

AT4 Position Switches
Complete Units

Contacts
M = Make
B = Break
⊖ = Safety function by positive opening of contacts to IEC/EN 60 947-5-1

Contact sequence
Contact
■ Closed
□ Open
Zw = Positive opening clearance

Plunger
EN 50 041
Form B
Type
Article no. **Price**
See Price List

Roller plunger
EN 50 041
Form C
Type
Article no. **Price**
See Price List

Complete units, IP65



totally insulated

Narrow version

1 M 1 B ⊖

13-14
21-22
0 2,9 3,8 6 mm
Zw = 4,1 mm

1 M 1 B ⊖

13-14
21-22
0 2,3 3,7 6 mm
Zw = 4,9 mm

1 M 1 B ⊖

Snap-action contact
13-14
21-22
13-14
21-22
0 1,8 3,2 6 mm
Zw = 4,7 mm

AT4/11-1/I/S
005244

AT4/11-2/I/S
097791

AT4/11-S/I/S
090673

13-14
21-22
0 2,4 3,3 5,7 mm
Zw = 3,6 mm

13-14
21-22
0 1,8 3,2 5,7 mm
Zw = 4,4 mm

13-14
21-22
0 1,3 2,7 5,7 mm
Zw = 4,3 mm

AT4/11-1/I/RS
000498

AT4/11-2/I/RS
090672

AT4/11-S/I/RS
085927

Wide version

1 M 1 B ⊖

13-14
21-22
0 2,9 3,8 6 mm
Zw = 4,1 mm

1 M 1 B ⊖

13-14
21-22
0 2,3 3,7 6 mm
Zw = 4,9 mm

1 M 1 B ⊖

Snap-action contact
13-14
21-22
13-14
21-22
0 1,8 3,2 6 mm
Zw = 4,7 mm

AT4/11-1/IA/S
038466

AT4/11-2/IA/S
024229

AT4/11-S/IA/S
028976

13-14
21-22
0 2,4 3,3 5,7 mm
Zw = 3,6 mm

13-14
21-22
0 1,8 3,2 5,7 mm
Zw = 4,4 mm

13-14
21-22
0 1,3 2,7 5,7 mm
Zw = 4,3 mm

AT4/11-1/IA/RS
031347

AT4/11-2/IA/RS
021856

AT4/11-S/IA/RS
024230

AT4 Position Switches
Complete Units

Roller head
Type
Article no. **Price**
See Price List

Rotary lever
EN 50 041
Form A
Type
Article no. **Price**
See Price List

Std. pack **Notes**

13-14
21-22
0 3,0 4,0 6,9 mm
Zw = 4,4 mm

13-14
21-22
0 2,4 3,9 6,9 mm
Zw = 5,4 mm

13-14
21-22
0 1,9 3,4 6,9 mm
Zw = 5,1 mm

AT4/11-1/I/AR
085925

AT4/11-2/I/AR
076434

AT4/11-S/I/AR
062197

AT4/11-1/I/AR
085925

AT4/11-2/I/AR
076434

AT4/11-S/I/AR
062197

13-14
21-22
0° 34° 44° 72°
Zw = 50°

13-14
21-22
0° 28° 43° 72°
Zw = 60°

13-14
21-22
0° 22° 38° 72°
Zw = 58°

AT4/11-1/I/R316
095417

AT4/11-2/I/R316
085926

AT4/11-S/I/R316
081181

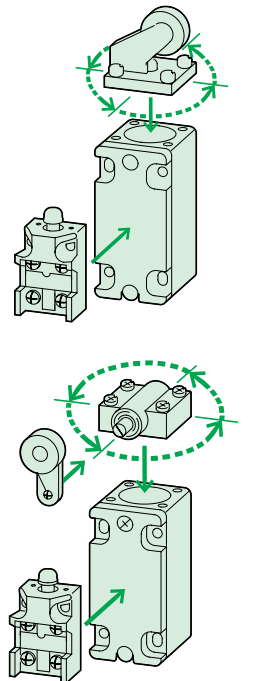
AT4/11-1/I/R316
095417

AT4/11-2/I/R316
085926

AT4/11-S/I/R316
081181

1 off

The operating heads can be rotated in 90° stages to match the specified direction of operation.
For degree of protection IP65, use M20 cable glands with up to 9.0 mm length of connecting thread (V-M20).



1 off

13-14
21-22
0 3,0 4,0 6,9 mm
Zw = 4,4 mm

13-14
21-22
0 2,4 3,9 6,9 mm
Zw = 5,4 mm

13-14
21-22
0 1,9 3,4 6,9 mm
Zw = 5,1 mm

AT4/11-1/IA/AR
017109

AT4/11-2/IA/AR
005245

AT4/11-S/IA/AR
000500

AT4/11-1/IA/AR
017109

AT4/11-2/IA/AR
005245

AT4/11-S/IA/AR
000500

13-14
21-22
0° 34° 44° 72°
Zw = 50°

13-14
21-22
0° 28° 43° 72°
Zw = 60°

13-14
21-22
0° 22° 38° 72°
Zw = 58°

AT4/11-1/IA/R316
026601

AT4/11-2/IA/R316
014737

AT4/11-S/IA/R316
019484

AT4/11-1/IA/R316
026601

AT4/11-2/IA/R316
014737



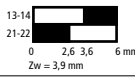

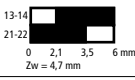

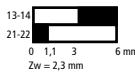

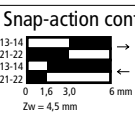
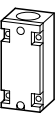
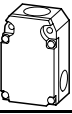



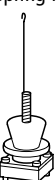

AT4/11-S/IA/R316
019484

Position Switches, Proximity Switches
Pressure Switches, Float Switches

Position Switches, Proximity Switches
Pressure Switches, Float Switches

AT4 Position Switches


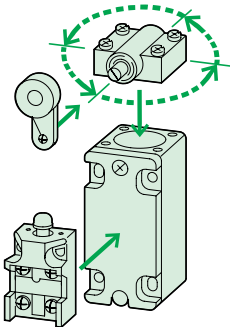
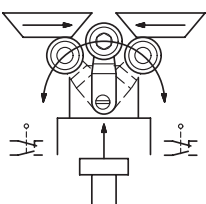
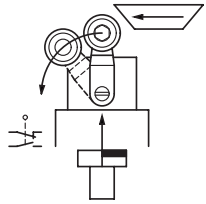
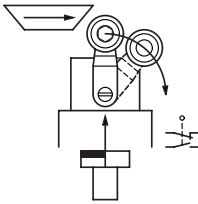
Components

	Contacts M = Make B = Break ☉ = Safety function by positive opening of contacts to IEC/EN 60 947-5-1	Contact sequence Contact ■ Closed □ Open Zw = Positive opening clearance	Type Article no.	Price See Price List	Std. pack	
Switch mechanisms						
For fitting into the following insulated housings						
	1 M 1 B ☉		 Zw = 3,9 mm	ATB11-1 069314	10 off	
	1 M 1 B ☉		 Zw = 4,7 mm	ATB11-2 071687		
	1 M 1 B ☉		 Zw = 2,3 mm	ATB11-3 077210		
	1 M 1 B ☉		Snap-action contact  Zw = 4,5 mm	ATB11-S 074060		
Insulated enclosures, IP65						
For housing the above switch mechanisms						
Narrow version to EN 50 041						
				I-AT4 055226	1 off	
Wide version						
				IA-AT4 074212	1 off	
Operating heads						
For combination with the above insulated housings						
Plunger head to EN 50 041						
				S-AT4 095692	2 off	
Roller plunger head to EN 50 041						
				RS-AT4 024502		
Actuating roller head						
				AR-AT4 088344		
Spring-rod actuator head, rod length 160 mm ¹⁾						
				F-AT4 090792		
Spring-rod actuator head, rod length 130 mm ¹⁾						
				F2-AT4 036214		

Notes

¹⁾ Not to be used as a safety position switch; admissible only with snap-action contact.

AT4 Position Switches
Components

	Max. operating speed - lateral	Angle of actuation Degrees	Lever length <i>l</i> mm	Dia- meter <i>d</i> mm	Type Article no.	Price See Price List	Std. pack	Notes
Operating heads								
For combination with the insulated housings opposite								
Rotary drive head	3	15			R-AT4		2 off	The operating heads can be rotated in 90° stages to match the specified direction of operation.
• For combination with the actuators below	1.5	50			095687			
								
Actuators								
Adjustable roller lever	2.3 1.1	15 50	150	–	HV		5 off	 <p>With the rotary drive, the method of contact making can be selected to suit the direction of operation simply by turning the plunger components.</p> <p>Contact made in both directions</p>  <p>Only when actuated from the right</p>  <p>Only when actuated from the left</p>  <p>For degree of protection IP65, use M20 cable glands with up to 9.0 mm length of connecting thread (V-M20).</p>
Actuating rod ¹⁾ • With adjustable aluminium rod	1.4	–	190	–	HH-A		10 off	
Actuating rod ¹⁾ • With plastic rod	1.4	–	190	–	HH-K		10 off	
Actuating roller lever ²⁾ • With plastic roller			30	18	HR311		1 off	
			30	22	HR313			
			30	30	HR316			
			30	40	HR317			
			30	50	HR318			
			37.5	18	HR411			
			37.5	22	HR413			
			37.5	30	HR416			
			37.5	40	HR417			
			37.5	50	HR418			
			50	18	HR511			
			50	22	HR513			
			50	30	HR516			
			50	40	HR517			
			50	50	HR518			

Notes

- 1) Not to be used as a safety position switch; admissible only with snap-action contact.
- 2) For non-standard rollers, please enquire.

Accessories

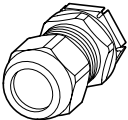
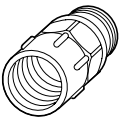
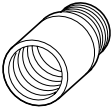



Page

V-M20 cable gland

03/018

AT... Position Switches

Accessories

	Type Article no.	Price See Price List	Std. pack	
Metric cable gland, M20, to EN 50 262 <ul style="list-style-type: none"> • With lock nut and built-in strain relief • IP68 up to 5 bar, halogen-free • External diameter of cable 6 – 13 mm 				
	V-M20 206910		20 off	
Adapter to convert PG 13,5 to M20, IP65 For PG13,5 cable glands Moulded				
	VPG13,5/M20 225268		10 off	
Screw connection to fit M20 into 1/2" For American pipe thread Metal				
	V1/2"/M20-NA 225269		1 off	The screw connection must be earthed, not total insulation
Screw connection to fit M20 into 1/2" For American pipe thread Moulded				
	V1/2"/M20 225270		10 off	
M20 diaphragm bolt, IP65 With built-in push-through diaphragm External diameter of cable up to 13 mm IP65 with cable inserted				
	EMS20 225271		25 off	
M20 screw closure, IP65 (self-sealing grommet) For tightening / loosening by using a standard wrench for sealing grommet plugs				
	SV-M20 225267		25 off	

Position Switches, Safety Position Switches

Technical Data

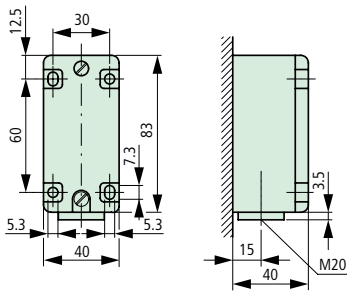
Position switches				ATO... ³⁾	ATR...	AT4...
Contacts/switching capacity						
Rated impulse withstand voltage U_{imp}			V	6000	6000	6000
Rated insulation voltage U_i			V	500	500	500
Overvoltage category/pollution degree				III/3	III/3	III/3
Rated operational current I_e						
AC-15	24 V		A	10	10	10
	230 V		A	6	6	6
	400 V		A	4	4	4
	500 V		A	2	2	2
DC-13	24 V DC		A	10	10	10
	110 V DC		A	1	1	1
	220 V DC		A	0.5	0.5	0.4
Supply frequency			Hz	≤ 400	≤ 400	≤ 400
Short-circuit rating in the closed state (IEC/EN 60 947-5-1)						
Fuseless			Type	PKZM0-10, FAZ-B6	PKZM0-10, FAZ-B6	PKZM0-10, FAZ-B6
Maximum fuse			A gG/gL	10	10	10
Short-circuit rating to IEC/EN 60 947-5-1						
Maximum fuse			A gG/gL	6	6	6
Repetition accuracy of switching point			mm	± 0.02	± 0.02	± 0.02
Mechanical variables						
Lifespan						
Standard-action contact		Operations	× 10 ⁶	20 ²⁾	20 ²⁾	20
Snap-action contact		Operations	× 10 ⁶	20 ²⁾	20 ²⁾	20
Contact temperature of roller head			°C	≤ 100	≤ 100	≤ 100
Mechanical shock resistance (shock duration 20 ms)						
Standard-action contact			g	25	25	5
Snap-action contact			g	2	2	2
Actuating frequency			Ops./h	6000	6000	6000
Dimensions				→ Page 03/046	→ Page 03/047, 052	→ Page 03/048
Actuation						
Mechanical						
Actuating force at beginning/end of stroke						
Basic units			N	1.0/8.0	1.0/8.0	–
S			N	–	–	8.0/20.0
RS			N	1.0/8.0	–	8.0/20.0
AR (WR)			N	1.0/8.0	–	3.0/9.0
ARG-ATR, ARK-ATR			N	1.0/8.0	1.0/8.0	–
ZB/ZBZ (push in/pull out)			N	–	–	–
Mechanical holding force						
ZBZ/G; ZBZ/W			N	–	–	–
ZBZ/F; ZBZ/NW			N	–	–	–
ZBZ/FG; ZBZ/NG			N	–	–	–
Actuating torque of rotary drives			Nm	0.2	–	0.3
Max. operating speed with DIN cam						
Basic units		Angle of actuation	m/s	1/0.5	1/1	–
R		($\alpha = 0^\circ/30^\circ$)	m/s	1.5	–	1.8
V		($\alpha = 30^\circ$, L = 125 mm)	m/s	1.5	–	1.4
H		(L = 130 mm)	m/s	1.5	–	1.4
AR		($\alpha = 30^\circ/45^\circ$)	m/s	1	–	1.5/1
ARG-ATR		($\alpha = 30^\circ$, $\beta = 45^\circ$)	m/s	–	1.5/1	–
ARK-ATR		($\alpha = 30^\circ$)	m/s	–	1	–
WR		($\alpha = 30^\circ$)	m/s	1	–	–
RS, ZRS		($\alpha = 0^\circ/30^\circ$)	m/s	1/1	–	0.5/0.5
S, ZS		($\alpha = 0^\circ/30^\circ$)	m/s	1/0.5	–	0.5
Electromechanical						
For magnet		AC voltage (50/60 Hz)	V/VA	–	–	–
			V/VA	–	–	–
		DC voltage	V/W	–	–	–
Voltage tolerance				–	–	–
Magnet duty factor			DF	–	–	–

AT4 Position Switches

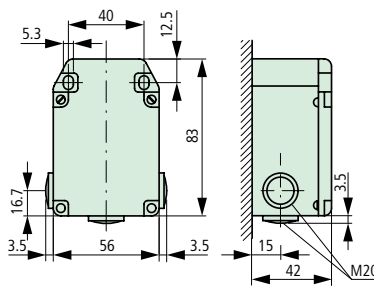
Dimensions

Position switches

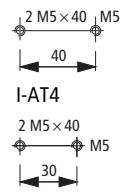
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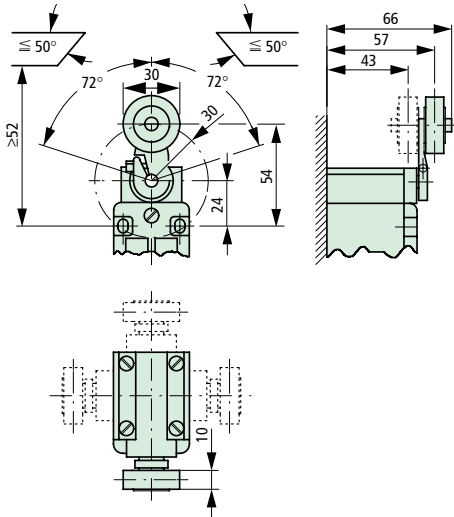
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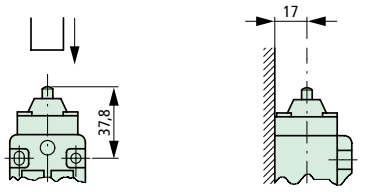
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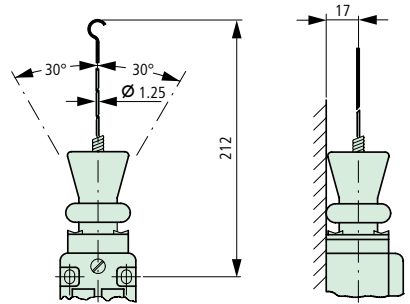
AT4/-...-.../I(IA)/R316



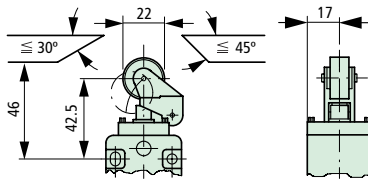
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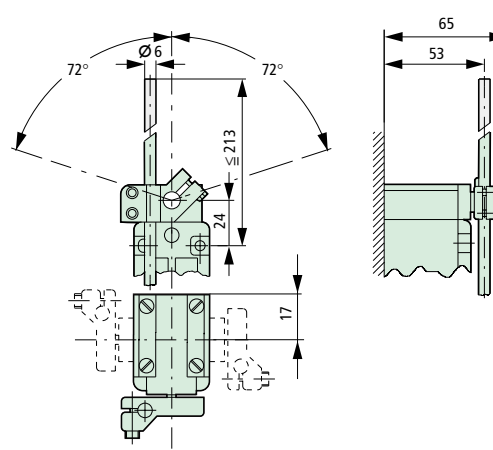
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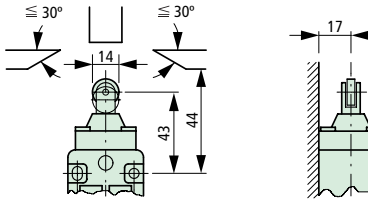
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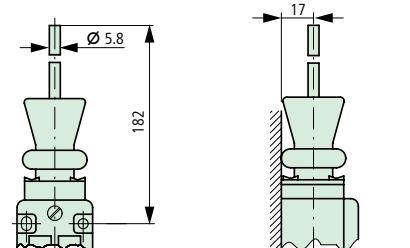
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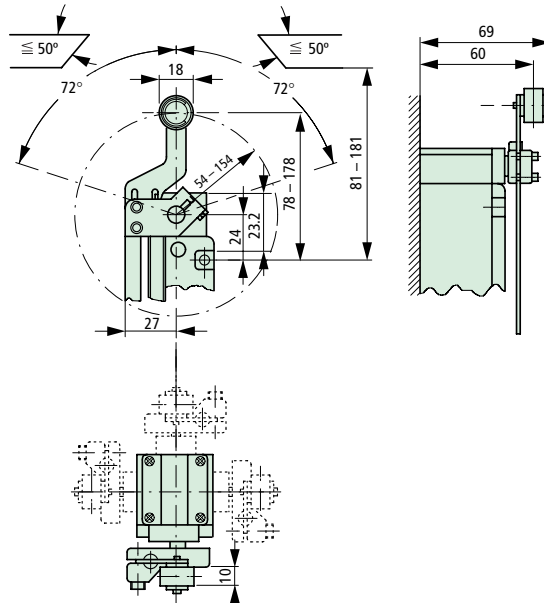
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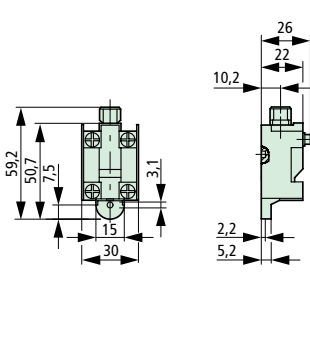
AT4/11-S/I(IA)/F2



AT4/-...-.../I(IA)/V



ATB11-...

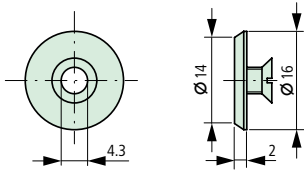


Position Switches, Proximity Switches, Pressure Switches, Float Switches

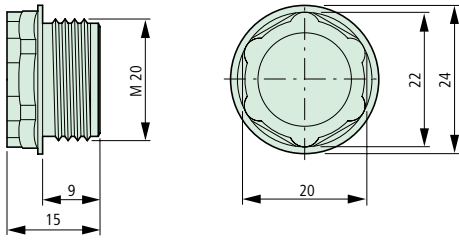
AT... Accessories

Dimensions

AT locating plate
FS-AT



Diaphragm bolt
EMS20



Adapter
VPG13,5/M20

