



Position switch, 1N/O+1N/C, narrow, IP65_x, plunger

Part no. AT4/11-1-I/S
Article no. 005244
Catalog No. AT4-11-1-I-S

Delivery programme

Basic function			Position switches Safety position switches
Part group reference			AT4
Product range			Rounded plunger
Degree of Protection			IP65
Features			Complete unit
Ambient temperature		°C	-25 - +70
Design			EN 50041 Form B
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			
Contact travel = Contact closed = Contact open			13-14 21-22 0 2.9 3.8 6 mm Zw = 4.1 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.

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)
Contacts/switching capacity			
Rated impulse withstand voltage	U _{imp}	V AC	6000
Rated insulation voltage	U _i	V	500
Overvoltage category/pollution degree			III/3
Rated 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			
24 V	I _e	A	10
110 V	I _e	A	1
220 V	I _e	A	0.5
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	6
Repetition accuracy		mm	0.02
Rated conditional short-circuit current		kA	1

Mechanical variables

Lifespan, mechanical	Operations	x 10 ⁶	8
Contact temperature of roller head		°C	\leq 100
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	5
Snap-action contact		g	2
Operating frequency	Operations/h		\leq 6000

Actuation

Mechanical			
Actuating force at beginning/end of stroke		N	8.0/20.0
Actuating torque of rotary drives		Nm	0.3
Max. operating speed with DIN cam		m/s	0.5/0.5
Notes			for angle of actuation $\alpha = 0^\circ/30^\circ$

Data for design verification according to IEC/EN 61439

Technical data for design verification			
Rated operational current AC-15 at 220 V, 230 V, 240 V	I _e	A	6
Rated operational current at 24 V	I _e	A	10
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 5.0

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@ss8-27-27-06-01 [AGZ382011])			
Width sensor	mm		40
Diameter sensor	mm		0
Height of sensor	mm		83
Length of sensor	mm		0
Rated operation current I _e at AC-15, 24 V	A		10
Rated operation current I _e at AC-15, 125 V	A		0
Rated operation current I _e at AC-15, 230 V	A		6
Rated operation current I _e at DC-13, 24 V	A		10
Rated operation current I _e at DC-13, 125 V	A		1
Rated operation current I _e at DC-13, 230 V	A		0.4
Switching function			Slow-action switch
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
Housing according to norm			DIN EN 50041
Construction type housing			Cuboid
Material housing			Plastic
Coating housing			-
Type of control element			Plunger
Alignment of the control element			-
Type of electric connection			-
With status indication			No
Suited 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

Additional product information (links)

IL05208012Z (AWA1310-0544) Position switch	
IL05208012Z (AWA1310-0544) Position switch	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208012Z2011_06.pdf