# DATASHEET



## EX-TR 335-11Z-3G/D

## Data

### Ordering data

| | |
|---|---|
| Product type description | EX-TR 335-11Z-3G/D |
| Article number (order number) | 101189290 |
| EAN (European Article Number) | 4030661632278 |
| 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 |

### 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 | Additional simple electrical apparatus (Zone 0 and 20) |

## General data

| | |
|---|---|
| Housing construction form | Norm construction design |
| Actuator type to EN 50041 | C |
| Housing material | Aluminium |
| Housing coating material | painted |
| Gross weight | 240 g |

## General data - Features

| | |
|---|---|
| Safety functions | Yes |
| Number of auxiliary contacts | 1 |
| Number of safety contacts | 1 |

### 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 | Roller plunger |
| Mechanical life, minimum | 30,000,000 Operations |
| Impact energy, maximum | 4 J |
| Actuating force, minimum | 17 N |
| Actuating speed, maximum | 0.5 m/s |
| Note (Actuating speed) | Actuating speed with actuating angle 30° to switch axis |
| Note (Switchover time) | Switchover time in accordance with actuating speed |

## 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 | 38 mm |
| Width of sensor | 40.5 mm |
| Height of sensor | 116.6 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 | 4 A |

| | |
|---|---|
| Switching element | NO contact, NC contact |
| Switching principle | Slow action |
| Bounce duration, maximum | 2 ms |
| Switching frequency | 5,000 /h |
| Material of the contacts, electrical | Silver |

## Ordering code

Product type description:
EX-(1)(2) 335-(3)Z(4)-(5)-(6)-(7)-3G/D

(1)

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

(2)

| | |
|---|---|
| **S** | Plunger S |
| **R** | Roller plunger R |
| **H** | Roller lever H |
| **10H** | Rod lever 10H |
| **7H** | Roller lever 7H |
| **7H-2138** | Roller lever 7H for position switches with safety function |
| **1K** | Offset roller lever 1K |
| **3K** | Angle roller lever 3K |

(3)

| | |
|---|---|
| **11** | 1 NO contacts/1 NC contact |
| **02** | 2 NC contact |
| **20** | 2 NO contacts (not suitable for safety applications) |
| **01/01** | 1 NC contact left / 1 NC contact right |
| **12** | 1 NO contact/2 NC contacts |
| **03** | 3 NC contact |

(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 |

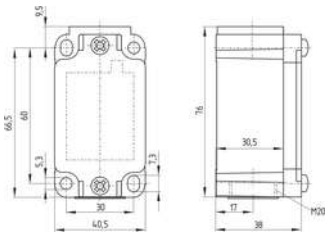
# Pictures

### Product picture (catalogue individual photo)



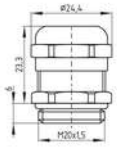
ID: k335rf01
| 727.6 kB | .jpg | 352.778 x 767.292 mm - 1000 x 2175 px - 72 dpi
| 71.3 kB | .png | 74.083 x 160.867 mm - 210 x 456 px - 72 dpi
| 27.7 kB | .jpg | 56.797 x 123.472 mm - 161 x 350 px - 72 dpi

### Dimensional drawing basic component



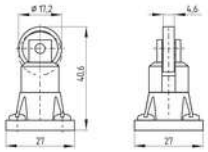
ID: k-335g01
| 27.9 kB | .cdr |
| 4.1 kB | .png | 74.083 x 52.211 mm - 210 x 148 px - 72 dpi
| 126.8 kB | .jpg | 352.778 x 248.708 mm - 1000 x 705 px - 72 dpi

### Dimensional drawing basic component



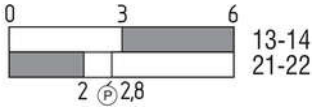
ID: 1xzm1g07
| 2.5 kB | .png | 74.083 x 51.153 mm - 210 x 145 px - 72 dpi
| 46.3 kB | .jpg | 352.778 x 243.769 mm - 1000 x 691 px - 72 dpi

## Dimensional drawing actuator



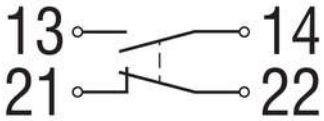
ID: 1r336g01
| 51.1 kB | .cdr |
| 6.6 kB | .png | 74.083 x 52.211 mm - 210 x 148 px - 72 dpi
| 66.1 kB | .jpg | 352.778 x 248.003 mm - 1000 x 703 px - 72 dpi

## Switch travel diagram




ID: kr335s08
| 24.6 kB | .cdr |
| 1.7 kB | .png | 74.083 x 23.283 mm - 210 x 66 px - 72 dpi
| 42.1 kB | .jpg | 352.778 x 111.478 mm - 1000 x 316 px - 72 dpi

## Diagram




ID: k1o1sk01
| 52.2 kB | .jpg | 352.778 x 143.581 mm - 1000 x 407 px - 72 dpi
| 2.6 kB | .png | 74.083 x 29.986 mm - 210 x 85 px - 72 dpi

## Operating principle



ID: 235rz01
| 15.2 kB | .cdr |
| 149.7 kB | .jpg | 352.778 x 799.394 mm - 1000 x 2266 px - 72 dpi
| 2.9 kB | .png | 74.083 x 167.922 mm - 210 x 476 px - 72 dpi