DATASHEET - ATO-11-1-IA/H



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

Part no. AT0-11-1-IA/H Catalog No. 040815 Alternate Catalog AT0-11-1-IA/H Powering Business Worldwide

Delivery program

Position switches Safety position switches ATO Actuating rod IP65 Complete unit -25 - +70 Totally insulated 1 N/O
Actuating rod IP65 Complete unit -25 - +70 totally insulated 1 N/0
IP65 Complete unit -25 - +70 totally insulated 1 N/0
Complete unit -25 - +70 totally insulated 1 N/0
-25 - +70 totally insulated 1 N/0
totally insulated 1 N/0
1 N/O
1 NC ⊕
= safety function, by positive opening to IEC/EN 60947-5-1
$0 - \frac{13}{14} = \frac{21}{22}$
13-14 21-22 0° 22° 41° 54° Zw = 37°
yes
Grey
Insulated material
Screw terminal

Technical data

General

donora.		
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

Per				
Seminal capacities Solid	Mounting position			As required
	Degree of Protection			IP65
Pacific Paci	Terminal capacities		mm^2	
Acquation accuracy	Solid		mm ²	
Contacts/switching capacity Ump V AC 6000 Actact insulation voltage Ump V AC 6000 Nated insulation voltage V BOO 1/2 Neveroltage category/pollution degree V BOO 1/2 AC-15 V BOO 1/2 24 V BOO V BOO 1/2 220 V 230 V 240 V BOO In BOO 1/2 24 V BOO In BOO 1/2 24 V BOO In BOO 1/2 24 V BOO In BOO 1/2 110 V BOO In BOO 1/2 110 V BOO In BOO 1/2 220 V BOO In BOO 1/2 24 V BOO In BOO 1/2 250 V BOO In BOO 1/2 260 V BOO In BOO 1/2 260 V BOO In BOO 1/2 260 Chellinical Verificating to IEC/EN 60947-5-1 2 1/2 260 Chellinical Verifical Sea 1/2 1/2 260 Chellinical Verifical Sea 1/2 1/2 260 Chellinical Ve	Flexible with ferrule		mm ²	
Rated insulation voltage U _i ne V AC 6000 Rated insulation voltage U _i ne V AC 500 New Yorkspace category/pollution degree I _i ne AC III Rated operational current I _i ne AC I AC-15 I _i ne A I 240 V I _i ne A I 380 V 400 V 415 V I _i ne A I 110 V I _i ne A I 240 V I _i ne A I 110 V I _i ne A I 220 V I _i ne A I 220 V I _i ne A I 220 V I _i ne A I 300 V I _i ne A I 4 V I _i ne A I 5 Very Fractional States I _i ne A I 6 Very Fractional States I _i ne A I 7 Very Fraction States I _i ne I _i ne I <	Repetition accuracy		mm	0.02
Activation voltage View of the programment of the	Contacts/switching capacity			
Note Part	Rated impulse withstand voltage	U_{imp}	V AC	6000
Act do operational current AC-15 24 V	Rated insulation voltage	Ui	V	500
AC-15 24 V 10	Overvoltage category/pollution degree			III/3
24 \	Rated operational current	I _e	Α	
220 V 230 V 240 V 330 V 400 V 415 V DC-13 24 V 10 110 V 110 V 10 1220 V 10 10 10 10 10 10 10 10 10 1	AC-15			
10 10 10 10 10 10 10 10	24 V	I _e	Α	10
DC-13 24 V	220 V 230 V 240 V	l _e	Α	6
24 V Ie A 10 110 V Ie A 1 220 V Ie A 0.5 Supply frequency Hz Hz max. 400 Short-cruit rating to IEC/EN 60947-5-1 Hz To Parating Increased Inc	380 V 400 V 415 V	l _e	Α	4
110 V I I I I I I I I I I I I I I I I I I	DC-13			
220 V Ielemany Indicating to IEC/EN 60947-5-1 max. fuse Ag6/gL Ag6/g	24 V	le	Α	10
Supply frequency Short-circuit rating to IEC/EN 60947-5-1 max. fuse A gG/gL A gG/g	110 V	I _e	Α	1
Short-circuit rating to IEC/EN 60947-5-1 max. fuse A gG/gL 6 A	220 V	l _e	Α	0.5
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 g 25 Snap-action contact g g 2 Operating frequency Operations/n ≤ 6000 Actuation Mechanical Actuating force at beginning/end of stroke Nm 8.0/20.0 Actuating torque of rotary drives Nm 0.2 Max. operating speed with DIN cam	Supply frequency		Hz	max. 400
Mechanical variables ifespan, mechanical Operations x 10 ⁶ 20 Contact temperature of roller head Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact Snap-action contact Operations/h Operations/h Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam Operations x 10 ⁶ 20 Operations y 25 Operations/h Second Society Soc	Short-circuit rating to IEC/EN 60947-5-1			
one parting prequency of roller head operations operations operations operations operations of requency operations operations of requency operations operations of stock resistance (half-sinusoidal shock, 20 ms) operations/h operation contact operation contact operation contact operations of requency operations/h op	max. fuse		A gG/gL	6
Contact temperature of roller head Contact shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact g 25 Snap-action contact g 2 Operating frequency Operations/h Actuation Mechanical Actuation Actuation Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam Nm 0.2 Max. operating speed with DIN cam	Mechanical variables			
Mechanical shock resistance (half-sinusoidal shock, 20 ms) Standard-action contact g 25 Snap-action contact p 2 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 Max. operating speed with DIN cam Mechanical N 3 8.0/20.0 Nm 0.2 m/s 1.5	Lifespan, mechanical	Operations	x 10 ⁶	20
Standard-action contact Snap-action contact Snap	Contact temperature of roller head		°C	≦ 100
Snap-action contact Operating frequency Operations/h Actuation Mechanical Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam Snap-action operations/perators/ Operations/h Sections/h Sections/h N Secti	Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Operating frequency Operations/h Sectuation Mechanical Actuating force at beginning/end of stroke Actuating torque of rotary drives Max. operating speed with DIN cam Operations/h Sections/h N Sections/h Sections/h N Sections/h N Sections/h Sections/h N Sections/h	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 Nm 0.2 Max. operating speed with DIN cam m/s 1.5	Snap-action contact		g	2
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	Operating frequency	Operations/h		≦ 6000
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	Actuation			
Actuating torque of rotary drives Nm 0.2 Max. operating speed with DIN cam m/s 1.5	Mechanical			
Max. operating speed with DIN cam m/s 1.5	Actuating force at beginning/end of stroke		N	8.0/20.0
	Actuating torque of rotary drives		Nm	0.2
Notes L = 130 mm	Max. operating speed with DIN cam		m/s	1.5
	Notes			L = 130 mm

Design verification as per IEC/EN 61439

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 51 Diameter sensor mm 0 Height of sensor 51 mm Length of sensor 0 mm Rated operation current le at AC-15, 24 V Α 10 Rated operation current le at AC-15, 125 V 0 Α Rated operation current le at AC-15, 230 V Α 6 Rated operation current le at DC-13, 24 V 10 Α Rated operation current le at DC-13, 125 $\rm V$ Α Rated operation current le at DC-13, 230 V Α 0.5 Switching function Slow-action switch Switching function latching No Output electronic No No Forced opening Number of safety auxiliary contacts 0 Number of contacts as normally closed contact 1 Number of contacts as normally open contact Number of contacts as change-over contact 0 Type of interface None Type of interface for safety communication None Cuboid Construction type housing Plastic Material housing Coating housing **Other** Type of control element Actuating rod Other Alignment of the control element 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 IP65 Degree of protection (IP)

Degree of protection (NEMA) Other

Assets (links)

Declaration of CE Conformity

00002834

Instruction Leaflets

IL05208013Z2018_06