

## Contact element, 1N/O+1N/C, front mount, screw connection

Powering Business Worldwide\*

Part no. M22-AK11
Article no. 216505
Catalog No. M22-AK110

# **Delivery program**

Delivery program		
Product range		Accessories
Single unit/Complete unit		Element
Basic function accessories		Contact elements
Description		Assembly of contact element with screw terminals and fixing adapter
Fixing		Front fixing
Connection technique		Screw terminals
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		13 21
Contact travel diagram, stroke in connection with front element		2.8 0 1.2 5.5
Configuration		1/4 3/6 2/5
Degree of Protection		IP20
Connection to SmartWire-DT		no

# **Technical data**

#### General

General			
Standards			IEC 60947-5-1
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	>5
Operating frequency	Operations/h		≦ <sub>3600</sub>
Actuating force		n	≦ <sub>5</sub>
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		$\text{mm}^2$	
Solid		$\mathrm{mm}^2$	0.75 - 2.5
Stranded		$\mathrm{mm}^2$	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			III/3
Control circuit reliability			
at 24 V DC/5 mA	H <sub>F</sub>		$< 10^{-7}, < 1$ fault in $10^7$ operations ity
at 5 V DC/1 mA	H <sub>F</sub>	Fault probabil	$< 5 \times 10^{-6}$ , $< 1$ failure in $5 \times 10^{6}$ operations
Max. short-circuit protective device			
Fuseless		Type	PKZM0-10/FAZ-B6/1
Fuse	gG/gL	Α	10
Switching capacity			
Rated operational current	I <sub>e</sub>	Α	
AC-15			
115 V	I <sub>e</sub>	Α	6
220 V 230 V 240 V	I <sub>e</sub>	Α	6
380 V 400 V 415 V	I <sub>e</sub>	Α	4
500 V	I <sub>e</sub>	Α	2
DC-13			
24 V	I <sub>e</sub>	Α	3
42 V	le	Α	1.7
60 V	I <sub>e</sub>	Α	1.2
110 V	I <sub>e</sub>	Α	0.8
220 V	I <sub>e</sub>	Α	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
Auxiliary contacts			
Rated conditional short-circuit current	Iq	kA	1

# Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	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	$P_{vs}$	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 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])

Number of contacts as change-over contact

Number of contacts as normally open contact

Number of contacts as normally closed contact

1

Rated operation current le at AC-15, 230 V

A

6

Type of electric connection

Model

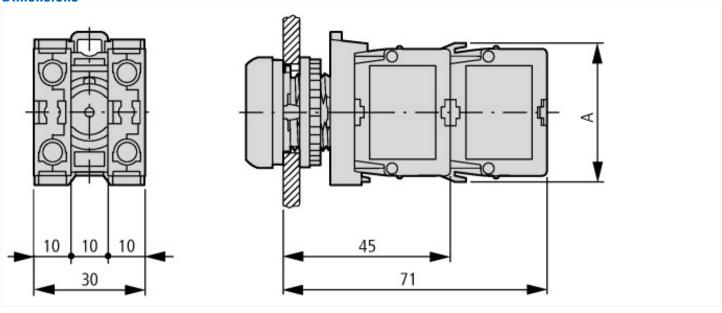
Mounting method

Front fastening

## **Approvals**

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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)**

### IL04716002Z (AWA1160-1745) RMQ-Titan System

IL04716002Z (AWA1160-1745) RMQ-Titan System

ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL04716002Z2016\_09.pdf