

## ZR 255-02Z



- Metal enclosure
- 63 mm x 63,5 mm x 30 mm
- 3 cable entries M 20 x 1.5
- Mounting details to EN 50047
- Wide range of alternative actuators
- Good resistance to oil and petroleum spirit
- Actuator heads can be repositioned by 4 x 90°
- Snap action with constant contact pressure up to switching point

### Data

#### Ordering data

|                               |               |
|-------------------------------|---------------|
|                               | ZR 255-02Z    |
|                               | 101174675     |
| EAN (European Article Number) | 4030661304038 |
| eCl@ss number, Version 9.0    | 27-27-26-01   |

#### Approval - Standards

CCC  
EAC

#### General data

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| Product name                         | Z 255 roller plunger <sub>R</sub> |
|                                      | IEC 60947-5-1                     |
|                                      | ISO 13849-1                       |
|                                      | BG-GS-ET-15                       |
| Housing construction form            | Norm construction design          |
| Actuator type to DIN EN 50047        | C                                 |
| Enclosure material                   | Zink                              |
| Enclosure coating material           | painted                           |
| Material of the contacts, electrical | Silver                            |
| Gross weight                         | 170 g                             |

## General data - Features

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

## Safety appraisal

|              |             |
|--------------|-------------|
|              | ISO 13849-1 |
| Mission Time | 20 Year(s)  |

## Safety appraisal - Safety outputs

|                                   |                       |
|-----------------------------------|-----------------------|
| B10d Normally-closed contact (NC) | 20,000,000 Operations |
|-----------------------------------|-----------------------|

## Mechanical data

|                               |                                                         |
|-------------------------------|---------------------------------------------------------|
| Actuating element             | Roller plunger                                          |
| Mechanical life, minimum      | 20,000,000 Operations                                   |
| Actuating force, minimum      | 9 N                                                     |
| Positive break force, minimum | 19 N                                                    |
| Actuating speed, minimum      | 20 mm/min                                               |
| Actuating speed, maximum      | 1 m/s                                                   |
| Note (Actuating speed)        | Actuating speed with actuating angle 30° to switch axis |

## Mechanical data - Connection technique

|                      |                                                                               |
|----------------------|-------------------------------------------------------------------------------|
| Terminal Connector   | Screw connection<br>0.75 mm <sup>2</sup><br>2.5 mm <sup>2</sup>               |
| Note (Cable section) | All indications about the cable section are including the conductor ferrules. |

## Mechanical data - Dimensions

|                  |       |
|------------------|-------|
| Height of sensor | 86 mm |
| Length of sensor | 30 mm |
| Width of sensor  | 63 mm |

## Ambient conditions

|                              |        |
|------------------------------|--------|
|                              | IP67   |
| Ambient temperature, minimum | -30 °C |
| Ambient temperature, maximum | +80 °C |

## Ambient conditions - Insulation value

|                                 |      |
|---------------------------------|------|
| Rated impulse withstand voltage | 6 kV |
|---------------------------------|------|

## Electrical data

|                                                      |                     |
|------------------------------------------------------|---------------------|
| Thermal test current                                 | 10 A                |
| Required rated short-circuit current to EN 60947-5-1 | 1,000 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 switch element |
| Bounce duration, maximum                             | 3 ms                |
| Switching frequency                                  | 5,000 /h            |
| Switchover time, minimum                             | 5.5 ms              |

## Ordering code

Product type description:

(1)(2) 2(3)5-(4)Z(5)-(6)-(7)-(8)-(9)

(1)

**Z** Snap action

**T** Slow action (not available 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

**AF** Spring rod lever AF

**RMS** Brass roller

(3)

**3** slim design

**5** large design

(4)

**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)

(5)

**H** Slow action with staggered contacts

**UE** Slow action with overlapping contacts

(6)

**without** Cable entry M20

**ID** IDC method of termination

**NPT** Cable entry NPT 1/2"

**ST** M12 connector with A-coding (Caution! According to EN 60204-1, the versions with connector must only be used in PELV circuits.)

**ST-2310** M12 connector with B-coding (Caution! According to EN 60204-1, the versions with connector must only be used in PELV circuits.)

(7)

**2574** Enclosure with L-shaped mounting holes (horizontally or vertically adjustable)

(8)

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

(9)

**1637** Gold-plated contacts

## Pictures

### Photo/Product/Catalogue



ID: k255rf01

| 704,0 kB | .jpg | 338.667 x 455.436 mm - 960 x 1291

Pixel - 72 dpi

| 61,6 kB | .png | 74.083 x 99.483 mm - 210 x 282

Pixel - 72 dpi

### Diagramm/Product/Travel

