



Position switch, 1N/O+1N/C, wide, IP65_x, roller plunger

Part no. AT4/11-S/IA/RS
Catalog No. 024230
Alternate Catalog No. AT4/11-S/IA/RS

Delivery program

| | | |
|---|----|--|
| Basic function | | Position switches Safety position switches |
| Part group reference | | AT4 |
| Product range | | Roller plunger |
| Degree of Protection | | IP65 |
| Features | | Complete unit |
| Ambient temperature | °C | -25 - +70 |
| Design | | EN 50041 Form C |
| Approval | | totally insulated |
| Contacts | | |
| N/O = Normally open | | 1 N/O |
| N/C = Normally closed | | 1 NC |
| Notes | | = safety function, by positive opening to IEC/EN 60947-5-1 |
| Contact sequence | | |
| Contact travel = Contact closed = Contact open | | Zw = 4.3 mm |
| Positive opening (ZW) | | yes |
| Colour | | |
| Enclosure covers | | Grey |
| Enclosure covers | | |
| Housing | | Insulated material |
| Connection type | | Screw terminal |
| Notes The operating head can be rotated at 90° intervals to adapt to the specified approach direction. For degree of protection IP65, use V-M20 (206910) cable glands with connecting thread of max. 9 mm length. | | |

Technical data

| | | |
|---------------------|----|--|
| General | | |
| Standards | | IEC/EN 60947 |
| Climatic proofing | | Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30 |
| Ambient temperature | °C | -25 - +70 |
| Mounting position | | As required |

| | | | |
|-----------------------|--|-----------------|--------------------------------------|
| Degree of Protection | | | IP65 |
| Terminal capacities | | mm ² | |
| Solid | | mm ² | 1 x (0.75 - 2.5) 2 x (0.75 - 1.5) |
| Flexible with ferrule | | mm ² | 1 x (0.5 - 1.5) 2 x (0.5 - 1.5) |
| Repetition accuracy | | mm | 0.02 |

Contacts/switching capacity

| | | | |
|--|------------------|---------|----------|
| Rated impulse withstand voltage | U _{imp} | V AC | 6000 |
| Rated insulation voltage | U _i | V | 500 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated operational current | I _e | A | |
| AC-15 | | | |
| 24 V | I _e | A | 10 |
| 220 V 230 V 240 V | I _e | A | 6 |
| 380 V 400 V 415 V | I _e | A | 4 |
| DC-13 | | | |
| 24 V | I _e | A | 10 |
| 110 V | I _e | A | 1 |
| 220 V | I _e | A | 0.5 |
| Supply frequency | | Hz | max. 400 |
| Short-circuit rating to IEC/EN 60947-5-1 | | | |
| max. fuse | | A gG/gL | 6 |

Mechanical variables

| | | | |
|--|--------------|-------------------|--------|
| Lifespan, mechanical | Operations | x 10 ⁶ | 8 |
| Contact temperature of roller head | | °C | ≤ 100 |
| Mechanical shock resistance (half-sinusoidal shock, 20 ms) | | | |
| Standard-action contact | | g | 5 |
| Snap-action contact | | g | 2 |
| Operating frequency | Operations/h | | ≤ 6000 |

Actuation

| | | | |
|--|--|-----|-----------------------------------|
| Mechanical | | | |
| Actuating force at beginning/end of stroke | | N | 8.0/20.0 |
| Actuating torque of rotary drives | | Nm | 0.3 |
| Max. operating speed with DIN cam | | m/s | 0.5/0.5 |
| Notes | | | for angle of actuation α = 0°/30° |

Design verification as per IEC/EN 61439

| | | | |
|--|-------------------|----|--|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I _n | A | 6 |
| Heat dissipation per pole, current-dependent | P _{vid} | W | 0.1 |
| Equipment heat dissipation, current-dependent | P _{vid} | W | 0 |
| Static heat dissipation, non-current-dependent | P _{vs} | W | 0 |
| Heat dissipation capacity | P _{diss} | W | 0 |
| Operating ambient temperature min. | | °C | -25 |
| Operating ambient temperature max. | | °C | 70 |
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 10.2.2 Corrosion resistance | | | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures | | | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | | Meets the product standard's requirements. |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects | | | Meets the product standard's requirements. |
| 10.2.4 Resistance to ultra-violet (UV) radiation | | | Meets the product standard's requirements. |
| 10.2.5 Lifting | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact | | | Does not apply, since the entire switchgear needs to be evaluated. |

| | | | |
|--|--|--|--|
| 10.2.7 Inscriptions | | | Meets the product standard's requirements. |
| 10.3 Degree of protection of ASSEMBLIES | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances | | | Meets the product standard's requirements. |
| 10.5 Protection against electric shock | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components | | | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections | | | Is the panel builder's responsibility. |
| 10.8 Connections for external conductors | | | Is the panel builder's responsibility. |
| 10.9 Insulation properties | | | |
| 10.9.2 Power-frequency electric strength | | | Is the panel builder's responsibility. |
| 10.9.3 Impulse withstand voltage | | | Is the panel builder's responsibility. |
| 10.9.4 Testing of enclosures made of insulating material | | | Is the panel builder's responsibility. |
| 10.10 Temperature rise | | | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating | | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.12 Electromagnetic compatibility | | | Is the panel builder's responsibility. The specifications for the switchgear must be observed. |
| 10.13 Mechanical function | | | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |

Technical data ETIM 8.0

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|--|----|--|----------------------|
| Sensors (EG000026) / End switch (EC000030) | | | |
| Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Safety-related position switch / Safety position switch (Type 1) (ecI@ss10.0.1-27-27-26-01 [AKE640013]) | | | |
| Width sensor | mm | | 56 |
| Diameter sensor | mm | | 0 |
| Height of sensor | mm | | 83 |
| Length of sensor | mm | | 0 |
| Rated operation current I _e at AC-15, 24 V | A | | 10 |
| Rated operation current I _e at AC-15, 125 V | A | | 0 |
| Rated operation current I _e at AC-15, 230 V | A | | 6 |
| Rated operation current I _e at DC-13, 24 V | A | | 10 |
| Rated operation current I _e at DC-13, 125 V | A | | 1 |
| Rated operation current I _e at DC-13, 230 V | A | | 0.4 |
| Switching function | | | Quick-break switch |
| Switching function latching | | | No |
| Output electronic | | | No |
| Forced opening | | | Yes |
| Number of safety auxiliary contacts | | | 1 |
| Number of contacts as normally closed contact | | | 1 |
| Number of contacts as normally open contact | | | 1 |
| Number of contacts as change-over contact | | | 0 |
| Type of interface | | | None |
| Type of interface for safety communication | | | None |
| Construction type housing | | | Cuboid |
| Material housing | | | Plastic |
| Coating housing | | | Other |
| Type of control element | | | Roller cam |
| Alignment of the control element | | | Other |
| Type of electric connection | | | Cable entry metrical |
| With status indication | | | No |
| Suitable for safety functions | | | Yes |
| Explosion safety category for gas | | | None |
| Explosion safety category for dust | | | None |
| Ambient temperature during operating | °C | | -25 - 70 |
| Degree of protection (IP) | | | IP65 |
| Degree of protection (NEMA) | | | 3R, 4X, 13 |

Approvals

| | | | |
|--------------------------------------|--|--|--|
| Product Standards | | | UL 508; CSA-C22.2 No. 14; IEC/EN 60947-4-1; CE marking |
| UL File No. | | | E29184 |
| UL Category Control No. | | | NKCR |
| CSA File No. | | | 12528 |
| CSA Class No. | | | 3211-03 |
| North America Certification | | | UL listed, CSA certified |
| Specially designed for North America | | | No |
| Suitable for | | | Branch circuits |
| Max. Voltage Rating | | | 600 V AC |
| Degree of Protection | | | UL: 1, 4X; CSA: 1, 3R, 4, 4X, 12, 13 |