

8060/2-4-R-60 Art. No. 268417



- Large temperature range of use
- Plastic Ex e enclosure
- Degree of protection IP66/67
- Five different contact versions
- Different actuator versions which can be repositioned by 4 x 90°
- Can also be used as simple apparatus

MY R. STAHL 8060B



Position switches are used to position, control and monitor the moving parts on machines and systems. Because they meet the requirements of the EN 50 047 and IEC 60947-5-1 product standards, they can also be used as a position switch with a safety function. Series 8060/2 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  $\ominus$  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

|                                 |                                                                  |
|---------------------------------|------------------------------------------------------------------|
| Area of application             | European Union (ATEX)                                            |
| Application range (zones)       | 1, 2, 21, 22                                                     |
| IECEx gas certificate           | IECEx BVS 16.0066                                                |
| IECEx gas explosion protection  | Ex db eb IIC T6 Gb                                               |
| IECEx dust certificate          | IECEx BVS 16.0066                                                |
| IECEx dust explosion protection | Ex tb IIIC T80 °C Db                                             |
| ATEX gas certificate            | BVS 16 ATEX E 100                                                |
| ATEX gas explosion protection   | II 2 G Ex db eb IIC T6 Gb                                        |
| ATEX dust certificate           | BVS 16 ATEX E 100                                                |
| ATEX dust explosion protection  | II 2 D Ex tb IIIC T80 °C Db                                      |
| Certificates                    | ATEX (BVS), China (CQST), IECEx (BVS), India (PESO), Korea (KGS) |
| Declaration of conformity       | ATEX (EUK), ATEX (Simple apparatus), China (CCC)                 |

#### Electrical Data

|                                          |                                                                                       |
|------------------------------------------|---------------------------------------------------------------------------------------|
| DC rated operational voltage             | 125 V                                                                                 |
| AC operating voltage (equal potential)   | 400 V                                                                                 |
| AC operating voltage (unequal potential) | 250 V                                                                                 |
| Rated insulation voltage                 | 500 V                                                                                 |
| Rated insulation voltage note            | (for simple apparatus: 40 V)                                                          |
| Rated operational current max.           | 4 A                                                                                   |
| Rated operational current note           | (for simple apparatus: 200 mA; inductance $L_i$ and capacitance $C_i$ are negligible) |
| Electrical service life                  | Max. 10 <sup>6</sup> operating cycles                                                 |
| Mechanical service life                  | Max. 10 <sup>6</sup> operating cycles                                                 |

8060/2-4-R-60 Art. No. 268417

### Electrical Data

|                               |                         |
|-------------------------------|-------------------------|
| Rated surge voltage           | 6 kV                    |
| Max. short-circuit protection | 6 A                     |
| Tripping characteristic       | gL/gG                   |
| Maximum operating frequency   | 1800 operating cycles/h |
| Switching function            | Slow-action contact     |

### Ambient Conditions

|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| Ambient temperature | -60 °C ... +55 °C (Max. 4 A)<br>-60 °C ... +60 °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 °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 mm <sup>2</sup>        |
| Finely stranded connection cross section     | 0.75 – 1.5 mm <sup>2</sup>        |
| Positive opening operation                   | No                                |
| Positive opening contact note                | Not suitable for safety circuits! |
| Number of NOs                                | 2                                 |
| Seal                                         | Silicone                          |
| Actuator                                     | Roller plunger                    |
| Clamping range                               | 7 ... 13 mm                       |
| Type of connection cable                     | Finely stranded                   |
| Contacts                                     | 2 NO                              |
| Packaging unit                               | 1                                 |
| Weight                                       | 100 g                             |
| Weight                                       | 0.22 lb                           |

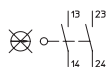
### Mounting / Installation

|            |                            |
|------------|----------------------------|
| Connection | Cable entry 8161 1xM20x1.5 |
|------------|----------------------------|

### Components

|                          |                                   |
|--------------------------|-----------------------------------|
| Cable glands and entries | 1 x M20 Ø 7 ... 13 mm             |
| Material cable gland     | Polyamide, Glass fibre reinforced |

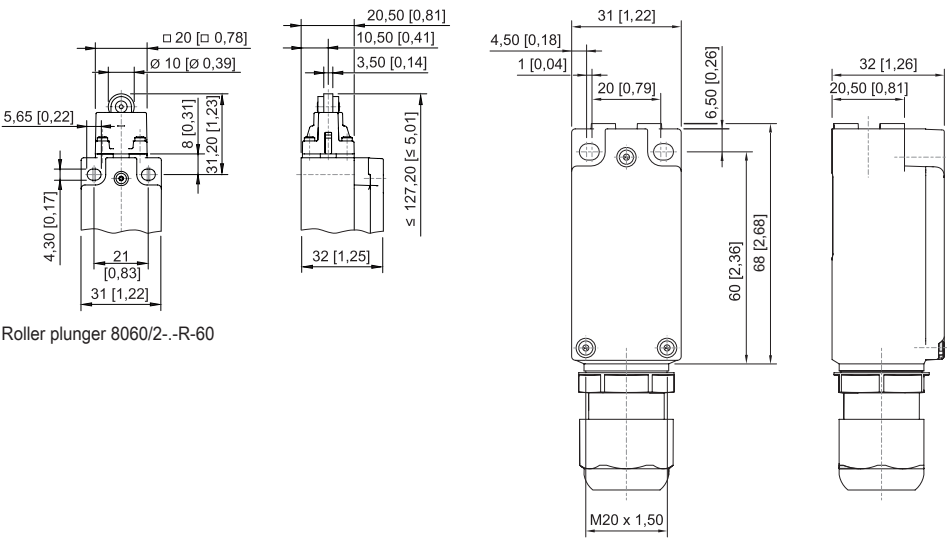
### Technical Drawings – Subject to Alterations



Slow-action contact, 2 NOs  
8060/-4; 807./2-4

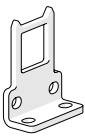
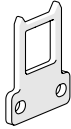
8060/2-4-R-60    Art. No. 268417

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

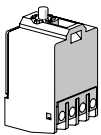
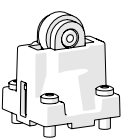


Roller plunger 8060/2-.-R-60

Accessories

| Actuator                                                                           |                                                                                   | Art. No. |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------|
|  | Bent actuator, for 8060/2-.-AZ                                                    | 257053   |
|  | Straight actuator, for 8060/2-.-AZ                                                | 257052   |
| Plastic cable gland                                                                |                                                                                   | Art. No. |
|  | 8161/7-M20-1304, Ex e<br>Polyamide, M20 x 1,5 mm, 4 – 13 mm<br>Lot size 50 pieces | 239156   |

Spare Parts

| Contact element                                                                    |                                   | Art. No. |
|------------------------------------------------------------------------------------|-----------------------------------|----------|
|  | 2 NO slow-action contact 8080/1-4 | 132533   |
| Actuator                                                                           |                                   | Art. No. |
|  | Roller plunger actuator           | 257054   |

8060/2-4-R-60    Art. No. 268417

| Actuator |                                                                                                                                                                                                                         | Art. No. |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|          | <b>Attention:</b> Actuators and switches are factory-matched. Only the identical actuator of the original switch may be selected from the spare parts table. If a different actuator is used, a new switch is required. |          |

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.