



EX-ZR 235-02Z-3D

- Metal enclosure
- 30 mm x 63,5 mm x 30 mm
- 1 Cable entry 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

	EX-ZR 235-02Z-3D
	101192297
EAN (European Article Number)	4030661351995
eCl@ss number, Version 9.0	27-27-26-01

Approval - Standards

IMMETRO

Explosion protection

EN 60079-15
EN 60079-31
IEC 60079-0
22
2
3D
3G
⊕ II 3G Ex nC IIC T5 Gc X
⊕ II 3D Ex tc IIIC T90°C Dc X

Manufacturer declaration	ATEX Zone 2 and 22
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General data

Product name	Z 235 roller plunger _R EN 60947-5-1 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	196.5 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
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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
Cable cross-section of the cable glands, minimum	6 mm
Cable cross-section of the cable glands, maximum	12 mm
	0.75 mm ²
	2.5 mm ²
Note (Cable section)	All indications about the cable section are including the conductor ferrules.
Wire cross-section	13 AWG

Mechanical data - Dimensions

Height of sensor	86 mm
Length of sensor	30 mm
Width of sensor	30 mm

Ambient conditions

	IP67
Ambient temperature, minimum	-20 °C
Ambient temperature, maximum	+60 °C

Ambient conditions - Insulation value

Rated impulse withstand voltage	6 kV
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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 switch element
Bounce duration, maximum	3 ms
Switching frequency	5,000 /h
Switchover time, minimum	5.5 ms

Ordering code

Product type description:

EX-(1)(2) 235-(3)Z-(4)-(5)-(6)-(7)-
3D

(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

(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

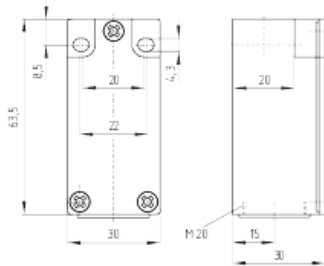
Photo/Product/Catalogue



ID: k235rf01

| 168,1 kB | .png | 74.083 x 164.394 mm - 210 x 466
Pixel - 72 dpi
| 317,5 kB | .jpg | 115.711 x 257.175 mm - 328 x 729
Pixel - 72 dpi

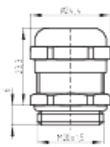
Dimension/Product/Basic



ID: k-235g01

| 111,2 kB | .jpg | 352.778 x 293.511 mm - 1000 x 832 Pixel - 72 dpi
 | 24,5 kB | .cdr |
 | 3,6 kB | .png | 74.083 x 61.736 mm - 210 x 175 Pixel - 72 dpi

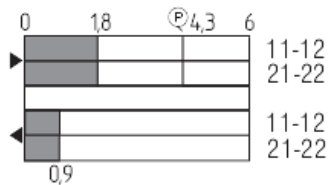
Dimension/Product/Basic



ID: 1xzm1g07

| 2,5 kB | .png | 74.083 x 51.153 mm - 210 x 145 Pixel - 72 dpi
 | 46,3 kB | .jpg | 352.778 x 243.769 mm - 1000 x 691 Pixel - 72 dpi

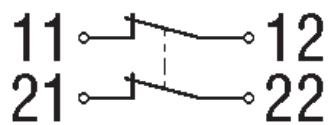
Diagramm/Product/Travel



ID: kr235s11

| 2,2 kB | .png | 74.083 x 41.628 mm - 210 x 118 Pixel - 72 dpi
 | 26,7 kB | .cdr |
 | 71,1 kB | .jpg | 352.778 x 197.908 mm - 1000 x 561 Pixel - 72 dpi

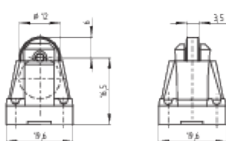
Graphic/Product/Contact



ID: k2o--k01

| 48,8 kB | .jpg | 352.778 x 125.236 mm - 1000 x 355 Pixel - 72 dpi
 | 1,4 kB | .png | 74.083 x 26.458 mm - 210 x 75 Pixel - 72 dpi

Dimension/Product/Actuator



ID: 1r236g01

| 7,4 kB | .png | 74.083 x 51.858 mm - 210 x 147 Pixel - 72 dpi
 | 76,5 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 Pixel - 72 dpi

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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.

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