



Position switch, 2N/O, wide, IP65\_x, roller lever

Part no. AT0-20-1-IA/R  
Catalog No. 069292  
Alternate Catalog No. AT0-20-1-IA/R



## Delivery program

Basic function			Position switches
Part group reference			AT0
Product range			Rotary lever
Degree of Protection			IP65
Features			Complete unit
Ambient temperature		°C	-25 - +70
Approval			<b>totally insulated</b>
<b>Contacts</b>			
N/O = Normally open			2 N/O
Contact sequence			
Contact travel  = Contact closed  = Contact open			
<b>Colour</b>			
Enclosure covers			Grey
Enclosure covers			
Housing			Insulated material
Connection type			Screw terminal
<b>Notes</b> 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.			

## Technical data

<b>General</b>			
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 <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)
Repetition accuracy		mm	0.02
<b>Contacts/switching capacity</b>			
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Rated insulation voltage	U <sub>i</sub>	V	500

Overvoltage category/pollution degree			III/3
Rated operational current	I <sub>e</sub>	A	
AC-15			
24 V	I <sub>e</sub>	A	10
220 V 230 V 240 V	I <sub>e</sub>	A	6
380 V 400 V 415 V	I <sub>e</sub>	A	4
DC-13			
24 V	I <sub>e</sub>	A	10
110 V	I <sub>e</sub>	A	1
220 V	I <sub>e</sub>	A	0.5
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	6

### Mechanical variables

Lifespan, mechanical	Operations	x 10 <sup>6</sup>	20
Contact temperature of roller head		°C	≤ 100
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	25
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	0.2
Max. operating speed with DIN cam		m/s	1.5
<b>Notes</b>			for angle of actuation α = 30°

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	A	6
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0.13
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	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) (ec1@ss10.0.1-27-27-06-01 [AGZ382015])			
Width sensor	mm	51	
Diameter sensor	mm	0	
Height of sensor	mm	51	
Length of sensor	mm	0	
Rated operation current I <sub>e</sub> at AC-15, 24 V	A	10	
Rated operation current I <sub>e</sub> at AC-15, 125 V	A	0	
Rated operation current I <sub>e</sub> at AC-15, 230 V	A	6	
Rated operation current I <sub>e</sub> at DC-13, 24 V	A	10	
Rated operation current I <sub>e</sub> at DC-13, 125 V	A	1	
Rated operation current I <sub>e</sub> at DC-13, 230 V	A	0.5	
Switching function		Slow-action switch	
Switching function latching		No	
Output electronic		No	
Forced opening		No	
Number of safety auxiliary contacts		0	
Number of contacts as normally closed contact		0	
Number of contacts as normally open contact		2	
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		Rotary lever	
Alignment of the control element		Other	
Type of electric connection		Other	
With status indication		No	
Suitable for safety functions		No	
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	