


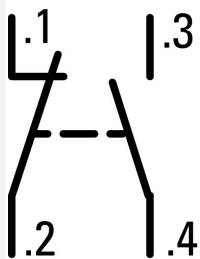




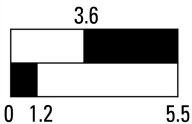
Contact element, Cage Clamp, Front fixing, 1 N/O, 1 NC, 24 V 3 A, 220 V 230 V 240 V 4 A

Part no. M22-CK11
Catalog No. 107940
Alternate Catalog M22-CK11Q
No.
EL-Nummer 4355492
(Norway)

Delivery program

Product range		Accessories
Basic function accessories		Contact elements
Accessories		Auxiliary contact
Accessories		Standard auxiliary contact, trip-indicating auxiliary switch
Standard/Approval		UL/CSA, IEC
Construction size		NZM1/2/3/4
Description		When using emergency switching off actuators M22-PV... max. 2 contact elements = 4 NC / N/O contacts Cage Clamp is a registered trademark of Wago Kontakttechnik GmbH/Minden, Germany
Connection technique		Cage Clamp
Fixing		Front fixing
Degree of Protection		IP20
Connection to SmartWire-DT		no
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)
Approval		
Contacts		
N/O = Normally open		1 N/O
N/C = Normally closed		1 NC 
Notes		 = safety function, by positive opening to IEC/EN 60947-5-1
Actuator travel and actuation force as per DIN EN 60947-5-1, K.5.4.1		
	mm	4.8
Maximum travel	mm	5.7
Minimum force for positive opening	N	20
Contact sequence		

Contact travel diagram, stroke in connection with front element

Contact diagram			
Connection type			Double 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>
Connection technique			Cage Clamp
Notes			
The following can be clipped into the switches:			
<ul style="list-style-type: none"> NZM1: a standard auxiliary contact NZM2: up to two M22-(C)K... standard auxiliary contacts NZM3: up to three M22-(C)K... standard auxiliary contacts NZM4: up to three M22-(C)K... standard auxiliary contacts 			
Any combinations of the auxiliary contact types are possible.			
Marking on switch: HIN			
In combination with remote operator NZM-XR... only single contacts can be fitted to some installation locations of the standard auxiliary contact.			
NZM2: Only single contact can be fitted in left installation location of standard auxiliary contact.			
NZM3: Only single contact can be fitted in installation locations of standard auxiliary contact.			
NZM4: Only single contact can be fitted in right installation location of standard auxiliary contact.			

Technical data

General

Standards			IEC 60947-5-1
Operating frequency	Operations/h		≤ 3600
Actuating force	n		≤ 10
Degree of Protection			IP20
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open	°C		-25 - +70
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 - 1.5

Contacts

Rated impulse withstand voltage	U _{imp}	V AC	4000
Rated insulation voltage	U _i	V	250
Overvoltage 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
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	0.3

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				bei AC = 50/60 Hz	Bemessungs- betriebsstrom				M22- (C)K10(01)	M22- CK11(02)	XHIV (20)			
									AC-15 15 V	I _e	A	4	4	4
									230 V	I _e	A	4	4	4
									400 V	I _e	A	2	-	2
									500 V	I _e	A	1	-	1
									DC-13 24 V	I _e	A	3	3	3
									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	0.6	0.5	0.5
									220 V	I _e	A	0.3	0.2	0.2

Rated conditional short-circuit current	I _q	kA	1
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. (switch times with manual operation): NZM1, PN1, N(S)1: ca. 20 ms NZM2, PN2, N(S)2: ca. 20 ms NZM3, PN3, N(S)3: ca. 20 ms NZM4, N(S)4: approx. 90 ms, the HIV switch early Off switching not forward.
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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

Design verification as per IEC/EN 61439

Technical data for design verification				
Rated operational current for specified heat dissipation	I_n	A		4
Heat dissipation per pole, current-dependent	P_{vid}	W		0.05
Equipment heat dissipation, current-dependent	P_{vid}	W		0
Static heat dissipation, non-current-dependent	P_{vs}	W		0
Heat dissipation capacity	P_{diss}	W		0
Operating ambient temperature min.		°C		-25
Operating ambient temperature max.		°C		70
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 8.0

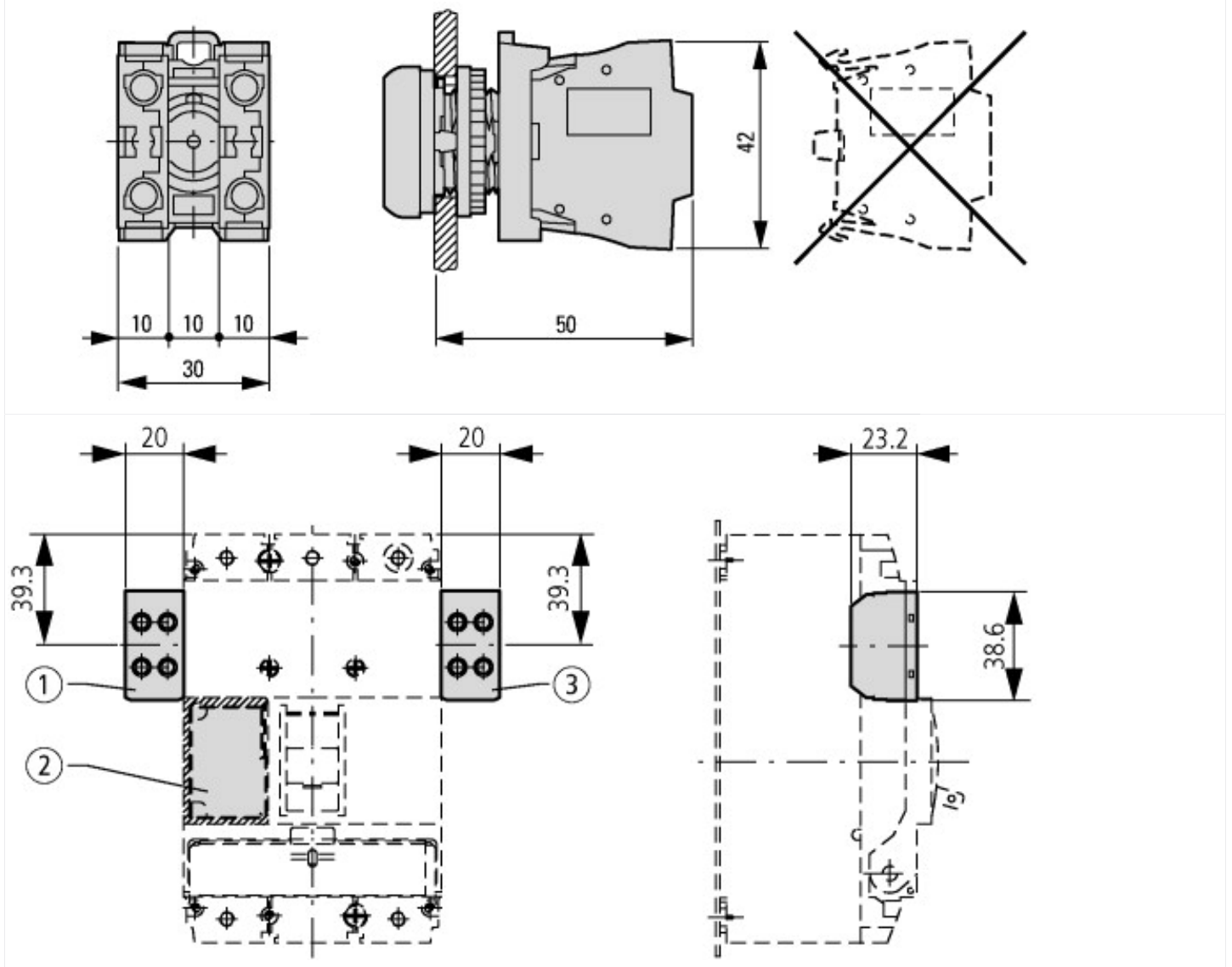
Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)				
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss10.0.1-27-37-13-02 [AKN342013])				
Number of contacts as change-over contact				0
Number of contacts as normally open contact				1
Number of contacts as normally closed contact				1
Number of fault-signal switches				0
Rated operation current I_e at AC-15, 230 V		A		6
Type of electric connection				Spring clamp connection
Model				Top mounting and integrable
Mounting method				Front 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: -

Dimensions



- ①
NZM1-XA(HIV)
NZM1-XA(HIV)(20)
NZM1-XHIV
- ②
NZM1-XA(HIV)(L)
NZM1-XU(V)(HIV)(L)(20)
NZM1-XHIV(L)
- ③
NZM1-XHIVR

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

Additional product information (links)

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
Maximum equipment and position of the internal accessories	http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.178