Conventional Manual Call Points for Ex Areas

The Conventional Manual Call Points for Ex Areas are used to manually activate the alarm in zones 1 and 2 at risk of explosion. The K type call points are encapsulated, intrinsically safe call points and do not require any safety barriers. The DM 1103 B-Ex Manual Call Points for ex zones must be connected via a Safety Barrier SB 3 incl. Input/Output Module DCA1192 (see system overview).

System overview

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-Ex area</td>
</tr>
<tr>
<td>2</td>
<td>Ex area: zone 0, 1 or 2 for OOH740-A9-Ex</td>
</tr>
</tbody>
</table>

Functions

In the event of an alarm, the glass pane (2) is broken first, then the pushbutton (3) is pressed hard. Thus the switch triggers the alarm. A locking mechanism holds the pressed manual call point. The pushbutton can be reset with the reset lever. This does not reset the alarm on the fire panel.

Certifications and approvals

<table>
<thead>
<tr>
<th>Region</th>
<th>Regulatory compliance/quality marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>Ex</td>
</tr>
<tr>
<td>Germany</td>
<td>VdS</td>
</tr>
<tr>
<td>Europe</td>
<td>CE</td>
</tr>
<tr>
<td></td>
<td>CE</td>
</tr>
<tr>
<td></td>
<td>BASEEFA</td>
</tr>
</tbody>
</table>

Installation/configuration notes

- Manual call points must be illuminated sufficiently with daylight or another light source (including emergency lighting, if present).
- An installation height of 1400 mm ±200 mm, measured from the middle of the manual call point to the floor, must be maintained.
Fire Alarm Systems - Conventional Manual Call Points for Ex Areas

- Manual call points must be installed along escape and rescue routes (e.g. exits, passageways, stairwells).
- Further standards, guidelines and planning recommendations regarding the installation location etc., should also be taken into consideration (see Fire Detection manual).
- Regulations of local fire departments must be observed.

Installation/configuration notes in accordance with VdS/VDE

- The distance between manual call points should not exceed 100 m according to DIN 14675 or 80 m according to VdS.
- In high risk areas, manual call points should be installed at a distance of max. 40 m (VDE 0833 Part 2, Point 7.2.6).
- According to VdS, up to 10 manual call points can be connected to a primary line.

DKM 2014/2-ex Manual Call Point Type K

- For connection to the LSN, an NBK 100 LSN Fire Interface is required.
- Can be connected directly to the following conventional control panels:
  - BZ 1012
  - BZ 1060
  - UEZ 1000 GLT.
- With an NBK 100 LSN Fire Interface, can be connected to the following control panels:
  - BZ 500 LSN
  - UEZ 1000 LSN
  - UEZ 2000 LSN
  - UGM 2020 LSN

DKM 2014/2-ex-UGM Manual Call Point Type K, for Connection to UGM Conventional

- Can be connected directly to the UGM-GLT Universal Danger Detection System

DM 1103 B-Ex manual call point for ex area

- For connection to the LSN, an NBK 100 LSN interface is required.
- For use in explosive areas of zones 1 and 2, a safety barrier and an input/output module are required, which must be mounted in front of the ex area.
- Cables can be inserted surface-mounted or flush-mounted
- For planning an intrinsically safe detector line for Ex areas, you have to consider:
  - the number n of devices connected to the SB3 Safety Barrier’s detector line
  - the cable length l of the SB3 Safety Barrier’s detector line

The following inequation must be fulfilled to achieve an intrinsically safe detector line:

\[ C_0 \, (SB3) > C_i \]
resulting

\[ C_0 > (n \times C_i) + (l \times C_c) \]

\[ L_0 \, (SB3) > L_i \]
resulting

\[ L_0 > (n \times L_i) + (l \times L_c) \]

Legend:

<table>
<thead>
<tr>
<th>Abbreviation (unit)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( C_0 ) (nF)</td>
<td>maximum external capacity</td>
</tr>
<tr>
<td>( C_i ) (nF)</td>
<td>maximum internal capacity</td>
</tr>
<tr>
<td>( C_c ) (nF)</td>
<td>cable capacitance</td>
</tr>
<tr>
<td>( l ) (km)</td>
<td>length of entire detector line</td>
</tr>
<tr>
<td>( L_0 ) (mH)</td>
<td>maximum external inductivity</td>
</tr>
<tr>
<td>( L_i ) (mH)</td>
<td>maximum internal inductivity</td>
</tr>
<tr>
<td>( L_c ) (mH)</td>
<td>cable inductance</td>
</tr>
<tr>
<td>( n )</td>
<td>total number of detectors</td>
</tr>
</tbody>
</table>

Technical specifications

DKM 2014/2-ex Manual Call Point Type K
DKM 2014/2-ex-UGM Manual Call Point Type K, for Connection to UGM Conventional

<table>
<thead>
<tr>
<th>Operating voltage</th>
<th>20 - 26.5 V DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch contact</td>
<td>Type 366 (encapsulated), II 2 G EEEx d II C</td>
</tr>
<tr>
<td>Maximum contact load</td>
<td>5 A / 250 V AC</td>
</tr>
<tr>
<td></td>
<td>0.25 A / 250 V DC</td>
</tr>
<tr>
<td>Cable entry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1x M16 x 1.5 tightening diameter 4-8 mm, EEEx e II</td>
</tr>
<tr>
<td></td>
<td>• Blind plug: 1x M16 x 1.5 EEEx e II</td>
</tr>
<tr>
<td>Housing material</td>
<td>Polyester, glass fiber reinforced</td>
</tr>
<tr>
<td>Colors</td>
<td>Red, RAL 3001</td>
</tr>
</tbody>
</table>
**Fire Alarm Systems - Conventional Manual Call Points for Ex Areas**

### Dimensions (W x H x D)
136 x 138 x 88 mm

### Weight
Approx. 1800 g

### Protection class as per EN 60529
IP 66

### Permissible operating temperature
-25 °C to +40 °C

### Ex classification
Eex emd IIC T6

### Test certificate / PTB No.
97-37001

### ATEX approval no.
PTB 97 ATEX 3197

---

**DM 1103 B-Ex Manual Call Point**

- **Operating voltage**: 16V DC to 28V DC
- **Cable duct**: PG11 screws (2x)
- **Connection terminals**: 0.2 mm to 1.5 mm
- **Housing material**: Plastic, PC
- **Color**: Red, RAL 3000
- **Dimensions (W x H x D)**: 134.4 x 134.4 x 43.5 mm
- **Weight**: Approx. 200 g
- **Protection class as per EN 60529**: IP 54
- **Permissible operating temperature**: -25 °C to +60 °C
- **Permissible storage temperature**: -30 °C to +75 °C
- **Permissible relative humidity**: ≤100% at T≤34 °C
- **Ex classification**: EEx ib IIC T4

---

**DM 1103 B-Ex Characteristics for intrinsically safety**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage Ui (V)</td>
<td>≤ 28</td>
</tr>
<tr>
<td>Input current li (mA)</td>
<td>≤ 100</td>
</tr>
<tr>
<td>Input power Pi (mW)</td>
<td>≤ 700</td>
</tr>
<tr>
<td>Internal inductivity Li (mH)</td>
<td>0</td>
</tr>
<tr>
<td>Internal capacity Ci (nF)</td>
<td>0</td>
</tr>
</tbody>
</table>

---

**Ordering information**

- **2014/2 Manual call point ex area**
  for ex area, surface-mounted, indirect alarm triggering, conventional technology
  Order number **2014/2 | 4.998.010.933**

- **FMX-7743.0.0500 Key for manual call point**
  Three-square socket wrench for opening the Manual Call Point Type K
  Order number **FMX-7743.0.0500 | 2.799.290.160**

- **DKM 2014/2-EX-UGM Manual call point ex area UGM**
  for ex area, surface-mounted, indirect alarm triggering
  Order number **DKM 2014/2-EX-UGM | 4.998.010.934**

- **DMX-7743.0.0500 Key for manual call point**
  Three-square socket wrench for opening the Manual Call Point Type K
  Order number **DMX-7743.0.0500 | 2.799.290.160**

- **DM1103B-EX Manual call point ex area**
  for zone 1 and 2 areas at risk of explosion, conventional technology
  Order number **DM1103B-EX | 4.998.112.084**

- **SB3 Safety barrier**
  limits the electrical energy between non-inherently safe and inherently safe circuits
  Order number **SB3 | 4.998.112.085**

**Accessories**

- **FMC-SPGL-DEIL Spare glass**
  For manual call points of series DM, DKM, SKM, FMC-120 and FMC-210, 1 unit = 5 spare glasses
  Order number **FMC-SPGL-DEIL | F.01U.025.845**

---

**Represented by:**

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: +31 40 2577 284
emea.securitysystems@bosch.com
emea.boschsecurity.com

Germany:
Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85530 Grasbrunn
Germany
www.boschsecurity.com

North America:
Bosch Security Systems, LLC
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 253 9180
onlinehelp@us.bosch.com
www.boschsecurity.us

Asia/Pacific:
Robert Bosch (SEA) Pte Ltd, Security Systems
11 Bishan Street 21
Singapore 579943
Phone: +65 6571 2808
Fax: +65 6571 2699
apr.securitysystems@bosch.com
www.boschsecurity.asia

Data subject to change without notice | 1290017419 | VIS | November 18, 2020 © Bosch Security Systems 2020