DATASHEET - AT0-11-S-IA/V



Position switch, 1N/0+1N/C, wide, $IP65_x$, adjustable roller lever

AT0-11-S-IA/V Part no. Catalog No. 036070 Alternate Catalog ATO-11-S-IA/V No.



Delivery program		
Basic function		Position switches Safety position switches
Part group reference		ATO
Product range		Adjustable roller lever
Degree of Protection		IP65
Features		Complete unit
Ambient temperature	°C	-25 - +70
Snap-action contact		Yes
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 13-14 21-22 0° 10° 23° 54° Zw = 39°
Positive opening (ZW)		yes
Colour		
Enclosure covers		Grey
Enclosure covers		
Housing		Insulated material
Connection type		Screw terminal

For degree of protection IP65, use V-M20 (206910) cable glands with connecting thread of max. 9 mm length.

Technical data General

delicital		
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	I _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	Ie	Α	10
110 V	I _e	Α	1
220 V	l _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

echnical 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
C/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.

for angle of actuation α = 30°, L = 125 mm

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

Electric anginuaring, automation, process control engineering / Binary sensor technology, related sensor sections (1727-27-60-11 [ACC322015]) Winth Sensor mm 5 Diameter sensor	Technical data ETIM 7.0			
Includes 10.1.72.72.06-01 [AG2382015]) Willink senancr	Sensors (EG000026) / End switch (EC000030)			
Diameter sensor mm 9 Height of sensor mm 51 Leight of sensor mm 0 Rated operation current le at AC-15, 24 V A 10 Rated operation current le at AC-15, 25 V A 6 Rated operation current le at AC-15, 230 V A 10 Rated operation current le at DC-13, 24 V A 10 Rated operation current le at DC-13, 28 V A 5 Rated operation current le at DC-13, 29 V A 5 Rated operation current le at DC-13, 29 V A 6 Switching function latching A 5 Switching function latching B 6 Output electronic P 6 Forced opening P 7 Number of contacts as normally closed contact P 1 Number of contacts as normally open contact P 1 Number of contacts as normally open contact P 1 1 Number of contacts as normally open contact P 1 1 Type of interface <th< td=""><td colspan="4">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])</td></th<>	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])			
Height of sensor	Width sensor	mm	51	
Length of sensor mm 0 Rated operation current le at AC-15, 24 V A 10 Rated operation current le at AC-15, 25 V A 0 Rated operation current le at DC-13, 24 V A 10 Rated operation current le at DC-13, 25 V A 1 Rated operation current le at DC-13, 25 V A 1 Rated operation current le at DC-13, 20 V A 0.5 Switching function A 0.5 Switching function latching No No Output electronic No No Forced opening Yes 1 Number of safety auxiliary contacts 1 1 Number of contacts as normally closed contact 1 1 Number of contacts as normally open contact 1 1 Number of contacts as change-over contact No No Number of contacts as change-over contact 1 No No construction type housing C No Material housing C Other Cotting housing C Other	Diameter sensor	mm	0	
Rated operation current le at AC-15, 24 V A 0 Rated operation current le at AC-15, 125 V A 6 Rated operation current le at AC-15, 230 V A 1 Rated operation current le at DC-13, 24 V A 1 Rated operation current le at DC-13, 25 V A 1 Rated operation current le at DC-13, 230 V A 0.5 Switching function A 0.5 Switching function latching No No Dutput electronic No No Forced opening 1 1 Number of safety auxiliary contacts 1 1 Number of contacts as normally closed contact 1 1 Number of contacts as change-over contact 0 None Vipe of interface for safety communication None None Construction type housing Cuboid None Conting housing Cuboid Cuboid Material housing Cuboid Cuboid Vipe of interface for safety communication Cuboid Cuboid Vipe of contact of element	Height of sensor	mm	51	
Rated operation current le at AC-15, 125 V A 0 Rated operation current le at AC-15, 230 V A 6 Rated operation current le at DC-13, 24 V A 10 Rated operation current le at DC-13, 125 V A 1 Rated operation current le at DC-13, 225 V A 0.5 Switching function Ouick-break switch Switching function No No Switching function latching No No Output electronic No No Forced opening Yes 1 Number of safety suxiliary contacts 1 1 Number of contacts as normally closed contact 1 1 Number of contacts as change-over contact 0 None Type of interface None None Type of interface for safety communication Pasatic Cobid Construction type housing Cubid Pasatic Construction type housing Cubid Adjustable rotary lever Alignment of the control element Cubid None With status indication <	Length of sensor	mm	0	
Rated operation current le at DC-13, 24 V A 10 Rated operation current le at DC-13, 125 V A 1 Rated operation current le at DC-13, 125 V A 1 Rated operation current le at DC-13, 230 V A 0.5 Switching function Duijok-break switch No Switching function latching No No Output electronic Yes No Forced opening 1 1 Number of contacts as normally closed contact 1 1 Number of contacts as normally open contact 1 1 Number of contacts as normally open contact 1 1 Number of contacts as change-over contact 0 None Type of interface None None Construction type housing Other Other Material housing Other Other Type of control element Adjustable rotary lewer Other Type of electric connection None Other With status indication None None Suitable for safety functions	Rated operation current le at AC-15, 24 V	Α	10	
Rated operation current le at DC-13, 24 V Rated operation current le at DC-13, 125 V Rowchching function Switching function Switching function latching Rowchching function latching funct	Rated operation current le at AC-15, 125 V	Α	0	
Rated operation current le at DC-13, 125 V Rated operation current le at DC-13, 230 V A Do 5 Switching function Switching function latching Output electronic Forced opening Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as change-over contact Vype of interface Construction type housing Construction type housing Construction type housing Construction type housing Control element Type of control element Type of control element Type of electric connection With status indication With status indication Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating To 2 To 3 To 3 To 4 Do 4	Rated operation current le at AC-15, 230 V	Α	6	
Rated operation current le at DC-13, 230 V Switching function Switching function latching Output electronic Output elect	Rated operation current le at DC-13, 24 V	А	10	
Switching function Quick-break 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 0 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 Other Type of control element Adjustable rotary lever Alignment of the control element Other Alignment of the control element Other Suitable for safety functions Yes Explosion safety category for gas None Explosion safety category for gas None Explosion safety category for dust None Ambient temperature during operating *C 25 - 70 Degree of protection (IP) Fe65	Rated operation current le at DC-13, 125 V	Α	1	
Switching function latching Output electronic Forced opening Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as normally closed conta	Rated operation current le at DC-13, 230 V	А	0.5	
Output electronic No Forced opening Yes Number of safety auxiliary contacts 1 Number of contacts as normally closed 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 Adjustable rotary lever 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) FP65	Switching function		Quick-break switch	
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 Meterial housing Plastic Cotting housing Other Type of control element Other 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 Yes 25 - 70 Degree of protection (IP) P65	Switching function latching		No	
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Type of interface for safety communication None Construction type housing Coating housing Coating housing Coating housing Coating housing Coating the control element Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Coating housing None None Solution None None Ambient temperature during operating Coating housing None Persone of protection (IP) None Response of protection (IP)	Number of contacts as normally open contact		1	
None Construction type housing Coating housing	Number of contacts as change-over contact		0	
Construction type housing Material housing Coating housing Cother	Type of interface		None	
Material housing Coating housing Cother	Type of interface for safety communication		None	
Coating housing Coating housing Other Type of control element Alignment of the control element Other Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Degree of protection (IP) Other Other Other No Other No Other Oth	Construction type housing		Cuboid	
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Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Pegree of protection (IP) Other No No No Yes None None 1 No	Coating housing		Other	
Type of electric connection With status indication Suitable for safety functions Explosion safety category for dust Ambient temperature during operating Degree of protection (IP) Other Other No No Yes None None 105 106 106 107 106 106 106 106 107 108 108 108 108 108 108 108	Type of control element		Adjustable rotary lever	
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Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating C 25 - 70 Degree of protection (IP) None 1P65	With status indication		No	
Explosion safety category for dust Ambient temperature during operating °C 25 - 70 Degree of protection (IP) IP65	Suitable for safety functions		Yes	
Ambient temperature during operating °C 25 - 70 Degree of protection (IP) IP65	Explosion safety category for gas		None	
Degree of protection (IP)	Explosion safety category for dust		None	
	Ambient temperature during operating	°C	25 - 70	
Degree of protection (NEMA) Other	Degree of protection (IP)		IP65	
	Degree of protection (NEMA)		Other	