

# Metal Position Switch

## Series 8074



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- > Dimensions and characteristic values according to EN 50041
- > Replaceable contact element in flameproof enclosure
- > Positive opening contacts
- > Wide range of actuators
- > All actuators can be displaced by 4 x 90°
- > Contact element with low-action contact or overlapping low-action contact
- > Largely oil- und petrol-resistant

E4



10764E00

Position switches are used to monitor the position of moving parts of machines and systems. The robust zinc die-cast enclosure resists mechanical load and is suitable, among others, for ensuring safety in elevator construction, conveyor technology and in mechanical and plant engineering. Series 8074 may be used in safety circuits as the devices fulfill IEC/EN 60947-5-1 and the contacts are positive opening. For this series, a belt-alignment position switch is also available. This switch, which uses a length-adjustable lever with nylon reel as actuator element, monitors the conveyor belt run. If the conveyor becomes misaligned, the lever is actuated, resulting in a safety signal switching off the conveyor.

	ATEX					
Zone	0	1	2	20	21	22
For use in		x	x		x	x

**WebCode 8074A**

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Selection Table





Version	Actuator		Contact element	Order number	Weight kg
 10787E00	Extended plunger	Plunger of stainless steel	Slow-action contact, 1 NC / 1 NO	<b>8074/1-1-S</b>	0.340
			Slow-action contact, 2 NC	<b>8074/1-3-S</b>	0.340
			Slow-action contact overlapping, 1 NC / 1 NO	<b>8074/1-5-S</b>	0.340
 10786E00	Roller plunger	Roller of moulded plastic	Slow-action contact, 1 NC / 1 NO	<b>8074/1-1-RS</b>	0.342
			Slow-action contact, 2 NC	<b>8074/1-3-RS</b>	0.342
			Slow-action contact overlapping, 1 NC / 1 NO	<b>8074/1-5-RS</b>	0.342
 10784E00	Roller lever plunger	Roller of moulded plastic	Slow-action contact, 1 NC / 1 NO	<b>8074/1-1-AR</b>	0.340
			Slow-action contact, 2 NC	<b>8074/1-3-AR</b>	0.340
			Slow-action contact overlapping, 1 NC / 1 NO	<b>8074/1-5-AR</b>	0.340
 10790E00	Swivelling roller lever	Roller of moulded plastic	Slow-action contact, 1 NC / 1 NO	<b>8074/1-1-HR311</b>	0.425
			Slow-action contact, 2 NC	<b>8074/1-3-HR311</b>	0.425
			Slow-action contact overlapping, 1 NC / 1 NO	<b>8074/1-5-HR311</b>	0.425
 10785E00	Adjustable roller lever	Roller of moulded plastic; rod of stainless steel	Slow-action contact, 1 NC / 1 NO	<b>8074/1-1-HV</b>	0.430
			Slow-action contact, 2 NC	<b>8074/1-3-HV</b>	0.430
			Slow-action contact overlapping, 1 NC / 1 NO	<b>8074/1-5-HV</b>	0.430
 10779E00	Actuating rod	Rod of moulded plastic	Slow-action contact, 1 NC / 1 NO	<b>8074/1-1-HH-K</b>	0.400
			Slow-action contact, 2 NC	<b>8074/1-3-HH-K</b>	0.400
			Slow-action contact overlapping, 1 NC / 1 NO	<b>8074/1-5-HH-K</b>	0.400
 10778E00	Spring rod	Spring of stainless steel	Slow-action contact, 1 NC / 1 NO	<b>8074/1-1-F2</b>	0.360
			Slow-action contact, 2 NC	<b>8074/1-3-F2</b>	0.360
 10782E00	Big swivelling lever	Roller of moulded plastic	Slow-action contact, 1 NC / 1 NO	<b>8074/1-1-HR312</b>	0.445
			Slow-action contact, 2 NC	<b>8074/1-3-HR312</b>	0.445
			Slow-action contact overlapping, 1 NC / 1 NO	<b>8074/1-5-HR312</b>	0.445

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Version	Actuator		Contact element	Order number	Weight kg	
 10780E00	Belt-alignment switch	Roller of moulded plastic	Slow-action contact, 1 NC / 1 NO	<b>8074 / 1-1-BSS</b>	0.460	
 10781E00	Forked roller lever	Roller of moulded plastic	Slow-action contact, 1 NC / 1 NO	<b>8074 / 1-1-GR</b>	0.465	
			Slow-action contact, 2 NC	<b>8074 / 1-3-GR</b>	0.465	
 10783E00	Angled roller lever	Roller of moulded plastic	Slow-action contact, 1 NC / 1 NO	<b>8074 / 1-1-WR</b>	0.340	
			Slow-action contact, 2 NC	<b>8074 / 1-3-WR</b>	0.340	
			Slow-action contact overlapping, 1 NC / 1 NO	<b>8074 / 1-5-WR</b>	0.340	
 10788E00	Safety switch	Separate actuator	Slow-action contact, 1 NC / 1 NO	<b>8074 / 1-1-ZB</b>	0.386	
			Slow-action contact, 2 NC	<b>8074 / 1-3-ZB</b>	0.386	
			<b>Note: Actuators for the safety switch have to be ordered separately.</b>			
			Straight actuator	<b>132311</b>	0.027	
	Angled actuator	<b>132312</b>	0.037			
	Adjustable actuator	<b>132313</b>	0.038			

E4

### Explosion Protection

#### Marking

Europe (ATEX)	
Gas explosion protection	⊕ II 2 G Ex d e IIC T6 (Ta = - 20 ... + 40 °C) ⊕ II 2 G Ex d e IIC T5 (Ta = - 20 ... + 60 °C)
Dust explosion protection	⊕ II 2 D Ex tD A21 IP67 T95°C (Ta = - 20 ... + 60 °C) ⊕ II 2 D Ex tD A21 IP67 T80°C (Ta = - 20 ... + 40 °C)

#### Certificates

Europe (ATEX)	
ATEX	BVS 05 ATEX E 007
Further certificates	Kazakhstan (JSC), Russia (CTB), Belarus (Gospromnadzor)

### Technical Data

#### Electrical data

Electrical load	
Min. electrical load	24 V AC / DC, 10 mA
Max. electrical load	AC-15: 250 V AC, 6 A DC-13: 230 V DC, 0.25 A
Back-up fuse	6 A (time-lag)

#### Ambient conditions

Ambient temperature	see explosion protection data
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#### Mechanical data

Degree of protection	IP67 according to IEC/EN 60529
Material	
Enclosure	Zinc die cast, coated
Contacts	Silver
Service life	max. 10 <sup>6</sup> operations *) max. 1800 operations/h *) Replace contact element after max. 10 <sup>6</sup> operations
Connection	M3 screw type terminal, max. 1.5 mm <sup>2</sup>

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### Technical Data

#### Mounting / Installation

Cable glands	8161: 1 x M20 x 1.5
Cable dia. range	6 ... 13 mm

#### Contact

Version

	8074/1-1-..	8074/1-5-..	8074/1-3-..
Circuit diagram			
Switching path			
Switching function	Slow-action contact 1 NC + 1 NO	Slow-action contact 1 NC + 1 NO, overlapping	Slow-action contact 2 NC
	Positive opening contacts according to IEC/EN 60947-5-1		

### Accessories and Spare Parts

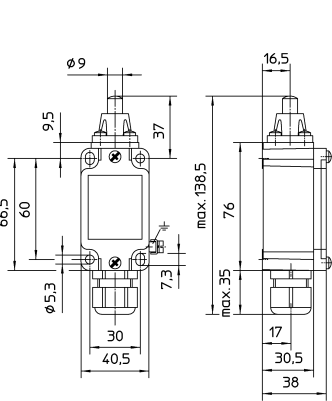
Designation	Illustration	Art. no.	Weight kg	
Contact block		1 NC + 1 NO Slow-action contact 8084/1-1 S/Ö	<b>132805</b>	0.030
		2 NC Slow-action contact 8084/1-3 2Ö	<b>132806</b>	0.030
		1 NC + 1 NO Slow-action contact, overlapping 8084/1-5 S/Ö UE	<b>132807</b>	0.030
Actuator		Straight 8074/1-.-ZB	<b>132311</b>	0.027
		Angled 8074/1-.-ZB	<b>132312</b>	0.037
		Adjustable 8074/1-.-ZB	<b>132313</b>	0.038
Cable gland		M20 x 1.5 8161/5-M20-13	<b>138518</b>	0.012

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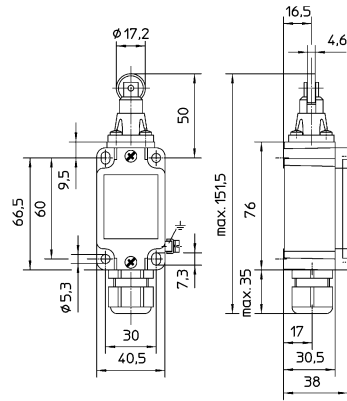


### Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



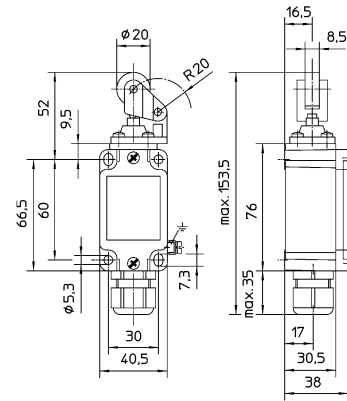
10752E00

**8074/1--S**  
Extended plunger



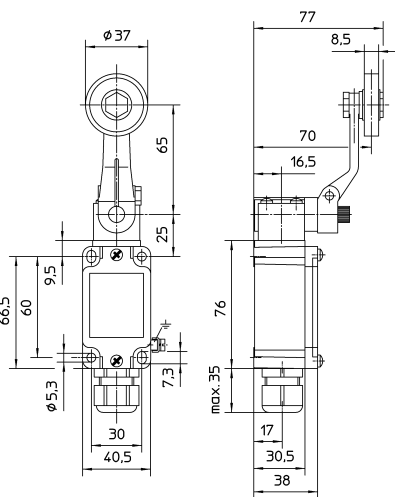
10753E00

**8074/1--RS**  
Roller plunger



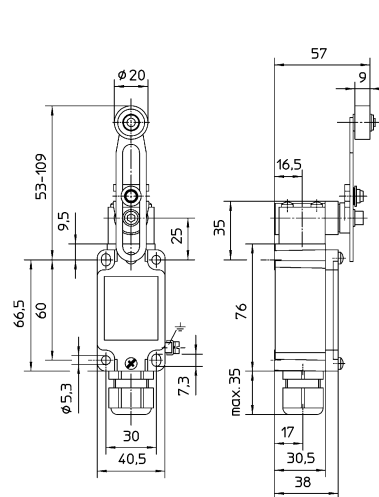
10754E00

**8074/1--AR**  
Roller lever plunger



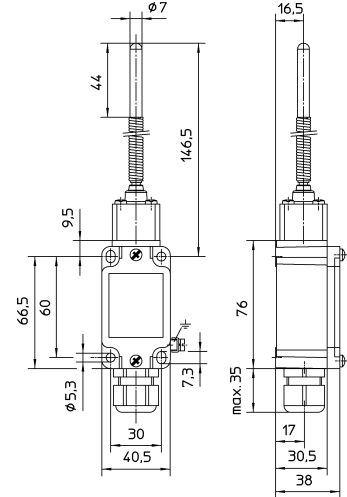
10759E00

**8074/1--HR312**  
Big swivelling lever



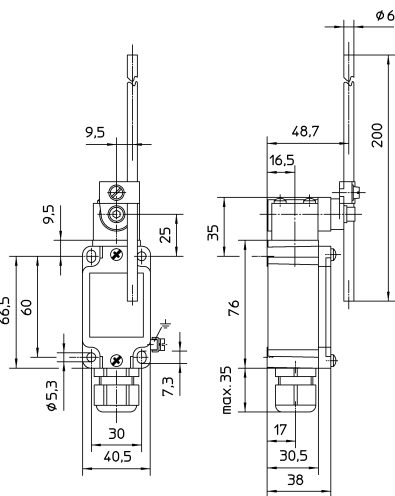
10758E00

**8074/1--HV**  
Adjustable roller lever



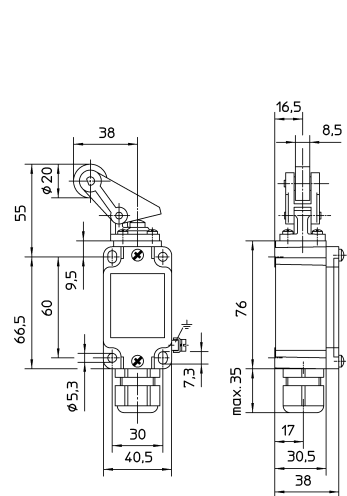
10758E00

**8074/1--F2**  
Spring rod actuator



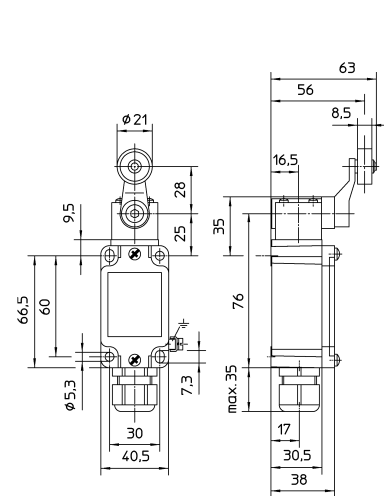
10757E00

**8074/1--HH-K**  
Actuating rod



10762E00

**8074/1--WR**  
Angled roller lever



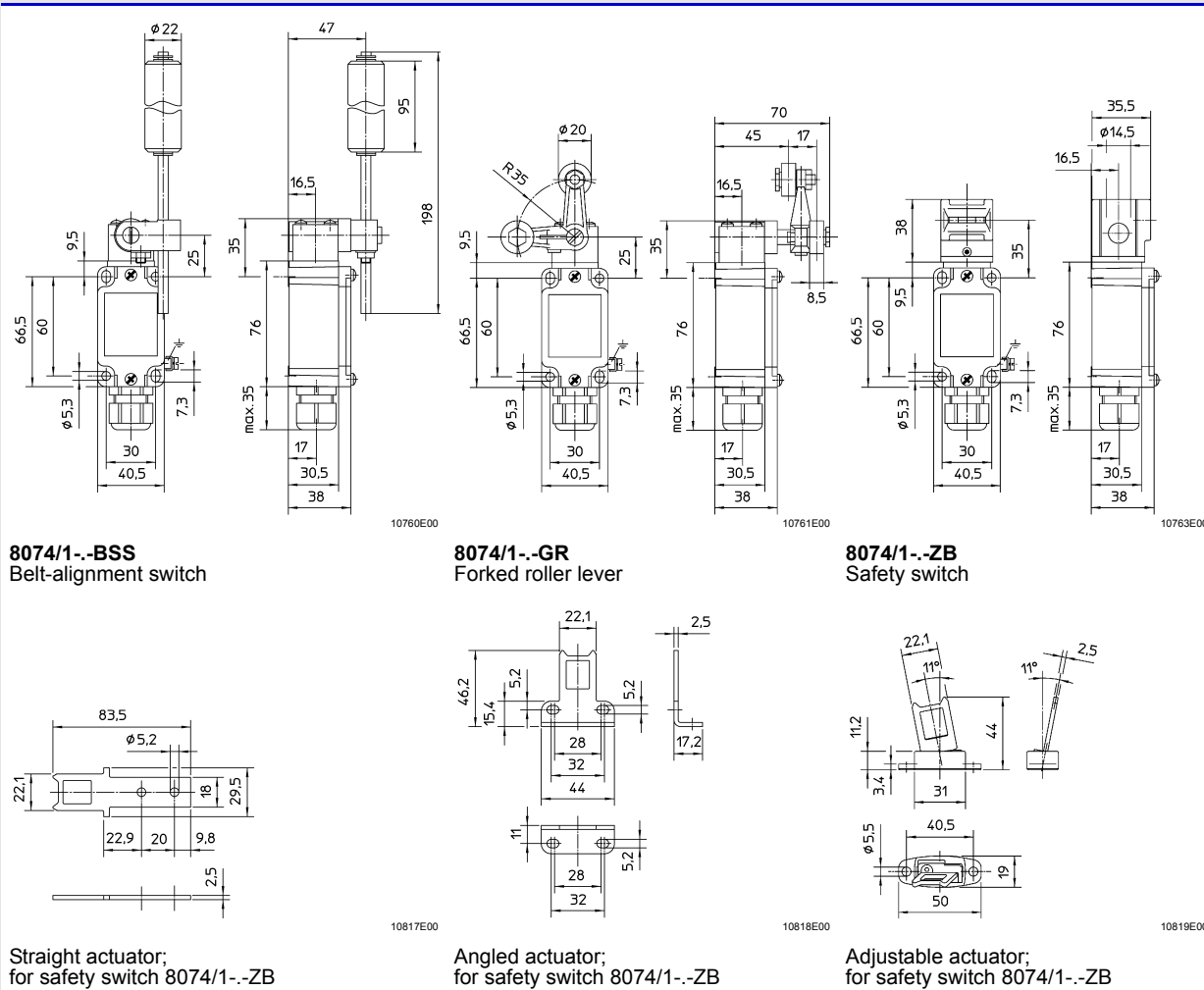
10755E00

**8074/1--HR311**  
Swivelling roller lever

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Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



We reserve the right to make alterations to the technical data, weights, dimensions, designs and products available without notice. The illustrations cannot be considered binding.