DATASHEET - AT0-11-2-IA/ZS



Position switch, 1early N/O+1late N/C, wide, IP65_x, rounded plunger, centre fixing



Part no. AT0-11-2-IA/ZS Catalog No. 095394 Alternate Catalog AT0-11-2-IA/ZS

No.

Delivery program

Delivery program		
Basic function		Position switches Safety position switches
Part group reference		ATO
Product range		Rounded plunger, centre fixing
Degree of Protection		IP65
Features		Basic device, not expandable
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{127}{28} \frac{15}{16}
Contact travel = Contact closed = Contact open		17-18 25-26 0 2.1 3.4 6 mm Zw = 4.7 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

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)

Repetin accuracy (Poster Systiching capacity (Poster Sys				
Rated impulse withstand voltage Ump VAC 8000 Rated insulation voltage Uj VAC 900 Overvoltage category/pollution degree IIII IIII Rated operational current Ig VAC IIII AC-15 VAC VAC IIII 24 V Ig AC IC 200 V 230 V 240 V Ig AC IC 24 V Ig AC IC 10-13 Ig AC IC 24 V Ig AC IC 110 V Ig AC IC 220 V Ig AC IC 220 V Ig AC IC Note-circuit rating to IEC/EN 80947-5-1 Ig IC IC mx. fuse AgG/I IC IC Mechanical variables Ig IC IC Eligapar, mechanical variables Ig IC IC Standard-action contact IG IC IC <tr< td=""><td>· ·</td><td></td><td>mm</td><td>0.02</td></tr<>	· ·		mm	0.02
Rated insulation voltage U, V Solution Overvoltage category/pollution degrae I/I) I/I) Rated operational current I/I) AC-15 2 4 V I/I) Discolar control co				
Over-oitingse category/pollution degree I/e AC Rated operational current I/e AC AC-15 U U 24 V I/e A 10 20 V 230 V 240 V I/e A 6 380 V 400 V 415 V I/e A 4 DC-13 U V 10 24 V I/e A 10 110 V I/e A 10 220 V I/e A 0 Supply frequency I/e A 0 Supply frequency I/e A 0 Max. fuse A gG/gL 6 Mechanical X 1/e A gG/gL Mechanical variables Y 1/e Y 1/e Lifespan, mechanical Y 1/e Y 1/e Netation contact Y 1/e Y 1/e Contact temperature of roller head Y 2 Y 1/e Mechanical shock resistance (half-sinusoidal shock, 20 ms) Y 2 Y 2 Sandard-action contact	Rated impulse withstand voltage	U _{imp}	V AC	6000
Reted operational current I _e A AC-15 24 V I _e A 10 220 V 230 V 240 V I _e A 6 380 V 400 V 415 V I _e A 4 DC-13 I I I 24 V I _e A 1 110 V I _e A 1 220 V I _e A 0.5 Supply frequency Hz Max. 400 Short-circuit rating to IEC/EN 80947-5-1 Hz max. 400 max. fuse A 9G/gL 6 Mechanical variables (If approached from the side: 1) Lifespan, mechanical Operations	Rated insulation voltage	Ui	V	500
AC-15 24 V	Overvoltage category/pollution degree			III/3
10	Rated operational current	I _e	Α	
220 V 230 V 240 V	AC-15			
Sago v 400 v 415 v Ie	24 V	I _e	Α	10
DC-13 24 V	220 V 230 V 240 V	I _e	Α	6
10	380 V 400 V 415 V	I _e	Α	4
110 V	DC-13			
220 V I _B A 0.5 Supply frequency Short-circuit rating to IEC/EN 60947-5-1 max. fuse Mechanical variables Lifespan, mechanical Notes Contact temperature of roller head Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact Snap-action contact Snap-action contact Operations/h Actuating Actuating force at beginning/end of stroke Actuating forque of rotary drives Max. 400 Hz max. 400 6 6 6 Contact temperature of coller head (If approached from the side: 1) (If approached from the side: 1) 25 25 30 25 30 30 40 40 40 40 40 40 40 40	24 V	I _e	Α	10
Supply frequency Short-circuit rating to IEC/EN 60947-5-1 max. fuse Mechanical variables Lifespan, mechanical Notes Contact temperature of roller head Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact Snap-action contact Operations/h Actuation Mechanical Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400 Max. 400	110 V	I _e	Α	1
Short-circuit rating to IEC/EN 60947-5-1 max. fuse Mechanical variables Lifespan, mechanical Notes Contact temperature of roller head Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact Snap-action contact Operations/h Actuation Mechanical Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam A g S/gL 6 Operations × 106 Q 0 (If approached from the side: 1) C ≤ 100 (If approached from the side: 1) 2 ≤ 100 2 ≤ 000 2 ≤ 000 Notes N 1.0/8.0 N 1.0/8.0 N 1.0/8.0	220 V	I _e	Α	0.5
max. fuse A gG/gL 6 Mechanical variables X 106 20 Lifespan, mechanical Operations X 106 20 Notes (If approached from the side: 1) Contact temperature of roller head °C ≦ 100 Mechanical shock resistance (half-sinusoidal shock, 20 ms) g 25 Standard-action contact g 2 Snap-action contact g 2 Operating frequency Operations/h ≦ 6000 Actuation Actuation Mechanical N 1.0/8.0 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 1/0.5	Supply frequency		Hz	max. 400
Mechanical variables Lifespan, mechanical Operations x 106 20 Notes (If approached from the side: 1) Contact temperature of roller head °C ≤ 100 Mechanical shock resistance (half-sinusoidal shock, 20 ms) y Standard-action contact g 25 Snap-action contact g 2 Operating frequency Operations/h ≤ 6000 Actuation Mechanical N 1.0/8.0 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 1/0.5	Short-circuit rating to IEC/EN 60947-5-1			
Lifespan, mechanical Notes Contact temperature of roller head Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact Snap-action contact Operations/h Operations/h Actuation Mechanical Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam Operations/h Lifespan, mechanical (If approached from the side: 1) (If appr			A gG/gL	6
Notes (If approached from the side: 1) Contact temperature of roller head °C ≤ 100 Mechanical shock resistance (half-sinusoidal shock, 20 ms) g Standard-action contact g Snap-action contact g Operating frequency Operations/h Actuation Mechanical N Actuating force at beginning/end of stroke N Actuating torque of rotary drives Nm Max. operating speed with DIN cam m/s 1/0.5	Mechanical variables			
Contact temperature of roller head °C ≦ 100 Mechanical shock resistance (half-sinusoidal shock, 20 ms) g 25 Standard-action contact g 2 Snap-action contact g 2 Operating frequency Operations/h ≦ 6000 Actuation Mechanical N 1.0/8.0 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 1/0.5	Lifespan, mechanical	Operations	x 10 ⁶	20
Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact g 25 Snap-action contact g 2 Operating frequency Operations/h Actuation Mechanical Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam Mechanical Mechanical Actuating speed with DIN cam Mechanical N 1.0/8.0 Nm 0.2	Notes			(If approached from the side: 1)
Standard-action contact Snap-action contact Snap	Contact temperature of roller head		°C	≦ 100
Snap-action contact Snap-action contact Operating frequency Operations/h ≤ 6000 Actuation Mechanical Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam Operations/h Specifical contact contac	Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Operating frequency Operations/h ≤ 6000 Actuation Second Se	Standard-action contact		g	25
Actuation Mechanical Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam N 1.0/8.0 Nm 0.2 Max. operating speed with DIN cam m/s 1/0.5	Snap-action contact		g	2
Mechanical N 1.0/8.0 Actuating force at beginning/end of stroke N 0.2 Actuating torque of rotary drives Nm 0.2 Max. operating speed with DIN cam m/s 1/0.5		Operations/h		≦ 6000
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 1/0.5	Actuation			
Actuating torque of rotary drives Nm 0.2 Max. operating speed with DIN cam m/s 1/0.5	Mechanical			
Max. operating speed with DIN cam m/s 1/0.5	Actuating force at beginning/end of stroke		N	1.0/8.0
	Actuating torque of rotary drives		Nm	0.2
Notes for angle of actuation $\alpha = 0^{\circ}/30^{\circ}$	Max. operating speed with DIN cam		m/s	1/0.5
	Notes			for angle of actuation $\alpha=0^{\circ}/30^{\circ}$

Design verification as per IEC/EN 61439

Jesign verification as per IEG/EN 01439			
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
EC/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	ı	mm	51
Diameter sensor	ı	mm	0
Height of sensor	ı	mm	51
Length of sensor	ı	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			Plunger
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