# DATASHEET



## EX-Z4K 235-02Z-3D

## Data

### Ordering data

| | |
|---|---|
| Product type description | EX-Z4K 235-02Z-3D |
| Article number (order number) | 101204454 |
| EAN (European Article Number) | 4030661368306 |
| eCl@ss number, version 12.0 | 27-27-26-01 |
| eCl@ss number, version 11.0 | 27-27-26-01 |
| eCl@ss number, version 9.0 | 27-27-26-01 |
| ETIM number, version 7.0 | EC000030 |
| ETIM number, version 6.0 | EC000030 |

### Approvals - Standards

| | |
|---|---|
| Certificates | INMETRO |

### Explosion protection

| | |
|---|---|
| Explosion protection: regulations | EN IEC 60079-0<br>EN IEC 60079-15<br>EN 60079-31 |
| Explosion protection zones | 2<br>22 |

| | |
|---|---|
| Explosion protection category | 3G<br>3D |
| Explosion protection designation | II 3G Ex nC IIC T5 Gc X<br>II 3D Ex tc IIIC T90°C Dc X |
| Manufacturer declaration | ATEX Zone 2 and 22<br>Additional simple electrical apparatus (Zone 0 and 20) |

## General data

| | |
|---|---|
| Standards | BG-GS-ET-15<br>EN IEC 60947-5-1 |
| Housing construction form | Norm construction design |
| Housing material | Metal, zinc die-cast |
| Housing coating material | painted |
| Gross weight | 285 g |

## General data - Features

| | |
|---|---|
| Safety functions | Yes |
| Number of safety contacts | 2 |

### Safety classification

| | |
|---|---|
| Standards | EN ISO 13849-1 |
| Mission time | 20 Year(s) |

## Safety classification - Safety outputs

| | |
|---|---|
| $B_{10D}$ Normally-closed contact (NC) | 20,000,000 Operations |

## Mechanical data

| | |
|---|---|
| Actuating element | Angle roller lever |
| Mechanical life, minimum | 20,000,000 Operations |
| Actuating force, minimum | 6 N |

| | |
|---|---|
| Positive break force, minimum | 16 N |
| Actuating speed, minimum | 44 mm/min |
| Actuating speed, maximum | 1 m/s |
| Note (Actuating speed) | Actuating speed with actuating angle 30° to switch axis |

## Mechanical data - Connection technique

| | |
|---|---|
| Termination | Screw terminals M20 x 1.5 |
| Cable cross-section of the cable glands, minimum | 7 mm |
| Cable cross-section of the cable glands, maximum | 12 mm |
| Cable section, minimum | 0.75 mm² |
| Cable section, maximum | 2.5 mm² |
| Note (Cable section) | All indications including the conductor ferrules. |
| Wire cross-section | 13 AWG |

## Mechanical data - Dimensions

| | |
|---|---|
| Length of sensor | 30 mm |
| Width of sensor | 42 mm |
| Height of sensor | 107 mm |

## Ambient conditions

| | |
|---|---|
| Degree of protection | IP67 |
| Ambient temperature | -20 ... +60 °C |

## Ambient conditions - Insulation values

| | |
|---|---|
| Rated insulation voltage $U_i$ | 500 V |
| Rated impulse withstand voltage $U_{imp}$ | 6 kV |

## Electrical data

| | |
|---|---|
| Thermal test current | 10 A |

| | |
|---|---|
| Utilisation category AC-15 | 230 VAC |
| Utilisation category AC-15 | 4 A |
| Utilisation category DC-13 | 24 VDC |
| Utilisation category DC-13 | 1 A |
| Switching element | Opener (NC) |
| Switching principle | Snap action |
| Bounce duration, maximum | 3 ms |
| Switching frequency | 5,000 /h |
| Switchover time, maximum | 5.5 ms |
| Material of the contacts, electrical | Silver |

## Scope of delivery

| | |
|---|---|
| Scope of delivery | Ex-certified screwed cable gland |

## Ordering code

Product type description:
EX-(1)(2) 235-(3)Z-(4)-(5)-(6)-(7)-3D

(1)

| | |
|---|---|
| **Z** | Snap action |
| **T** | Slow action (not for AF/S) |

(2)

| | |
|---|---|
| **S** | Plunger S |
| **R** | Roller plunger R |
| **4S** | Plunger 4S |
| **4R** | Roller plunger 4R |
| **1R** | Offset roller lever 1R |
| **K** | Offset roller lever K |
| **3K** | Angle roller lever 3K |
| **4K** | Angle roller lever 4K |
| **K4** | Angle roller lever K4 |

| | |
|---|---|
| **1H** | Roller lever 1H |
| **7H** | Roller lever 7H |
| **10H** | Rod lever 10H |
| **12H** | Roller lever 12H |
| **14H** | Roller lever 14H |

(3)

| | |
|---|---|
| **02** | 2 NC contact |
| **11** | 1 NO contacts/1 NC contact |
| **20** | 2 NO contacts, (switches with 2 NO contacts are not suitable for safety applications) |

(4)

| | |
|---|---|
| **H** | Slow action with staggered contacts |
| **UE** | Slow action with overlapping contacts |

(5)

| | |
|---|---|
| **1297** | Enclosure with transverse slotted holes |

(6)

| | |
|---|---|
| **2138** | Roller lever 7H for position switches with safety function |

(7)

| | |
|---|---|
| **1637** | Gold-plated contacts |

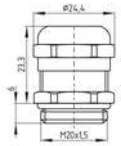
## Pictures

### Product picture (catalogue individual photo)



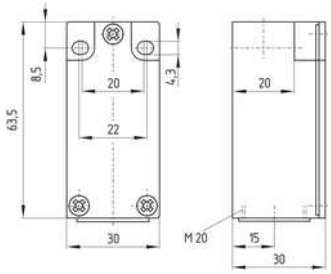

ID: k235kf03
| 304.1 kB | .jpg | 156.633 x 312.914 mm - 444 x 887 px - 72 dpi
| 101.2 kB | .png | 74.083 x 147.814 mm - 210 x 419 px - 72 dpi
| 45.0 kB | .jpg | 61.736 x 123.472 mm - 175 x 350 px - 72 dpi

## Dimensional drawing basic component



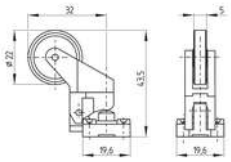
ID: 1xzm1g07
| 2.5 kB | .png | 74.083 x 51.153 mm - 210 x 145 px - 72 dpi
| 46.3 kB | .jpg | 352.778 x 243.769 mm - 1000 x 691 px - 72 dpi

## Dimensional drawing basic component



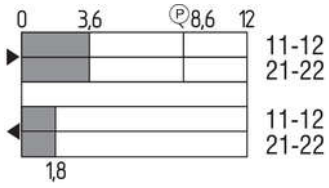

ID: k-235g01
| 24.5 kB | .cdr |
| 3.6 kB | .png | 74.083 x 61.736 mm - 210 x 175 px - 72 dpi
| 111.2 kB | .jpg | 352.778 x 293.511 mm - 1000 x 832 px - 72 dpi

## Dimensional drawing actuator



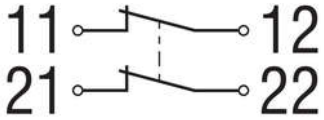
ID: 1k236g03
| 62.9 kB | .cdr |
| 4.0 kB | .png | 74.083 x 51.506 mm - 210 x 146 px - 72 dpi
| 80.8 kB | .jpg | 352.778 x 245.886 mm - 1000 x 697 px - 72 dpi

## Switch travel diagram




ID: kk235s11
| 26.3 kB | .cdr |
| 2.1 kB | .png | 74.083 x 41.275 mm - 210 x 117 px - 72 dpi
| 71.1 kB | .jpg | 352.778 x 196.497 mm - 1000 x 557 px - 72 dpi

## Diagram




ID: k2o--k01
| 48.8 kB | .jpg | 352.778 x 125.236 mm - 1000 x 355 px - 72 dpi
| 2.3 kB | .png | 74.083 x 26.458 mm - 210 x 75 px - 72 dpi

The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.
Generated on: 09/11/2023, 5:07 am