## 8070/2-1-DD-U60 Art. No. 275068



- Large temperature range of use
- Large inner connection chamber
- Plastic Ex e enclosure
- Degree of protection IP66/67
- Five different contact versions
- Different actuator versions which can be repositioned by 4 x $90^{\circ}$
- Can also be used as simple apparatus


## MY R. STAHL 8070C

Position switches are used to position, control and monitor the moving parts on machines and systems. Because they meet the requirements of the EN 50041 and IEC 60947-5-1 product standards, they can also be used as a position switch with a safety function. Series 8070/2 position switches are approved for use in hazardous areas of Zones 1, 2, 21 and 22.

In conjunction with a safety door guard and the corresponding circuitry, the PL position switches fulfil the requirements of "e" in accordance with EN ISO 13849-1, or up to SIL 3 in accordance with EN 62061. They are identified with the $\Theta$ character to signify positive opening. There are snap- and slow-action versions with different types of contacts as well as with a variety of different actuating elements.

## Technical Data

## Explosion Protection

\(\left.$$
\begin{array}{l|l}\hline \text { Scope of validity } & \begin{array}{l}\text { European Union (ATEX) } \\
\text { IECEx }\end{array}
$$ <br>
\hline Application range (zones) \& 1 <br>
\& 2 <br>
\& 21 <br>

22\end{array}\right]\)| IECEx gas certificate | Ex db eb IIC T6 Gb |
| :--- | :--- |
| IECEx gas explosion protection | IECEx BVS 17.0011X |
| IECEx dust certificate | Ex tb IIIC T80 ${ }^{\circ} \mathrm{C} \mathrm{Db}$ |
| IECEx dust explosion protection | BVS 17 ATEX E 021X |
| ATEX gas certificate | Exx II 2 G Ex db eb IIC T6 Gb |
| ATEX gas explosion protection | E®x II 2 D Ex tb IIIC T80 ${ }^{\circ} \mathrm{C} \mathrm{Db}$ |
| ATEX dust certificate | ATEX (BVS), Canada (CSA), China (CQST), IECEx (BVS), India (PESO), Korea (KGS), |
| ATEX dust explosion protection | ATEX (EUK), ATEX (Simple apparatus), Declaration of Conformity (ATEX) |
| Certificates | 125 V |
| Declaration of Conformity | 500 V |
| Electrical Data | 250 V |
| Rated operational voltage DC | 500 V |
| AC operating voltage (equal potential) |  |
| AC operating voltage (unequal potential) |  |
| Rated insulation voltage | (for simple apparatus: 40 V) |
| Rated insulation voltage note |  |

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## Electrical Data

| Rated operational current max. | 4 A |
| :--- | :--- |
| Rated operational current note | (for simple apparatus: 200 mA ; inductance $\mathrm{L}_{i}$ and capacitance $\mathrm{C}_{\mathrm{i}}$ are negligible) |
| Electrical service life | Max. $10^{6}$ operating cycles |
| Mechanical service life | Max. $10^{6}$ operating cycles |
| Rated surge voltage | 6 kV |
| Short-circuit protection, max. | 6 A |
| Tripping characteristic | $\mathrm{gL} / \mathrm{gG}$ |
| Maximum operating frequency | 1800 operating cycles/h |
| Switching function | Slow-action contact |
| Ambient Conditions |  |


| Ambient temperature | $-60^{\circ} \mathrm{C} \ldots+55^{\circ} \mathrm{C}$ (Max. 4 A$)$ |
| :--- | :--- |
|  | $-20^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}($ IP67 (EN 60529)) (Max. 2 A$)$ |
|  | $-60^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}($ Max. 2 A$)$ |
| Ambient temperature | $-60^{\circ} \mathrm{C} \ldots+55^{\circ} \mathrm{C}$ (Max. 4 A) |
|  | $-60^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}$ (Max. 2 A) |

## Mechanical Data

| Version | 2nd generation |
| :--- | :--- |
| Degree of protection (IP) | IP66 |
| Degree of protection (IP) IEC 60529) <br> note | down to $-20^{\circ} \mathrm{C}$ |
| Degree of protection (IP) (IEC 60529) | IP67 |
| Enclosure material | Thermoplast GF, impact resistant |
| Enclosure colour | Black |
| Cover material | Duroplast GF, impact resistant |
| Contact material | Silver-nickel |
| Solid connection cross section | $0.75-1.5 \mathrm{~mm}^{2}$ |
| Finely stranded connection cross section | $0.75-1.5 \mathrm{~mm}^{2}$ |
| Number of NCs | 1 |
| Positive opening operation | No |
| Number of NOs | 1 |
| Actuator | Rod lever |
| Clamping range | $7 \ldots 13$ mm |
| Type of connection cable | Finely stranded |
| Contacts | 1 NC + 1 NO |
| Contact system | 2 -pole, galvanically separated, with double break |
| Contact opening | $\geq 1.5 \mathrm{~mm}$ (isolating distance $\geq 3 \mathrm{~mm}$ ) |
| Seal | Silicone |
| Packaging unit | 1 |
| Weight | 242 g |
| Weight | 0.53 lb |

## Mounting / Installation

| Connection | Cable entry $81611 \times \mathrm{M} 20 \times 1.5$ |
| :--- | :--- |
| Tightening torque | Screw terminals: Max. 0.4 Nm ; cover screws: 1.5 to 2 Nm ; cable entries: See installation |

## Components

| Cable glands and entries | $1 \times \mathrm{M} 20 \varnothing 7$ to 13 mm |
| :--- | :--- |

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## Components

| Material cable gland | Polyamide, Glass fibre reinforced |
| :--- | :--- |

Dimensional Drawings (All Dimensions in mm [inches]) - Subject to Alterations


Rod lever 8070/2-DD-U60

## Accessories

| Plastic cable gland |  | Art. No. |
| :--- | :--- | :--- |
|  | $8161 / 7-M 20-1307$, Ex e <br> Plastic, M20 x 1.5, cable outer diameter 7 to 13 mm <br> Lot size 50 pieces | 239172 |
|  |  |  |

## Spare Parts

| Actuator |  | Art. No. |
| :---: | :---: | :---: |
| 9 | Rod lever actuator | 275369 |
|  |  |  |

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.

