SCHMERSAL
THE DNA OF SAFETY

EX-ZS 235-11Z-3D



- **Metal enclosure**
- **Ex-Zone 2 and 22**
- **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-ZS 235-11Z-3D
	101185214
EAN (European Article Number)	4030661324456
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 Ex II 3G Ex nC IIC T5 Gc X Ex II 3D Ex tc IIIC T90°C Dc X
Manufacturer declaration	ATEX Zone 2 and 22

General data	
Product name	EX-Z 235 plunger S
	EN 60947-5-1 BG-GS-ET-15
Housing construction form	Norm construction design
Actuator type to DIN EN 50047	B
Enclosure material	Zink
Enclosure coating material	painted
Material of the contacts, electrical	Silver
Gross weight	178 g
General data - Features	
Safety functions	Yes
Number of auxiliary contacts	1
Number of safety contacts	1
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	Plunger
Mechanical life, minimum	20,000,000 Operations
Actuating force, minimum	9 N
Positive break force, minimum	19 N
Actuating speed, minimum	10 mm/min
Actuating speed, maximum	1 m/s
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	75.5 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
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	NO contact, NC contact
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

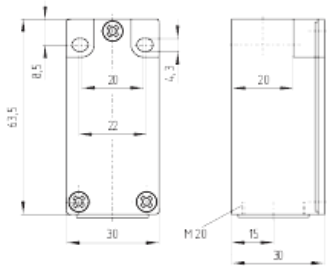
Photo/Product/Catalogue



ID: k235sf01

| 166,2 kB | .png | 74.083 x 169.333 mm - 210 x 480 Pixel - 72 dpi
| 481,6 kB | .jpg | 144.639 x 331.258 mm - 410 x 939 Pixel - 72 dpi

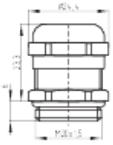
Dimension/Product/Basic



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

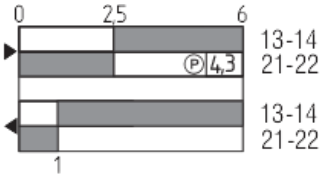
Dimension/Product/Basic



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

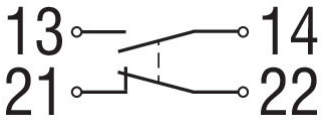
Diagramm/Product/Travel



ID: kr235s12

| 2,4 kB | .png | 74.083 x 39.158 mm - 210 x 111 Pixel - 72 dpi
| 69,2 kB | .jpg | 352.778 x 187.325 mm - 1000 x 531 Pixel - 72 dpi
| 25,8 kB | .cdr |

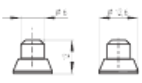
Graphic/Product/Contact



ID: k1o1sk01

| 52,2 kB | .jpg | 352.778 x 143.581 mm - 1000 x 407 Pixel - 72 dpi

Dimension/Product/Actuator



ID: 1s236g01

| 36,9 kB | .cdr |
| 1,7 kB | .png | 74.083 x 52.211 mm - 210 x 148 Pixel - 72 dpi
| 29,8 kB | .jpg | 352.778 x 248.003 mm - 1000 x 703 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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