



## Ex position switch with safety function Ex ES 97 WPH-11 -60°C Material number: 1336702

### Features/Options:

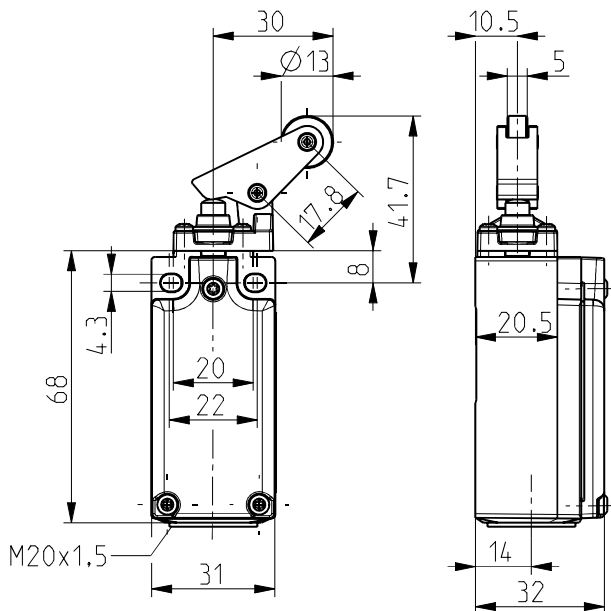
- Ex zone 1 and 21
- Thermoplastic enclosure
- Cold-resistant down to -60 °C
- High degree of protection IP 66 / IP 67 / IP 69
- Design to EN 50047

- Wiring compartment
- Double insulated
- Actuator: Parallel roller lever with collar WPH

### Notes

- 1 Ex"e" cable gland M20x1.5 included in delivery

### Dimensions



### Technical data

|                              |  |
|------------------------------|--|
| Applied standards            | EN 60947-5-1, EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31, EN ISO 13849-1, EN ISO 14119  |
| Enclosure                    | thermoplastic, glass-fibre reinforced, impact resistant, self-extinguishing UL 94 V-0  |
| Cover                        | thermoset, glass-fibre reinforced, impact resistant, self-extinguishing UL 94 V-0  |
| Sealing                      | silicone   |
| Switch type                  | type 1   |
| Coding level                 | no coding  |
| Tightening torque            | cover screws: 0.4 ... 0.45 Nm<br>connecting thread of cable gland: max. 2 Nm<br>cap nut of cable gland: max. 5 Nm  |
| Degree of protection         | IP 66 to EN 60079-0 + IEC/EN 60529 (... -60 °C)<br>IP 67 to EN 60079-0 + IEC/EN 60529 (... -20 °C)<br>IP 67 / IP 69 to IEC/EN 60529<br>IP 69K to ISO 20653 |
| B <sub>10d</sub> (10 % load) | 2 million  |
| T <sub>M</sub>               | max. 20 years  |
| Switch insert                | 1 x 8080/1-1   |
| Contact material             | Silver, nickel-plated  |
| Switching system             | slow action, positive break NC contacts $\ominus$  |
| Switching elements           | 1 NC/1 NO contact, type Zb   |
| Connection                   | screw connection terminals   |

Errors and omissions excepted.



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## Technical data

|  |  |
|--|--|
| Cable cross-section                    | min. 0,75 mm <sup>2</sup> / AWG 18, max. 1,5 mm <sup>2</sup> / AWG 16, incl. conductor ferrules  |
| Cable entry                            | M20 x 1,5; screwing depth max. 9 mm; use only Ex approved and certified cable glands with min. degree of protection IP 66 and suitable for the specified ambient temperature range |
| Clamping range                         | 7 ... 12 mm  |
| Utilisation category                   | AC-15  |
| Rated operating current I <sub>e</sub> | max. 2 A or 4 A  |
| Rated operating voltage U <sub>e</sub> | max. 500 VAC, max. 250 VAC for unequal potential   |
| Degree of pollution                    | 3  |
| Mechanical life                        | > 1 million operations   |
| Impact energy                          | max. 7 J   |
| Temperature class                      | T6   |
| Ambient temperature                    | -60 °C ... +55 °C max. 4 A, +60 °C max. 2 A  |
| Short-circuit protection               | 2 A / 4 A gG/gN fuse   |
| Ex marking                             | II 2G Ex db eb IIC T6 Gb,<br>II 2D Ex tb IIIC T80 °C Db<br>IECEX Ex db eb IIC T6 Gb,<br>Ex tb IIIC T80 °C Db   |
| Approvals                              | BVS 16 ATEX E 052<br>IECEX BVS 16.0052<br>   |
| Weight                                 | 105 g  |

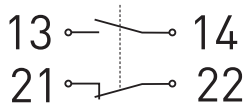


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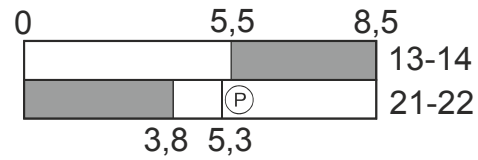
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## Contact diagram



## Switching diagram



Ⓟ Positive break travel/angle