

**Position Switch  
Series 8070  
to EN 50041**

- Explosion protection to
  - CENELEC
  - IEC
- Can be used in Zone 1 and Zone 2
- Enclosure have protection class “increased safety”
- Dimensions and functional measurement to EN 50041
- Replaceable contact elements in flameproof enclosure
- Positive opening contacts
- Category 1 safety position switch with:
  - extended plunger
  - roller plunger
  - roller lever plunger
  - roller lever
  - adjustable roller lever plunger
  - angled roller lever plunger
- All attachments can be displaced through 4 x 90°
- Contact elements with snap-action contact, slow-action contact or overlapping slow-action contact

STAHL










Position switches are used to monitor the position of moving parts of machines and plant.

Can be used in safety circuits, as the device satisfies EN 60 947-5-1/DIN VDE 0660 part 200, and the opening contacts are positive opening. The series 8070 position switch with positive opening contacts has been tested to the professional association test standard GS-ET 15 of the German Employer Liability Insurance Association, and is thus licensed for personnel protection functions. Category 1 safety position switches have contact and actuating element in a single constructional and functional unit.

As a result of the galvanic isolation of the moving contacts, the position switch is suitable for switching various potentials.

# Zone 1 and Zone 2

Selection table

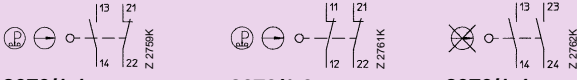
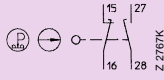
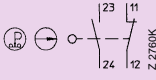
Series	Design	Ordering code	Weight [kg]
 <p><b>8070</b> Position switch acc. to EN 50047</p>	 <p>F3928PA</p>	<p>Extended plunger</p> <p>Plunger of stainless steel</p> <p><b>8070/1 - □ - S</b></p>	0,155
	 <p>F3928PA</p>	<p>Roller plunger</p> <p>Roller of moulded plastic</p> <p><b>8070/1 - □ - RS</b></p>	0,154
	 <p>F3931PA</p>	<p>Roller lever, Form E</p> <p>Roller of moulded plastic</p> <p><b>8070/1 - □ - AR</b></p>	0,155
	 <p>F3927PA</p>	<p>Roller lever, Form A</p> <p>Roller of moulded plastic for minimum force</p> <p>0,3 Nm 0,1 Nm</p> <p><b>8070/1 - □ - HR311</b> <b>8070/1 - □ - HR311NR</b></p>	0,221 0,221
	 <p>F3933PA</p>	<p>Adjustable roller lever</p> <p>Roller of moulded plastic Roller of stainless steel</p> <p><b>8070/1 - □ - HV</b></p>	0,269
	 <p>F3937PA</p>	<p>Spring-rod actuator</p> <p>Spring of stainless steel</p> <p><b>8070/1 - 2 - F2*</b></p> <p>* Only for use with snap-action contact!</p> <p><b>No positively opening operation, not suitable for safety circuits!</b></p>	0,175
	 <p>F3929PA</p>	<p>Safety switch with separate actuator</p> <p>Actuator of moulded plastic</p> <p><b>8070/1 - 1 - ZB</b> <b>8070/1 - 3 - ZB</b></p>	0,208
	 <p>F3936PA</p>	<p>Actuating rod</p> <p>Rod of moulded plastic</p> <p><b>8070/1 - □ - HH-K</b></p> <p><b>No positively opening operation, not suitable for safety circuits!</b></p>	0,237

Add to ordering code:

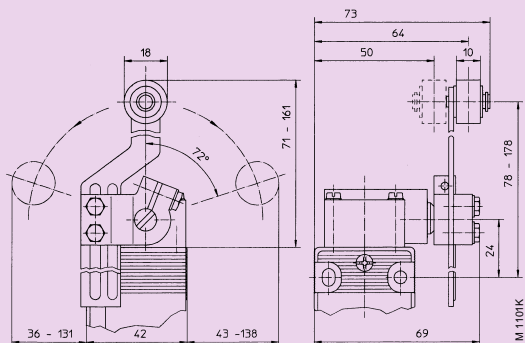
Switching function 1NC+1NO Slow-action contact  
1NC+1NO Snap-action contact  
2NC Slow-action contact  
2NO Slow-action contact  
1NC+1NO Slow-action contact,  
overlapping

**8070/1 - 1 - □□□**  
**8070/1 - 2 - □□□**  
**8070/1 - 3 - □□□**  
**8070/1 - 4 - □□□**  
**8070/1 - 5 - □□□**

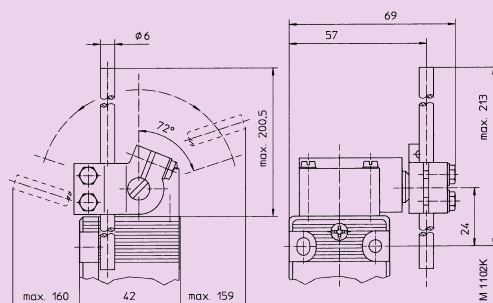
**Note:** Actuating heads enclosed are not mounted.

Technical data			
Explosion protection	EEx ed IIC T6		
Test certificate	PTB Nr. Ex-96.D.3129		
Rated operational voltage $U_e$	max. 500 V, AC; max. 250 V, DC; max. 250 V, UC, for unequal potential		
Rated operational current $I_e$	max. 10 A		
Switching capacity	AC 12	AC 15	DC 12
	max. 500 V max. 16 A max. 5000 VA	max. 500 V max. 10 A max. 1000 VA	max. 125 V max. 10 A max. 400 W
Rated isolation voltage $U_i$	500 V		
Rated impulse withstand voltage $U_{imp}$	6 kV		
Back-up fuse	6 A, time-lag, DIAZED, 10 A, quick-acting		
Contact block Arrangements	<p>Slow-action contact</p>  <p><b>8070/1-1</b>                      <b>8070/1-3</b>                      <b>8070/1-4</b></p>		
	<p>Slow-action contact, overlapping</p>  <p><b>8070/1-5</b></p>		<p>Snap-action contact</p>  <p><b>8070/1-2</b></p>
	Functions positive opening $\ominus$ and operator safety $\oplus$ depend on actuating head used		
Contact arrangement	2-pole, galvanically isolated, with double break action		
Clearance between open contacts	$\geq 1,5$ mm (Clearance distance $\geq 3$ mm)		
Contact material	Silver-Nickel		
Life	mechanical		
	electrical		
Enclosure material	Polyamide, glass fibre-reinforced, grey		
Ambient temperature	6 A: $-25^\circ\text{C} \dots +70^\circ\text{C}$ 10 A: $-25^\circ\text{C} \dots +50^\circ\text{C}$		
Degree of protection	IP 65		
Enclosure material	Polyamide, glass fibre-reinforced, black		
Cable entry	Compression gland M 20 x 1,5		
Connection	Sheathed cable max. $4 \times 2,5 \text{ mm}^2$ , $\varnothing 6\text{--}12$ mm ( $\varnothing 8\text{--}14$ mm)		
Terminals	$1 \times 1,5 \text{ mm}^2$ (solid) or $2 \times 1 \text{ mm}^2$ (flexible)		
Mechanical shock resistance	Snap-action contact: 2 g Slow-action contact: 20 g		

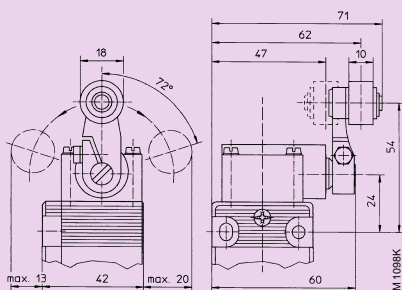
Dimensions, all dimensions in mm – subject to alteration



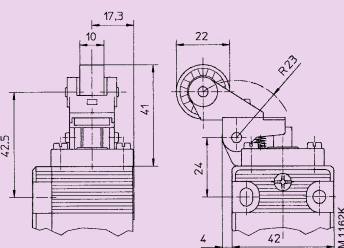
**8070/1- - HV**  
Adjustable roller lever



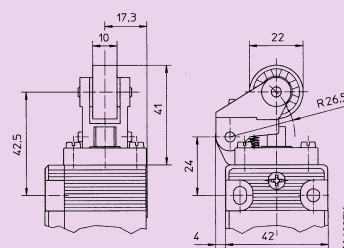
**8070/1- - HH-K**  
Actuating rod



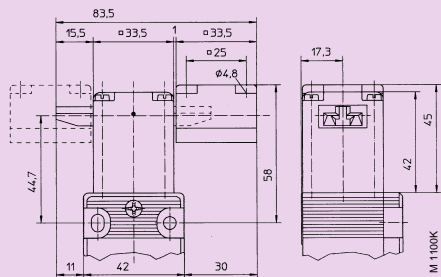
**8070/1- - HR311**  
Roller lever, Form A



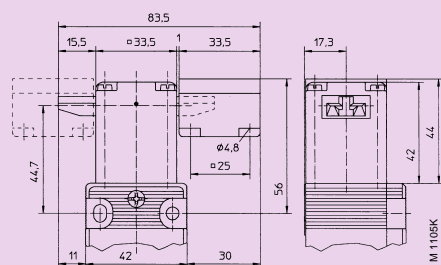
**8070/1- - AR**  
Angled roller lever



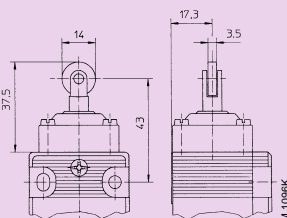
**8070/1- - AR**  
Roller lever, Form E



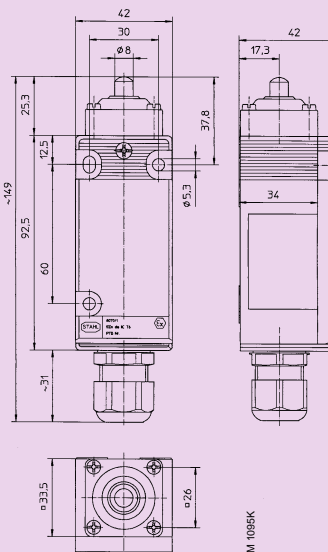
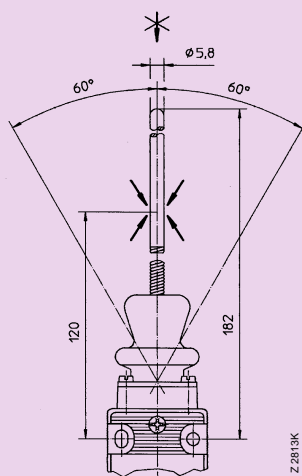
**8070/1- - RS**  
Roller plunger



**8070/1- - ZB**  
Safety switch with separate actuator



**8070/1- - ZB**  
Spring rod actuator



**8070/1- - S**  
Position switch with extended plunger

