



Break contact,Front



Powering Business Worldwide™

Part no. M22-K01

Article no. 216378

Delivery programme

Product range			RMQ-Titan (drilling dimensions 22.5 mm)
Basic function			Accessories
Standard/Approval			UL/CSA, IEC
Construction size			NZM1/2/3/4
Single unit/Complete unit			Element
Connection technique			Screw terminals
Fixing			Front fixing
Auxiliary contacts: = safety function, by positive opening to IEC/EN 60947-5-1			
N/C = Normally closed			1 N/C
Contact sequence			

Contact sequence		
Contact travel diagram, stroke in connection with front element		
Configuration		
Protection type		IP20
Connection to SmartWire-DT		no
Connection type		Single contact
Description of HIA trip-indicating auxiliary contact		<p>General trip indication '+', when tripped by shunt release, overload release, short-circuit release or by the residual-current release due to residual-current.</p> <p>Can be used with NZM1, 2, 3 circuit-breaker: a trip-indicating auxiliary contact can be clipped into the circuit-breaker.</p> <p>Can be used with NZM4 circuit-breaker: up to two standard auxiliary contacts can be clipped into the circuit-breaker.</p> <p>Any combinations of the auxiliary contact types are possible.</p> <p>Not in combination with switch-disconnector PN...</p> <p>Marking on switch: HIA</p> <p>Labeling in FI-Block: HIAFI.</p> <p>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.</p>
Description standard auxiliary contact HIN		<p>Switching with the main contacts Used for indicating and interlocking tasks.</p> <p>Can be used with NZM1 circuit-breaker: a standard auxiliary contact can be clipped into the circuit-breaker.</p> <p>Can be used with NZM2 size circuit-breaker: a standard auxiliary contact can be clipped into the circuit-breaker.</p> <p>Can be used with NZM3, 4 circuit-breaker: up to three standard auxiliary contacts can be clipped into the circuit-breaker.</p> <p>Any combinations of the auxiliary contact types are possible.</p> <p>Marking on switch: HIN.</p> <p>On combination with remote operator NZM-XR... the right mounting location of standard auxiliary contact HIN can be fitted only with individual contacts.</p>
For use with		<p>NZM1(-4), 2(-4), 3(-4), 4(-4)</p> <p>PN1(-4), 2(-4), 3(-4)</p> <p>N(S)1(-4), 2(-4), 3(-4), 4(-4)</p>
Notes		
For Std. pack:		
M22-(C)K... : Std. pack = 20 off		

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

General

Standards			IEC/EN 60947 VDE 0660
Lifespan, mechanical	Operations	x 10 ⁶	> 5
Operating frequency	Operations/ h		≧ 3600
Actuating force		n	≧ 5
Operating torque (screw terminals)		Nm	≧ 0.8
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
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	0.75 - 2.5
Stranded		mm ²	0.5 - 2.5
Flexible with ferrule		mm ²	0.5 - 1.5

Contacts

Rated impulse withstand voltage	U _{imp}	V AC	6000
Rated insulation voltage	U _i	V	500
Overtoltage category/pollution degree			III/3
Control circuit reliability			
at 24 V DC/5 mA	H _F	Fault probability	< 10 ⁻⁷ (i.e. 1 failure to 10 ⁷ operations)
at 5 V DC/1 mA	H _F	Fault probability	< 5 x 10 ⁻⁶ (i.e. 1 failure in 5 x 10 ⁶ operations)
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
220 V 230 V 240 V	I _e	A	4
380 V 400 V 415 V	I _e	A	2
500 V	I _e	A	2
DC-13			
24 V	I _e	A	3
42 V	I _e	A	1.7
60 V	I _e	A	1.2
110 V	I _e	A	0.8
220 V	I _e	A	0.3
Lifespan, electrical			
AC-15			
230 V/0.5 A	Operations	x 10 ⁶	1.6
230 V/1.0 A	Operations	x 10 ⁶	1

230 V/3.0 A	Operations	x 10 ⁶	0.7
DV-13			
12 V/2.8 A	Operations	x 10 ⁶	1.2

Auxiliary contacts

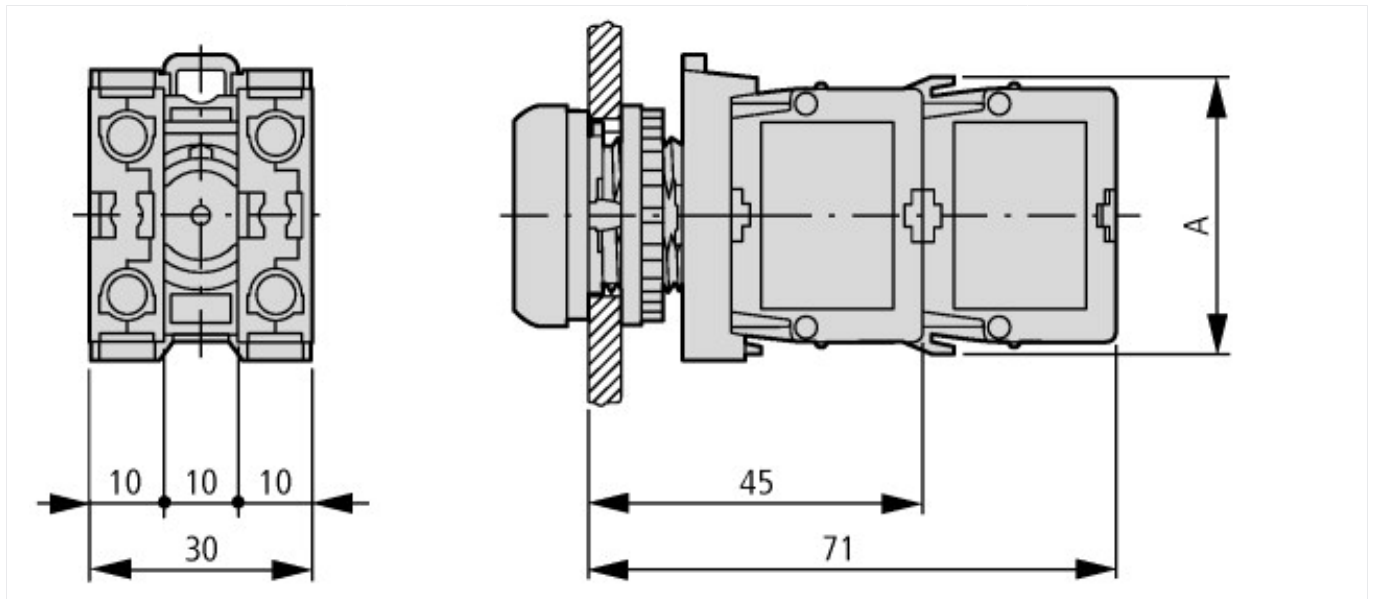
Rated operational voltage	U _e	V																																																																																					
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Rated operational voltage, max.	U _e	V DC	220																																																																																				
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 A</td> <td>4</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 A</td> <td>4</td> <td>4</td> <td>4</td> </tr> <tr> <td></td> <td>400 V</td> <td>I_e A</td> <td>2</td> <td>-</td> <td>2</td> </tr> <tr> <td></td> <td>500 V</td> <td>I_e A</td> <td>1</td> <td>-</td> <td>1</td> </tr> <tr> <td></td> <td>DC-13</td> <td>I_e A</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td></td> <td>13 V</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>42 V</td> <td>I_e A</td> <td>1.7</td> <td>1</td> <td>1.5</td> </tr> <tr> <td></td> <td>60 V</td> <td>I_e A</td> <td>1.2</td> <td>0.8</td> <td>0.8</td> </tr> <tr> <td></td> <td>110 V</td> <td>I_e A</td> <td>0.8</td> <td>0.5</td> <td>0.5</td> </tr> <tr> <td></td> <td>220 V</td> <td>I_e A</td> <td>0.3</td> <td>0.2</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	4		15 V						230 V	I _e A	4	4	4		400 V	I _e A	2	-	2		500 V	I _e A	1	-	1		DC-13	I _e A	3	3	3		13 V						42 V	I _e A	1.7	1	1.5		60 V	I _e A	1.2	0.8	0.8		110 V	I _e A	0.8	0.5	0.5		220 V	I _e A	0.3	0.2	0.2
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max. fuse		A gG/ gL	10																																																																																				
Max. miniature circuit-breaker		A	PKZM0-10/FAZ-B6																																																																																				
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 (0.75 - 2.5) 2 x (0.75 - 2.5)																																																																																				
		AWG	1 x (18 - 14) 2 x (18 - 14)																																																																																				
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Rated operational current	I _e	A	10 A – 600 V AC 1 A - 250 V DC																																																																																				
Pilot Duty			A600/P300 above 300 V AC same polarity																																																																																				
Other technical data (sheet catalogue)			Maximum equipment and position of the internal accessories																																																																																				
Indoor and protected outdoor installation																																																																																							

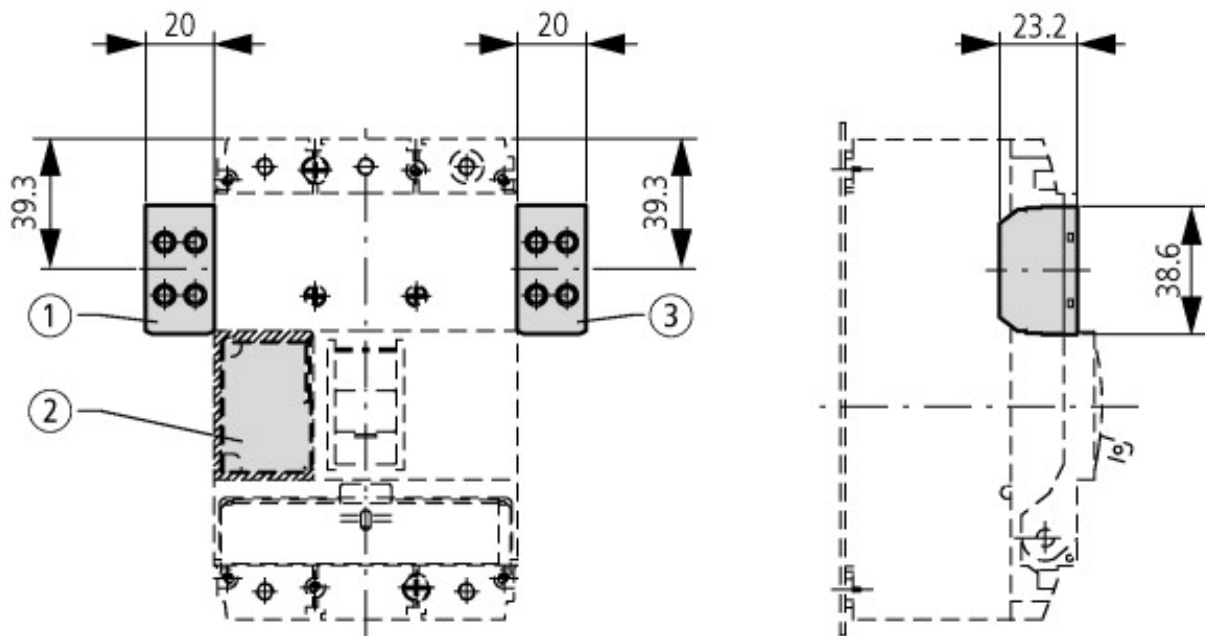
Technical data ETIM 4.0

Suitable for earth leakage circuit breaker		No
Type of electric connection		Screw 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		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

Dimensions





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

Additional product information (links)

IL04716002Z (AWA1160-1745) RMQ-Titan System

IL04716002Z (AWA1160-1745) RMQ-Titan System

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04716002Z2011_03.pdf