#### DATASHEET - M22-KC10



Contact element, 1N/O, base fixing, 6. contact, screw connection





#### **Delivery program**

| Derivery program  |   |
|---|---|
| Basic function accessories                                      | Contact elements                                |
| Connection technique  | Screw terminals                                 |
| Fixing  | Base fixing                                     |
| Degree of Protection  | IP20  |
| Connection to SmartWire-DT                                      | no  |
| Approval  | ET 16107<br>Sicherheit geprüft<br>tested safety |
| Contacts  |   |
| N/O = Normally open   | 1 N/O   |
| Contact sequence  | <b>I</b> .3<br><b>I</b> .4                      |
| Contact travel diagram, stroke in connection with front element |   |
| Contact diagram   | 0 2.8 5.5                                       |
| Configuration   | 2 3 1   |
| Connection type   | Single contact                                  |
| Connection technique  | Screw terminals                                 |
| Notes   |   |
| Up to 3 off per enclosure base                                  |   |

### Technical data

| General  |  |  |   |
|--|--|--|---|
| Standards  |  |  | IEC 60947-5-1   |
| Lifespan, mechanical   | Operations   | x 10 <sup>6</sup>  | >5  |
| Operating frequency  | Operations/h   |  | ≦ 3600  |
| Actuating force  |  | n  | ≦ 5   |
| 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  |  |  |   |
| Open   |  | °C   | -25 - +70   |
| Mechanical shock resistance to IEC 60068-2-27 Shock duration 11 ms, half-<br>sinusoidal  |  | g  | > 30  |
| 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   | Ui   | V  | 500   |
| Overvoltage category/pollution degree  |  |  | 111/3   |
| Control circuit reliability  |  |  |   |
| at 24 V DC/5 mA  | H <sub>F</sub>   | Fault<br>probabilit  | < 10 <sup>-7</sup> (i.e. 1 failure to 10 <sup>7</sup> operations)   |
| at 5 V DC/1 mA   | H <sub>F</sub>   | Fault<br>probabilit  | $< 5 \times 10^{-6}$ (i.e. 1 failure in 5 x 10 <sup>6</sup> operations)   |
| Max. short-circuit protective device   |  |  |   |
| Fuseless   |  | Туре   | PKZM0-10/FAZ-B6/1   |
| Fuse   | gG/gL  | А  | 10  |
|  |  |  |   |
| Switching capacity   |  |  |   |
|  | l <sub>e</sub>   | A  |   |
| Switching capacity   | I <sub>e</sub>   | A  |   |
| Switching capacity<br>Rated operational current  | l <sub>e</sub><br>l <sub>e</sub>   | A<br>A   | 6   |
| Switching capacity<br>Rated operational current<br>AC-15   |  |  | 6   |
| Switching capacity<br>Rated operational current<br>AC-15<br>115 V  | I <sub>e</sub>   | A  |   |
| Switching capacity Rated operational current AC-15 115 V 220 V 230 V 240 V   | l <sub>e</sub><br>l <sub>e</sub>   | A<br>A   | 6   |
| Switching capacity<br>Rated operational current<br>AC-15<br>115 V<br>220 V 230 V 240 V<br>380 V 400 V 415 V  | l <sub>e</sub><br>l <sub>e</sub><br>l <sub>e</sub>   | A<br>A<br>A  | 6<br>4  |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V   | l <sub>e</sub><br>l <sub>e</sub><br>l <sub>e</sub>   | A<br>A<br>A  | 6<br>4  |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13   | le<br>le<br>le   | A<br>A<br>A<br>A   | 6<br>4<br>2   |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V  | le<br>le<br>le   | A<br>A<br>A<br>A   | 6<br>4<br>2<br>3  |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           42 V   | <sub>e</sub><br>  <sub>e</sub><br>  <sub>e</sub><br>  <sub>e</sub><br>  <sub>e</sub>                 | A<br>A<br>A<br>A<br>A<br>A<br>A  | 6<br>4<br>2<br>3<br>1.7   |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           42 V           60 V  | I e<br>I e<br>I e<br>I e<br>I e<br>I e<br>I e<br>I e   | A<br>A<br>A<br>A<br>A<br>A<br>A  | 6<br>4<br>2<br>3<br>1.7<br>1.2  |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           42 V           60 V           110 V           220 V  | <sub>e</sub><br>  <sub>e</sub><br>  <sub>e</sub><br>  <sub>e</sub><br>  <sub>e</sub>                 | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A  | 6         4         2         3         1.7         1.2         0.6   |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           60 V           110 V           220 V           Lifespan, electrical  | I e<br>I e<br>I e<br>I e<br>I e<br>I e<br>I e<br>I e   | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A  | 6         4         2         3         1.7         1.2         0.6   |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           42 V           60 V           110 V           220 V  | e<br> e<br> e<br> e<br> e<br> e  | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A   | 6         4         2         3         1.7         1.2         0.6         0.3   |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           42 V           60 V           110 V           220 V           Lifespan, electrical           AC-15           230 V/0.5 A | Ie       Operations | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>X<br>10 <sup>6</sup>                      | 6         4         2         3         1.7         1.2         0.6         0.3         1.6                                   |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           42 V           60 V           110 V           220 V           Z30 V/0.5 A           Z30 V/1.0 A                          | Ie<br>Ie<br>Ie<br>Ie<br>Ie<br>Ie<br>Ie<br>Ie<br>Operations<br>Operations                             | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>X<br>10 <sup>6</sup><br>X 10 <sup>6</sup> | 6         4         2         3         1.7         1.2         0.6         0.3         1.4         1.5         1.6         1 |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           42 V           60 V           110 V           220 V           Z30 V/0.5 A           Z30 V/3.0 A                          | Ie       Operations | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>X<br>10 <sup>6</sup>                      | 6         4         2         3         1.7         1.2         0.6         0.3         1.6                                   |
| Switching capacity           Rated operational current           AC-15           115 V           220 V 230 V 240 V           380 V 400 V 415 V           500 V           DC-13           24 V           42 V           60 V           110 V           220 V           Z20 V           Z20 V                                      | Ie<br>Ie<br>Ie<br>Ie<br>Ie<br>Ie<br>Ie<br>Ie<br>Operations<br>Operations                             | A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>A<br>X<br>10 <sup>6</sup><br>X 10 <sup>6</sup> | 6         4         2         3         1.7         1.2         0.6         0.3         1.4         1.5         1.6         1 |

# Design verification as per IEC/EN 61439

| 1 | Technical data for design verification                   |                  |   |      |
|---|--|------------------|---|------|
|   | Rated operational current for specified heat dissipation | In               | А | 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  |
|   | ' diss            | °C | -25  |
| Operating ambient temperature min.  |                   | °C | 70   |
| Operating ambient temperature max.  |                   | U  | 70   |
| IEC/EN 61439 design verification  |                   |    |  |
| 10.2 Strength of materials and parts  |                   |    | Marta the surder to be deally a surfacements   |
| 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<br>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**

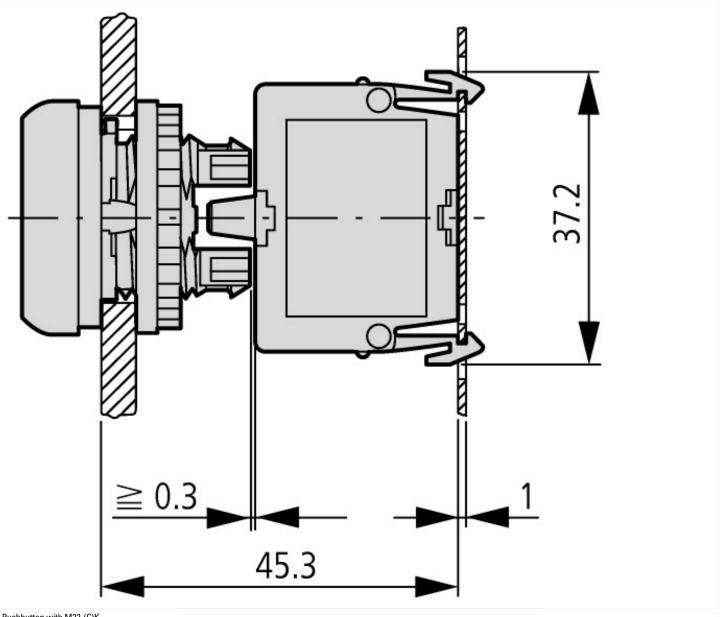
Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)

| Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@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  |  |   | 0                |
| Number of fault-signal switches  |  |   | 0                |
| Rated operation current le at AC-15, 230 V   |  | А | 6                |
| Type of electric connection  |  |   | Screw connection |
| Model  |  |   | Top mounting     |
| Mounting method  |  |   | Floor 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.                 | E29184   |
| UL Category Control No.     | NKCR   |
| CSA File No.                | 012528   |
| CSA Class No.               | 3211-03  |
| North America Certification | UL listed, CSA certified   |
| Degree of Protection        | UL/CSA Type: -   |





Pushbutton with M22-(C)K... Pushbutton with M22-(C) LED... + M22-XLED...

#### Assets (links)

Declaration of CE Conformity 00003255

## Additional product information (links)

| IL04716002Z (AWA1160-1745) RMQ-Titan System    |  |  |  |
|--|--|--|--|
| IL04716002Z (AWA1160-1745) RMQ-Titan<br>System | ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04716002Z2018_10.pdf                                    |  |  |
| DGUV Test Mark Customer Information            | http://www.dguv.de/medien/dguv-test-medien/_pdf_zip_doc_ppt/agb-und-pzo/dguv_test_zeichen_infoblatt_kunden.pdf |  |  |