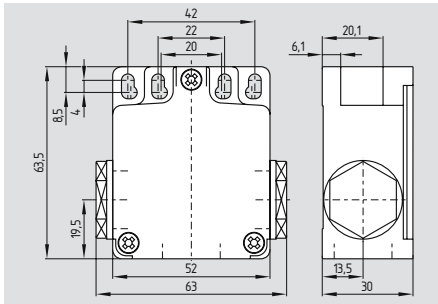


Position switches with safety function

Z/T 255



- Metal enclosure
- Mounting details to DIN EN 50047 (small)
- extended width
- Switching function non-latching
- Snap action with constant contact pressure
- Slow action also available with overlapping or staggered contacts
- Protection class IP 67
- 2 contacts
- 2 cable entries M20 x 1.5
- Screw terminals max. 2.5 mm² with conductor ferrules
- Large range of actuating elements available
- Actuating elements can be turned in steps 4 x 90°
- Angle of roller lever adjustable in 10° steps
- High resistance to oil and fuel

Technical data

Standards: IEC/EN 60947-5-1
BG-GS-ET-15

Design: DIN EN 50047 compliant

Enclosure: aluminium die-cast, paint finish

Protection class : IP 67

Contact material: silver

Switching elements: changeover contact with double break or 2 NC contacts, galvanically separated contact bridges

Switching system: ⊖ IEC 60947-5-1
slow or snap action, positive break NC contact

Termination: Screw terminals

Cable section: max. 2.5 mm²
min. 0.75 mm²
(including conductor ferrules)

Cable entry: 2 x M 20 x 1.5

U_{imp}: 6 kV

U_i: 500 V

I_{the}: 10 A

Utilisation category: AC-15, DC-13

I_e/U_e: 4 A / 230 VAC
1 A / 24 VDC

Short-circuit protection: 6 A gL/gG
D-fuse

Ambient temperature: - 30 °C ... + 80 °C

Mechanical life: 20 million operations

Switching frequency: max. 5000/h

Duration to standstill: Snap action: < 3 ms;
Slow action: in accordance with the actuating speed

Switching time: Snap action: > 5.5 ms;
Slow action: in accordance with the actuating speed

Actuators

Plunger	S
Roller plunger	R
	4S
	4R
Roller lever	1R
	K
Angled lever	3K
	4K
	K4
Roller lever	1H
	7H-2138
	7H-1058/2138
	7H-2079-2
	12H
	14H
	14H-1058
	15H
Rod lever	10H

Approvals



Ordering data

①② 255-③z④-⑤-⑥

N°	Add	Description
①	Z T	Snap action ⊖ Slow action ⊖
②		Selection of actuators, see page 3-18
③	02 11 20	2 NC contacts 1 NO / 1 NC contact 2 NO contacts
④	h ü	Slow action with staggered contacts with overlapping contacts
⑤		Cable entry M20

Ordering data

N°	Add	Description
⑥	2079-2 1058 1058/2138	with large rubber roller and fixed 7H lever for roller lever 7H rubber roller 50 mm with large rubber roller and lever arm length-adjustable in steps

Note

Actuators from page 3-17

Note:

The actuator is defined by item ② and ⑥ of the ordering data.

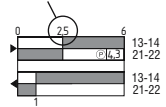
Position switches with safety function

Example for contact variants: Plunger S

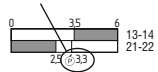
1 NO contact 1 NC contacts TS 2..-11z	Snap action	Z
0 NO contact 2 NC contacts TS 2..-02z	Slow action	T
2 NO contact 0 NC contacts TS 2..-20z	Slow action with overlapping contacts	T, ü
	Slow action with staggered contacts	T, h
	Latching function	r

Protection class IP 67 **TS 2..-11z**
 Protection class IP 65 **TS 2..-11y**

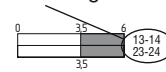
Switching point after ...mm



Positive break travel

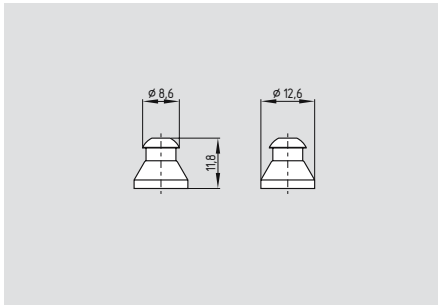


Switching contacts



Position switches with safety function

Plunger S-1519

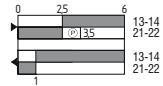


- For safety catch devices and extended width
- For position switches with latching function
- Reset by extracting the plunger head
- Actuating force: min. 4.5 N
- Suitable for Z 236, Z 256

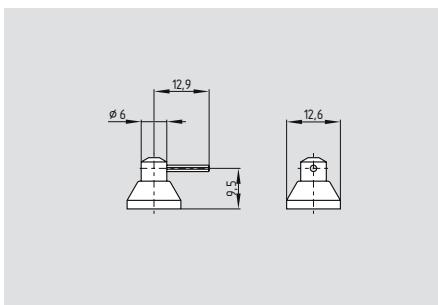
Contact variants

Switch travel/ Snap action (Z)
Contacts

1 NO contact ZS 2..-11zr-1519
1 NC contacts



Plunger S-1816

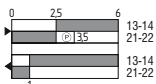


- For safety catch devices and extended width
- For position switches with latching function
- With reset lever
- Actuating force: min. 4.5 N
- Also available with actuators K, 1R, 3K, 4K and K4
- Suitable for Z 236, Z 256

Contact variants

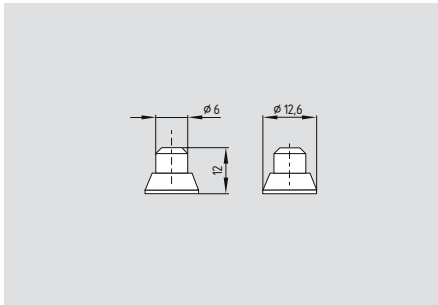
Switch travel/ Snap action (Z)
Contacts

1 NO contact ZS 2..-11zr-1816
1 NC contacts



Position switches with safety function

Plunger S

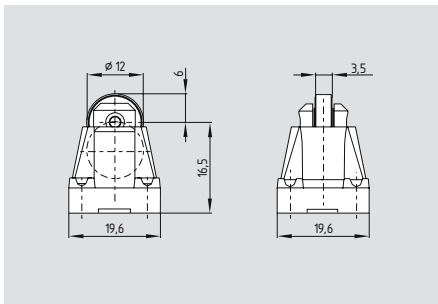


- Actuator type B to DIN EN 50047
- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed in case of vertical actuation
 Snap action: min. 10 mm/min, max. 1 m/s
 Slow action: min. 60 mm/min, max. 1 m/s
- Metal Z/T 235, Z/T 255
- Plastic Z/T 236, Z/T 256, ZSM 241

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZS 2..-11z 	TS 2..-11z 	TS 2..-11zü 	
2 NC contacts	ZS 2..-02z 	TS 2..-02z 		TS 2..-02zh
2 NO contacts		TS 2..-20z 		TS 2..-20zh

Roller plunger R



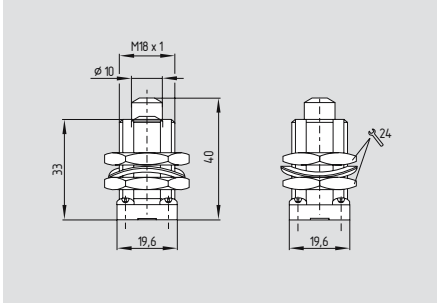
- Actuator type C to DIN EN 50047
- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 20 mm/min, max. 1 m/s
 Slow action: min. 120 mm/min, max. 1 m/s
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZR 2..-11z 	TR 2..-11z 	TR 2..-11zü 	
2 NC contacts	ZR 2..-02z 	TR 2..-02z 		TR 2..-02zh
2 NO contacts		TR 2..-20z 		TR 2..-20zh

Position switches with safety function

Plunger 4S

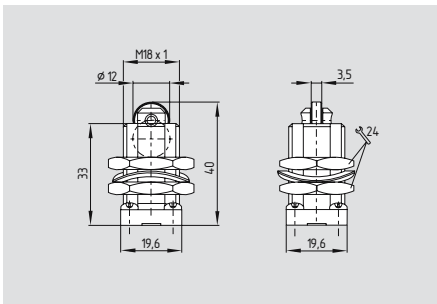


- Central fixing with threaded flange
- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed in case of vertical actuation
 Snap action: min. 10 mm/min, max. 1 m/s
 Slow action: min. 60 mm/min, max. 1 m/s
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	Z4S 2..-11z 	T4S 2..-11z 	T4S 2..-11zü 	
2 NC contacts	Z4S 2..-02z 	T4S 2..-02z 		T4S 2..-02zh
2 NO contacts		T4S 2..-20z 		T4S 2..-20zh

Roller plunger 4R



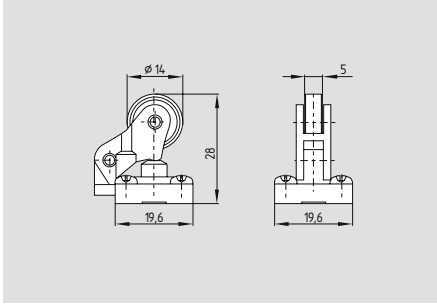
- Central fixing with threaded flange
- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 20 mm/min, max. 1 m/s
 Slow action: min. 120 mm/min, max. 1 m/s
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	Z4R 2..-11z 	T4R 2..-11z 	T4R 2..-11zü 	
2 NC contacts	Z4R 2..-02z 	T4R 2..-02z 		T4R 2..-02zh
2 NO contacts		T4R 2..-20z 		T4R 2..-20zh

Position switches with safety function

Roller lever 1R

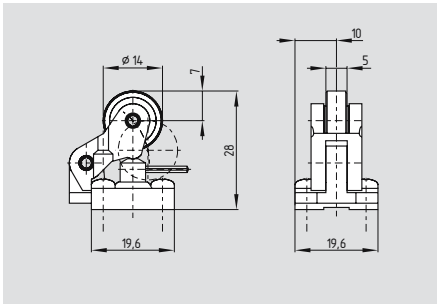


- The roller is located centrally over plunger, which results in a function similar to actuator R
- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 27 mm/min, max. 1 m/s
 Slow action: min. 160 mm/min, max. 1 m/s
- The actuator can be repositioned clockwise by 90° steps (u90, u180, u270)
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)
1 NO contact 1 NC contact	Z1R 2..-11z 	T1R 2..-11z 	T1R 2..-11zü
2 NC contacts	Z1R 2..-02z 	T1R 2..-02z 	
2 NO contacts		T1R 2..-20z 	

Roller lever 1R-1816



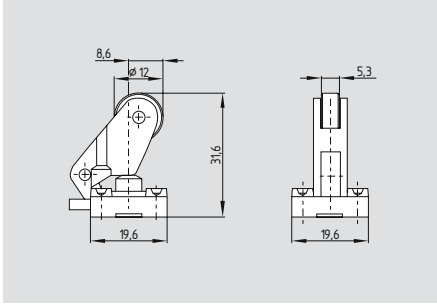
- **For position switches with latching function**
- The roller is located centrally over plunger, which results in a function similar to actuator R
- Actuating force: min. 9 N
- Positive-break force: 19 N
- With reset lever
- Actuating speed with actuating angle 30° to switch axis
 Actuating speed: min. 27 mm/min, max. 1 m/s
- Roller with lateral offset with regard to the plunger
- The actuator can be repositioned clockwise by 90° steps (u90, u270)
- Suitable for Z 236, Z 256 with latching

Contact variants

Switch travel/ Contacts	Snap action (Z)
1 NO contact 1 NC contact	Z1R 2..-11zr
2 NC contacts	Z1R 2..-02zr

Position switches with safety function

Roller lever K

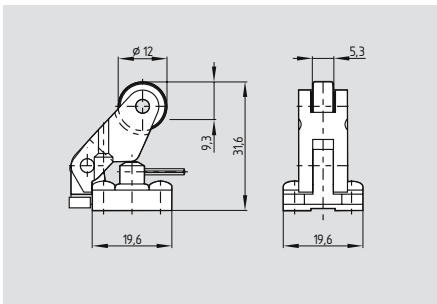


- Actuator type E to DIN EN 50047
- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 24 mm/min, max. 1 m/s
 Slow action: min. 240 mm/min, max. 1 m/s
- Roller with lateral offset with regard to the plunger
- The actuator can be repositioned clockwise by 90° steps (u90, u180, u270)
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZK 2..-11z 	TK 2..-11z 	TK 2..-11zü 	
2 NC contacts	ZK 2..-02z 	TK 2..-02z 		TK 2..-02zh
2 NO contacts		TK 2..-20z 		TK 2..-20zh

Roller lever K-1816



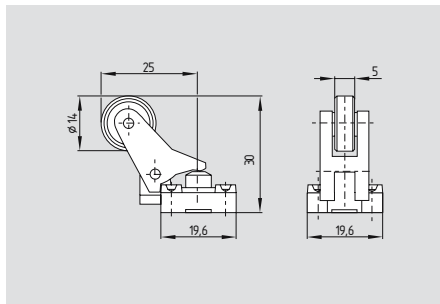
- **For position switches with latching function**
- Actuator type E to DIN EN 50047
- With reset lever
- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed with actuating angle 30° to switch axis
 Actuating speed: min. 24 mm/min, max. 1 m/s
- Roller with lateral offset with regard to the plunger
- The actuator can be repositioned clockwise by 90° steps (u90, u270)
- Suitable for Z 236, Z 256 with latching

Contact variants

Switch travel/ Contacts	Snap action (Z)
1 NO contact 1 NC contact	ZK 2..-11zr
2 NC contacts	ZK 2..-02zr

Position switches with safety function

Angled lever 3K

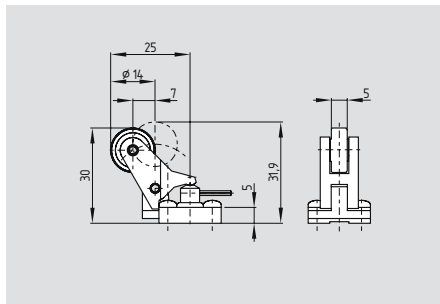


- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed with actuating angle 30° to switch axis
 - Snap action: min. 27 mm/min, max. 1 m/s
 - Slow action: min. 160 mm/min, max. 1 m/s
- Actuation parallel to switch axis from below
- The actuator can be repositioned clockwise by 90° steps (u90, u180, u270)
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	Z3K 2..-11z 	T3K 2..-11z 	T3K 2..-11zü 	
2 NC contacts	Z3K 2..-02z 	T3K 2..-02z 		T3K 2..-02zh
2 NO contacts		T3K 2..-20z 		T3K 2..-20zh

Angled lever 3K-1816



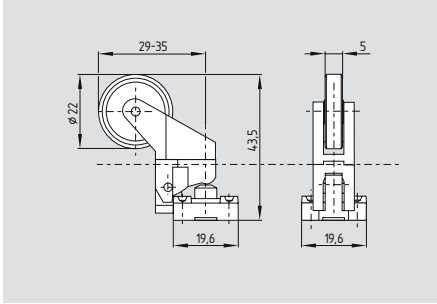
- **For position switches with latching function**
- With reset lever
- Actuating force: min. 9 N
- Positive-break force: 19 N
- Actuating speed with actuating angle 30° to switch axis
 - Actuating speed: min. 27 mm/min, max. 1 m/s
- Actuation parallel to switch axis from below, therefore only suitable for small enclosures (Z 235 and Z 236)
- The actuator can be repositioned clockwise by 90° steps (u90, u270)
- Suitable for Z 236, Z 235 with latching

Contact variants

Switch travel/ Contacts	Snap action (Z)
1 NO contact 1 NC contact	Z3K 2..-11zr
2 NC contacts	Z3K 2..-02zr

Position switches with safety function

Angled lever 4K

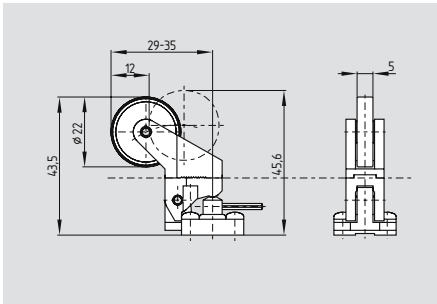


- Actuating force: min. 6 N
- Positive-break force: 16 N
- Actuating speed with actuating angle 30° to switch axis
 - Snap action: min. 44 mm/min, max. 1 m/s
 - Slow action: min. 264 mm/min, max. 1 m/s
- adjustable
- Actuation parallel to switch axis from below
- The actuator can be repositioned clockwise by 90° steps (u90, u180, u270)
- Perfectly fit as buffer or for positioning tasks
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	Z4K 2..-11z 	T4K 2..-11z 	T4K 2..-11zü 	
2 NC contacts	Z4K 2..-02z 	T4K 2..-02z 		T4K 2..-02zh
2 NO contacts		T4K 2..-20z 		T4K 2..-20zh

Angled lever 4K-1816



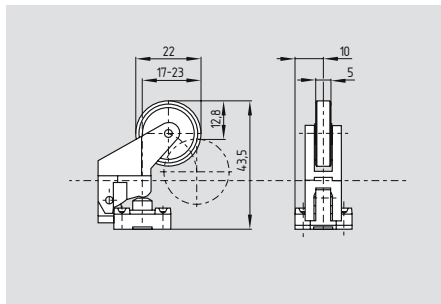
- **For position switches with latching function**
- With reset lever
- Actuating force: min. 6 N
- Positive-break force: 16 N
- Actuating speed with actuating angle 30° to switch axis
 - Actuating speed: min. 44 mm/min, max. 1 m/s
- adjustable
- Actuation parallel to switch axis from below
- The actuator can be repositioned clockwise by 90° steps (u90, u270)
- Perfectly fit as buffer or for positioning tasks
- Suitable for Z 236, Z 235 with latching

Contact variants

Switch travel/ Contacts	Snap action (Z)
1 NO contact 1 NC contact	Z4K 2..-11zr
2 NC contacts	Z4K 2..-02zr

Position switches with safety function

Angled lever K4

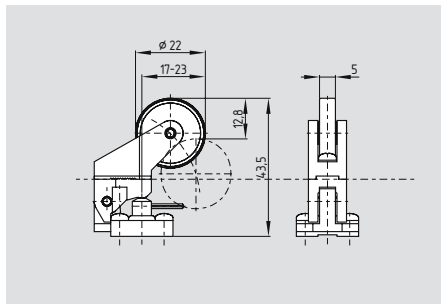


- Actuating force: min. 6 N
- Positive-break force: 16 N
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 56 mm/min, max. 1 m/s
 Slow action: min. 336 mm/min, max. 1 m/s
- adjustable
- The actuator can be repositioned clockwise by 90° steps (u90, u180, u270)
- Perfectly fit as buffer or for positioning tasks
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZK4 2..-11z 	TK4 2..-11z 	TK4 2..-11zü 	
2 NC contacts	ZK4 2..-02z 	TK4 2..-02z 		TK4 2..-02zh
2 NO contacts		TK4 2..-20z 		TK4 2..-20zh

Angled lever K4-1816



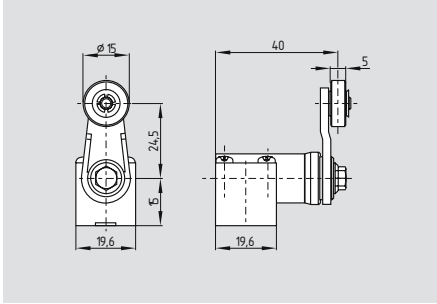
- **For position switches with latching function**
- With reset lever
- Actuating force: min. 6 N
- Positive-break force: 16 N
- Actuating speed with actuating angle 30° to switch axis
 Actuating speed: min. 56 mm/min, max. 1 m/s
- adjustable
- The actuator can be repositioned clockwise by 90° steps (u90, u270)
- Perfectly fit as buffer
- Suitable for Z 236, Z 235

Contact variants

Switch travel/ Contacts	Snap action (Z)
1 NO contact 1 NC contact	ZK4 2..-11zr
2 NC contacts	ZK4 2..-02zr

Position switches with safety function

Roller lever 1H

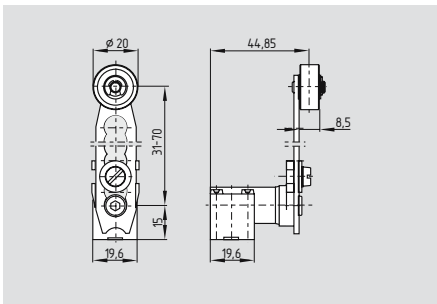


- Actuator type A to DIN EN 50047
- Lever angle adjustable in 10° steps
- Actuating torque: min. 15 Ncm
- Positive-break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 92 mm/min, max. 1 m/s
 Slow action : min. 492 mm/min, max. 1 m/s
- Plastic lever
- Actuator can be fitted subsequently
- Actuator can be turned clockwise in 90° steps (u90, u180, u270)
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV1H 2...-11z 	TV1H 2...-11z 	TV1H 2...-11zü 	
2 NC contacts	ZV1H 2...-02z 	TV1H 2...-02z 		TV1H 2...-02zh
2 NO contacts		TV1H 2...-20z 		TV1H 2...-20zh

Roller lever 7H-2138



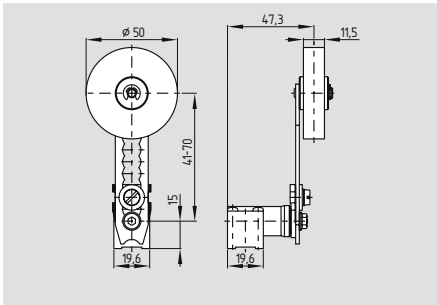
- Lever arm length adjustable in steps
- Lever angle adjustable in 10° steps
- Actuating torque: min. 15 Ncm
- Positive-break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 240 mm/min, max. 1 m/s
 Slow action : min. 1440 mm/min, max. 1 m/s
- Metal lever
- Actuator can be turned clockwise in 90° steps (u90, u180, u270)
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV7H 2...-11z-2138 	TV7H 2...-11z-2138 	TV7H 2...-11zü-2138 	
2 NC contacts	ZV7H 2...-02z-2138 	TV7H 2...-02z-2138 		TV7H 2...-02zh-2138
2 NO contacts		TV7H 2...-20z-2138 		TV7H 2...-20zh-2138

Position switches with safety function

Roller lever 7H-1058/2138

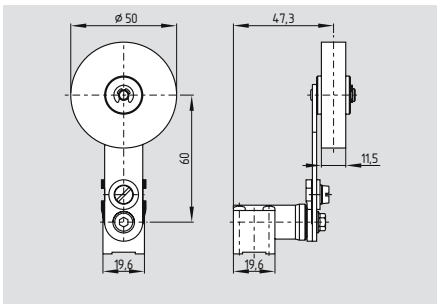


- Lever arm length adjustable in steps
- With large rubber roller
- Rubber roller shore hardness 50
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Actuating torque: min. 15 Ncm
- Positive-break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 240 mm/min, max. 1 m/s
 Slow action: min. 1440 mm/min, max. 1 m/s
- Metal lever
- Actuator head gasket available, ordering suffix -z
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV7H 2...-11z-1058/2138 	TV7H 2...-11z-1058/2138 	TV7H 2...-11zü-1058/2138 	
2 NC contacts	ZV7H 2...-02z-1058/2138 	TV7H 2...-02z-1058/2138 		TV7H 2...-02zh-1058/2138
2 NO contacts		TV7H 2...-20z-1058/2138 		TV7H 2...-20zh-1058/2138

Roller lever 7H-2079-2



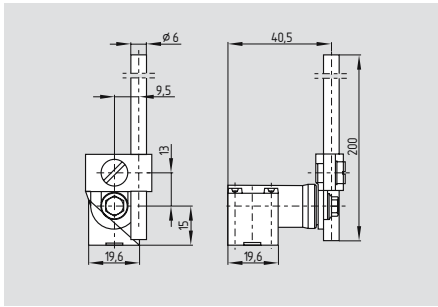
- With large rubber roller
- 7H lever not length-adjustable
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Actuating torque: min. 15 Ncm
- Positive-break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 240 mm/min, max. 1 m/s
 Slow action: min. 1440 mm/min, max. 1 m/s
- Metal lever
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV7H 2...-11z-2079-2 	TV7H 2...-11z-2079-2 	TV7H 2...-11zü-2079-2 	
2 NC contacts	ZV7H 2...-02z-2079-2 	TV7H 2...-02z-2079-2 		TV7H 2...-02zh-2079-2
2 NO contacts		TV7H 2...-20z-2079-2 		TV7H 2...-20zh-2079-2

Position switches with safety function

Rod lever 10H

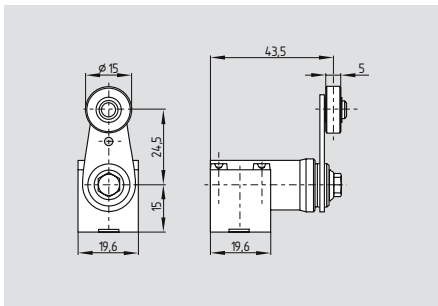


- Only suitable for positioning tasks
- Plastic rod
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Actuating torque: min. 15 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 687 mm/min, max. 1 m/s
 Slow action: min. 4122 mm/min, max. 1 m/s
- Aluminium rod, ordering suffix -1183
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV10H 2..-11z 	TV10H 2..-11z 	TV10H 2..-11zü 	
2 NC contacts	ZV10H 2..-02z 	TV10H 2..-02z 		TV10H 2..-02zh
2 NO contacts		TV10H 2..-20z 		TV10H 2..-20zh

Roller lever 12H



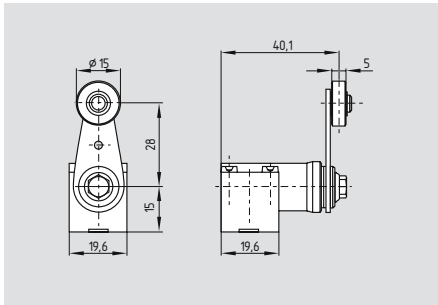
- Actuator type A to DIN EN 50047
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Actuating torque: min. 15 Ncm
- Positive-break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 687 mm/min, max. 1 m/s
 Slow action: min. 4122 mm/min, max. 1 m/s
- Metal lever
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV12H 2..-11z 	TV12H 2..-11z 	TV12H 2..-11zü 	
2 NC contacts	ZV12H 2..-02z 	TV12H 2..-02z 		TV12H 2..-02zh
2 NO contacts		TV12H 2..-20z 		TV12H 2..-20zh

Position switches with safety function

Roller lever 14H

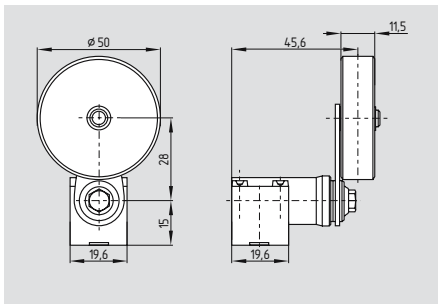


- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Actuating torque: min. 15 Ncm
- Positive-break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 687 mm/min, max. 1 m/s
 Slow action: min. 4122 mm/min, max. 1 m/s
- Metal lever
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV14H 2..-11z 	TV14H 2..-11z 	TV14H 2..-11zü 	
2 NC contacts	ZV14H 2..-02z 	TV14H 2..-02z 		TV14H 2..-02zh
2 NO contacts		TV14H 2..-20z 		TV14H 2..-20zh

Roller lever 14H-1058



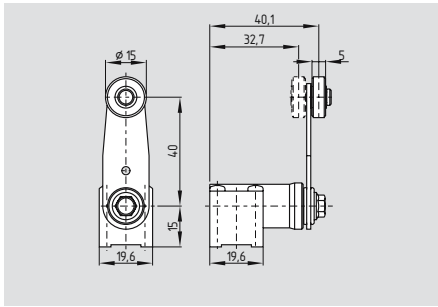
- With large rubber roller
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Actuating torque: min. 15 Ncm
- Positive-break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 687 mm/min, max. 1 m/s
 Slow action: min. 4122 mm/min, max. 1 m/s
- Metal lever
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV14H 2..-11z-1058 	TV14H 2..-11z-1058 	TV14H 2..-11zü-1058 	
2 NC contacts	ZV14H 2..-02z-1058 	TV14H 2..-02z-1058 		TV14H 2..-02zh-1058
2 NO contacts		TV14H 2..-20z-1058 		TV14H 2..-20zh-1058

Position switches with safety function

Roller lever 15H



- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Actuating torque: min. 15 Ncm
- Positive-break torque: 18.5 Ncm
- Actuating speed with actuating angle 30° to switch axis
 Snap action: min. 687 mm/min, max. 1 m/s
 Slow action : min. 4122 mm/min, max. 1 m/s
- Metal lever
- Suitable for Z/T 236, Z/T 256, Z/T 235, Z/T 255

Contact variants

Switch travel/ Contacts	Snap action (Z)	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
1 NO contact 1 NC contact	ZV15H 2..-11z 	TV15H 2..-11z 	TV15H 2..-11zü 	
2 NC contacts	ZV15H 2..-02z 	TV15H 2..-02z 		TV15H 2..-02zh
2 NO contacts		TV15H 2..-20z 		TV15H 2..-20zh

Position switches with safety function

	ZSM 241	Z 231-01y-1256	Z/T 236
Standards	IEC/EN 60947-1, DIN VDE 0660-200, BG-GS-ET-15, EN 81-1/2	IEC/EN 60947-5-1, DIN VDE 0660-200, DIN VDE 0660-206, IEC 204/VDE 0113, EN 50047, UL, EN 81	IEC/EN 60947-5-1, BG-GS-ET-15 UL
Design	DIN EN 50047 compliant	DIN EN 50047 compliant	DIN EN 50047 compliant
Switching behaviour	Snap action (Z)	Snap action (Z)	Snap action (Z), Slow action (T)
Enclosure	glass-fibre reinforced thermoplastic, self-extinguishing	glass-fibre reinforced thermoplastic, self-extinguishing	glass-fibre reinforced thermoplastic, self-extinguishing
Protection class	IP 54	IP 65	IP 67
Contact material	Silver	Silver	Silver
Switching elements	NC contact with double break	NC contact with double break	Changeover contact with double break or 2 NC contacts, galvanically separated contact bridges
Switching system	Positive break NC contact magnetic snap action	Positive break NC contact magnetic snap action	Positive break NC contact
Termination	Wire 1 m	Screw terminals	Screw terminals
Cable section		max. 2.5 mm ² (including conductor ferrules)	1,5 mm ² – 2.5 mm ² (including conductor ferrules)
Cable entry	Fixed cable connection	M 20 x 1.5	M 20 x 1.5
U_{imp}	4 kV	4 kV	6 kV
U_i	250 V	250 VAC	500 V
I_{the}	10 A	10 A	10 A
Utilisation category	AC-15 / DC-13	AC-15	AC-15 DC-13
I_e/U_e	4 A / 230 VAC 4 A / 24 VDC	4 A / 230 VAC 2,5 A / 400 VAC 1 A / 500 VAC	4 A / 230 VAC 1 A / 24 VDC
Short-circuit protection	4 A GL-gI	10 A (slow blow); 16 A (quick blow)	6 A gL/gG D-fuse
Ambient temperature	– 25 °C ... + 40 °C	– 30 °C ... + 80 °C	– 30 °C ... + 80 °C
Mechanical life	50 thousand operations	20 million operations	20 million operations
Switching frequency		5000 / h	5000 / h
Actuating force	6 N (± 2 N)	min. 6 ± 2 N	
Duration to standstill			
Snap action (Z)	3 ms	3 ms	< 3 ms
Slow action (T)	–	–	In accordance with the actuating speed
Switching time			
Snap action (Z)		5 ms with an actuating speed of 10 mm/min at the plunger	> 5.5 ms
Slow action (T)	–	–	in accordance with the actuating speed

Position switches with safety function

Z/T 256	Z/T 235	Z/T 255	
IEC/EN 60947-5-1, BG-GS-ET-15 UL	IEC/EN 60947-5-1, BG-GS-ET-15 UL	IEC/EN 60947-5-1, BG-GS-ET-15 UL	Standards
DIN EN 50047 compliant	DIN EN 50047 compliant	DIN EN 50047 compliant	Design
Snap action (Z), Slow action (T)	Snap action (Z), Slow action (T)	Snap action (Z), Slow action (T)	Switching behaviour
glass-fibre reinforced thermoplastic, self-extinguishing	Zinc die-cast, paint finish	Aluminium die-cast, paint finish	Enclosure
IP 67	IP 67	IP 67	Protection class
Silver	Silver	Silver	Contact material
Changeover contact with double break or 2 NC contacts, galvanically separated contact bridges	Changeover contact with double break or 2 NC contacts, galvanically separated contact bridges	Changeover contact with double break or 2 NC contacts, galvanically separated contact bridges	Switching elements
Positive break NC contact	Positive break NC contact	Positive break NC contact	Switching system
Screw terminals	Screw terminals	Screw terminals	Termination
1.5 mm ² – 2.5 mm ² (including conductor ferrules)	0.75 mm ² – 2.5 mm ² (including conductor ferrules)	0.75 mm ² – 2.5 mm ² (including conductor ferrules)	Cable section
2 x M 20 x 1.5	M 20 x 1.5	2 x M 20 x 1.5	Cable entry
6 kV	6 kV	6 kV	U_{imp}
500 V	500 V	500 V	U_i
10 A	10 A	10 A	I_{the}
AC-15 DC-13	AC-15, DC-13	AC-15, DC-13	Utilisation category
4 A / 230 VAC 1 A / 24 VDC	4 A / 230 VAC 1 A / 24 VDC	4 A / 230 VAC 1 A / 24 VDC	I_e/U_e
6 A gL/gG D-fuse	6 A gL/gG D-fuse	6 A gL/gG D-fuse	Short-circuit protection
- 30 °C ... + 80 °C	- 30 °C ... + 80 °C	- 30 °C ... + 80 °C	Ambient temperature
20 million operations	20 million operations	20 million operations	Mechanical life
5000 / h	5000 / h	5000 / h	Switching frequency
			Actuating force
< 3 ms	< 3 ms	< 3 ms	Duration to standstill Snap action (Z)
In accordance with the actuating speed	In accordance with the actuating speed	In accordance with the actuating speed	Slow action (T)
> 5.5 ms	> 5.5 ms	> 5.5 ms	Switching time Snap action (Z)
In accordance with the actuating speed	In accordance with the actuating speed	In accordance with the actuating speed	Slow action (T)