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Position switch, 1N/O+1N/C, narrow, IP65_x, roller plunger

Powering Business Worldwide

Part no. AT4/11-1/I/RS Article no. 000498 Catalog No. AT4-11-1-I-RS

Delivery programme

Basic function		Position switches Safety position switches
Part group reference		AT4
Product range		Roller plunger
Degree of Protection		IP65
Features		Complete unit
Ambient temperature	°C	-25 - +70
Design		EN 50041 Form C
Approval		totally insulated
Contacts		
N/O = Normally open		1 N/0
N/C = Normally closed		1 NC →
Notes		→ = safety function, by positive opening to IEC/EN 60947-5-1
Contact sequence		0-\frac{13}{14}\frac{21}{22}
Contact travel = Contact closed = Contact open		13-14 21-22 0 2.4 3.3 5.7 mm Zw = 3.6 mm
Positive opening (ZW)		yes
Colour		
Enclosure covers		Grey
Enclosure covers		
Housing		Insulated material
Connection type		Screw terminal

Notes The operating head can be rotated at 90° intervals to adapt to the specified approach direction. For degree of protection IP65, use V-M20 (206910) cable glands with connecting thread of max. 9 mm length.

Technical data

General

	IEC/EN 60947
	Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30
°C	-25 - +70
	As required
	IP65
	°C

Terminal capacities		mm^2	
Solid		mm ²	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)
Flexible with ferrule		mm ²	1 x (0.5 - 1.5) 2 x (0.5 - 1.5)
Contacts/switching capacity			
Rated impulse withstand voltage	U_{imp}	V AC	6000
Rated insulation voltage	Ui	٧	500
Overvoltage category/pollution degree			111/3
Rated operational current	l _e	Α	
AC-15			
24 V	le	Α	10
220 V 230 V 240 V	I _e	Α	6
380 V 400 V 415 V	l _e	Α	4
DC-13			
24 V	I _e	Α	10
110 V	I _e	Α	1
220 V	I _e	Α	0.5
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	6
Repetition accuracy		mm	0.02
Rated conditional short-circuit current		kA	1
Mechanical variables			
Lifespan, mechanical	Operations	x 10 ⁶	8
Contact temperature of roller head		°C	≦ ₁₀₀
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	5
Snap-action contact		g	2
Operating frequency	Operations/h		≦ ₆₀₀₀
Actuation			
Mechanical			
Actuating force at beginning/end of stroke		N	8.0/20.0
Actuating torque of rotary drives		Nm	0.3
Max. operating speed with DIN cam		m/s	0.5/0.5

Design verification as per IEC/EN 61439

Notes

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	6
Heat dissipation per pole, current-dependent	P _{vid}	W	0.1
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	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.

for angle of actuation $\alpha = 0^{\circ}/30^{\circ}$

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

Sensors (EG000026) / End switch (EC000030)

Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch / Position switch (Type 1) (ecl@ss8.1-27-27-06-01 [AGZ382012])

Width sensor	mm	40
Diameter sensor	mm	0
Height of sensor	mm	83
Length of sensor	mm	0
Rated operation current le at AC-15, 24 V	А	10
Rated operation current le at AC-15, 125 V	А	0
Rated operation current le at AC-15, 230 V	А	6
Rated operation current le at DC-13, 24 V	А	10
Rated operation current le at DC-13, 125 V	А	1
Rated operation current le at DC-13, 230 V	А	0.4
Switching function		Slow-action switch
Output electronic		No
Forced opening		Yes
Number of safety auxiliary contacts		1
Number of contacts as normally closed contact		1
Number of contacts as normally open contact		1
Number of contacts as change-over contact		0
Type of interface		None
Type of interface for safety communication		None
Housing according to norm		DIN EN 50041
Construction type housing		Cuboid
Material housing		Plastic
Coating housing		
Type of control element		Roller cam
Alignment of the control element		-
Type of electric connection		-
With status indication		No
Suitable for safety functions		Yes
Explosion safety category for gas		None
Explosion safety category for dust		None
Ambient temperature during operating	°C	-25 - 70
Degree of protection (IP)		IP65

Additional product information (links)

IL05208012Z (AWA1310-0544) Position switch

IL05208012Z (AWA1310-0544) Position switch

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208012Z2011_06.pdf