Description

A large number of variants and versions of actuating elements are available for the ComEx control and indicator units. All actuating elements are made of high-quality thermoplastic and conform to the IP 65/IP 66/IP 67 type of protection.

To complete the actuating elements, there are useful accessories such as e.g. label holders, marking tags, metal shroud or nut wrench.

Actuating elements with NBR sealing for increased resistance to oil are available too.

The actuating elements are mounted quickly and easily onto the ComEx control and indicating devices.

Use in Zones 1 and 21 is certified.

NOTE

For actuating element dimensions, see page 3 onward.

Explosion elements for ComEx

Ex protection type

° II 2G Ex e II
° II 2D Ex tD A21 IP 65, IP 66, or IP 67

Ex e II

Ex ID A21 IP 65, IP 66, IP 67

IECEx PTB 08.0037U

Class I, Div. 2, Groups A, B, C, D

Class I, Zone 1, AEx e IIC, Ex e IIC

UL E184186

0044

Ambient and operating temperature range

-55 °C to +70 °C (Zone 1)

-20 °C to +70 °C (Zone 21)

permitted for zones

Zone 1

Zone 21 (Min. requis IP6X, Temperature range -20 °C)

Mesh class of the actuating elements

<table>
<thead>
<tr>
<th>Description</th>
<th>Order no.</th>
<th>Temperature -55 °C to +70 °C</th>
<th>Temperature -20 °C to +70 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position selector switch</td>
<td>05-0003-007 ***</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Double pushbutton actuator</td>
<td>05-0003-0074 **** (*BN)</td>
<td>IP 54</td>
<td>IP 6X</td>
</tr>
<tr>
<td>Pushbutton</td>
<td>05-0003-000700 (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Mushroom pushbutton</td>
<td>05-0003-001800 (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Emergency Stop</td>
<td>05-0003-000800 (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Locking mushroom pushbutton</td>
<td>05-0003-001203 (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Lock (DOM)</td>
<td>05-0003-0012 **  (**BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Lock (RONIS)</td>
<td>05-0003-006100 (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Position selector switch BS 2-position</td>
<td>05-0003-00090 **</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Position selector switch BS 3-position</td>
<td>05-0003-001 ****</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Key switch, 2-position</td>
<td>05-0003-003-007 **** (*BN)</td>
<td>IP 54</td>
<td>IP 65</td>
</tr>
<tr>
<td>Key switch, 3-position</td>
<td>05-0003-003-0079 ** (*BN)</td>
<td>IP 54</td>
<td>IP 65</td>
</tr>
<tr>
<td>Position selector switch 2-position</td>
<td>05-0003-00099 *** (**BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Position selector switch, 3-position</td>
<td>05-0003-001-001 **** (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Lamp</td>
<td>05-0003-003-001 **** (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Illuminated button actuator</td>
<td>05-0003-006-006 **** (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Potentiometer actuator</td>
<td>05-0003-007600 (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
<tr>
<td>Blanking plug</td>
<td>05-0003-001900 (*BN)</td>
<td>IP 54</td>
<td>IP 66, IP 67</td>
</tr>
</tbody>
</table>

*BN for increased resistance to oil (with NBR seal)

Technical data

Storage and transport temperature

-55 °C to +70 °C

Protection class

See table

Impact resistance

7 Nm

(Lamp actuators 4 Nm)

Material

Enclosure thermoplastic/injection moulding

Sealings EPDM, NBR for increased resistance to oil

Weight

See table

Fastening

Installation in enclosures with wall thickness of 1 mm up to 6 mm (threading M30 x 1.5). Suitable for through-holes 30.3 +0.3 mm
Safety Instructions

The actuating elements may be used only within the specified ambient and operating temperature range. Utilisation in areas other than those specified and the modification of the product by anyone other than the manufacturer are not permitted and will exempt BARTEC from liability for defects and any further liability. Incorrect installation can cause malfunctioning and the loss of explosion protection.

The actuating element may be connected and assembled only by authorised and trained personnel in accordance with the manufacturer's instructions. The generally applicable statutory rules and other binding directives relating to workplace safety, accident prevention and environmental protection must be adhered to. The actuating element may be operated only if it is in a clean and undamaged condition.

Marking

Particularly important points in these instructions are marked with a symbol:

⚠️ DANGER
Non-observance leads to death or serious physical injury. The necessary safety measures must be taken.

⚠️ CAUTION
Warning of damage to property and financial and penal disadvantages (e.g. loss of guarantee rights, liability etc.).

⚠️ ATTENTION
Important instructions and information on preventing disadvantageous behaviour.

⚠️ NOTE
Important instructions and information on effective, economical and environmentally compatible handling.

Assembly and Commissioning

⚠️ NOTE
The description of the assembly of the actuating elements starts on page 8.

Assembly/disassembly

⚠️ ATTENTION
Only authorised and qualified personnel may do any of the assembly, disassembly, installation and commissioning work. The minimum centre-to-centre spacing between two mounting holes must be observed. Make sure the actuating element being fitted is intact (no cracks).

Installation

Only suitable tools may be used for installation work. It is not permissible to modify the actuating element in any way.

Commissioning

Before commissioning check that:
- the device has been installed correctly
- the device is not damaged

Operation, Maintenance and Fault Clearance

The operator of the actuating element must keep it in good condition, operate it properly, monitor it and clean it regularly. Actuating elements, seals, glands must be checked regularly for cracks and damage.

⚠️ NOTE
Dirty actuating elements can be cleaned with compressed air.

The actuating element is defective if it no longer actuates the attached command equipment or if the illuminated disc becomes damaged or dull. Defective actuating elements cannot be repaired; they must be replaced. Defective actuating elements can be taken off and replaced by functioning actuators of the same type.

Accessories, spare parts

see BARTEC catalogue

Disposal

The components in the actuating element contain metal and plastic parts. The statutory requirements for disposing of electronic scrap must be observed therefore (e.g. disposal by an approved disposal company).

Service address

BARTEC GmbH
Max-Eyth-Straße 16
D-97980 Bad Mergentheim
Tel.: +49 7931 597-0
Fax: +49 7931 597-119

Standards conformed to

EN 60079-0: 2006
EN 60079-7: 2007
EN 61241-0: 2006
EN 61241-1: 2004
IEC 60079-0: 2004
IEC 60079-7: 2006-07
IEC 61241-0: 2004
IEC 61241-1: 2004
### Selection chart

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Dimensions</th>
<th>Description and order number</th>
</tr>
</thead>
</table>
| ![Position selector switch](image) | for ComEx enclosures | **Position selector switch** black, with 2 or 3 switching positions, with protective shroud, lockable*, only for switch modules (2-pole)  
0 - I for control units (flat): 05-0003-007001  
for ComEx enclosures: 05-0003-007101  
I - II for control units (flat): 05-0003-007002  
for ComEx enclosures: 05-0003-007102  
I - 0 II for control units (flat): 05-0003-007203  
for ComEx enclosures: 05-0003-007303  
HAND - 0 - AUTO for control units (flat): 05-0003-007224  
for ComEx enclosures: 05-0003-007324  
MAN - 0 - AUTO for control units (flat): 05-0003-007225  
for ComEx enclosures: 05-0003-007325  
Weight: 74 g  
- 3 boreholes at the protective shroud for fitting padlocks in switching position 0 (I) or to customer’s specifications. |
| ![Double pushbutton actuator](image) | for ComEx enclosures | **Double pushbutton actuator** with EPDM rubber membrane or with NBR sealing,  
5 labels red, green, yellow, white, black, supplied loose  
for ComEx enclosures with EPDM sealing: 05-0003-007500  
for ComEx enclosures with NBR sealing: 05-0003-007500BN  
for control units with EPDM sealing: 05-0003-007400  
for control units with NBR sealing: 05-0003-007400BN  
Weight: 52 g |
| ![Pushbutton](image) | for control units/ComEx 316L | **Pushbutton** with EPDM rubber membrane or with NBR sealing,  
5 labels red, green, yellow, white, black, supplied loose  
with EPDM sealing: 05-0003-007000  
with NBR sealing: 05-0003-007000BN  
Weight: 24 g |
<table>
<thead>
<tr>
<th>Illustration</th>
<th>Dimensions</th>
<th>Description and order number</th>
</tr>
</thead>
</table>
| ![Mushroom pushbutton](image1) | Mushroom pushbutton with EPDM rubber membrane or with NBR sealing, black  
- with EPDM sealing: 05-0003-001800  
- with NBR sealing: 05-0003-001800BN  
- Weight: 24 g | |
| ![EMERGENCY STOP slam button](image2) | EMERGENCY STOP slam button with EPDM rubber membrane or with NBR sealing, pushbutton marked "NOT-AUS EMERGENCY STOP - Pull to Release"  
- DIN EN 60204-1: 2007  
- DIN EN 60947-5-1: 2005 (VDE 0660 Part 200)  
- with EPDM sealing: 05-0003-000800  
- with NBR sealing: 05-0003-000800BN  
- Weight: 46 g | |
| ![Locking mushroom pushbutton](image3) | Locking mushroom pushbutton, push in without key, unlock with key  
- with EPDM sealing: 05-0003-001203  
- with NBR sealing: 05-0003-001203BN  
- Weight: 70 g | |
| ![Lock DOM lock 4 A 185](image4) | Lock DOM lock 4 A 185  
- Lockable in both positions,  
- Key retractable in both positions:  
  - with EPDM sealing: 05-0003-001200  
  - with NBR sealing: 05-0003-001200BN  
- Lockable in the depressed position,  
- Key retractable in the depressed position:  
  - with EPDM sealing: 05-0003-001201  
  - with NBR sealing: 05-0003-001201BN  
- Tip lock lockable in the initial positions,  
- Key retractable in the initial positions:  
  - with EPDM sealing: 05-0003-001202  
  - with NBR sealing: 05-0003-001202BN  
- Weight: 69 g | |
| ![Lock RONIS lock 455](image5) | Lock RONIS lock 455  
- Lockable in both positions,  
- Key retractable in both positions  
- with EPDM sealing: 05-0003-006100  
- with NBR sealing: 05-0003-006100BN  
- Weight: 75 g | |
### Illustration

#### Dimensions

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Dimensions</th>
<th>Description and order number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2 switching positions</strong></td>
<td><img src="image1" alt="Illustration" /></td>
<td><strong>Position selector switch BS</strong>, black, with 2 or 3 switching positions, turned 90° for ComEx enclosures</td>
</tr>
<tr>
<td><img src="image2" alt="Illustration" /></td>
<td><strong>0 - I</strong> for control units: 05-0003-000900BS for ComEx enclosures: 05-0003-000901BS</td>
<td></td>
</tr>
<tr>
<td><img src="image3" alt="Illustration" /></td>
<td><strong>I - 0 - II (I + II latching)</strong> for control units: 05-0003-001000BS for ComEx enclosures: 05-0003-001100BS</td>
<td></td>
</tr>
<tr>
<td><img src="image4" alt="Illustration" /></td>
<td><strong>I - 0 - II (I + II momentary contact)</strong> for control units: 05-0003-001001BS for ComEx enclosures: 05-0003-001101BS</td>
<td></td>
</tr>
<tr>
<td><img src="image5" alt="Illustration" /></td>
<td><strong>I - 0 - II (I latching, II momentary)</strong> for control units: 05-0003-001002BS for ComEx enclosures: 05-0003-001102BS</td>
<td></td>
</tr>
<tr>
<td><img src="image6" alt="Illustration" /></td>
<td><strong>I - 0 - II (I momentary, II latching)</strong> for control units: 05-0003-001003BS for ComEx enclosures: 05-0003-001103BS</td>
<td></td>
</tr>
<tr>
<td>Weight: 33 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3 switching positions</strong></td>
<td><img src="image7" alt="Illustration" /></td>
<td><strong>Position selector switch BS</strong>, black, with 2 or 3 switching positions, turned 90° for ComEx enclosures</td>
</tr>
<tr>
<td><img src="image8" alt="Illustration" /></td>
<td><strong>0 - I latching, key retractable</strong> for control units: 05-0003-007000 for ComEx enclosures: 05-0003-007001</td>
<td></td>
</tr>
<tr>
<td><img src="image9" alt="Illustration" /></td>
<td><strong>0 - I momentary contact, Position I key not retractable</strong> for control units: 05-0003-007701 for ComEx enclosures: 05-0003-007801</td>
<td></td>
</tr>
<tr>
<td><img src="image10" alt="Illustration" /></td>
<td><strong>I - 0 - II (I + II latching), Key retractable</strong> for control units: 05-0003-007900 for ComEx enclosures: 05-0003-008000</td>
<td></td>
</tr>
<tr>
<td>Weight: 49 g</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Key-operated switch, RONIS lock 456, with 2 or 3 switching positions, turned 90° for ComEx enclosures

<table>
<thead>
<tr>
<th>Illustration</th>
<th>Dimensions</th>
<th>Description and order number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2 switching positions</strong></td>
<td><img src="image11" alt="Illustration" /></td>
<td><strong>Position selector switch BS</strong>, black, with 2 or 3 switching positions, turned 90° for ComEx enclosures</td>
</tr>
<tr>
<td><img src="image12" alt="Illustration" /></td>
<td><strong>0 - I latching, key retractable</strong> for control units: 05-0003-007000 for ComEx enclosures: 05-0003-007001</td>
<td></td>
</tr>
<tr>
<td><img src="image13" alt="Illustration" /></td>
<td><strong>0 - I momentary contact, Position I key not retractable</strong> for control units: 05-0003-007701 for ComEx enclosures: 05-0003-007801</td>
<td></td>
</tr>
<tr>
<td><img src="image14" alt="Illustration" /></td>
<td><strong>I - 0 - II (I + II latching), Key retractable</strong> for control units: 05-0003-007900 for ComEx enclosures: 05-0003-008000</td>
<td></td>
</tr>
<tr>
<td>Weight: 49 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illustration</td>
<td>Dimensions</td>
<td>Description and order number</td>
</tr>
<tr>
<td>--------------</td>
<td>------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><img src="image1.png" alt="Illustration" /></td>
<td>2 switching positions</td>
<td><strong>Position selector switch</strong>, black, with 2 or 3 switching positions&lt;br&gt;0 - I for control units&lt;br&gt;with EPDM sealing: 05-0003-000900&lt;br&gt;with NBR sealing: 05-0003-000900BN&lt;br&gt;turned 90° for ComEx enclosures&lt;br&gt;with EPDM sealing: 05-0003-000901&lt;br&gt;with NBR sealing: 05-0003-000901BN&lt;br&gt;1 - 0 - II for control units&lt;br&gt;(I + II latching) with EPDM sealing: 05-0003-001000&lt;br&gt;with NBR sealing: 05-0003-001000BN&lt;br&gt;turned 90° for ComEx enclosures&lt;br&gt;with EPDM sealing: 05-0003-001100&lt;br&gt;with NBR sealing: 05-0003-001100BN&lt;br&gt;1 - 0 - II for control units&lt;br&gt;(I + II momentary) with EPDM sealing: 05-0003-001001&lt;br&gt;with NBR sealing: 05-0003-001001BN&lt;br&gt;turned 90° for ComEx enclosures&lt;br&gt;with EPDM sealing: 05-0003-001101&lt;br&gt;with NBR sealing: 05-0003-001101BN&lt;br&gt;1 - 0 - II for control units&lt;br&gt;(I latching, II momentary contact) with EPDM sealing: 05-0003-001002&lt;br&gt;with NBR sealing: 05-0003-001002BN&lt;br&gt;turned 90° for ComEx enclosures&lt;br&gt;with EPDM sealing: 05-0003-001102&lt;br&gt;with NBR sealing: 05-0003-001102BN&lt;br&gt;1 - 0 - II for control units&lt;br&gt;(I momentary contact, II latching) with EPDM sealing: 05-0003-001003&lt;br&gt;with NBR sealing: 05-0003-001003BN&lt;br&gt;turned 90° for ComEx enclosures&lt;br&gt;with EPDM sealing: 05-0003-001103&lt;br&gt;with NBR sealing: 05-0003-001103BN&lt;br&gt;&lt;br&gt;Weight: 33 g</td>
</tr>
<tr>
<td><img src="image2.png" alt="Illustration" /></td>
<td>3 switching positions</td>
<td><strong>Lamp module actuator</strong>&lt;br&gt;red with EPDM sealing: 05-0003-001300&lt;br&gt;red with NBR sealing: 05-0003-001300BN&lt;br&gt;green with EPDM sealing: 05-0003-001400&lt;br&gt;green with NBR sealing: 05-0003-001400BN&lt;br&gt;yellow with EPDM sealing: 05-0003-001500&lt;br&gt;yellow with NBR sealing: 05-0003-001500BN&lt;br&gt;white with EPDM sealing: 05-0003-001600&lt;br&gt;white with NBR sealing: 05-0003-001600BN&lt;br&gt;blue with EPDM sealing: 05-0003-001700&lt;br&gt;blue with NBR sealing: 05-0003-001700BN&lt;br&gt;&lt;br&gt;Weight: 19 g</td>
</tr>
</tbody>
</table>
### Illustration

#### Dimensions

<table>
<thead>
<tr>
<th>Illustration</th>
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<th>Description and order number</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Illustration" /></td>
<td></td>
<td><strong>Illuminated button actuator</strong></td>
</tr>
<tr>
<td><img src="image2" alt="Illustration" /></td>
<td></td>
<td><strong>Potentiometer actuator</strong>, black, durable and abrasion-resistant</td>
</tr>
<tr>
<td><img src="image3" alt="Illustration" /></td>
<td></td>
<td><strong>Blanking plug</strong>, to cover unused holes in the cover</td>
</tr>
</tbody>
</table>

#### Design and order number

<table>
<thead>
<tr>
<th></th>
<th>Illuminated button actuator</th>
<th>Potentiometer actuator</th>
<th>Blanking plug</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>red with EPDM sealing: 05-0003-006500</td>
<td>with EPDM sealing: 05-0003-007600</td>
<td>with EPDM sealing: 05-0003-001900</td>
</tr>
<tr>
<td></td>
<td>red with NBR sealing: 05-0003-006500BN</td>
<td>with NBR sealing: 05-0003-007600BN</td>
<td>with NBR sealing: 05-0003-001900BN</td>
</tr>
<tr>
<td></td>
<td>green with EPDM sealing: 05-0003-006600</td>
<td>Scale gradation from 0 to 10</td>
<td></td>
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<tr>
<td></td>
<td>green with NBR sealing: 05-0003-006600BN</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>yellow with EPDM sealing: 05-0003-006700</td>
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</tr>
<tr>
<td></td>
<td>yellow with NBR sealing: 05-0003-006700BN</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>white with EPDM sealing: 05-0003-006800</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>white with NBR sealing: 05-0003-006800BN</td>
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<tr>
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<td>blue with EPDM sealing: 05-0003-006900</td>
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</tr>
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<td></td>
<td>blue with NBR sealing: 05-0003-006900BN</td>
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<tr>
<td></td>
<td>Weight: 19 g</td>
<td>Weight: 28 g</td>
<td>Weight: 20 g</td>
</tr>
</tbody>
</table>
Operating Instructions

Actuating Elements Type 05-0003-00...

BARTEC
GmbH
Max-Eyth-Straße 16
D-97980 Bad Mergentheim
Tel.: +49 7931 597-0
Fax: +49 7931 597-119
info@bartec.de
www.bartec.de

Reservation Technical data subject to change without notice. Changes, errors and misprints may not be used as a basis for any claim for damages.

Assembly drawing

1. Example of an actuating element

2. Optional accessories (e.g., label holders
   Article number 05-0044-0001
   for an additional inscription)

3. Fixing nut
   Article number 05-1138-0009

4. Nut wrench
   Article number 05-1191-0001

1. Illuminated button actuator
   Article numbers 05-0003-006500, -006600, -006700, -006800 or -006900

2. Illuminated button
   Article number 07-3363-3...

Mounting hole for size dia. 30.3mm
with cut-out for anti-twist protection,
typical position: top (12 o’clock position).
Minimum spacing for the mounting boreholes:
horizontal 40 mm, vertical 70 mm

* - recommended spacing for mushroom pushbutton and slam button
  100mm
* - required spacing for position selector switches
  with protective shroud min. 60 mm
Erklärung der Konformität
Declaration of Conformity
Attestation de conformité

Barth & Tappe
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Wir BARTEC GmbH erklären in alleiniger Verantwortung, dass das Produkt den folgenden Richtlinien entspricht:

<table>
<thead>
<tr>
<th>Richtlinie/Verordnung</th>
<th>Beschreibung</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEX-Richtlinie 94/9/EG</td>
<td>ATEX-Directive 94/9/EC</td>
</tr>
<tr>
<td>Maschinen-Richtlinie 2006/42/EG</td>
<td>Maschinery Directive 2006/42/EC</td>
</tr>
</tbody>
</table>

und mit den folgenden Normen oder Normativen Dokumenten übereinstimmt:

- EN 60079-0:2006
- EN 60079-7:2007
- EN 61241-0:2006
- EN 61241-1:2004

Kennzeichnung: Marking
Marque:

II 2 G Ex e II
II 2 D Ex tD A21 IP65, IP66, bzw. IP67

Verfahren der EG-Baumusterprüfung / Benannte Stelle
Procedure of EC-Type Examination / Notified Body
Procédure d'examen CE de type / Organisme Notifié

PTB 00 ATEX 3114 U
0102 PTB, Bundesallee 100, 38116 Braunschweig, D

0044

Bad Mergentheim den 10.03.2010

ppa. Ewald Warmuth
Geschäftsleitung / General Manager