# DATASHEET




## AZM 170-02ZRIA-B6R 24VAC/DC

- 1 Cable entry M 20 x 1.5
- IDC method of termination
- Manual release
- Double-insulated
- Individual coding
- Coding level "High" according to ISO 14119
- 90 mm x 84 mm x 30 mm
- Compact design
- Interlock with protection against incorrect locking.
- Long life
- High holding force
- right-hand model
- For very smal actuating radii in line with or at 90° to the plane of the actuator

## Data

### Ordering data

| | |
|---|---|
| Product type description | AZM 170-02ZRIA-B6R 24VAC/DC |
| Article number (order number) | 101140808 |
| EAN (European Article Number) | 4030661119960 |
| eCl@ss number, version 12.0 | 27-27-26-03 |
| eCl@ss number, version 11.0 | 27-27-26-03 |
| eCl@ss number, version 9.0 | 27-27-26-03 |
| ETIM number, version 7.0 | EC002593 |
| ETIM number, version 6.0 | EC002593 |

### Approvals - Standards

| | |
|---|---|
| Certificates | IFA<br>cULus<br>CCC |

## General data

| | |
|---|---|
| Standards | BG-GS-ET-19<br>EN ISO 13849-1<br>EN ISO 14119<br>EN IEC 60947-5-1 |
| Coding | Individual coding |
| Coding level according to EN ISO 14119 | High |
| Working principle | electromechanical |
| Housing material | Plastic, glass-fibre reinforced thermoplastic, self-extinguishing |
| Material of the actuator | Stainless steel |
| Gross weight | 310 g |

## General data - Features

| | |
|---|---|
| Power to lock | Yes |
| Manual release | Yes |
| Number of actuating directions | 2 |
| Number of safety contacts | 2 |

### Safety classification

| | |
|---|---|
| Standards | EN ISO 13849-1 |
| Performance Level, up to | c |
| Category | 1 |
| $B_{10D}$ Normally-closed contact (NC) | 2,000,000 Operations |
| Mission time | 20 Year(s) |

### Safety classification - Fault exclusion

| | |
|---|---|
| Please note: | Can be used when fault exclusion for dangerous damage to the 1-channel mechanism is permissible and sufficient protection against manipulation is guaranteed. |

| | |
|---|---|
| Performance Level, up to | d |
| Category | 3 |
| Note | for 2-channel use and with suitable logic unit. |
| Mission time | 20 Year(s) |

## Mechanical data

| | |
|---|---|
| Actuating radius, minimum | 50 mm |
| Mechanical life, minimum | 1,000,000 Operations |
| Holding force $F_{Zh}$ in accordance with EN ISO 14119 | 1,000 N |
| Holding force $F_{max}$, maximum | 1,300 N |
| Latching force | 30 N |
| Positive break travel | 11 mm |
| Positive break force per NC contact, minimum | 8.5 N |
| Positive break force, minimum | 17 N |
| Actuating speed, maximum | 2 m/s |
| Mounting | Screws |
| Type of the fixing screws | 2x M5 |
| Tightening torque of the fastening screws for the housing cover, minimum | 0.7 Nm |
| Tightening torque of the fastening screws for the housing cover, maximum | 1 Nm |
| Note | Torx T10 |

## Mechanical data - Connection technique

| | |
|---|---|
| Cable entry | 1 x M20 x 1,5 |
| Termination | IDC method of termination |
| Cable section, minimum | 0.75 mm² |
| Cable section, maximum | 1 mm² |
| Allowed type of cable | flexible |

## Mechanical data - Dimensions

| | |
|---|---|
| Length of sensor | 30 mm |
| Width of sensor | 90 mm |
| Height of sensor | 84 mm |

## Ambient conditions

| | |
|---|---|
| Degree of protection | IP67 |
| Ambient temperature | -25 ... +60 °C |
| Storage and transport temperature | -25 ... +85 °C |
| Note (Relative humidity) | non-condensing<br>non-icing |
| Protection class | II |
| Permissible installation altitude above sea level, maximum | 2,000 m |

## Ambient conditions - Insulation values

| | |
|---|---|
| Rated insulation voltage $U_i$ | 250 VAC |
| Rated impulse withstand voltage $U_{imp}$ | 4 kV |
| Overvoltage category | III |
| Degree of pollution | 3 |

## Electrical data

| | |
|---|---|
| Thermal test current | 6 A |
| Rated control voltage | 24 VAC/DC |
| Required rated short-circuit current | 1,000 A |
| Electrical power consumption, maximum | 12 W |
| Switching element | 2 NC contact |
| Note (Switching element) | Change-over contact with double break, type Zb or 2 NC or 3 NC or 4 NC contacts, with galvanically separated contact bridges |

| | |
|---|---|
| Switching principle | slow action, positive break NC contact |
| Maximum switching frequency | 1,000 /h |
| Material of the contacts, electrical | Silver |

## Electrical data - Magnet control

| | |
|---|---|
| Magnet switch-on time | 100 % |
| Test pulse duration, maximum | 5 ms |
| Test pulse interval, minimum | 50 ms |

## Electrical data - Safety contacts

| | |
|---|---|
| Voltage, Utilisation category AC-15 | 230 VAC |
| Current, Utilisation category AC-15 | 4 A |
| Voltage, Utilisation category DC-13 | 24 VDC |
| Current, Utilisation category DC-13 | 4 A |

## Other data

| | |
|---|---|
| Note (applications) | sliding safety guard<br>removable guard<br>hinged safety guard |

## Scope of delivery

| | |
|---|---|
| Scope of delivery | Not available as spare part<br>Slot sealing plugs<br>The actuator is included in the scope of delivery |

## Note

| | |
|---|---|
| Note (General) | This type termination (IDC) method enables simple connetion of flexible conductors without the need for the use of conductor ferrules<br>The actuator is not available separately. |
| Note (Manual release) | bottom<br>For manual release using M5 triangular key, available as accessory |

## Ordering code

Product type description:
AZM 170(1)-(2)Z(3)I(4)-(5)-(6)-(7) (8)

(1)

| | |
|---|---|
| **without** | Cut clamps |
| **SK** | Screw connection |

(2)

| | |
|---|---|
| **11** | 1 NO contact/1 NC contact |
| **02** | 2 NC contact |

(3)

| | |
|---|---|
| **without** | Latching force 5 N |
| **R** | Latching force 30 N |
| **I** | Individual coding |

(4)

| | |
|---|---|
| **without** | Power to unlock |
| **A** | Power to lock |

(5)

| | |
|---|---|
| **without** | cable gland |
| **ST** | M12 x 1 connector |

(6)

| | |
|---|---|
| **B1** | with actuator B1 |
| **B5** | with actuator B5 |
| **B6L** | with actuator B6L |
| **B6R** | with actuator B6R |

(7)

| | |
|---|---|
| **without** | Manual release |

| | |
|---|---|
| **2197** | Manual release from side (Standard in case of conector and power to unlock versions) |
| **1637** | Gold-plated contacts |

(8)

| | |
|---|---|
| **24VAC/DC** | Us 24 VAC/DC |
| **110VAC** | Us 110 VAC |
| **230VAC** | Us 230 VAC |

(1)

| | |
|---|---|
| **11/11** | 1 NO contact, 1 NC contact / 1 NO contact 1, NC contact |
| **11/02** | 1 NO contact, 1 NC contact / 2 NC contacts |
| **12/00** | 1 NO contact, 2 NC contacts / - |
| **12/11** | 1 NO contact, 2 NC contact / 1 NO contact 1, NC contact |
| **12/02** | 1 NO contact, 2 NC contact / 2 NC contacts |
| **02/01** | 2 NC contacts / 1 NC contact |
| **02/10** | 2 NC contacts, - / 1 NO contact |

(2)

| | |
|---|---|
| **without** | Latching force 5 N |
| **R** | Latching force 30 N |

(3)

| | |
|---|---|
| **without** | Power to unlock |
| **A** | Power to lock |

(4)

| | |
|---|---|
| **B1** | with actuator B1 |
| **B5** | with actuator B5 |
| **B6L** | with actuator B6L |
| **B6R** | with actuator B6R |

(5)

| | |
|---|---|
| **1637** | Gold-plated contacts |

(6)

| | |
|---|---|
| **2197** | Manual release for Power to unlock |

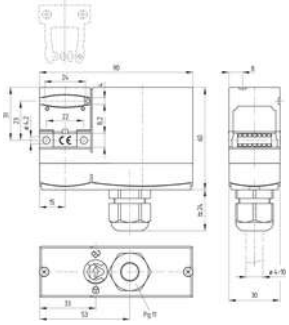
# Pictures

## Product picture (catalogue individual photo)



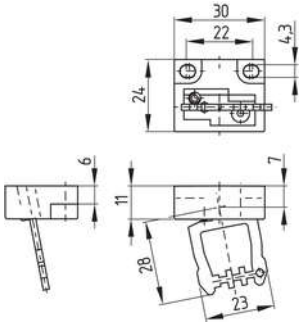

ID: kazm1fi3
| 595.8 kB | .jpg | 262.114 x 331.258 mm - 743 x 939 px - 72 dpi
| 49.6 kB | .png | 74.083 x 93.486 mm - 210 x 265 px - 72 dpi
| 54.5 kB | .jpg | 97.719 x 123.472 mm - 277 x 350 px - 72 dpi

## Dimensional drawing basic component



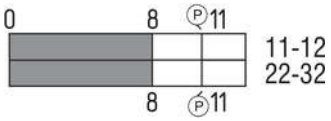
ID: kazm1gi3
| 106.0 kB | .cdr |
| 6.2 kB | .png | 74.083 x 83.961 mm - 210 x 238 px - 72 dpi
| 195.9 kB | .jpg | 352.778 x 400.403 mm - 1000 x 1135 px - 72 dpi

## Dimensional drawing actuator



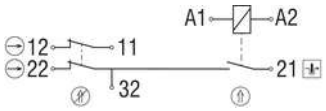

ID: 1az17b02
| 41.2 kB | .cdr |
| 148.6 kB | .jpg | 352.425 x 383.469 mm - 999 x 1087 px - 72 dpi
| 18.2 kB | .png | 74.083 x 80.433 mm - 210 x 228 px - 72 dpi

## Switch travel diagram




ID: kazm1s01
| 19.5 kB | .cdr |
| 1.8 kB | .png | 74.083 x 26.458 mm - 210 x 75 px - 72 dpi
| 49.4 kB | .jpg | 352.778 x 125.236 mm - 1000 x 355 px - 72 dpi

## Diagram

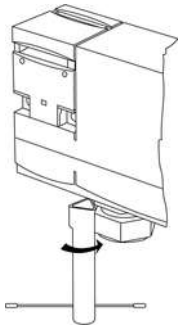



ID: kazm1k19
| 55.0 kB | .ai | 297 x 210.002 mm - 841 x 595 px - 72 dpi
| 46.7 kB | .jpg | 352.778 x 112.183 mm - 1000 x 318 px - 72 dpi
| 2.6 kB | .png | 74.083 x 23.636 mm - 210 x 67 px - 72 dpi

## Assembly example

ID: kazm1m06
| 98.4 kB | .cdr |

## Operating principle



ID: kazm1a70
| 213.5 kB | .jpg | 352.778 x 656.519 mm - 1000 x 1861 px - 72 dpi
| 6.5 kB | .png | 74.083 x 137.583 mm - 210 x 390 px - 72 dpi