



Double N/C contact, Cage Clamp





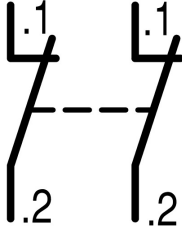
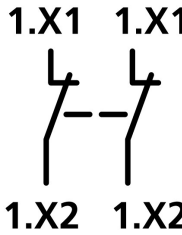
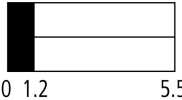
Powering Business Worldwide™

Part no. M22-CK02

Article no. 107899

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/C = Normally closed | | | 2 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. 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. |
| For use with | | NZM1(-4), 2(-4), 3(-4), 4(-4) PN1(-4), 2(-4), 3(-4) 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 VDE 0660 |
| Operating frequency | Operations/ h | | \leq 3600 |
| Actuating force | | n | \leq 10 |
| Protection type | | | IP20 |
| Climatic proofing | | | Damp heat, constant to IEC 60068-2-78 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 Shock duration 11 ms Sinusoidal 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 | U_e | V AC | 230 |

| Rated operational voltage, max. | U _e | V DC | 220 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|-----------------|---|-----------|------|--|----------|-----------|------|--|-------------------|--|--|--|--|--|-------------------------|--|--|--|--|--|-------|----------------|---|---|---|--|------|--|--|--|--|--|-------|----------------|---|---|---|--|-------|----------------|---|---|---|--|-------|----------------|---|---|---|--|--------|----------------|---|---|---|--|------|----------------|---|-----|---|--|------|----------------|---|-----|-----|--|-------|----------------|---|-----|-----|--|-------|----------------|---|-----|-----|
| Conventional thermal current | I _{th} =I _e | CSA | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated operational current | I _e | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Different rated operational currents when used as auxiliary contact for NZM circuit-breaker | | | <table border="1"> <thead> <tr> <th></th> <th></th> <th></th> <th>M22-K...</th> <th>M22-CK...</th> <th>XHIV</th> </tr> </thead> <tbody> <tr> <td></td> <td>bei AC = 50/60 Hz</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Bemessungsbetriebsstrom</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>AC-15</td> <td>I_e</td> <td>A</td> <td>4</td> <td>4</td> </tr> <tr> <td></td> <td>15 V</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>230 V</td> <td>I_e</td> <td>A</td> <td>4</td> <td>4</td> </tr> <tr> <td></td> <td>400 V</td> <td>I_e</td> <td>A</td> <td>2</td> <td>-</td> </tr> <tr> <td></td> <td>500 V</td> <td>I_e</td> <td>A</td> <td>1</td> <td>-</td> </tr> <tr> <td></td> <td>DC-124</td> <td>I_e</td> <td>A</td> <td>3</td> <td>3</td> </tr> <tr> <td></td> <td>42 V</td> <td>I_e</td> <td>A</td> <td>1.7</td> <td>1</td> </tr> <tr> <td></td> <td>60 V</td> <td>I_e</td> <td>A</td> <td>1.2</td> <td>0.8</td> </tr> <tr> <td></td> <td>110 V</td> <td>I_e</td> <td>A</td> <td>0.8</td> <td>0.5</td> </tr> <tr> <td></td> <td>220 V</td> <td>I_e</td> <td>A</td> <td>0.3</td> <td>0.2</td> </tr> </tbody> </table> | | | | M22-K... | M22-CK... | XHIV | | bei AC = 50/60 Hz | | | | | | Bemessungsbetriebsstrom | | | | | | AC-15 | I _e | A | 4 | 4 | | 15 V | | | | | | 230 V | I _e | A | 4 | 4 | | 400 V | I _e | A | 2 | - | | 500 V | I _e | A | 1 | - | | DC-124 | I _e | A | 3 | 3 | | 42 V | I _e | A | 1.7 | 1 | | 60 V | I _e | A | 1.2 | 0.8 | | 110 V | I _e | A | 0.8 | 0.5 | | 220 V | I _e | A | 0.3 | 0.2 |
| | | | M22-K... | M22-CK... | XHIV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | bei AC = 50/60 Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bemessungsbetriebsstrom | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | AC-15 | I _e | A | 4 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 230 V | I _e | A | 4 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 400 V | I _e | A | 2 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 500 V | I _e | A | 1 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | DC-124 | I _e | A | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 42 V | I _e | A | 1.7 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 60 V | I _e | A | 1.2 | 0.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 110 V | I _e | A | 0.8 | 0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 220 V | I _e | A | 0.3 | 0.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Short-circuit protection | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| max. fuse | | A gG/ gL | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Max. miniature circuit-breaker | | A | FAZ-B6/B1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating times | | | <p>Early-make time of the HIV compared to the main contacts during with make and break switching.</p> <p>(switch times with manual operation):</p> <p>NZM1, PN1, N(S)1: ca. 20 ms</p> <p>NZM2, PN2, N(S)2: ca. 20 ms</p> <p>NZM3, PN3, N(S)3: ca. 20 ms</p> <p>NZM4, N(S)4: approx. 90 ms, the HIV switch early Offswitching not forward.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal capacities | | mm ² | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solid or flexible conductor with ferrule | | mm ² | 1 x (0.5 - 1.5) 2 x (0.5 - 0.75) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | AWG | 1 x (20 - 18) 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 I _e 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 |

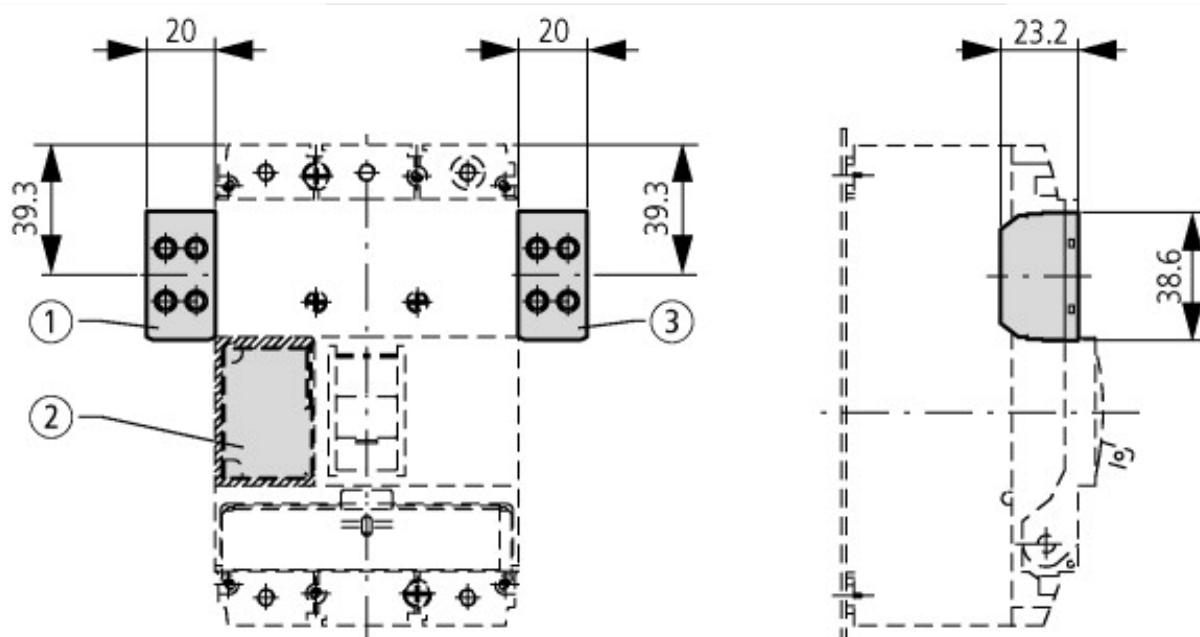
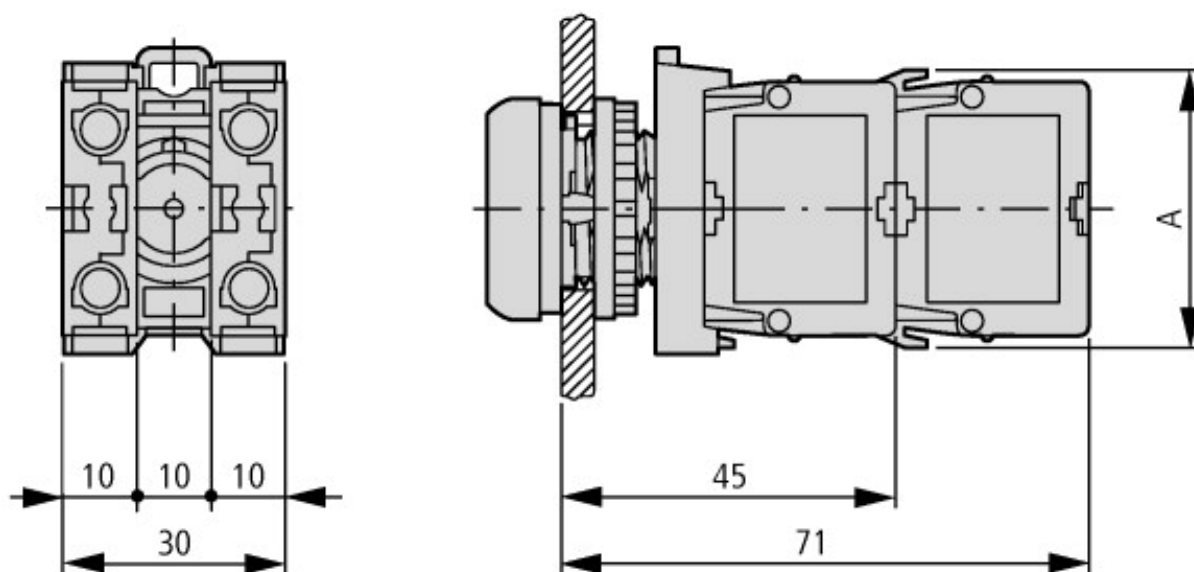
| | | |
|--|--|----|
| Suitable for miniature circuit-breakers | | No |
| Suitable for pulse relay | | No |
| Suitable for contactor relay relay | | No |
| Suitable for pendant pushbutton | | No |
| Suitable for residual current device | | No |
| Number of contacts as change-over contact | | 0 |
| Number of contacts as N/O | | 0 |
| Number of contacts as NC | | 2 |
| 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

