

Position switch, 1N/O+1N/C, narrow, IP65\_x, actuating rod

Part no. AT4/11-S/I/H  
Catalog No. 076435  
Alternate Catalog No. AT4/11-S/I/H



## Delivery program

|                                                                                                                                                                                                                             |    |                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------------------------------|
| Basic function                                                                                                                                                                                                              |    | Position switches                          |
| Part group reference                                                                                                                                                                                                        |    | AT4                                        |
| Product range                                                                                                                                                                                                               |    | Actuating rod                              |
| Degree of Protection                                                                                                                                                                                                        |    | IP65                                       |
| Features                                                                                                                                                                                                                    |    | Complete unit                              |
| Ambient temperature                                                                                                                                                                                                         | °C | -25 - +70                                  |
| Design                                                                                                                                                                                                                      |    | EN 50041 Form D                            |
| Snap-action contact                                                                                                                                                                                                         |    | Yes                                        |
| Description                                                                                                                                                                                                                 |    | Not to be used as a safety position switch |
| Approval                                                                                                                                                                                                                    |    | <b>totally insulated</b>                   |
| <b>Contacts</b>                                                                                                                                                                                                             |    |                                            |
| N/O = Normally open                                                                                                                                                                                                         |    | 1 N/O                                      |
| N/C = Normally closed                                                                                                                                                                                                       |    | 1 NC                                       |
| Contact sequence                                                                                                                                                                                                            |    |                                            |
| Contact travel  = Contact closed  = Contact open                                                                                                                                                                            |    |                                            |
| <b>Colour</b>                                                                                                                                                                                                               |    |                                            |
| Enclosure covers                                                                                                                                                                                                            |    | Grey                                       |
| Enclosure covers                                                                                                                                                                                                            |    |                                            |
| Housing                                                                                                                                                                                                                     |    | Insulated material                         |
| Connection type                                                                                                                                                                                                             |    | Screw terminal                             |
| <b>Notes</b> The operating head can be rotated at 90° intervals to adapt to the specified approach direction.<br>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 <sup>2</sup> |                                                                                |
| Solid                 |  | mm <sup>2</sup> | 1 x (0.75 - 2.5)<br>2 x (0.75 - 1.5)                                           |
| Flexible with ferrule |  | mm <sup>2</sup> | 1 x (0.5 - 1.5)<br>2 x (0.5 - 1.5)                                             |
| Repetition accuracy   |  | mm              | 0.02                                                                           |

### Contacts/switching capacity

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

### Mechanical variables

|                                                            |              |                   |        |
|------------------------------------------------------------|--------------|-------------------|--------|
| Lifespan, mechanical                                       | Operations   | x 10 <sup>6</sup> | 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 | 1.4        |
| <b>Notes</b>                               |  |     | L = 130 mm |

## Design verification as per IEC/EN 61439

|                                                          |                   |    |     |
|----------------------------------------------------------|-------------------|----|-----|
| Technical data for design verification                   |                   |    |     |
| Rated operational current for specified heat dissipation | I <sub>n</sub>    | A  | 6   |
| Heat dissipation per pole, current-dependent             | P <sub>vid</sub>  | W  | 0.1 |
| Equipment heat dissipation, current-dependent            | P <sub>vid</sub>  | W  | 0   |
| Static heat dissipation, non-current-dependent           | P <sub>vs</sub>   | W  | 0   |
| Heat dissipation capacity                                | P <sub>diss</sub> | 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 7.0

|                                                                                                                                                                                                                  |    |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------|
| Sensors (EG000026) / End switch (EC000030)                                                                                                                                                                       |    |                    |
| Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch / Position switch (Type 1)<br>(ec@ss10.0.1-27-27-06-01 [AGZ382015]) |    |                    |
| Width sensor                                                                                                                                                                                                     | mm | 40                 |
| Diameter sensor                                                                                                                                                                                                  | mm | 0                  |
| Height of sensor                                                                                                                                                                                                 | mm | 83                 |
| Length of sensor                                                                                                                                                                                                 | mm | 0                  |
| Rated operation current I <sub>e</sub> at AC-15, 24 V                                                                                                                                                            | A  | 10                 |
| Rated operation current I <sub>e</sub> at AC-15, 125 V                                                                                                                                                           | A  | 0                  |
| Rated operation current I <sub>e</sub> at AC-15, 230 V                                                                                                                                                           | A  | 6                  |
| Rated operation current I <sub>e</sub> at DC-13, 24 V                                                                                                                                                            | A  | 10                 |
| Rated operation current I <sub>e</sub> at DC-13, 125 V                                                                                                                                                           | A  | 1                  |
| Rated operation current I <sub>e</sub> 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                                                                                                                                                                                          |    | Actuating rod      |
| Alignment of the control element                                                                                                                                                                                 |    | Other              |
| Type of electric connection                                                                                                                                                                                      |    | Other              |

|                                      |    |         |
|--------------------------------------|----|---------|
| 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)          |    | Other   |

## 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                   |