



Position switch, 1early N/O+1late N/C, narrow, IP65\_x, roller lever

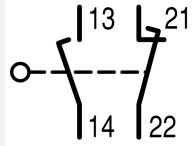
Part no. AT4/11-2/I/R316  
 Catalog No. 085926  
 Eaton Catalog No. AT4/11-2/I/R316  
 EL-Nummer 4355807  
 (Norway)

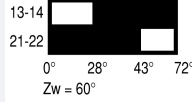
**Delivery program**

|                      |  |    |   |
|----------------------|--|----|---|
| Basic function       |  |    | Position switches<br>Safety position switches |
| Part group reference |  |    | AT4   |
| Product range        |  |    | Rotary lever                                  |
| Degree of Protection |  |    | IP65  |
| Features             |  |    | Complete unit                                 |
| Ambient temperature  |  | °C | -25 - +70                                     |
| Design               |  |    | EN 50041 Form A                               |
| Snap-action contact  |  |    | Yes   |
| Approval             |  |    | <b>totally insulated</b>                      |

**Contacts**

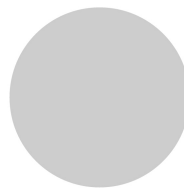
|                       |  |  |  |
|-----------------------|--|--|--|
| N/O = Normally open   |  |  | 1 N/O  |
| N/C = Normally closed |  |  | 1 NC    |
| Notes                 |  |  |  = safety function, by positive opening to IEC/EN 60947-5-1 |

|                  |  |  |  |
|------------------|--|--|--|
| Contact sequence |  |  |  |
|------------------|--|--|--|

|  |  |  |  |
|--|--|--|--|
| Contact travel: <input checked="" type="checkbox"/> = Contact closed <input type="checkbox"/> = Contact open |  |  |  |
|--|--|--|--|

|                       |  |  |     |
|-----------------------|--|--|-----|
| 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**

|                     |  |    |  |
|---------------------|--|----|--|
| 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)   |

### 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        |
| Repetition accuracy                      |                  | mm      | 0.02     |
| 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      |

## 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)  
(ecl@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                                     |    | Slow-action 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                                |    | Rotary lever       |
| 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                   |

## Additional product information (links)

|   |   |
|---|---|
| <b>IL05208012Z (AWA1310-0544) Position switch</b> |   |
| IL05208012Z (AWA1310-0544) Position switch        | <a href="ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208012Z2018_06.pdf">ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208012Z2018_06.pdf</a> |