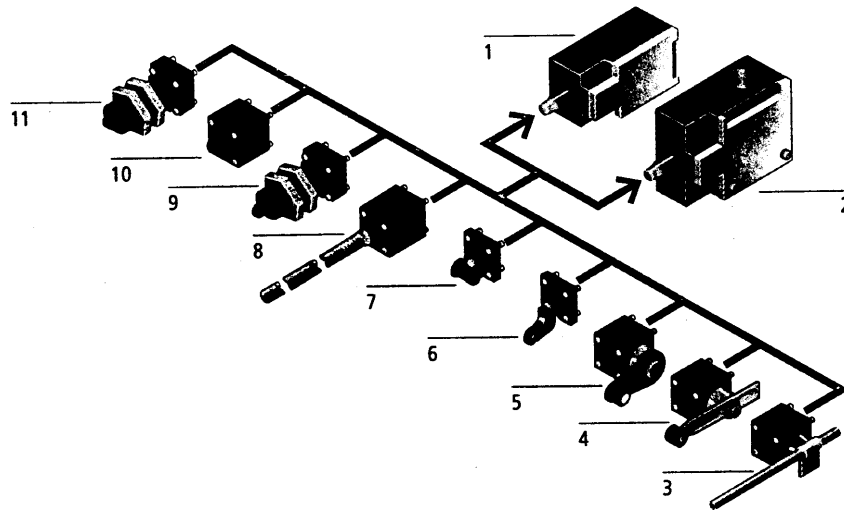


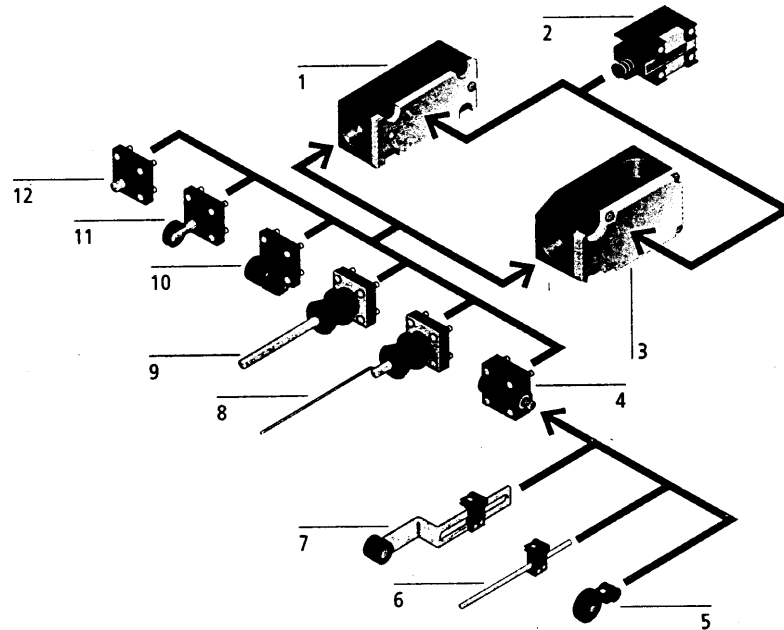
AT0, ATR, AT4 Position Switches System Overview

AT0 LIMIT SWITCH + OP. HEADS.

AT0



AT4



AT0, ATR, AT4 Position Switches System Overview

AT0/ATR

Basic units

Basic unit	1
Narrow version	
To EN 50 047	
With snap-on cover	
Number of contacts: 1M/1B, 2M, 2B	
As snap-action or standard-action switch	
→ Page 03/004	

Basic unit	2
Wide version	
With 2 × M20	
Number of contacts: 1M/1B, 2M, 2B	
As snap-action or standard-action switch	
→ Page 03/004	

Operating heads

Can be rotated in 90° stages

Actuating rod	3
On conveyor belts for light-weight goods	
Adjustable roller lever	4
For length adjustment as required	
Rotary lever	5
For transverse actuation, for pendulum movements	
Angled roller lever	6
For actuation along the device axis	
Roller lever	7
For one-sided operation with high actuation speed	
→ Page 03/009	

Operating heads

Can be rotated in 90° stages

Spring-rod actuator	8
For flexible actuation from any side	
Plunger (centre fixing)	9
For transverse and axial actuation when fitted in a through-hole	
Roller plunger	10
For transverse actuation with low actuating force	
Roller plunger (centre fixing)	11
For transverse actuation when fitted in a through-hole	
→ Page 03/009	

AT4

Housings/switch mechanisms

AT4 enclosure	1
Narrow version	
To EN 50 041	
→ Page 03/016	

Switch mechanisms	2
Standard-action and snap-action contact	
Overlapping method of contact-making	
Number of contacts: 1M/1B	
→ Page 03/016	

AT4 enclosure	3
Wide version	
With 3 × M20	
→ Page 03/016	

Operating heads

Can be rotated in 90° stages

Rotary drive head	4
For use in combination with more than 30 different actuators	
Actuating roller lever	5
With various lever lengths, roller diameters and widths	
Actuating rod	6
With plastic rod or adjustable aluminium rod	
Adjustable roller lever	7
For length adjustment as required	
→ Page 03/017	

Operating heads

Can be rotated in 90° stages

Spring-rod head	8
For flexible actuation from any side, with steel spring-rod	
Spring-rod head	9
For flexible actuation from any side, with plastic rod	
Actuating roller head	10
For one-sided operation with high actuation speed	
Roller plunger head	11
For transverse actuation with low wear	
Plunger head	12
With steel cap for operation with hot operating elements	
→ Page 03/016	

AT0, ATR, AT4 product attributes

- Modular system
- Degree of protection IP65
-  Totally Insulated
- Personnel protection
- Positive operation
- Suitable for use with electronic devices to IEC/EN 61 131-2
- Ⓢ Safety function by positive opening of contacts to IEC/EN 60 947-5-1
- Devices for world markets



AT0 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 50 047
Form B
Basic unit
Type
Article no.

Price
See Price
List

Plunger
Centre fixing

Type
Article no.

Price
See Price
List

Complete units, IP65



totally insulated

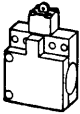
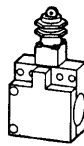
Narrow version

1 M 1 B ⊕			AT0-11-1-I 095406		AT0-11-1-I/ZS 036069
1 M 1 B ⊕			AT0-11-2-I 097779		AT0-11-2-I/ZS 076410
2 M - -			AT0-20-1-I 002860		AT0-20-1-I/ZS 062173
- 2 B ⊕			AT0-02-1-I 005233		AT0-02-1-I/ZS 002849
- 2 B ⊕			AT0-02-1-I- SOND916 098448		-
1 M 1 B ⊕			AT0-11-S-I 000487		AT0-11-S-I/ZS 019459
1 M 1 B ⊕			AT0-11-S1-I 226060		-

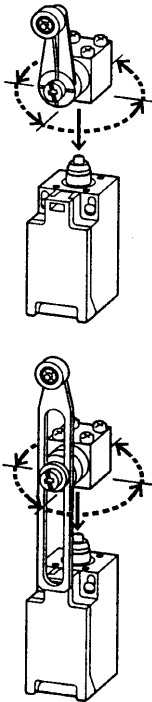
Wide version

1 M 1 B ⊕			AT0-11-1-IA 007606		AT0-11-1-IA/ZS 055053
1 M 1 B ⊕			AT0-11-2-IA 009979		AT0-11-2-IA/ZS 095394
2 M - -			AT0-20-1-IA 014725		AT0-20-1-IA/ZS 081157
- 2 B ⊕			AT0-02-1-IA 017098		AT0-02-1-IA/ZS 021833
1 M 1 B ⊕			AT0-11-S-IA 012352		AT0-11-S-IA/ZS 040816
1 M 1 B ⊕			AT0-11-S1-IA 226061		-

ATO Position Switches **Complete Units**

Roller plunger EN 50 047 Form C		Roller plunger Centre fixing		Notes	
Type	Price	Type	Price		
Article no.	See Price List	Article no.	See Price List	Std. pack	
					
ATO-11-1-I/RS 024204		ATO-11-1-I/ZRS 033696		10 off	
ATO-11-2-I/RS 064545		ATO-11-2-I/ZRS 074037		2 off	
ATO-20-1-I/RS 050308		ATO-20-1-I/ZRS 059800			
ATO-02-1-I/RS 090649		ATO-02-1-I/ZRS 000476			
-		-			
ATO-11-S-I/RS 007594		ATO-11-S-I/ZRS 017086		10 off	
-		-		1 off	
					
ATO-11-1-IA/RS 045561		ATO-11-1-IA/ZRS 052680		1 off	
ATO-11-2-IA/RS 085902		ATO-11-2-IA/ZRS 093021			
ATO-20-1-IA/RS 071665		ATO-20-1-IA/ZRS 078784			
ATO-02-1-IA/RS 012341		ATO-02-1-IA/ZRS 019460			
ATO-11-S-IA/RS 031324		ATO-11-S-IA/ZRS 038443			
-		-			

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).



For external applications or temperatures down to -40 °C use RBS-ATO sealing membrane.

No SUVA approval for the following types:

- ATO-20-1-I
- ATO-20-1-I/ZS
- ATO-20-1-I/RS
- ATO-20-1-I/ZRS
- ATO-20-1-IA
- ATO-20-1-IA/ZS
- ATO-20-1-IA/RS
- ATO-20-1-IA/ZRS

Accessories	Page
V-M20 cable gland	03/018
Sealing membrane	03/018

For external applications or temperatures down to -40 °C use RBS-ATO sealing membrane.

No SUVA approval for the following types:

- ATO-20-1-I
- ATO-20-1-I/ZS
- ATO-20-1-I/RS
- ATO-20-1-I/ZRS
- ATO-20-1-IA
- ATO-20-1-IA/ZS
- ATO-20-1-IA/RS
- ATO-20-1-IA/ZRS

Accessories

Page

V-M20 cable gland	03/018
Sealing membrane	03/018

AT0 Position Switches Complete Units

Pressure Switches, Float Switches

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	Spring-rod actuator ¹⁾		Roller lever EN 50 047 Form E	
		Type Article no.	Price See Price List	Type Article no.	Price See Price List

Complete units, IP65



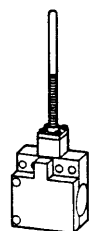
totally insulated

Narrow version



1 M 1 B ⊕					AT0-11-1-I/AR 017085
1 M 1 B ⊕					AT0-11-2-I/AR 057426
2 M - -					AT0-20-1-I/AR 043189
- 2 B ⊕					AT0-02-1-I/AR 083530
1 M 1 B ⊕		Snap-action contact 	AT0-11-S-I/F 000475		AT0-11-S-I/AR 097767

Wide version



1 M 1 B ⊕					AT0-11-1-IA/AR 038442
1 M 1 B ⊕					AT0-11-2-IA/AR 087873
2 M - -					AT0-20-1-IA/AR 064546
- 2 B ⊕					AT0-02-1-IA/AR 005222
1 M 1 B ⊕		Snap-action contact 	AT0-11-S-IA/F 024205		AT0-11-S-IA/AR 021832

Notes

¹⁾ Do not use spring-rod actuator as a safety position switch; admissible only with snap-action contact.

ATO Position Switches Complete Units

Angled roller lever

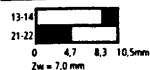
Rotary lever

EN 50 047

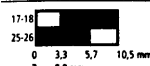
Form A

Type
Article no. Price
See Price
List

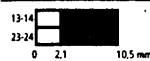
Type
Article no. Price
See Price
List Std. pack Notes



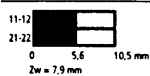
ATO-11-1-I/WR
031323



ATO-11-2-I/WR
071664



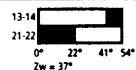
ATO-20-1-I/WR
057427



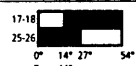
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097768



ATO-11-S-I/WR
014713



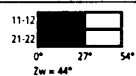
ATO-11-1-I/R
021831



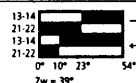
ATO-11-2-I/R
062172



ATO-20-1-I/R
047935



ATO-02-1-I/R
088276

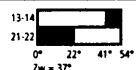
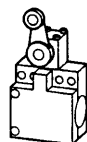


ATO-11-S-I/R
005221

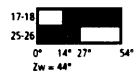
10 off

2 off

1 off



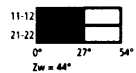
ATO-11-1-IA/R
043188



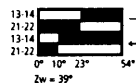
ATO-11-2-IA/R
083529



ATO-20-1-IA/R
069292



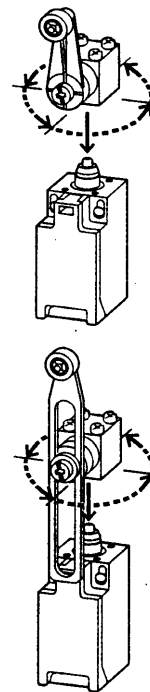
ATO-02-1-IA/R
009968



ATO-11-S-IA/R
028951

2 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)

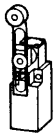
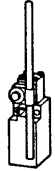
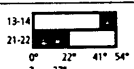
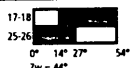
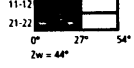
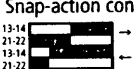
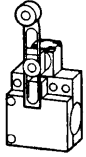
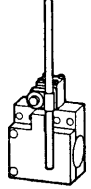
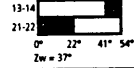
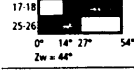
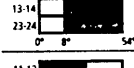
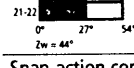


No SUVA approval for the following types:

- ATO-11-S-I/F
- ATO-20-1-IA/R
- ATO-20-1-I/WR
- ATO-20-1-I/R
- ATO-11-S-IA/F
- ATO-20-1-IA/AR
- ATO-20-1-IA/R

Accessories Page
V-M20 cable gland 03/018

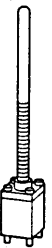
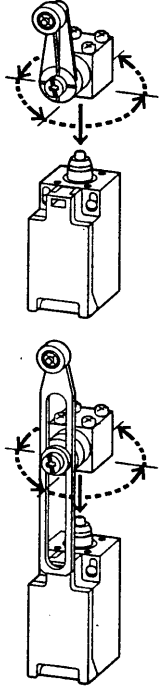
AT0 Position Switches Complete Units

		Adjustable roller lever		Actuating rod ¹⁾		
Contacts	Contact sequence	Type	Price	Type	Price	Std. pack
M = Make B = Break ⊕ = Safety function by positive opening of contacts to IEC/EN 60 947-5-1	Closed Open Zw = Positive opening clearance	Article no.	See Price List	Article no.	See Price List	
Complete units, IP65						
Narrow version						
totally insulated						
 						
1 M 1 B ⊕		 13-14 21-22 0° 22° 41° 54° Zw = 37°	AT0-11-1-I/V 028950	AT0-11-1-I/H 019458		10 off
1 M 1 B ⊕		 17-18 25-26 0° 14° 27° 54° Zw = 44°	AT0-11-2-I/V 069291	AT0-11-2-I/H 059799		2 off
2 M - -		 13-14 23-24 0° 8° 54°	AT0-20-1-I/V 055054	AT0-20-1-I/H 045562		
- 2 B ⊕		 11-12 21-22 0° 27° 54° Zw = 44°	AT0-02-1-I/V 095395	AT0-02-1-I/H 085903		
1 M 1 B ⊕		Snap-action contact  13-14 21-22 13-14 21-22 0° 10° 23° 54° Zw = 39°	AT0-11-S-I/V 012340	AT0-11-S-I/H 002848		10 off
Wide version						
 						
1 M 1 B ⊕		 13-14 21-22 0° 22° 41° 54° Zw = 37°	AT0-11-1-IA/V 050307	AT0-11-1-IA/H 040815		2 off
1 M 1 B ⊕		 17-18 25-26 0° 14° 27° 54° Zw = 44°	AT0-11-2-IA/V 090648	AT0-11-2-IA/H 081156		
2 M - -		 13-14 23-24 0° 8° 54°	AT0-20-1-IA/V 076411	AT0-20-1-IA/H 066919		
- 2 B ⊕		 11-12 21-22 0° 27° 54° Zw = 44°	AT0-02-1-IA/V 017087	AT0-02-1-IA/H 007595		
1 M 1 B ⊕		Snap-action contact  13-14 21-22 13-14 21-22 0° 10° 23° 54° Zw = 39°	AT0-11-S-IA/V 036070	AT0-11-S-IA/H 026578		

Notes

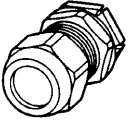
¹⁾ Not to be used as a safety position switch

AT0 Position Switches Operating Heads

	Style	Direction of actuation	Type Article no.	Price See Price List	Std. pack	Notes
Operating heads						
	Form C to EN 50 047	transverse	RS-AT0 053145		5 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)
	(centre fixing)	transverse	ZRS-AT0 031083			
	(centre fixing)	axial, transverse	ZS-AT0 033456			
	—	transverse	F-AT0 050772			
	Form E to EN 50 047	transverse	AR-AT0 046026		10 off	
	—	transverse	WR-AT0 048399		5 off	
	Form A to EN 50 047	transverse	R-AT0 038907			
	—	transverse	V-AT0 041280			
	—	transverse	H-AT0 043653			Not for use as safety position switches: • F-AT0 • H-AT0 F-AT0 can be used, but only in conjunction with snap-action contact
						Accessories
						V-M20 cable gland
						Page
						03/018

AT... Position Switches

Accessories

	Type Article no.	Price See Price List	Std. pack	
Metric cable gland, M20, to EN 50 262				
• 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				
"M20-NA" data-bbox="118 428 188 472"/>	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				
"M20" data-bbox="118 522 192 572"/>	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	