DATASHEET - AT4/11-1/I/S



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

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



Delivery program		
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/0
N/C = Normally closed		1 NC →
Notes		(a) = safety function, by positive opening to IEC/EN 60947-5-1
Contact sequence		$0 - \sqrt{\frac{13}{14}} \sqrt{\frac{21}{22}}$
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.		

Technical data

General

delicitat		
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	Ie	Α	
AC-15			
24 V	l _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	I _e	Α	10
110 V	I _e	Α	1
220 V	le	Α	0.5
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	6
Rated conditional short-circuit current		kA	1
Mechanical variables			
Lifespan, mechanical	Operations	x 10 ⁶	8
Contact temperature of roller head		°C	≦ 100
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	0.5/0.5
Notes			for angle of actuation $\alpha=0^{\circ}/30^{\circ}$

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	0.1
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

	lechnical data Ellivi 7.0		
North sensor	Sensors (EG000026) / End switch (EC000030)		
Diameter sensor	Electric engineering, automation, process control engineering / Binary sensor technolog (ecl@ss10.0.1-27-27-06-01 [AGZ382015])	y, safety-related ser	nsor technology / Position switch / Position switch (Type 1)
In the sensor	Width sensor	mm	40
sends of sensor mm 0 Roted operation current le at AC-15, 25V A 10 Roted operation current le at AC-15, 25V A 0 Roted operation current le at AC-15, 23V A 10 Roted operation current le at DC-13, 25V A 10 Roted operation current le at DC-13, 23V A 1 Roted operation current le at DC-13, 230 V A 50 Roted operation current le at DC-13, 230 V A 10 Roted operation current le at DC-13, 230 V A 10 Rote operation current le at DC-13, 230 V A 10 Rote operation current le at DC-13, 230 V A 10 Rote operation current le at DC-13, 230 V A 10 Rote operation current le at DC-13, 230 V A 0 Rote operation current le at DC-13, 230 V A 0 Rote operation current le at DC-13, 230 V A 0 Rote operation current le at DC-13, 230 V A 0 Rote operation current le at DC-13, 230 V A 0 Rote operation current le at DC-13, 230 V 0	Diameter sensor	mm	0
Ast of operation current le at AC-15, 125 V A 0 Asted operation current le at AC-15, 125 V A 6 Asted operation current le at AC-15, 230 V A 10 Asted operation current le at DC-13, 125 V A 1 Asted operation current le at DC-13, 125 V A 1 Asted operation current le at DC-13, 125 V A 1 Asted operation current le at DC-13, 125 V A 1 Asted operation current le at DC-13, 125 V A 1 Asted operation current le at DC-13, 125 V A 1 Asted operation current le at DC-13, 125 V A 1 Asted operation current le at DC-13, 125 V A 0 Asted operation current le at DC-13, 125 V A 0 Aste operation current le at DC-13, 125 V A 0 Aster operation current le at DC-13, 125 V A 0 Aster operation current le at DC-13, 125 V A 0 Aster operation current le at DC-13, 125 V A 0 Aster operation current le at DC-13, 125 V A 0 Aster operation current le at DC-	Height of sensor	mm	83
Asted operation current le at AC-15, 125 V A 6 Asted operation current le at AC-15, 230 V A 10 Asted operation current le at DC-13, 125 V A 1 Asted operation current le at DC-13, 125 V A 1 Switching function latching Bould operation current le at DC-13, 125 V A Switching function latching No 50 Switching function latching No No Switching function latching No 1 Switching function latching 1 1 Wumber of safety contacts No 1 <td>Length of sensor</td> <td>mm</td> <td>0</td>	Length of sensor	mm	0
Asket do peration current le at DC-13, 24 V A 6 Asket do peration current le at DC-13, 125 V A 1 Asket do peration current le at DC-13, 125 V A 1 Asket do peration current le at DC-13, 125 V A 0 Solverbing function No 0 Solverbing function latching No 0 Dutput electronic No 0 Groced opening Yes 1 Number of safety suxiliary 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 1 1 Vipe of interface for safety communication None 1 Construction type housing Cubaid 1 Vipe of control element Cubaid 1 Vipe of control element Cubaid 1 Vipe of electric connection Chief 2 Village of electric connection No 2 Village of electric connection No	Rated operation current le at AC-15, 24 V	Α	10
Asted operation current le at DC-13, 24 V A 1 Asted operation current le at DC-13, 125 V A 0.4 Asted operation current le at DC-13, 125 V A 0.4 Asted operation current le at DC-13, 230 V A 0.4 Asted operation current le at DC-13, 230 V A 0.4 Asted operation current le at DC-13, 230 V A 0.4 Asted operation current le at DC-13, 230 V A 0.4 Asted operation current le at DC-13, 230 V A 0.4 Asted operation current le at DC-13, 230 V A 0.4 Asted operation current le at DC-13, 230 V A 0.4 Asted operation current le at DC-13, 250 V A 0.4 Asted operation current le at DC-13, 250 V A 0.4 Asted operation current le at DC-13, 125	Rated operation current le at AC-15, 125 V	Α	0
Asted operation current le at DC-13, 125 V A 0.4 Asted operation current le at DC-13, 230 V A 0.4 Asted operation of Control element and Control element a	Rated operation current le at AC-15, 230 V	Α	6
A Selection current le at DC-13, 230 V Solventing function Solventing function latching Solventing Solventin	Rated operation current le at DC-13, 24 V	Α	10
Switching function switch ing function latching No	Rated operation current le at DC-13, 125 V	Α	1
Switching function latching Output electronic Ou	Rated operation current le at DC-13, 230 V	Α	0.4
Support electronic Support of contacts as normally closed contact Support of contacts as normally open contact Support of contacts as normally open contact Support of contacts as normally open contact Support of contacts as change-over contact Support of contact Support of contact Support of control element Support of c	Switching function		Slow-action switch
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 Number of contacts as normally open contact Number of contacts as change-over contac	Switching function latching		No
Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as normally open contacts Number of contacts as normally open contacts Numb	Output electronic		No
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 open contact Number of contacts as change-over contact Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as change.	Forced opening		Yes
Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as change-over contact None None None None Construction type for safety communication Construction type housing Material housing Coating housing Control element Nippe of control element Nippe of electric connection Nother Nype of electric connection Nother Nype of electric connection Nother None Suitable for safety functions Explosion safety category for dust Ambient temperature during operating Negree of protection (IP) Legisland Legisla	Number of safety auxiliary contacts		1
Number of contacts as change-over contact Yope of interface Yope of interface for safety communication None Construction type housing Naterial housing Coating housing Yope of control element Xingment of the control element Yope of electric connection With status indication None Suitable for safety functions Explosion safety category for dust Ambient temperature during operating Young of protection (IP) One One One One One One One On	Number of contacts as normally closed contact		1
Type of interface Type of interface for safety communication Type of control plement Type of control element Type of control element Type of electric connection Type of electric connection Type of electric connection Type of safety functions Type of safety functions Type of safety functions Type of safety category for gas Type of electric consection Type of electric consection Type of electric connection Type of electric connecti	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 Coa	Type of interface		None
Material housing Coating housing Fype of control element Fype of control element Alignment of the control element Fype 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) Plastic Other Other Other Other Other Other No No Yes Solitable for safety functions CC 25 - 70 IP65	Type of interface for safety communication		None
Coating housing Type of control element Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Ambient temperature during operating Degree of protection (IP) Other Other Other No Other No Other No Other Oth	Construction type housing		Cuboid
Fype of control element Alignment of the control element Fype of electric connection With status indication Suitable for safety functions Explosion safety category for gas Ambient temperature during operating Other VC 25 - 70 IP65	Material housing		Plastic
Alignment of the control element Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Ambient temperature during operating Degree of protection (IP) Other No No No No No No No No No N	Coating housing		Other
Type of electric connection With status indication Suitable for safety functions Explosion safety category for gas Ambient temperature during operating Degree of protection (IP) Other No No Yes None None 25 - 70 IP65	Type of control element		Plunger
No Suitable for safety functions Explosion safety category for dust Ambient temperature during operating Degree of protection (IP) No No Yes None C 25 - 70 IP65	Alignment of the control element		Other
Suitable for safety functions Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Oegree of protection (IP) Yes None None 1 25 - 70 IP65	Type of electric connection		Other
Explosion safety category for gas Explosion safety category for dust Ambient temperature during operating Cegree of protection (IP) None 25 - 70 IP65	With status indication		No
Explosion safety category for dust Ambient temperature during operating CC 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

Approvals

Approvais	
Product Standards	UL 508; CSA-C22.2 No. 14; IEC/EN 60947-4-1; CE marking
UL File No.	E29184
UL Category Control No.	NKCR
CSA File No.	12528
CSA Class No.	3211-03
North America Certification	UL listed, CSA certified
Specially designed for North America	No
Suitable for	Branch circuits
Max. Voltage Rating	600 V AC
Degree of Protection	UL: 1, 4X; CSA: 1, 3R, 4, 4X, 12, 13

Assets (links)

Declaration of CE Conformity

00002833

Instruction Leaflets

IL05208012Z2018_06

Additional product information (links)

IL05208012Z (AWA1310-0544) Position switch

IL05208012Z (AWA1310-0544) Position switch

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05208012Z2018_06.pdf