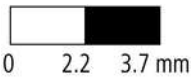
DATASHEET - E10



Contact element, 1N/O, front mount, screw connection

Part no.	**E10**
Catalog No.	**090351**
Alternate Catalog No.	**E10**
EL-Nummer (Norway)	**4356331**

Delivery program

Product range			Accessories
Single unit/Complete unit			Single unit
Basic function accessories			Contact elements
Connection technique			Blade terminal
Description			admissible operating voltage: 5 – 250 V
Contacts			
N/O = Normally open			1 N/O
Contact sequence			
Contact travel diagram, stroke in connection with front element			
Degree of Protection			IP20 with ISH2,8
Connection to SmartWire-DT			no

Technical data

General

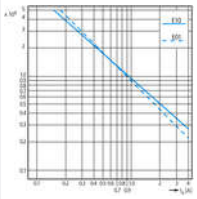
Standards			IEC/EN 60947
Lifespan, mechanical	Operations	x 10^6	> 100
Operating frequency	Operations/h		≦ 3600
Actuating force		n	≦ 3
Degree of protection, IEC/EN 60529			IP20 with ISH2,8
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open		°C	-25 - +60
Enclosed		°C	- 25 - 40
Mounting position			As required
Mechanical shock resistance		g	> 40 according to IEC 60068-2-27 Shock duration 11 ms Sinusoidal
Terminal capacities		mm^2	0.5 - 1.0
Blade terminal			2.8 x 0.8 mm to DIN 46244

Fast-on connectors			2.8 x 0.8 mm to DIN 46247 and IEC 60760

Contacts

Rated impulse withstand voltage	U_{imp}	V AC	4000
Rated insulation voltage	U_i	V	250
Overvoltage category/pollution degree			III/3
Rated operational voltage	U_e	V AC	250
Rated conditional short-circuit current	I_q	kA	1
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	$< 5 \times 10^{-6}$ (i.e. 1 failure in 5×10^6 operations)
Use of insulated ferrule ISH 2,8			>24 V AC/DC recommended >50 V AC or 120 V DC is mandatory, even on unused blade terminals
Max. short-circuit protective device			
Fuseless		Type	FAZ-B6/1
Fuse	gG/gL	A	10

Switching capacity

Rated operational current	I_e	A	
AC-15			
24 V	I_e	A	4
48 V	I_e	A	4
110 V	I_e	A	4
220 V 230 V 240 V	I_e	A	4
DC-13			
24 V	I_e	A	1.5
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	0.2
Lifespan, electrical AC-15 to IEC/EN 60947-5-1 at 230 V; I_e = rated operational current			

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	0.1
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	60
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 Ie at AC-15, 230 V		A	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; CE marking
UL File No.			E29184
UL Category Control No.			NKCR
CSA File No.			46552
CSA Class No.			3211-03
North America Certification			UL listed, CSA certified

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