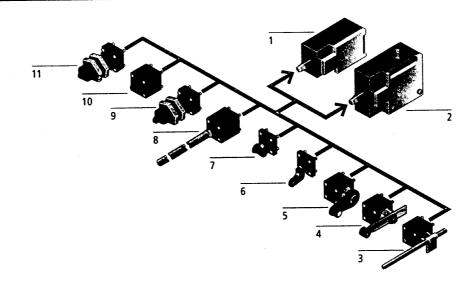
Pressiffe Switches Float Switches

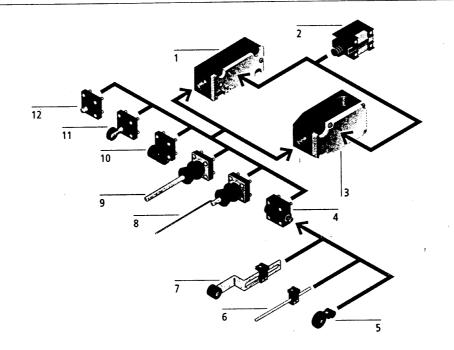
ATO, ATR, AT4 Position Switches System Overview

ATO HMIT SWITCH + OP HEADS.

AT0



AT4



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## ATO, ATR, AT4 Position Switches

System Overview

ATO/ATR					
Basic units		Operating heads Can be rotated in 90° stages		Operating heads Can be rotated in 90° stages	
Basic unit	1	Actuating rod	3	Spring-rod actuator	
Narrow version		On conveyor belts for light-weight goods		For flexible actuation from any side	-
To EN 50 047 With snap-on cover		Adjustable roller lever	4	Plunger (centre fixing)	
Number of contacts: 1M/18, 2M, 2B		For length adjustment as required		For transverse and axial actuation when	- '
As snap-action or standard-action switch		Rotary lever	5	fitted in a through-hole	
		For transverse actuation, for pendulum	,	Roller plunger	10
→ Page 03/004		movements		For transverse actuation with low actuating force	-
·		Angled roller lever	6		
Basic unit	2	For actuation along the device axis		Roller plunger (centre fixing)	_ 1'
Wide version		Roller lever		For transverse actuation when fitted in a through-hole	
With 2 × M20		For one-sided operation with high	7	anough Hole	
Number of contacts: 1M/1B, 2M, 2B As snap-action or standard-action switch		actuation speed		→ Page 03/009	-
→ Page 03/004		→ Page 03/009			
AT4					
Housings/switch mechanisms		<b>Operating heads</b> Can be rotated in 90° stages	,	<b>Operating heads</b> Can be rotated in 90° stages	
AT4 enclosure	1	Rotary drive head	4	Spring-rod head	
Narrow version		For use in combination with more		For flexible actuation from any side, with	
To EN 50 041		than 30 different actuators		steel spring-rod	
→ Page 03/016		Actuating roller lever	5	Spring-rod head	9
7 i age 03/010		With various lever lengths, roller diameters and widths		For flexible actuation from any side, with plastic rod	
Switch mechanisms	2	Actuating rod	6	Actuating roller head	10
Standard-action and snap-action contact		With plastic rod or adjustable aluminium		For one-sided operation with high	
Overlapping method of contact-making		rod		actuation speed	
Number of contacts: 1M/1B		Adjustable roller lever	7	Roller plunger head	11
		For length adjustment as required		For transverse actuation with low wear	
→ Page 03/016					
		→ Page 03/017		Plunger head	12
AT4 enclosure	3			With steel cap for operation with hot	
Wide version /				operating elements	
IAP.I. a					
With 3 × M20				→ Page 03/016	

## ATO, ATR, AT4 product attributes

- Modular system
- Degree of protection IP65
- e lotally 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













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## ATO Position Switches Complete Units

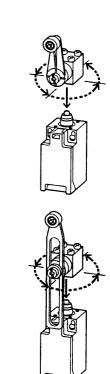
	Contacts M = Make B = Break  → = Safety functio opening of contacts IEC/EN 60 947-5-1	n by positive s to	Contact sequence Contact  Closed Open Zw = Positive opening clearance	Plunger EN 50 047 Form B Basic unit Type Article no.	Price See Price List	Plunger Centre fixing Type Article no.	Price See Price List
			Cicarance	e de la companya de l La companya de la co			
Complete uni	ts, IP65					196	
SUVA CNA INSAI						(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
totally insulated						 	
Narrow version	1						
	1 M 1 B ⊕	0- 13 1 21	13-14 21-22 0 2.9 4.8 6 mm Zw 4.2 mm	AT0-11-1-1 095406		AT0-11-1-I/ZS 036069	
	1 M 1 B →	o-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	17-18 25-26 0 2,1 3,4 6 mm Zw = 4,7 mm	AT0-11-2-I 097779		AT0-11-2-I/ZS 076410	
	2 M	0	13-14 23-24 0 1.3 6 mm	AT0-20-1-I 002860		AT0-20-1-I/ZS 062173	
	- 2B ⊕	0	11-12 21-22 0 3.4 6 mm 2w = 4.7 mm	AT0-02-1-I 005233		AT0-02-1-I/ZS 002849	
	- 2B ⊕	0	11-12 21-22 0 2 4 6 mm 2w (11-12) = 3.3 mm 2w (21-22) = 5.3 mm	AT0-02-1-I- SOND916 098448		••• · ·	
	1 M 1 B ⊕	0-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Snap-action contact  13-14 21-22 13-14 21-22 0 1.6 3.0 6 mm  2w = 4.5 mm	ATO-11-S-I 000487		AT0-11-S-I/ZS 019459	
	1 M 1 B ⊕	0	Snap-action contact  13-14 21-22 13-14 21-22 0.0.61 6 mm	AT0-11-51-I 226060			
Wide version			2w = 3.5 mm			 · · · · · · · · · · · · · · · · · · ·	
	1 M 1 B ⊕	0	13-14 21-22 0 2,9 4,8 6 mm	AT0-11-1-IA 007606		AT0-11-1-IA/Z 055053	<u>s</u>
	1 M 1 B ⊕	0- \frac{17}{18} \frac{1}{26}	Zw = 4,2 mm  17-18 25-26 0 2,1 3,4 6 mm Zw = 4,7 mm	AT0-11-2-IA 009979		 AT0-11-2-IA/Z 095394	S
	2 M	0-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	13-14 23-24 0 1.3 6 mm	AT0-20-1-IA 014725		AT0-20-1-IA/Z 081157	S
	- 2B ⊕	0	11-12 21-22 0 3.4 6 mm	AT0-02-1-IA 017098		AT0-02-1-IA/Z 021833	S
	1 M 1 B →	Q\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Snap-action contact  13-14 21-22 13-14 21-22 13-14 21-22 13-14 21-22 13-14 21-22 13-14	AT0-11-S-IA 012352		AT0-11-S-IA/Z 040816	S
	1 M 1 B ⊕	0\-13 L.21	Zw = 4,5 mm	AT0-11-S1-IA 226061		-	

#### **ATO Position Switches Complete Units**

Roller plunger Roller plunger EN 50 047 Centre fixing Notes Form C Type Price Type Price Article no. See Price List Article no. See Price Std. pack

	ATO-11-1-I/RS 024204		AT0-11-1-I/ZRS 033696	10 off
	ATO-11-2-I/RS 064545		AT0-11-2-I/ZRS 074037	2 off
	AT0-20-1-I/RS 050308	<del></del>	AT0-20-1-I/ZRS 059800	
*****	AT0-02-1-I/RS 090649		AT0-02-1-I/ZRS 000476	
			_	
	AT0-11-S-I/RS 007594		AT0-11-S-I/ZRS 017086	10 off
				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).



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

No SUVA approval for the following types:

• AT0-20-1-I

1 off

- AT0-20-1-I/ZS AT0-20-1-I/RS AT0-20-1-I/ZRS AT0-20-1-IA

- AT0-20-1-IA/ZS AT0-20-1-IA/RS AT0-20-1-IA/ZRS

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





ATO-11-1-IA/RS	ATO-11-1-IA/ZRS
045561	052680
 AT0-11-2-IA/RS 085902	AT0-11-2-IA/ZRS 093021
 AT0-20-1-IA/RS 071665	AT0-20-1-IA/ZRS 078784
ATO-02-1-IA/RS 012341	AT0-02-1-IA/ZRS 019460
ATO-11-S-IA/RS 031324	AT0-11-S-IA/ZRS 038443

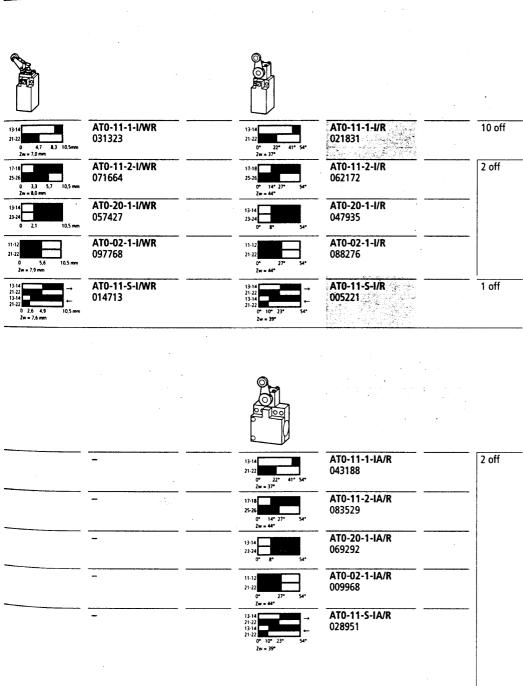
# **ATO Position Switches** Complete Units

			**************************************	Spring-rod actuat	itor¹)		Roller lever	
	Contacts M = Make		Contact sequence Contact				EN 50 047 Form E	
,	B = Break  → = Safety function  opening of contact  IEC/EN 60 947-5-1	ts to		Type Article no.	Price See Price List		Type Article no.	<b>Price</b> See Price List
						·		-
Complete uni	its, IP65	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·				1
SUVA CNA INSAI								•
totally insulated						· ————	<u>.</u>	
Narrow version	n		n		•		7	
				:		<b>A</b>		
	1 M 1 B ⊕	0		<del>-</del>		13-14 21-22 0 : 4,7 8,0 10,1 mm 2w = 6,8 mm	AT0-11-1-I/AR 017085	
	1 M 1 B ⊕	0-117 1-25		-		17-18 25-26 0 3,3 5,6 10,1 mm 2w = 7,8 mm	ATO-11-2-I/AR 057426	
	2 M	0-113  23		-		2w = 7,8 mm  13-14 23-24 0 2,2 10,1 mm	AT0-20-1-I/AR 043189	
	- 2B ⊕	0				11-12 21-22 0 5,5 10,1 mm 2w = 7,7 mm	AT0-02-1-I/AR 083530	
	1 M 1 B ↔	Q → 13 L 21 14 122	Snap-action contact 13-14 13-	AT0-11-S-I/F 000475		2w = 7,7 nem	AT0-11-S-I/AR 097767	
Wide version						_		
					•			
	1 M 1 B ⊕	0		-		13-14 21-22 0 4.7 8.0 10,1 mm Zw = 6,8 mm	ATO-11-1-IA/AR 038442	
	1 M 1 B ⊕	0- 117 125		<del>-</del>	_	2w = 6,8 mm  17-18 25-26 0 3,3 5,6 10,1 mm 2w = 7,8 mm	ATO-11-2-IA/AR 078783	
	2 M	0-113   23		<u> </u>	_	2w = 7,8 mm	AT0-20-1-IA/AR 064546	
	- 2B ⊕	0		-	<u></u>	11-12 21-22 0 5,5 10,1 mm	AT0-02-1-IA/AR 005222	***********
	1 M 1 B ⊕	o\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Snap-action contact	AT0-11-S-IA/F 024205		2w = 7,7 mm 13-14 21-22 13-14 21-22 0 2.6 4.8 10.1mm	AT0-11-S-IA/AR 021832	

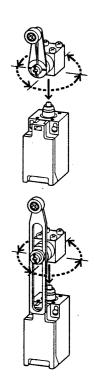
<sup>1)</sup> Do not use spring-rod actuator as a safety position switch; admissible only with snap-action contact.

#### **ATO Position Switches Complete Units**

Angled roller lev	Rotary lever EN 50 047 Form A					
<b>Type</b> Article no.	Price See Price List	Type Article no.		Price See Price List	Std. pack	Notes
	•		en Agre			



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:

- AT0-11-S-I/F AT0-20-1-I/AR AT0-20-1-I/WR
- AT0-20-1-I/R
- ATO-11-S-IA/F ATO-20-1-IA/AR

• AT0-20-1-IA/R

Accessories Page V-M20 cable gland 03/018

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## **ATO Position Switches**

## **Complete Units**

		Adjustable roller	lever		Actuating rod <sup>1)</sup>		
Contacts M = Make B = Break  → = Safety function by positive opening of contacts to	Contact sequence Contact  Closed Open	Type Article no.	Price See Price List		<b>Type</b> Article no.	Price See Price List	Std. pack
IÉC/EN 60 947-5-1	Zw = Positive opening clearance	N. N.					
Complete units, IP65							
Narrow version					<u> </u>	*.	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			•	N			
	<b></b>						
						•	
1 M 1 B ⊕ 13 L <sup>21</sup> •-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\	13-14 21-22 0° 22" 41° 54°	AT0-11-1-I/V 028950	<u>:</u>		ATO-11-1-I/H 019458		10 off
1 M 1 B → 0-117 L <sub>25</sub>	2w = 37°  17-18  25-26  0° 14' 27" 54°  2w = 44°	AT0-11-2-I/V 069291			ATO-11-2-I/H 059799		2 off
2 M 0- 113 123	13-14	AT0-20-1-I/V 055054			AT0-20-1-I/H 045562		
- 2 B ⊕ L⊓L² ∘	0° 8° 54°  11-12 21-22 0° 27° 54° 2w = 44°	AT0-02-1-I/V 095395			ATO-02-1-I/H 085903		
1 M 1 B ⊕   13 L <sup>21</sup>   2	Snap-action contact  13-14 21-22 13-14 21-22 0° 10° 23° 54°	AT0-11-S-I/V 012340			ATO-11-S-I/H 002848	<del>-,</del>	10 off
Wide version	Zw = 39°			Ŋ			
			·	42			
						÷	
1 M 1 B · ⊕	13-14 21-22 0° 22° 41° 54°	AT0-11-1-IA/V 050307			ATO-11-1-IA/H 040815		2 off
1 M 1 B ↔	2w = 37°  17-18  25-26  0° 14° 27° 54°	AT0-11-2-IA/V 090648			ATO-11-2-IA/H 081156		-
2 M (13) [23] 0- (-1) [24]	2w = 44*	ATO-20-1-IA/V 076411			AT0-20-1-IA/H 066919		-
- 2 B ⊕ L11L21 0	0° 8° 54°  11-12 21-22 0° 27° 54°	AT0-02-1-IA/V 017087			ATO-02-1-IA/H 007595	-	-
1 M 1 B ⊕ 13 Ln  •-\	Snap-action contact	AT0-11-S-IA/V 036070			ATO-11-S-IA/H 026578		-
	21-22 13-14 21-22						

Notes

<sup>1)</sup> Not to be used as a safety position switch

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	Style	Direction of actuation	Type Article no.	Price See Price List	Std. pack	Notes
Operating heads						
Roller plunger	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
			E. C.			direction of operation. For degree of protection IP65, use
Roller plunger	(centre fixing)	transverse	ZRS-ATO	-		direction of operation.  For degree of protection IP65, use M20 cable glands with up to 9.0 mm length of connecting thread (V-M20)
			031083	*,		
Plunger	(centre fixing)	axial,	ZS-AT0		,	
		transverse	033456		-	
Spring-rod actuator	_	transverse	<b>F-AT0</b> 050772			***************************************
וממולוווומונו						
			·			
Roller lever	Form E to EN 50 047	transverse	AR-AT0 046026		10 off	* STATE OF THE PARTY OF THE PAR
Angled roller lever		transverse	WR-AT0 048399		5 off	
Rotary lever	Form A to EN 50 047	transverse	R-AT0 038907			
Adjustable roller lever	<u>.</u> .	transverse	V-AT0 041280			Not for use as safety position
						switches:  • F-AT0 • H-AT0
Actuating rod	<u> </u>	transverse	H-AT0 043653			F-ATO can be used, but only in conjunction with snap-action contact
						Accessories Page V-M20 cable gland 03/018
						v-m20 cable gland U3/018

#### **AT... Position Switches**

Accessories

Type Price Article no. See Price 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 20 off 206910 Adapter to convert PG 13,5 to M20, IP65 For PG13,5 cable glands Moulded VPG13,5/M20 10 off 225268 Screw connection to fit M20 into 1/2" For American pipe thread Metal V1/2"/M20-NA 1 off The screw connection must be earthed, 225269 not total insulation Screw connection to fit M20 into 1/2" For American pipe thread Moulded V1/2"/M20 10 off 225270 M20 diaphragm bolt, IP65 With built-in push-through diaphragm External diameter of cable up to 13 mm IP65 with cable inserted EMS20 25 off 225271 M20 screw closure, IP65 (self-sealing grommet)
For tightening / loosening by using a standard wrench
for sealing grommet plugs SV-M20 25 off 225267

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704.966.0 7089-3 71M1048 757200264 778000A56 79215938 MHU35 MHU37 825.003.011 825.005.011 825.053.011 825.055.011
826.000.071 827.020.011 827.400.021 835.900.023 MML52C10C MML52E10C MML72EEK MML92HGH MML93K 84211M02CNNS
84211M02LGRS 84211M02LNNX3