



**Contact element 2 N/C 1 N/O, front mount, screw connection, self-monitoring**

**EATON**  
Powering Business Worldwide™

**Part no.** M22-AK12SMC10  
**Catalog No.** 173027  
**Alternate Catalog No.** M22-K12SMC10  
**EL-Nummer (Norway)** 4315276

## Delivery program

|  |   |   |       |
|--|---|---|-------|
| Basic function accessories   | Self-monitoring contact elements  |   |       |
| Description  | Combination of contact element and self-monitoring contact element M22-K01SMC10 with screw terminals, M22-A mounting adapter, and M22-XSMC signaling contact actuator. The N/O in the self-monitoring contact element is actuated when mounted with M22-XSMC. |   |       |
| Connection technique   | Screw terminals   |   |       |
| Fixing   | Front fixing  |   |       |
| Degree of Protection   | IP20  |   |       |
| Connection to SmartWire-DT   | no  |   |       |
| Approval   |   |   |       |
| <b>Contacts</b>  | N/O = Normally open<br>N/C = Normally closed<br>Notes<br><b>Actuator travel and actuation force as per DIN EN 60947-5-1, K.5.4.1</b>  |   |       |
| Minimum force for positive opening                                     | N   | 0 | 2 N/O |
| Contact sequence   |   |   |       |
| <b>Contact travel diagram, stroke in connection with front element</b> |   |   |       |
| Connection technique   | Screw terminals   |   |       |

## Technical data

| <b>General</b>                     |    |  |               |
|------------------------------------|----|--|---------------|
| Standards                          |    |  | IEC 60947-5-1 |
| Actuating force                    | n  | ≤ 15   |               |
| Operating torque (screw terminals) | Nm | ≤ 0.8  |               |
| Degree of Protection               |    | IP20   |               |
| Climatic proofing                  |    | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |               |

|                       |  |                 |            |
|-----------------------|--|-----------------|------------|
| Ambient temperature   |  | °C              | -25 - +70  |
| Open                  |  | mm <sup>2</sup> |            |
| Terminal capacities   |  | mm <sup>2</sup> |            |
| Solid                 |  | mm <sup>2</sup> | 0.75 - 2.5 |
| Stranded              |  | mm <sup>2</sup> | 0.5 - 2.5  |
| Flexible with ferrule |  | mm <sup>2</sup> | 0.5 - 1.5  |

### Contacts

|                                       |                  |      |                   |
|---------------------------------------|------------------|------|-------------------|
| Rated impulse withstand voltage       | U <sub>imp</sub> | V AC | 6000              |
| Rated insulation voltage              | U <sub>i</sub>   | V    | 500               |
| Overtoltage category/pollution degree |                  |      | III/3             |
| Max. short-circuit protective device  |                  |      |                   |
| Fuseless                              |                  | Type | PKZM0-10/FAZ-B6/1 |
| Fuse                                  | gG/gL            | A    | 10                |

### Switching capacity

|                           |                |   |     |
|---------------------------|----------------|---|-----|
| Rated operational current | I <sub>e</sub> | A |     |
| AC-15                     |                |   |     |
| 115 V                     | I <sub>e</sub> | A | 6   |
| 220 V 230 V 240 V         | I <sub>e</sub> | A | 6   |
| 380 V 400 V 415 V         | I <sub>e</sub> | A | 4   |
| 500 V                     | I <sub>e</sub> | A | 2   |
| DC-13                     |                |   |     |
| 24 V                      | I <sub>e</sub> | A | 3   |
| 42 V                      | I <sub>e</sub> | A | 1.7 |
| 60 V                      | I <sub>e</sub> | A | 1.2 |
| 110 V                     | I <sub>e</sub> | A | 0.6 |
| 220 V                     | I <sub>e</sub> | A | 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  | 0.11   |
| 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

Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ec1@ss10.0.1-27-37-13-02 [AKN342013])

|   |   |                  |
|---|---|------------------|
| Number of contacts as change-over contact     |   | 0                |
| Number of contacts as normally open contact   |   | 1                |
| Number of contacts as normally closed contact |   | 2                |
| Number of fault-signal switches               |   | 0                |
| Rated operation current Ie at AC-15, 230 V    | A | 6                |
| Type of electric connection                   |   | Screw connection |
| Model   |   | Top mounting     |
| Mounting method                               |   | Front fastening  |
| Lamp holder                                   |   | None             |

## Approvals

|                             |  |
|-----------------------------|--|
| Product Standards           | IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking |
| UL File No.                 | E340491  |
| UL Category Control No.     | NISD   |
| CSA File No.                | 012528_C_000   |
| CSA Class No.               | 3211-03  |
| North America Certification | UL listed, CSA certified   |

## Assets (links)

### Declaration of CE Conformity

00003256

### Instruction Leaflets

IL04716005Z2018\_07