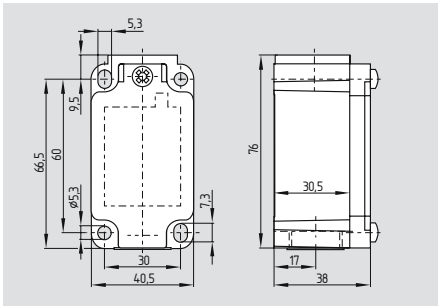


# Position switches with safety function

## T 335



- Metal enclosure
- Mounting details to DIN EN 50041 (large)
- Compact design
- Switching function non-latching
- Slow action also available with overlapping or staggered contacts
- Protection class IP 67
- max. 3 contacts
- 1 cable entry M20 x 1.5
- Screw terminals max. 2.5 mm<sup>2</sup> 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 50041

Enclosure: light-metal die-cast, paint finish

Protection class : IP 67

Contact material: Silver

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

Switching system: ⊖ IEC 60947-5-1  
Slow action, Positive break NC contact

Termination: Screw terminals, male connector M12

Cable section: max. 2.5 mm<sup>2</sup> (including conductor ferrules)

Cable entry: M 20 x 1.5

U<sub>imp</sub>: 6 kV

U<sub>i</sub>: -03z, -12z: 4kV  
500 V

U<sub>j</sub>: -03z, -12z: 250 V

I<sub>the</sub>: 10 A

Utilisation category: AC-15; DC-13

I<sub>e</sub>/U<sub>e</sub>: 4 A / 230 VAC  
1A / 24 VDC

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

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

Mechanical life: 30 million operations

Switching frequency: max. 5000/h

Duration to standstill: < 2ms

Switching time: in accordance with the actuating speed

## Actuators

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

## Approvals



## Ordering data

T ① 335-②z③-④-⑤-⑥

N°	Add	Description
①		Selection of actuators, see page 3-38
②	11	1 NO / 1 NC contact
	02	2 NC contacts
	20	2 NO contacts
	01/01	1 NC contact left / 1 NC contact right
	12	1 NO contact / 2 NC contacts
	03	3 NC contacts
③	h	Slow action with staggered contacts
	ü	with overlapping contacts
④	G24	with LED

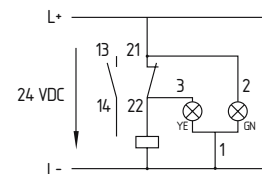
## Ordering data

N°	Add	Description
⑤	M20	Cable entry M20
	NPT	Cable entry NPT 1/2"
	ST	Connector M12
⑥	1058	for roller lever rubber roller 50 mm
	1058/2138	rubber roller 50 mm and lever arm length-adjustable in steps

### Note:

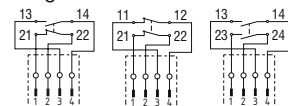
The actuator is defined by item ① and ⑥ of the ordering data.

## Note



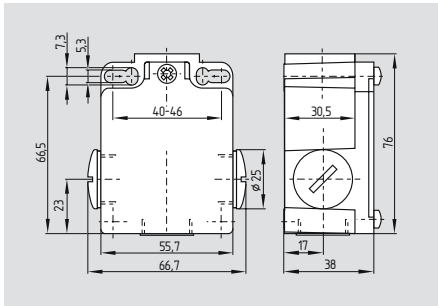
Version with LED:  
ordering suffix G24, protected against incorrect polarity and voltage spikes

### Plug-in connector:



# Position switches with safety function

## T 355



- Metal enclosure
- Mounting details nach DIN EN 50041 (large)
- Large design
- Switching function non-latching
- Slow action also available with overlapping or staggered contacts
- Protection class IP 67
- max. 3 contacts
- 3 cable entries M20 x 1.5
- Screw terminals max. 2.5 mm<sup>2</sup> 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 50041

Enclosure: light-metal die-cast, paint finish

Protection class : IP 67

Contact material: Silver

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

Switching system: ⊖ IEC 60947-5-1  
Slow action,  
Positive break NC contact

Termination: Screw terminals, male connector M12

Cable section: max. 2.5 mm<sup>2</sup>  
(including conductor ferrules)

Cable entry: 3 x M 20 x 1.5

U<sub>imp</sub>: 6 kV

U<sub>i</sub>: -03z, -12z: 4kV  
500 V

U<sub>j</sub>: -03z, -12z: 250 V

I<sub>the</sub>: 10 A

Utilisation category: AC-15; DC-13

I<sub>e</sub>/U<sub>e</sub>: 4 A / 230 VAC  
1A / 24 VDC

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

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

Mechanical life: 30 million operations

Switching frequency: max. 5000/h

Duration to standstill: < 2ms

Switching time: in accordance with the actuating speed

## Actuators

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

## Approvals



## Ordering data

T ① 355-②z③-④-⑤

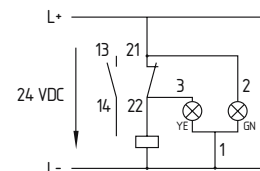
N°	Add	Description
①		Selection of actuators, see page 3-38
②	11	1 NO / 1 NC contact
	02	2 NC contacts
	20	2 NO contacts
	01/01	1 NC contact left / 1 NC contact right
	12	1 NO contact / 2 NC contacts
	03	3 NC contacts
③	h	Slow action with staggered contacts
	ü	with overlapping contacts

N°	Add	Description
④	M20	Cable entry M20
	NPT	Cable entry NPT 1/2"
	ST	Connector M12
⑤	1058	for Roller lever rubber roller 50 mm
	1058/2138	rubber roller 50 mm and lever arm length-adjustable in steps

### Note:

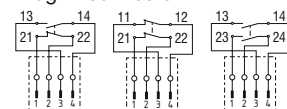
The actuator is defined by item ① and ⑤ of the ordering data.

## Note



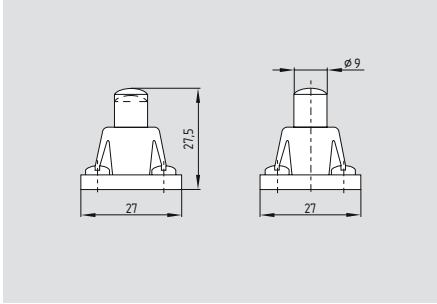
Version with LED:  
ordering suffix G24, protected against incorrect polarity and voltage spikes.

Plug-in connector:



# Position switches with safety function

## Plunger S

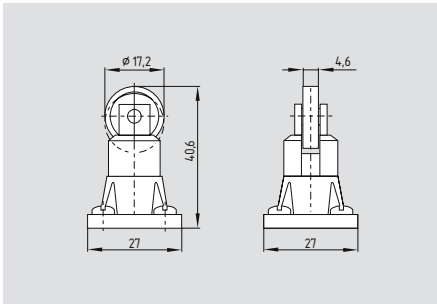


- Actuator type B to DIN EN 50041
- Required actuating force 17 N
- Actuating speed with actuating angle 0° to switch axis max. 0.5 m/s
- Suitable for T 335, T 355, T 336

## Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>TS 3..-11z</b> 	<b>TS 3..-11zü</b> 	
<b>2 NC contacts</b>	<b>TS 3..-02z</b> 		<b>TS 3..-02zh</b> 
<b>2 NO contacts</b>	<b>TS 3..-20z</b> 		<b>TS 3..-20zh</b> 
<b>1 NO contact 2 NC contacts</b>	<b>TS 3..-12z</b> 	<b>TS 3..-12zü</b> 	
<b>3 NC contacts</b>	<b>TS 3..-03z</b> 		<b>TS 3..-03zh</b> 

## Roller plunger R



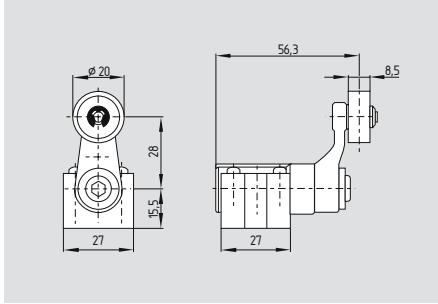
- Actuator type C to DIN EN 50041
- Required actuating force 17 N
- Actuating speed with actuating angle 30° to switch axis max. 0.5 m/s
- Suitable for T 335, T 355, T 336

## Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>TR 3..-11z</b> 	<b>TR 3..-11zü</b> 	
<b>2 NC contacts</b>	<b>TR 3..-02z</b> 		<b>TR 3..-02zh</b> 
<b>2 NO contacts</b>	<b>TR 3..-20z</b> 		<b>TR 3..-20zh</b> 
<b>1 NO contact 2 NC contacts</b>	<b>TR 3..-12z</b> 	<b>TR 3..-12zü</b> 	
<b>3 NC contacts</b>	<b>TR 3..-03z</b> 		<b>TR 3..-03zh</b> 

# Position switches with safety function

## Roller lever H

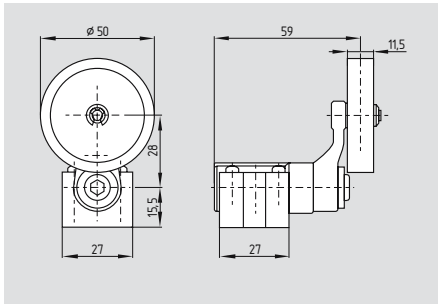


- Actuator type A to DIN EN 50041
- Required actuating torque 31 Ncm
- Actuating speed with actuating angle of 30° max. 2.5 m/s
- On version TVH ...-01/01z positive break only to one side.
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Metal lever
- Suitable for T 335, T 355, T 336
- plastic roller
- metal roller ordering suffix RMS

## Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>T4VH 3..-11z</b> 	<b>T4VH 3..-11zü</b> 	
<b>2 NC contacts</b>	<b>T4VH 3..-02z</b> 		<b>T4VH 3..-02zh</b> 
<b>2 NO contacts</b>	<b>T4VH 3..-20z</b> 		<b>T4VH 3..-20zh</b> 
<b>1 NC contact left 1 NC contact right</b>	<b>TVH 3..-01/01z</b> 		
<b>1 NO contact 2 NC contacts</b>	<b>T4VH 3..-12z</b> 	<b>T4VH 3..-12zü</b> 	
<b>3 NC contacts</b>	<b>T4VH 3..-03z</b> 		<b>T4VH 3..-03zh</b> 

## Roller lever H-1058



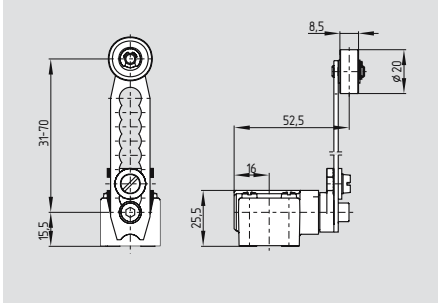
- Actuator type A to DIN EN 50041
- With rubber roller 50 mm
- Required actuating torque 31 Ncm
- Actuating speed with actuating angle of 30° max. 2.5 m/s
- On version TVH 336-01/01z positive break only to one side.
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Metal lever
- Suitable for T 335, T 355, T 336

## Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)	Slow action with End position resting (T, r)
<b>1 NO contact 1 NC contact</b>	<b>T4VH 3..-11z - 1058</b> 	<b>T4VH 3..-11zü - 1058</b> 		<b>T4VH 3..-11yr-1058</b> 
<b>2 NC contacts</b>	<b>T4VH 3..-02z - 1058</b> 		<b>T4VH 3..-02zh - 1058</b> 	<b>T4VH 3..-02yr-1058</b> 
<b>2 NO contacts</b>	<b>T4VH 3..-20z - 1058</b> 		<b>T4VH 3..-20zh - 1058</b> 	<b>T4VH 3..-20yr-1058</b> 
<b>1 NC contact left 1 NC contact right</b>	<b>TVH 3..-01/01z-1058</b> 			

# Position switches with safety function

## Roller lever 7H-2138

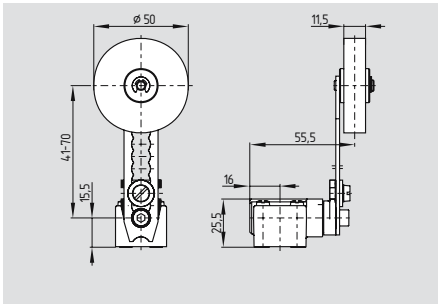


- For safety tasks ⊕
- Required actuating torque 31 Ncm
- Actuating speed with actuating angle of 30° max. 2.5 m/s
- On version TV7H ...-01/01z-2138 positive break only to one side.
- Positive-break NC contact
- Lever arm length adjustable in steps
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Metal lever
- Suitable for T 335, T 355, T 336
- plastic roller
- metal roller ordering suffix RMS

## Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>T4V7H 3...-11z-2138</b> 	<b>T4V7H 3...-11z-2138</b> 	
<b>2 NC contacts</b>	<b>T4V7H 3...-02z-2138</b> 		<b>T4V7H 3...-02zh-2138</b> 
<b>2 NO contacts</b>	<b>T4V7H 3...-20z-2138</b> 		<b>T4V7H 3...-20zh-2138</b> 
<b>1 NC contact left 1 NC contact right</b>	<b>TV7H 3...-01/01z-2138</b> 		
<b>1 NO contact 2 NC contacts</b>	<b>T4V7H 3...-12z-2138</b> 	<b>T4V7H 3...-12z-2138</b> 	
<b>3 NC contacts</b>	<b>T4V7H 3...-03z-2138</b> 		<b>T4V7H 3...-03zh-2138</b> 

## Roller lever 7H-1058/2138



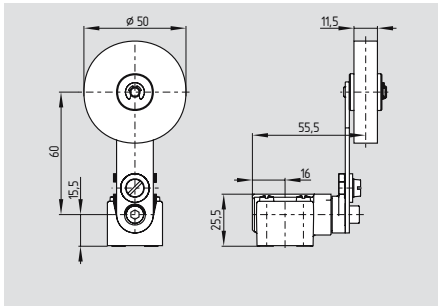
- For safety tasks ⊕
- With large rubber roller
- Required actuating torque 31 Ncm
- Actuating speed with actuating angle of 30° max. 2.5 m/s
- On version TV7H ...-01/01z-1058/2138 positive break only to one side.
- Positive-break NC contact
- Lever arm length adjustable in steps
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Metal lever
- Suitable for T 335, T 355, T 336

## Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>T4V7H 3...-11z-1058/2138</b> 	<b>T4V7H 3...-11z-1058/2138</b> 	
<b>2 NC contacts</b>	<b>T4V7H 3...-02z-1058/2138</b> 		<b>T4V7H 3...-02zh-1058/2138</b> 
<b>2 NO contacts</b>	<b>T4V7H 3...-20z-1058/2138</b> 		<b>T4V7H 3...-20zh-1058/2138</b> 
<b>1 NC contact left 1 NC contact right</b>	<b>TV7H 3...-01/01z-1058/2138</b> 		
<b>1 NO contact 2 NC contacts</b>	<b>T4V7H 3...-12z-1058/2138</b> 	<b>T4V7H 3...-12z-1058/2138</b> 	
<b>3 NC contacts</b>	<b>T4V7H 3...-03z-1058/2138</b> 		<b>T4V7H 3...-03zh-1058/2138</b> 

# Position switches with safety function

## Roller lever 7H-2079-2

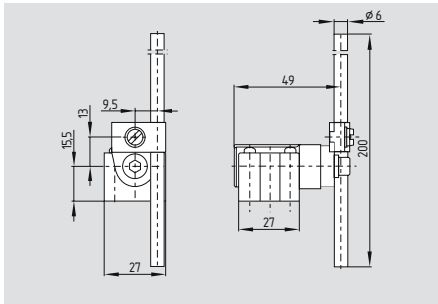


- For safety tasks ⊖
- With large rubber roller
- Plastic roller Ø 20 mm available, ordering suffix -2079-1
- Required actuating torque 31 Ncm
- Actuating speed with actuating angle of 30° max. 2.5 m/s
- On version TV7H ...-01/01z-2079-2 positive break only to one side.
- Positive-break NC contact
- With fixed 7H lever
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Metal lever
- Suitable for T 335, T 355, T 336

## Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>T4V7H 3...-11z-2079-2</b> 	<b>T4V7H 3...-11zü-2079-2</b> 	
<b>2 NC contacts</b>	<b>T4V7H 3...-02z-2079-2</b> 		<b>T4V7H 3...-02zh-2079-2</b> 
<b>2 NO contacts</b>	<b>T4V7H 3...-20z-2079-2</b> 		<b>T4V7H 3...-20zh-2079-2</b> 
<b>1 NC contact left 1 NC contact right</b>	<b>TV7H 3...-01/01z-2079-2</b> 		
<b>1 NO contact 2 NC contacts</b>	<b>T4V7H 3...-12z-2079-2</b> 	<b>T4V7H 3...-12zü-2079-2</b> 	
<b>3 NC contacts</b>	<b>T4V7H 3...-03z-2079-2</b> 		<b>T4V7H 3...-03zh-2079-2</b> 

## Rod lever 10H



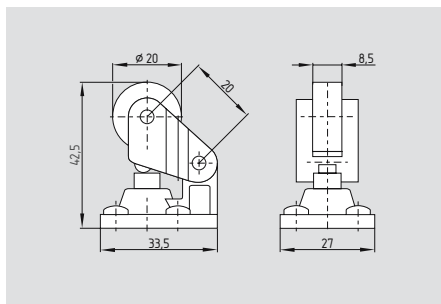
- Only suitable for positioning tasks
- Actuator type D to DIN EN 50041
- Plastic rod
- Required actuating torque 31 Ncm
- Actuating speed with actuating angle 30° max. 2.5 m/s
- Aluminium rod, ordering suffix -1183
- Lever angle adjustable in 10° steps
- Actuator can be turned in steps 4 x 90°
- Suitable for T 355, T 336

## Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>T4V10H 336-11z</b> 	<b>T4V10H 336-11zü</b> 	
<b>2 NC contacts</b>	<b>T4V10H 336-02z</b> 		<b>T4V10H 336-02zh</b> 
<b>2 NO contacts</b>	<b>T4V10H 336-20z</b> 		<b>T4V10H 336-20zh</b> 
<b>1 NC contact left 1 NC contact right</b>	<b>TV10H 336-01/01z</b> 		

## Position switches with safety function

### Roller lever 1K

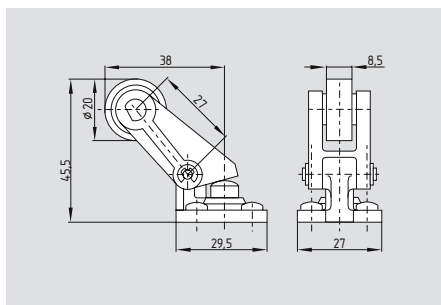


- Required actuating force 17 N
- Actuating speed with actuating angle 30° to switch axis max. 0.5 m/s
- Lever arm located to the right in the normal version; actuator can be turned clockwise in 90° steps
- Suitable for T 335, T 355, T 336

### Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>T1K 3..-11z</b> 	<b>T1K 3..-11zü</b> 	
<b>2 NC contacts</b>	<b>T1K 3..-02z</b> 		<b>T1K 3..-02zh</b> 
<b>2 NO contacts</b>	<b>T1K 3..-20z</b> 		<b>T1K 3..-20zh</b> 
<b>1 NO contact 2 NC contacts</b>	<b>T1K 3..-12z</b> 	<b>T1K 3..-12zü</b> 	
<b>3 NC contacts</b>	<b>T1K 3..-03z</b> 		<b>T1K 3..-03zh</b> 

### Angled lever 3K



- Required actuating force 17 N
- Actuating speed with actuating angle 30° to switch axis max. 0.5 m/s
- Actuation parallel to switch axis from below
- Actuator can be turned in steps 4 x 90°
- Suitable for T 335, T 355, T 336

### Contact variants

Switch travel/ Contacts	Slow action (T)	Slow action with overlapping contacts (T, ü)	Slow action with staggered contacts (T, h)
<b>1 NO contact 1 NC contact</b>	<b>T3K 3..-11z</b> 	<b>T3K 3..-11zü</b> 	
<b>2 NC contacts</b>	<b>T3K 3..-02z</b> 		<b>T3K 3..-02zh</b> 
<b>2 NO contacts</b>	<b>T3K 3..-20z</b> 		<b>T3K 3..-20zh</b> 
<b>1 NO contact 2 NC contacts</b>	<b>T3K 3..-12z</b> 	<b>T3K 3..-12zü</b> 	
<b>3 NC contacts</b>	<b>T3K 3..-03z</b> 		<b>T3K 3..-03zh</b> 

## Position switches with safety function

	T 336	T 335	T 355
<b>Standards</b>	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
<b>Design</b>	DIN EN 50041	DIN EN 50041	DIN EN 50041
<b>Switching behaviour</b>	Slow action (T)	Slow action (T)	Slow action (T)
<b>Enclosure</b>	glass-fibre reinforced thermoplastic, self-extinguishing	Light-metal die-cast, paint finish	Light-metal die-cast, paint finish
<b>Protection class</b>	IP 67	IP 67	IP 67
<b>Contact material</b>	Silver	Silver	Silver
<b>Switching elements</b>	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
<b>Switching system</b>	Positive break NC contact	Positive break NC contact	Positive break NC contact
<b>Termination</b>	Screw terminals, male connector M12	Screw terminals, male connector M12	Screw terminals, male connector M12
<b>Cable section</b>	max. 2.5 mm <sup>2</sup> (including conductor ferrules)	max. 2.5 mm <sup>2</sup> (including conductor ferrules)	max. 2.5 mm <sup>2</sup> (including conductor ferrules)
<b>Cable entry</b>	M 20 x 1.5	M 20 x 1.5	3 x M 20 x 1.5
<b>U<sub>imp</sub></b>	6 kV	-02 / -20z / -11z: 6 kV -03z / -12z: 4 kV	-02 / -20z / -11z: 6 kV -03z / -12z: 4 kV
<b>U<sub>i</sub></b>	500 V	-02 / -20z / -11z: 500 V -03z / -12z: 250 V	-02 / -20z / -11z: 500 V -03z / -12z: 250 V
<b>I<sub>the</sub></b>	10 A	10 A	10 A
<b>Utilisation category</b>	AC-15 DC-13	AC-15 DC-13	AC-15 DC-13
<b>I<sub>e</sub>/U<sub>e</sub></b>	4 A / 230 VAC 1A / 24 VDC	4 A / 230 VAC 1A / 24 VDC	4 A / 230 VAC 1A / 24 VDC
<b>Short-circuit protection</b>	6 A gL/gG D-fuse	6 A gL/gG D-fuse	6 A gL/gG D-fuse
<b>Ambient temperature</b>	- 30 °C ... + 80 °C	- 30 °C ... + 80 °C	- 30 °C ... + 80 °C
<b>Mechanical life</b>	30 million operations	30 million operations	30 million operations
<b>Switching frequency</b>	5000/h	5000/h	5000/h
<b>Duration to standstill</b>	< 2ms	< 2ms	< 2ms