
# N/O-N/C contact, Cage Clamp

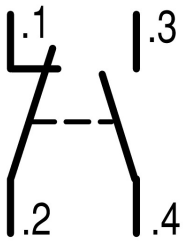
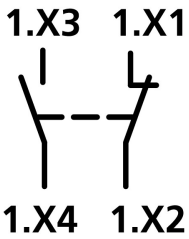
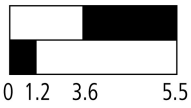
**Part no.** **M22-CK11**

**Article no.** **107940**

Powering Business Worldwide™

General trip indication '+', when tripped by voltage release, overload release, short-circuit release or by the residual-current release due to residual-current.

## Program

| | | |
|---|---|---|
| Range | | RMQ-Titan (drilling dimensions 22.5 mm) |
| Basic function | | Accessories |
| Range | | Accessories |
| Accessories | | Standard auxiliary contact, trip-indicating auxiliary switch |
| Standard/Approval | | UL/CSA, IEC |
| Construction size | | NZM1/2/3/4 |
| Single unit/Complete unit | | Element |
| Connection technique | | Cage Clamp |
| Fixing | | Front fixing |
| Description | | When using emergency switching off actuators M22-PV… max. 2 contact elements = 4 NC / N/O contacts |
| Auxiliary contacts: = safety function, by positive opening to IEC/EN 60947-5-1 | | |
| N/O = Normally open | | 1 S |
| N/C = Normally closed | | 1 N/C |
| Contact sequence | |   |
| Contact sequence | |   |
| Contact travel diagram, stroke in connection with front element | |   |
| Protection type | | IP20 |
| Connection to SmartWire-DT | | no |
| Connection type | | Double contact |
| Description standard auxiliary contact HIN | | Switching with the main contacts Used for indicating and interlocking tasks.<br>Can be used with NZM1 circuit-breaker: a standard auxiliary contact can be clipped into the circuit-breaker.<br>Can be used with NZM2 size circuit-breaker: a standard auxiliary contact can be clipped into the circuit-breaker.<br>Can be used with NZM3, 4 circuit-breaker: up to three standard auxiliary contacts can be clipped into the circuit-breaker.<br>Any combinations of the auxiliary contact types are possible.<br>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. |
| For use with | | | NZM1(-4), 2(-4), 3(-4), 4(-4)<br>PN1(-4), 2(-4), 3(-4)<br>N(S)1(-4), 2(-4), 3(-4), 4(-4) |

## Approbationen

| | |
|---|---|
| UL approval | Yes |
| CSA approval | Yes |
| 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 CCN | NKCR |
| CSA File No. | 012528 |
| CSA Class No. | 3211-03 |
| NA Certification | UL listed, CSA certified |
| Degree of Protection | UL/CSA Type: - |

## General

| | | | |
|---|---|---|---|
| Standards | | | IEC/EN 60947<br>VDE 0660 |
| Operating frequency | Operations/h | | 3600 |
| Actuating force | | n | 10 |
| Protection type | | | IP20 |
| Climatic proofing | | | Damp heat, constant to IEC 60068-2-78<br>Damp heat, cyclic to IEC 60068-2-30 |
| Ambient temperature | | °C | |
| Open | | °C | - 25 - + 70 |
| Storage | | °C | - 0 - + 70 |
| 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 | | $mm^2$ | |
| Solid | | $mm^2$ | 0.5 - 1.5 |
| Stranded | | $mm^2$ | 0.5 - 1.5 |
| Flexible with ferrule | | $mm^2$ | 0.5 - 1.0 |

## Contacts

| | | | |
|---|---|---|---|
| Rated impulse withstand voltage | $U_{imp}$ | V AC | 4000 |
| Rated insulation voltage | $U_i$ | V | 250 |
| Overvoltage 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 | $I_e$ | A | |
| AC-15 | | | |
| 115 V | $I_e$ | A | 4 |
| 230 V | $I_e$ | A | 4 |
| DC-13 | | | |
| 24 V | $I_e$ | A | 3 |
| 42 V | $I_e$ | A | 1 |
| 60 V | $I_e$ | A | 0.8 |
| 110 V | $I_e$ | A | 0.5 |
| 220 V | $I_e$ | A | 0.2 |

## Auxiliary contacts

| | | | |
|---|---|---|---|
| Rated operational voltage | $U_e$ | V | |
| Rated operational voltage | Ue | V AC | 230 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Rated operational voltage, max. | Ue | V DC | 220 | | | | | |
| Conventional thermal current | Ith=Ie | CSA | 4 | | | | | |
| Rated operational current | $I_e$ | A | | | | | | |
| **Different rated operational currents** when used as auxiliary contact for NZM circuit-breaker | | | | | | M22-K... | M22-CK... | XHIV |
| | | | bei AC = 50/60 Hz | | | | | |
| | | | Bemessungsbetriebsstrom | | | | | |
| | | | AC-15 | 115 V | Ie A | 4 | 4 | 4 |
| | | | | 230 V | Ie A | 4 | 4 | 4 |
| | | | | 400 V | Ie A | 2 | - | 2 |
| | | | | 500 V | Ie A | 1 | - | 1 |
| | | | DC-13 | 24 V | Ie A | 3 | 3 | 3 |
| | | | | 42 V | Ie A | 1.7 | 1 | 1.5 |
| | | | | 60 V | Ie A | 1.2 | 0.8 | 0.8 |
| | | | | 110 V | Ie A | 0.8 | 0.5 | 0.5 |
| | | | | 220 V | Ie A | 0.3 | 0.2 | 0.2 |
| Short-circuit protection | | | | | | | | |
| max. fuse | | A gG/gL | 10 | | | | | |
| Max. miniature circuit-breaker | | A | FAZ-B6/B1 | | | | | |
| Operating times | | | | | | | | |
| | | | Early-make time of the HIV compared to the main contacts during with make and break switching.<br>(switch times with manual operation):<br>NZM1, PN1, N(S)1: ca. 20 ms<br>NZM2, PN2, N(S)2: ca. 20 ms<br>NZM3, PN3, N(S)3: ca. 20 ms<br>NZM4, N(S)4: approx. 90 ms, the HIV switch early **Off**switching **not** forward. | | | | | |
| Terminal capacities | | $mm^2$ | | | | | | |
| Solid or flexible conductor with ferrule | | $mm^2$ | 1 x (0.5 - 1.5)<br>2 x (0.5 - 0.75) | | | | | |
| | | AWG | 1 x (20 - 18)<br>2 x (20 - 18) | | | | | |
| Other technical data (sheet catalogue) | | | Maximum equipment and position of the internal accessories | | | | | |
| Indoor and protected outdoor installation | | | | | | | | |

## Technical data according to ETIM 4.0

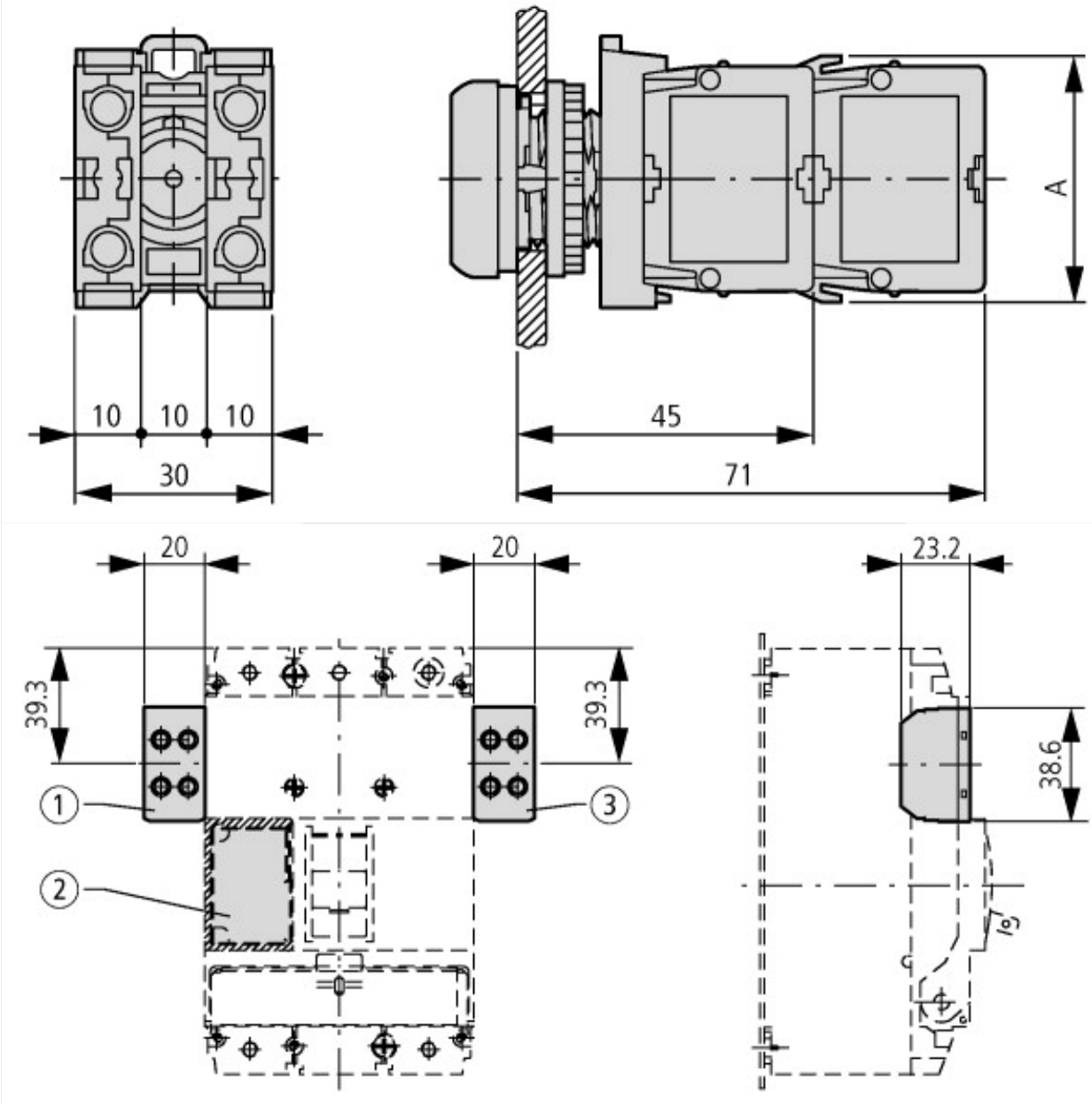
| | | |
|---|---|---|
| Suitable for earth leakage circuit breaker | | No |
| Type of electric connection | | Spring clamp connection |
| Rated operation current Ie at AC-15, 230 V | A | 6 |
| Mounting type | | Front mount |
| Suitable for pendant switch | | No |
| Suitable for front element | | YES |
| Suitable for circuit-breakers | | No |
| Suitable for safety position switches | | No |
| Suitable for step switches | | No |
| Suitable for pressure switch/selector switch actuator | | YES |
| Suitable for cam switches | | No |
| Suitable for motor protective circuit breakers | | No |
| Suitable for series-mounting relays | | No |
| Suitable for solenoid | | No |
| Suitable for compact switch-disconnector | | No |

| | | |
|---|---|---|
| Suitable for miniature circuit-breakers | | No |
| Suitable for pulse relay | | No |
| Suitable for contactor relay relay | | No |
| Suitable for pendant pushbutton | | No |
| Suitable for residual current device | | No |
| Number of contacts as change-over contact | | 0 |
| Number of contacts as N/O | | 1 |
| Number of contacts as NC | | 1 |
| Suitable for impulse relays | | No |
| Suitable for position switches | | No |
| Suitable for switch-disconnector/residual current device | | No |
| Suitable for contactors | | No |
| Suitable for installation contactor / installation relay | | No |

## CAD-Data

Product standards CAD data: http://eaton-moeller.partcommunity.com

## Dimensions




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

## Additional product information (links)

| | |
|---|---|
| IL04716002Z (AWA1160-1745) RMQ-Titan System | ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04716002Z2011_03.pdf |

**Engineering**

| | |
|---|---|
| equiped with auxiliary switches, time differences | ftp://ftp.moeller.net/DOCUMENTATION/PDF/GB/PRO_NZM_time difference_D.PDF |