# DATASHEET - M22-AK10



Assembly of contact element with screw terminals and fixing adapter, 1  $\ensuremath{\mathsf{N}}\xspace/0$ 



Part no. M22-AK10 Catalog No. 216504 Alternate Catalog M22-AK100 No. EL-Nummer 4355432 (Norway)

### **Delivery program**

Basic function accessories       Contact elements         Description       Contact elements         Connection technique       Serve terminals         Fining       Contact elements         Description       Contact elements         NO = Normally open       NO         Contact sequence       INO         Contact travel diagram, stroke in connection with front element       Contact diagram         element       Contact diagram         Contact diagram       Contact element         Contact diagram       Contact element         Contact diagram       Contact element         Contact diagram       Contact element         Cont		
Connection technique       Image: Connection defended on the second defended on the second defended defende	Basic function accessories	Contact elements
Fining       Image: Protection         Degree of Protection       IP20         Contracts       Image: Protection         NO = hormally open       Image: NO         Contract sequence       Image: NO         Contract sequence       Image: NO         Contract travel diagram, stroke in connection with front element       Image: NO         Contract diagram       Image: NO	Description	Assembly of contact element with screw terminals and fixing adapter
Degree of Protection P20   Contacts no   VO = Normally open N/O   Contact sequence IN/O     Contact sequence Initial	Connection technique	Screw terminals
Contacts       INO         NO = Normally open       INO         Contact sequence       Ino         Contact sequence       Ino         Contact travel diagram, stroke in connection with front element       Ino         Contact diagram       Ino	Fixing	Front fixing
Contacts       Image: sequence       Image: sequence         Contact sequence       Image: sequence       Image: sequence         Contact travel diagram, stroke in connection with front element       Image: sequence       Image: sequence         Contact diagram       Image: sequence       Image: sequence       Image: sequence         Contact diagram       Image: seque: sequence	Degree of Protection	IP20
N/0 = Normally open       1 N/0         Contact sequence       I 13         I 13       I 14         I 14       I 14         I 14       I 14	Connection to SmartWire-DT	no
Contact sequence       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Contacts	
Contact travel diagram, stroke in connection with front element       Image: Contact diagram         Contact diagram       Image: Contact diagram	N/O = Normally open	1 N/O
element     Image: Contact diagram       Configuration     Image: Configuration	Contact sequence	<b>1</b> 13
Configuration Configuration		
	Contact diagram	0 2.8 5.5
Connection technique Screw terminals	Configuration	$\frac{1}{4}$ $\frac{3}{6}$ $\frac{2}{5}$
	Connection technique	Screw terminals

#### Technical data General

General			
Standards			IEC 60947-5-1
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	>5
Operating frequency	Operations/h		≦ 3600
Actuating force		n	≦ 5
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 <sup>2</sup>	
Solid		mm <sup>2</sup>	0.75 - 2.5
Stranded		mm <sup>2</sup>	0.5 - 2.5

Flexible with ferrule		mm <sup>2</sup>	0.5 - 1.5
Contacts			
Rated impulse withstand voltage	U <sub>imp</sub>	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 <sub>F</sub>	Fault probabilit	
at 5 V DC/1 mA	H <sub>F</sub>	Fault probabilit	< 5 x 10 <sup>-6</sup> , < 1 failure in 5 x 10 <sup>6</sup> operations ty
Max. short-circuit protective device			
Fuseless		Туре	PKZM0-10/FAZ-B6/1
Fuse	gG/gL	А	10
Switching capacity			
Rated operational current	le	A	
AC-15			
115 V	Ι <sub>e</sub>	А	6
220 V 230 V 240 V	le	А	6
380 V 400 V 415 V	Ι <sub>e</sub>	А	4
500 V	I <sub>e</sub>	А	2
DC-13			
24 V	le	А	3
42 V	le	А	1.7
60 V	le	A	1.2
110 V	le	A	0.8
220 V	le	A	0.3
Lifespan, electrical			
AC-15			
230 V/0.5 A	Operations	x 10 <sup>6</sup>	1.6
230 V/1.0 A	Operations	x 10 <sup>6</sup>	1
230 V/3.0 A	Operations	x 10 <sup>6</sup>	0.7
DV-13			
12 V/2.8 A	Operations	x 10 <sup>6</sup>	1.2

# Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	А	6
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0.11
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	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 7.0**

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

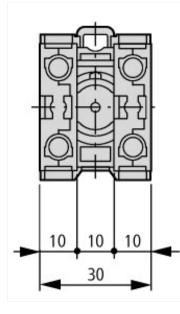
Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss10.0.1-27-37-13-02 [AKN342013])

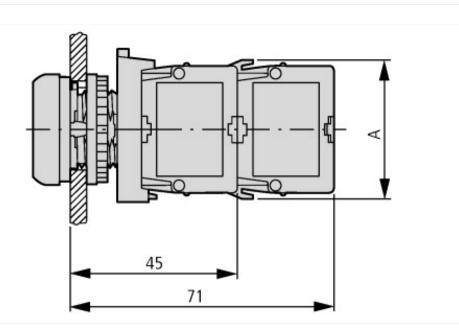
Number of contacts as change-over contact		0
Number of contacts as normally open contact		1
Number of contacts as normally closed contact		0
Number of fault-signal switches		0
Rated operation current le at AC-15, 230 V	А	6
Type of electric connection		Screw connection
Model		Top mounting
Mounting method		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**





A = 37.2