannung ....   max. 250 V
Verlustleistung ....   max. 8,0 W bzw. 8,0 VA
max. anschließbarer
Leiterquerschnitt/Klemme ...   1,5 mm²

Stückprüfung

Die Stückprüfung nach EN 50 018 Abschnitt 15.1.1 entfällt, weil entsprechend Abschnitt 15.2 eine Typenprüfung mit dem vierfachen Bezugsdruck bestanden wurde.

Prüfungsunterlagen   unterschrieben am

1. Beschreibung (3 Blatt)   24.01.1989
2. Zeichnung Nr. F-201.02.06   08.07.1988
              F-201.02.07   08.07.1988
              F-201.04.42   08.07.1988
              F-201.02.03   12.01.1989
              F-201.02.15   24.01.1989
              F-201.02.12   24.01.1989
3. Prüfmuster

Im Auftrag   Braunschweig, 16.03.1989

Dipl.-Ing. Dobel

Blatt 1/1

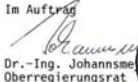## Certificate 3 (bottom left)

Physikalisch-Technische Bundesanstalt

2. NACHTRAG
zur Konformitätsbescheinigung PTB Nr. Ex-89.C.1018

der Firma E.L.B.-Ex-Geräte Bachmann GmbH + Co.
D-6140 Bensheim

Anstelle des Aluminiumeinbaugehäuses der Steuerung Typ F-2..... kann auch, gemäß den Festlegungen in den Unterlagen, das Kunststoffgehäuse Typ 07-518.-1221/2090 bzw. Typ 07-518.-2201/2090 in der Zündschutzart Erhöhte Sicherheit "e", zum Einbau von ein bzw. zwei Gehäusen Typ F-2011 in der Zündschutzart Druckfeste Kapselung "d" mit Anschlußklemmen in Zündschutzart "e" verwendet werden.

Prüfungsunterlagen

1. Teilbescheinigung PTB Nr. Ex-90.C.3181 U

                              unterschrieben am
2. Beschreibung (1 Blatt)   31.12.1990
3. Zeichnung Nr. F-201.23.01   29.04.1991

Im Auftrag   Braunschweig, 13.05.1991

Dr.-Ing. Johannsmeyer
Oberregierungsrat

EEx de IIC T6, EEx de [ib] IIC T6   Blatt 1/1

Certificate 4 (bottom right)

Physikalisch-Technische Bundesanstalt

3. NACHTRAG
zur Konformitätsbescheinigung PTB Nr. Ex-89.C.1018

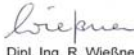der Firma   E.L.B.-Ex-Geräte Bachmann GmbH + Co.
D-64625 Bensheim

Die Steuerung Typ F-2..... darf mit folgenden geänderten technischen Daten betrieben werden:

Verlustleistung .... max.   5 W bzw. 5 VA
Umgebungstemperatur .... max.   60 °C

Die Temperaturklasse ändert sich für diese Ausführung in T5.

Prüfungsunterlage

Beschreibung (1 Blatt)   unterschrieben am 06.07.1995

Im Auftrag   Braunschweig, 12.07.1995

Dipl. Ing. R. Wießner

EEx de[ib] IIC T6 bzw. T5   Blatt 1/1

FT-30