

Part no.
M22-K01
Powering Business Worldwide
Article no. 216378
Catalog No. M22-K010

## Delivery programme

Product range
Basic function
Standard/Approval
Construction size
Single unit/Complete unit
Basic function accessories
Connection technique

## Fixing

Contacts
N/C = Normally closed

## Notes

Contact sequence

RMQ-Titan (drilling dimensions 22.5 mm )
Accessories
UL/CSA, IEC
NZM1/2/3/4
Element
Contact elements
Screw terminals
Front fixing
$1 \mathrm{NC} \ominus$
$\Theta$ = safety function, by positive opening to IEC/EN 60947-5-1
$\overbrace{0}$

2

Contact travel diagram, stroke in connection with front element

Configuration

Degree of Protection

Connection to SmartWire-DT
Connection type
Description of HIA trip-indicating auxiliary contact

Description standard auxiliary contact HIN

For use with


IP20
IEC/EN 60529

## no

Single contact
General trip indication ' + ', when tripped by shunt release, overload release, shortcircuit release or by the residual-current release due to residual-current. Can be used with NZM1, 2, 3 circuit-breaker: a trip-indicating auxiliary contact can be clipped into the circuit-breaker.
Can be used with NZM4 circuit-breaker: up to two standard auxiliary contacts can be clipped into the circuit-breaker.
Any combinations of the auxiliary contact types are possible.
Not in combination with switch-disconnector PN...
Marking on switch: HIA
Labeling in FI-Block: HIAFI.
If the trip-indicating auxiliary switch in the fault current block is used, the NC contacts operates as a N/O contact and the NC contact operates as an N/O contact.

Switching with the main contacts Used for indicating and interlocking tasks.
Can be used with NZM1 circuit-breaker: a standard auxiliary contact can be clipped into the circuit-breaker.
Can be used with NZM2 size circuit-breaker: a standard auxiliary contact can be clipped into the circuit-breaker.
Can be used with NZM3, 4 circuit-breaker: up to three standard auxiliary contacts can be clipped into the circuit-breaker.
Any combinations of the auxiliary contact types are possible.
Marking on switch: HIN.
On combination with remote operator NZM-XR... the right mounting location of standard auxiliary contact HIN can be fitted only with individual contacts.

NZM1(-4), 2(-4), 3(-4), 4(-4)
PN1(-4), 2(-4), 3(-4)
$N(S) 1(-4), 2(-4), 3(-4), 4(-4)$

## Technical data

## General

| Standards |  |  | IEC/EN 60947 VDE 0660 |
| :---: | :---: | :---: | :---: |
| Lifespan, mechanical | Operations | $\times 10^{6}$ | > 5 |
| Operating frequency | Operations/h |  | $\Xi_{3600}$ |
| Actuating force |  | n | $\Xi_{5}$ |
| Operating torque (screw terminals) |  | Nm | $\coprod_{0.8}$ |
| Degree of Protection |  |  | IP20 <br> IEC/EN 60529 |
| Climatic proofing |  |  | Damp heat, co |


|  |  | ${ }^{\circ} \mathrm{C}$ | Damp heat, cyclic, to IEC 60068-2-30 |
| :---: | :---: | :---: | :---: |
| Ambient temperature |  |  |  |
| Open |  | ${ }^{\circ} \mathrm{C}$ | $-25-+70$ |
| Storage |  | ${ }^{\circ} \mathrm{C}$ | $-40-+80$ |
| Mounting position |  |  | As required |
| Mechanical shock resistance |  | g | 30 <br> Shock duration 11 ms <br> Sinusoidal <br> according to IEC 60068-2-27 |
| Terminal capacities |  | $\mathrm{mm}^{2}$ |  |
| Solid |  | $\mathrm{mm}^{2}$ | 0.75-2.5 |
| Stranded |  | $\mathrm{mm}^{2}$ | 0.5-2.5 |
| Flexible with ferrule |  | $\mathrm{mm}^{2}$ | 0.5-1.5 |
| Contacts |  |  |  |
| Rated impulse withstand voltage | $\mathrm{U}_{\text {imp }}$ | V AC | 6000 |
| Rated insulation voltage | $U_{i}$ | V | 500 |
| Overvoltage category/pollution degree |  |  | III/3 |
| Control circuit reliability |  |  |  |
| at $24 \mathrm{VDC} / 5 \mathrm{~mA}$ | $\mathrm{HF}_{F}$ | $\begin{aligned} & \text { Fault } \\ & \text { probability }\end{aligned}<10^{-7}$ (i.e. 1 failure to $10^{7}$ operations) |  |
| at $5 \mathrm{VDC} / 1 \mathrm{~mA}$ | $\mathrm{HF}_{F}$ | Fault probability | $<5 \times 10^{-6}$ (i.e. 1 failure in $5 \times 10^{6}$ operations) |
| Max. short-circuit protective device |  |  |  |
| Fuseless |  | Type | PKZMO-10/FAZ-B6/1 |
| Fuse | $\mathrm{gG} / \mathrm{gL}$ | A | 10 |
| Switching capacity |  |  |  |
| Rated operational current | $I_{\text {e }}$ | A |  |
| AC-15 |  |  |  |
| 115 V | $I_{\text {e }}$ | A | 6 |
| 220 V 230 V 240 V | $\mathrm{I}_{\mathrm{e}}$ | A | 6 |
| 380 V 400 V 415 V | $\mathrm{I}_{\mathrm{e}}$ | A | 4 |
| 500 V | $\mathrm{I}_{\mathrm{e}}$ | A | 2 |
| DC-13 |  |  |  |
| 24 V | $\mathrm{I}_{\mathrm{e}}$ | A | 3 |
| 42 V | $\mathrm{I}_{\mathrm{e}}$ | A | 1.7 |
| 60 V | $I_{\text {e }}$ | A | 1.2 |
| 110 V | $\mathrm{I}_{\mathrm{e}}$ | A | 0.6 |
| 220 V | $\mathrm{I}_{\mathrm{e}}$ | A | 0.3 |
| Lifespan, electrical |  |  |  |
| AC-15 |  |  |  |
| $230 \mathrm{~V} / 0.5 \mathrm{~A}$ | Operations | $\times 10^{6}$ | 1.6 |
| $230 \mathrm{~V} / 1.0 \mathrm{~A}$ | Operations | $\times 10^{6}$ | 1 |
| $230 \mathrm{~V} / 3.0 \mathrm{~A}$ | Operations | $\times 10^{6}$ | 0.7 |
| DV-13 |  |  |  |
| $12 \mathrm{~V} / 2.8 \mathrm{~A}$ | Operations | $\times 10^{6}$ | 1.2 |
| Auxiliary contacts |  |  |  |
| Terminal capacities |  | $\mathrm{mm}^{2}$ |  |
| Solid or flexible conductor, with ferrule |  | $\mathrm{mm}^{2}$ | $\begin{aligned} & 1 \times(0,75-2,5) \\ & 2 \times(0,75-2,5) \end{aligned}$ |
| UL/CSA |  |  |  |
| Rated operational current | $I_{\text {e }}$ | A | $\begin{aligned} & 5 \mathrm{~A}-600 \mathrm{~V} \text { AC } \\ & 1 \mathrm{~A}-250 \mathrm{~V} D \mathrm{C} \end{aligned}$ |

Indoor and protected outdoor installation

## Data for design verification according to 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 | $\mathrm{P}_{\text {vid }}$ | W | 0.11 |
| Equipment heat dissipation, current-dependent | $\mathrm{P}_{\text {vid }}$ | W | 0 |
| Static heat dissipation, non-current-dependent | $\mathrm{P}_{\mathrm{vs}}$ | W | 0 |
| Heat dissipation capacity | $\mathrm{P}_{\text {diss }}$ | W | 0 |
| 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 5.0

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@ss8-27-37-13-02 [AKN342009])

Number of contacts as change-over contact
Number of contacts as normally open contact
0

Number of contacts as normally closed contact
Rated operation current le at AC-15, 230 V
Type of electric connection
Mounting method
Font fastening

## Approvals

Product Standards
UL File No
UL Category Control No.
CSA File No.
CSA Class No.
North America Certification
Degree of Protection

IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking E29184

NKCR
012528
3211-03
UL listed, CSA certified
UL/CSA Type: -


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

## Additional product information (links)

## IL04716002Z (AWA1160-1745) RMO-Titan System

IL04716002Z (AWA1160-1745) RMQ-Titan ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/LL04716002Z2013_08.pdf
System

