

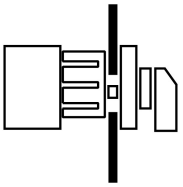
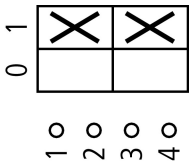
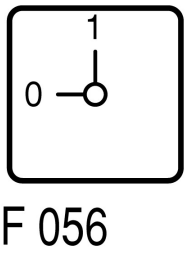


On-Off switch, 2p, Iu=10A, FS 0-1, 90°, maintained, 30x30 mm, center mounting

Part no. TM-1-8291/EZ
Article no. 015073

Similar to illustration

Delivery programme

Product range			Control switches
Part group reference			TM
Basic function			ON-OFF switches
			with black thumb grip and front plate With 0 (Off) position
Number of poles			2 pole
Degree of Protection			Front IP65
Design			centre mounting
			
Contact sequence			
Switching angle		°	90
Switching performance			maintained
Front plate no.			
front plate			0-1

Motor rating AC-23A, 50 - 60 Hz

400 V	P	kW	3
Rated uninterrupted current	I_u	A	10
Number of contact units		contact unit(s)	1

Technical data

General

Standards			IEC/EN 60947, VDE 0660, CSA, UL Control switch as per IEC/EN 60947-5-1 Auxiliary switch as per IEC/EN 60947-5-1
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature		°C	
Open		°C	-25 - +50
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U_{imp}	V AC	4000
Mounting position			As required

Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof

Contacts

Mechanical variables			
Number of poles			2 pole
Electrical characteristics			
Rated operational voltage	U_e	V AC	500
Rated uninterrupted current	I_u	A	10
Note on rated uninterrupted current $!_u$			Rated uninterrupted current Iu is specified for max. cross-section.
Short-circuit rating			
Fuse		A gG/gL	10

Switching capacity

Safe isolation to EN 61140			
Current heat loss per contact at I_e		W	0.15
Current heat loss per auxiliary circuit at I_e (AC-15/230 V)		CO	0.15
Lifespan, mechanical	Operations	x 10^6	> 1
Maximum operating frequency	Operations/h		1200
Control circuit reliability at 24 V DC, 10 mA	Fault probability	H_F	< 10^{-5}, < 1 fault in 100000 operations

Terminal capacities

Solid or stranded		mm^2	1 x 1,5 2 x 1,5
Flexible		mm^2	1 x 1.5 2 x 1.5
Terminal screw			M2.5
Max. tightening torque		Nm	0.35

Data for design verification according to IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	10
Heat dissipation per pole, current-dependent	P_{vid}	W	0.15
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
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			Please enquire
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 5.0

Low-voltage industrial components (EG000017) / Switch disconnector (EC000216)

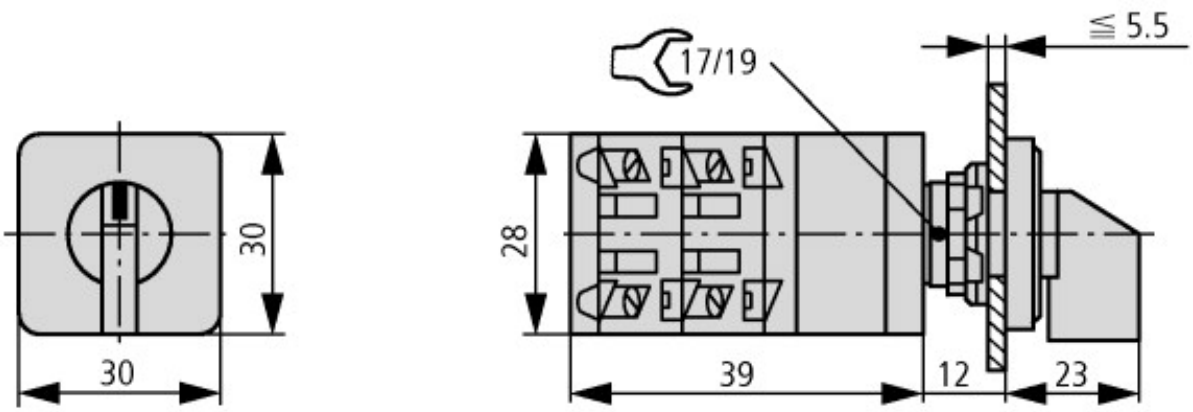
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss8-27-37-14-03 [AKF060009])

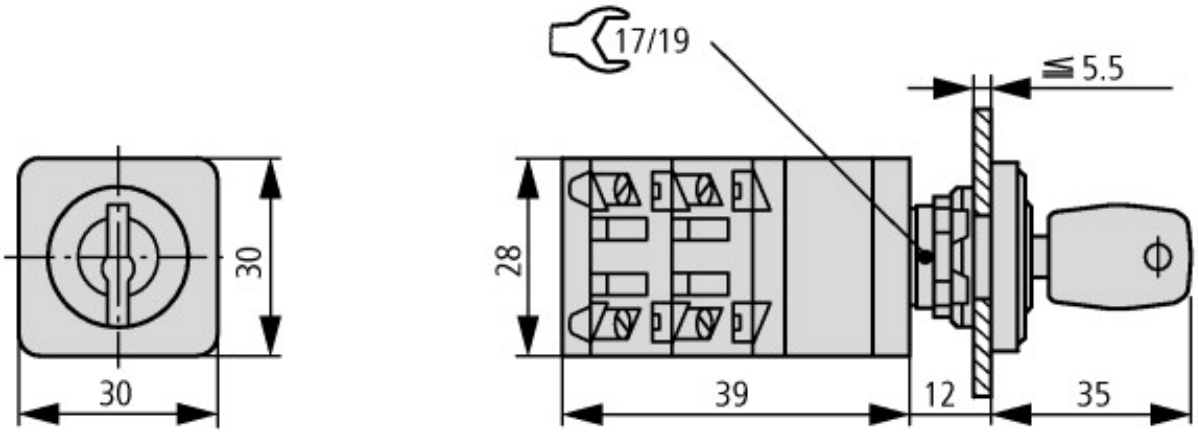
Version as switch disconnector compact			No
Version as main switch			No
Version as maintenance-/service switch			No
Version as safety switch			No
Version as emergency stop installation			No
Max. rated operation voltage Ue AC		V	500
Rated permanent current Iu		A	10
Rated operation power AC-3, 400 V		kW	0
Rated operation power at AC-23, 400 V		kW	3
Conditioned rated short-circuit current Iq		kA	0
Number of poles			2
Number of auxiliary contacts as normally closed contact			0
Number of auxiliary contacts as normally open contact			0
Number of auxiliary contacts as change-over contact			0
Motor drive optional			No
Motor drive integrated			No
Voltage release optional			No
Device construction			Built-in device fixed built-in technique
Suitable for ground mounting			No
Suitable for front mounting			No
Suitable for front mounting center			Yes
Suitable for distribution board installation			No
Suitable for intermediate mounting			No
Type of control element			Toggle
Interlockable			No
Connection type main current circuit			Screw connection
Degree of protection (IP), front side			IP65

Approvals

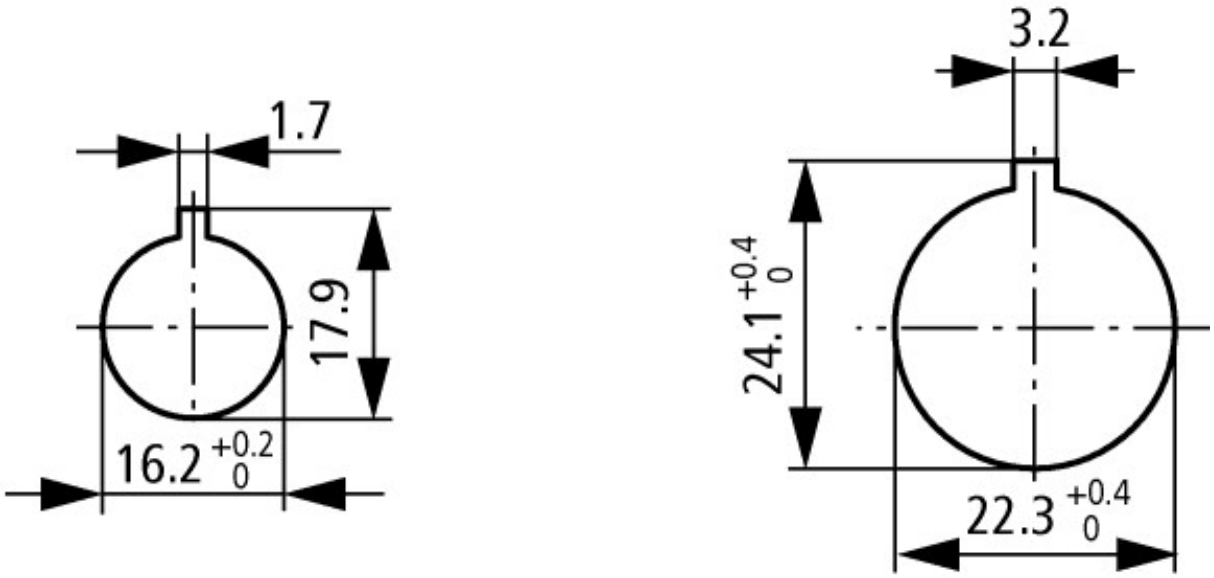
Product Standards			UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94; IEC/EN 60947-3; CE marking
UL File No.			E36332
UL Category Control No.			NLRV
CSA File No.			UL report applies to both US and Canada
CSA Class No.			–
North America Certification			UL listed, certified by UL for use in Canada
Degree of Protection			IEC: IP65; UL/CSA Type: –

Dimensions





Key operation lock mechanism



Door drilling dimensions

Drilling dimensions: either 16.2 mm = without reduction RMQ16 or 22.3 mm = with reduction RMQ Titan

Additional product information (links)

IL03801025Z On-Off-switch, changeover switch, control switch	
IL03801025Z On-Off-switch, changeover switch, control switch	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03801025Z2014_10.pdf
Form for ordering non-standard front plates	http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=4.87

Display flip catalog page.	http://ecat.moeller.net/flip-cat/?edition=K115A&startpage=12
Technical overview cam switch, switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.2
System overview cam switch T	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.4
System overview switch-disconnector P	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.6
Key to part numbers Cam switch	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8
Key to part numbers Switch-disconnector	http://de.ecat.moeller.net/flip-cat/?edition=HPLTEv1&startpage=4.8
Switches for ATEX Zone 22	http://www.coopercrouse-hinds.eu/en/products/10-ex-safety-and-main-current-switches.html

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