# Position switch, 1N/O+1N/C, narrow, IP65\_x, actuating rod

Part no. AT4/11-1/I/H
Article no. 090671
Catalog No. AT4-11-1-I-H



1/4



Basic function

Part group reference

Degree of Protection Features  Ambient temperature  Design Description  Approval  Contacts  N/O = Normally open N/C = Normally closed  Contact sequence  IP65  Complete unit  Complete unit  Contact sequence  PC -25 - +70  EN 50041 Form D  Not to be used as a safety position switch  Itotally insulated  1 N/O  1 N/O  1 N/O  1 N/C  1 N/O  1 N/C	Product range	Actuating rod	
Ambient temperature  Design  EN 50041 Form D  Not to be used as a safety position switch  Approval  Contacts  N/O = Normally open  N/C = Normally closed  Contact sequence  Contact sequence  1 N/C  113	Degree of Protection	IP65	
Description  Approval  Contacts  N/O = Normally open  N/C = Normally closed  Contact sequence  EN 50041 Form D  Not to be used as a safety position switch  totally insulated  1 N/O  1 N/O  1 N/O  1 N/C	Features	Complete unit	
Description  Approval  Contacts  N/O = Normally open  N/C = Normally closed  Contact sequence  Not to be used as a safety position switch  totally insulated  1 N/O  1 N/O  1 N/C  1 N/C	Ambient temperature	°C -25 - +70	
Approval  Contacts  N/0 = Normally open  N/C = Normally closed  Contact sequence  1 N/C  1 NC  1 NC	Design	EN 50041 Form D	
Contacts  N/0 = Normally open  N/C = Normally closed  Contact sequence  1 N/C  1 N/C  1 N/C	Description	Not to be used as a safety position switch	
N/O = Normally open  1 N/O  N/C = Normally closed  1 NC  Contact sequence	Approval	totally insulated	
N/C = Normally closed  Contact sequence  1 NC  1 NC  1 13 L 21	Contacts		
Contact sequence	N/O = Normally open	1 N/0	
$\circ$	N/C = Normally closed	1 NC	
	Contact sequence	<u>~</u> +7	
Contact travel = Contact closed = Contact open  13-14  21-22  0° 34° 44° 72°  Zw = 50°	Contact travel = Contact closed = Contact open	21-22 0° 34° 44° 72°	
Colour	Colour		

Position switches

AT4

Grey

Insulated material

Screw terminal

**Notes** The operating head can be rotated at 90° intervals to adapt to the specified approach direction. For degree of protection IP65, use V-M20 (206910) cable glands with connecting thread of max. 9 mm length.

### General

Housing

Connection type

Enclosure covers

Enclosure covers

Standards			IEC/EN 60947
Climatic proofing			Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30
Ambient temperature	0	C	-25 - +70

Mounting position			As required
Degree of Protection			IP65
Terminal capacities		mm <sup>2</sup>	
Solid		mm <sup>2</sup>	1 x (0.75 - 2.5) 2 x (0.75 - 1.5)
Flexible with ferrule		mm <sup>2</sup>	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	Ui	V	500
Overvoltage category/pollution degree			III/3
Rated operational current	I <sub>e</sub>	Α	
AC-15			
24 V	I <sub>e</sub>	Α	10
220 V 230 V 240 V	le	Α	6
380 V 400 V 415 V	I <sub>e</sub>	Α	4
DC-13			
24 V	I <sub>e</sub>	Α	10
110 V	I <sub>e</sub>	Α	1
220 V	I <sub>e</sub>	Α	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 <sup>6</sup>	8
Contact temperature of roller head		°C	≦ <sub>100</sub>
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	5
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	0.3
Max. operating speed with DIN cam		m/s	1.4

# Data for design verification according to IEC/EN 61439

Notes

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Technical data for design verification			
Rated operational current AC-15 at 220 V, 230 V, 240 V	l <sub>e</sub>	Α	6
Rated operational current at 24 V	I <sub>e</sub>	Α	10
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.

L = 130 mm

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 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	0.4
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		Actuating rod
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