DATASHEET - AT0-11-1-IA/H



Position switch, 1N/O+1N/C, wide, IP65_x, actuating rod

Part no. ATO-11-1-IA/H
Catalog No. 040815
Alternate Catalog ATO-11-1-IA/H



Delivery program

Delivery program		
Basic function		Position switches Safety position switches
Part group reference		ATO
Product range		Actuating rod
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-\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Contact travel = Contact closed = Contact open		13-14 21-22 0° 22° 41° 54° Zw = 37°
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 For degree of protection IP65, use V-M20 (206910) cable glands with connecting the		1.

Technical data

General

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)
Repetition accuracy		mm	0.02
Contacts/switching capacity			
Rated impulse withstand voltage	U_{imp}	V AC	6000
Rated insulation voltage	Ui	V	500
Overvoltage category/pollution degree			III/3
Rated operational current	l _e	Α	
AC-15			
24 V	I _e	Α	10
220 V 230 V 240 V	I _e	Α	6
380 V 400 V 415 V	I _e	Α	4
DC-13			
24 V	l _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
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	8.0/20.0
Actuating torque of rotary drives		Nm	0.2
Max. operating speed with DIN cam		m/s	1.5

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	0.13
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.

L = 130 mm

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)

Sensors (EG000026) / End switch (EC000030)			
Electric engineering, automation, process control engineering / Binary sensor tech (ecl@ss10.0.1-27-27-06-01 [AGZ382015])	ınology, safety-ı	related se	nsor technology / Position switch / Position switch (Type 1)
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			No
Number of safety auxiliary contacts			0
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			Actuating rod
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