DATASHEET - M22-CK10



Contact element, 1N/O, front mount, 6. contact, spring clamp connection

Powering Business Worldwide

Part no. M22-CK10
Catalog No. 216384
Eaton Catalog No. M22-CK100
EL-Nummer 4355460

(Norway)

Delivery program

Delivery program		
Product range		Accessories
Product range		Accessories
Part group reference (e.g. DIL)		M22
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
Single unit/Complete unit		Element
Description		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		ET 16107 Sicherheit geprüft tested safety
Contacts		
N/O = Normally open		1 N/O
Actuator travel and actuation force as per DIN EN 60947-5-1, K.5.4.1		
Minimum force for positive opening	N	0

Contact sequence	.4
Contact travel diagram, stroke in connection with front element	
Contact diagram	0 2.8 5.5
Configuration	1/4 3/6 2/5
Connection type	Single contact
Description of HIA trip-indicating auxiliary contact	General trip indication '+', when tripped by shunt release, overload release, short-circuit 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.
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.
Connection technique	Cage Clamp

Notes

The following can be clipped into the switches:

- 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

delicital			
Standards			IEC 60947-5-1
Lifespan, mechanical	Operations	x 10 ⁶	>5
Operating frequency	Operations/h		≦ 3600

Actuating force		n	≦5
Degree of Protection		"	= 3 IP20
Climatic proofing			Damp heat, constant, to IEC 60068-2-78
Cinnate proving			Damp heat, collistant, to IEC 60068-2-70
Ambient temperature			
Open		°C	-25 - +70
Mechanical shock resistance to IEC 60068-2-27 Shock duration 11 ms, half-sinusoidal		g	> 30
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	Ui	V	500
Overvoltage category/pollution degree			111/3
Control circuit reliability			
at 24 V DC/5 mA	H _F	Fault	< 10 ⁻⁷ (i.e. 1 failure to 10 ⁷ operations)
- TVD2//- 1			
at 5 V DC/1 mA	H _F	Fault probabili	$< 5 \times 10^{-6}$ (i.e. 1 failure in 5 $\times 10^{6}$ operations) ty
Max. short-circuit protective device			
Fuseless		Туре	PKZM0-10/FAZ-B6/1
Fuse	gG/gL	Α	10
Switching capacity			
Rated operational current	I _e	Α	
AC-15			
115 V	I _e	Α	6
220 V 230 V 240 V	I _e	Α	6
380 V 400 V 415 V	I _e	Α	4
500 V	I _e	Α	2
DC-13			
24 V	I _e	Α	3
42 V	I _e	Α	1.7
60 V	I _e	Α	1.2
110 V	I _e	Α	0.8
220 V	I _e	Α	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		X 10	
12 V/2.8 A	Operations	x 10 ⁶	1.2
Auxiliary contacts	, , , , , , , , , , , , , , , , , , , ,	X IU	
Rated operational voltage	U _e	V	
Rated operational voltage	Ue	V AC	500
Rated operational voltage, max.	Ue	V DC	220
Conventional thermal current	$I_{th} = I_e$	CSA	4
Rated operational current	I _e	Α	
Different rated operational currents when used as auxiliary contact for NZM circuit-breaker			M22- M22- XHIV (C)K10(01)CK11(02) (20) bei AC = 50/60
			Hz Bemessungsbetriebsstrom
			•

		AC-1515 V 230 V 400 V 500 V DC-134 V 42 V 60 V 110	bei AC = 50/60 Hz le le le le	A A A A A A	4 4 2 1 3 1.7 1.2 0.6	M22- 11)CK11(02) (20) 4 4 - - 3 1 0.8 0.5	4 4 2 1 3 1.5 0.8 0.5
Short-circuit protection		220 V	le	Α	0.3	0.2	0.2
max. fuse	A aC/al	10					
Max. miniature circuit-breaker	A gG/gL						
	Α	FAZ-B6/B1					
Operating times							
		Early-make time of the Horeak switching. (switch times with manu NZM1, PN1, N(S)1: ca. 2 NZM2, PN2, N(S)2: ca. 2 NZM3, PN3, N(S)3: ca. 2 NZM4, N(S)4: approx. 90	aal operat 0 ms 0 ms 0 ms	ion):			
Terminal capacities	mm^2						
Solid or flexible conductor, with ferrule	mm ²	1 x (0,75 - 2,5) 2 x (0,75 - 2,5)					
Other technical data (sheet catalogue)		Maximum equipment an	d positior	of the int	ternal acce	ssories	

Design verification as per IEC/EN 61439

Design Verification as per IEG/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	6
Heat dissipation per pole, current-dependent	P _{vid}	W	0.11
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
EC/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 6.0

Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)

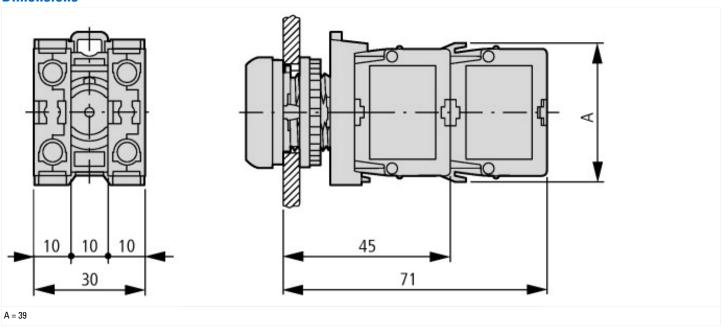
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss8.1-27-37-13-02 [AKN342010])

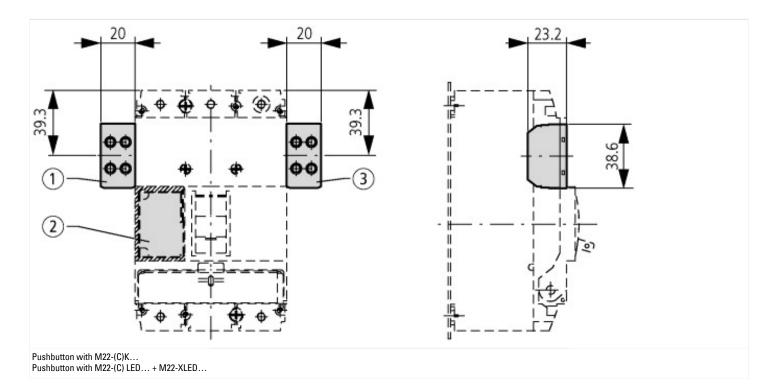
(eci@ss8.1-2/-3/-13-02 [AKN342010])		
Number of contacts as change-over contact		0
Number of contacts as normally open contact		1
Number of contacts as normally closed contact		0
Rated operation current le at AC-15, 230 V	А	6
Type of electric connection		Spring clamp connection
Model		Top mounting and integrable
Mounting method		Front fastening

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





Additional product information (links)

Additional product information (inito)				
IL04716002Z (AWA1160-1745) RMQ-Titan System				
IL04716002Z (AWA1160-1745) RMQ-Titan System	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04716002Z2018_05.pdf			
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			