DATASHEET - ATO-11-1-IA/ZRS



Position switch, 1N/O+1N/C, wide, IP65_x, roller plunger, centre fixing



ATO-11-1-IA/ZRS Part no. Catalog No. 052680 Alternate Catalog AT0-11-1-IA/ZRS

No.

Powe	ering Busi	ness N	/orldwide [™]

Delivery program			
Basic function		Position switches Safety position switches	
Part group reference		ATO	
Product range		Roller plunger, centre fixing	
Degree of Protection		IP65	
Features		Complete unit	
Ambient temperature	°C	-25 - +70	
Approval		totally insulated	
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	
Contact sequence		$0 - \frac{13}{14} \frac{1}{22}$	
Contact travel = Contact closed = Contact open		13-14 21-22 0 2.9 4.8 6 mm Zw = 4.2 mm	
Positive opening (ZW)		yes	
Colour			
Enclosure covers		Grey	
Enclosure covers			
Housing		Insulated material	
Connection type		Screw terminal	
Notes For degree of protection IP65, use V-M20 (206910) cable glands with connecting thread of max. 9 mm length.			

Technical data

General

delicial		
Standards		IEC/EN 60947
Climatic proofing		Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30
Ambient temperature	°C	-25 - +70
Mounting position		As required
Degree of Protection		IP65
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)

Paratition accuracy			0.00
Repetition accuracy Contacts/switching capacity		mm	0.02
Rated impulse withstand voltage	11.	V AC	6000
	U _{imp}		
Rated insulation voltage	Ui	V	500
Overvoltage category/pollution degree			III/3
Rated operational current	l _e	Α	
AC-15			
24 V	l _e	Α	10
220 V 230 V 240 V	l _e	Α	6
380 V 400 V 415 V	l _e	Α	4
DC-13			
24 V	l _e	Α	10
110 V	Ie	Α	1
220 V	Ie	Α	0.5
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	6
Mechanical variables			
Lifespan, mechanical	Operations	x 10 ⁶	20
Contact temperature of roller head		°C	≦ 100
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	25
Snap-action contact		g	2
Operating frequency	Operations/h		≦ 6000
Actuation			
Mechanical			
Actuating force at beginning/end of stroke		N	1.0/8.0
Actuating torque of rotary drives		Nm	0.2
Max. operating speed with DIN cam		m/s	1/1
Notes			for angle of actuation α = 0°/30°

Design verification as per IEC/EN 61439

Design verincation as per 126/214 01433			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	6
Heat dissipation per pole, current-dependent	P _{vid}	W	0.13
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.
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			
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@ss10.0.1-27-27-06-01 [AGZ382015])			
Width sensor		mm	51
Diameter sensor		mm	0
Height of sensor		mm	51
Length of sensor		mm	0
Rated operation current le at AC-15, 24 V		Α	10
Rated operation current le at AC-15, 125 V		Α	0
Rated operation current le at AC-15, 230 V		Α	6
Rated operation current le at DC-13, 24 V		Α	10
Rated operation current le at DC-13, 125 V		Α	1
Rated operation current le at DC-13, 230 V		Α	0.5
Switching function			Slow-action switch
Switching function latching			No
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
Construction type housing			Cuboid
Material housing			Plastic
Coating housing			Other
Type of control element			Roller cam
Alignment of the control element			Other
Type of electric connection			Other
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
Degree of protection (NEMA)			Other

Assets (links)

Declaration of CE Conformity

00002834

Instruction Leaflets

IL05208013Z2018_06