

Selection table for accessories

Actuators													
	Insertion funnels												
		Montageplatten/Montagewinkel											
			Connection										
			SGLF				Plug connector; M12; 4-pin						
				SR6			Plug connector; 6-pin + PE						
					SR11		Plug connector; 11-pin + PE						
						RC18	Plug connector; 18-pin + PE						
							Cable glands						
										LED displays			
											Miscellaneous		
												Bolts for safety guards	
Actuators	Insertion funnels	Mounting plates/ mounting brackets	Plug connectors				Cable glands	LED displays	Miscellaneous	Bolts		Page	
			SGLF	SR6	SR11	RC18				Metal	Plastic		
•												74 - 82	
	•											83	
		•										84 / 85	
			•									85	
				•								86	
					•							86	
						•						87 / 88	
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								•				89	
									•			90 - 92	
										•		93 - 96	
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Actuators for safety switches SGP/STA/STP/STM

- ▶ Two stainless safety screws per actuator
- ▶ Actuators with and without rubber bushings

Note

Type S actuators must not be used in conjunction with insertion funnels.

L actuators must be used for insertion funnels.

Straight actuator

Suitable for a maximum tensile force of 2500 N for STP, or 3000 B for STA

The straight actuator is used on sliding doors or hinged doors with door radii greater than 300 mm. Safety screws prevent unscrewing of the actuator.

Bent actuator

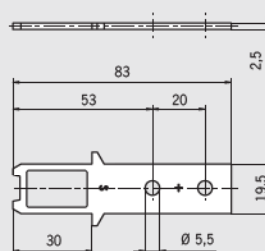
Suitable for a maximum tensile force of 1500 N.

Screws made of stainless steel

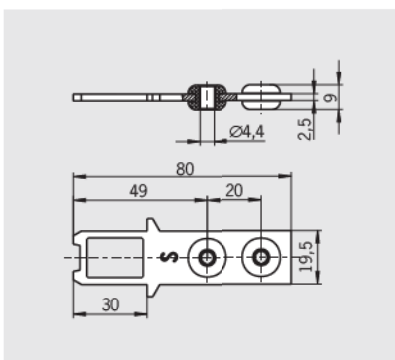
The safety screws included can be inserted with a normal tool, but cannot be removed again.

Standard actuator S, straight (dimensionally compatible with actuator P-G for TP) without rubber bush, overtravel 5 mm

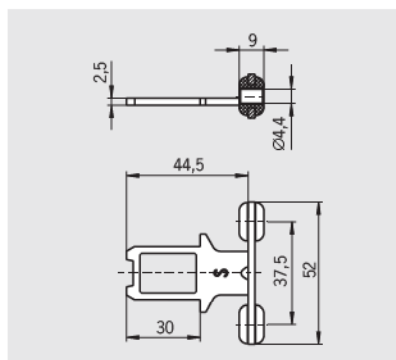
Dimension drawings



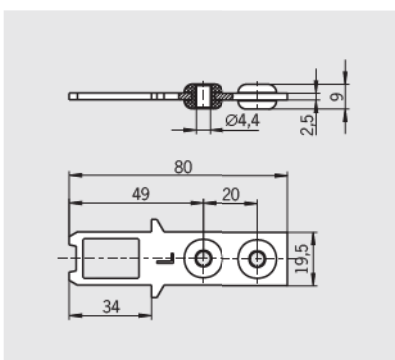
Standard actuator S, straight with rubber bush, overtravel 5 mm



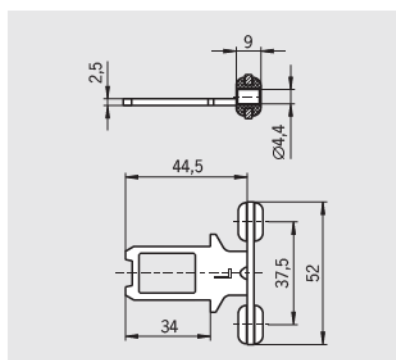
Standard actuator S, bent with rubber bush, overtravel 5 mm



Actuator L, straight, for insertion funnel with rubber bush, overtravel 5 mm



Actuator L, bent, for insertion funnel with rubber bush, overtravel 5 mm



Ordering table

Designation	Version	Min. door radius r [mm]	Packaging unit	Order No.
Actuator S straight	S-G-SN-C2115 without rubber bush, overtravel 5 mm incl. 2 safety screws M5 x 10	300	1 ea.	097 861 ACTUATOR S-G-SN-C2115
	S-GT-SN with rubber bush, overtravel 5 mm incl. 2 safety screws M4 x 14	300	1 ea.	095 738 ACTUATOR S-GT-SN
Actuator S bent	S-WQ-SN with rubber bush, overtravel 5 mm incl. 2 safety screws M4 x 14	300	1 ea.	095 740 ACTUATOR S-WQ-SN
Actuator L straight	S-GT-LN with rubber bush, overtravel 5 mm incl. 2 safety screws M4 x 14	300	1 ea.	095 739 ACTUATOR S-GT-LN
Actuator L bent	S-WQ-LN with rubber bush, overtravel 5 mm incl. 2 safety screws M4 x 14	300	1 ea.	095 741 ACTUATOR S-WQ-LN

Hinged actuators for safety switches SGP/STA/STP/STM

- ▶ Actuators made of stainless steel
- ▶ Two stainless safety screws per actuator
- ▶ For top and bottom hinged doors
- ▶ For right and left hinged doors

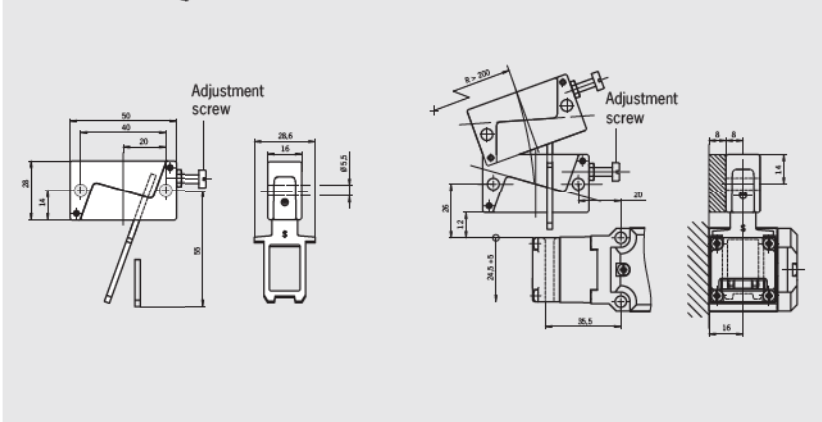
Hinged actuator

For door radii less than 1000 mm a hinged actuator should be used. The spring action movement of the actuator prevents damage due to the actuator jamming in the actuating head. Depending on the movement of the safety guard, the actuator must be selected for left/right or top/bottom.

Hinged actuator S-OU-SN

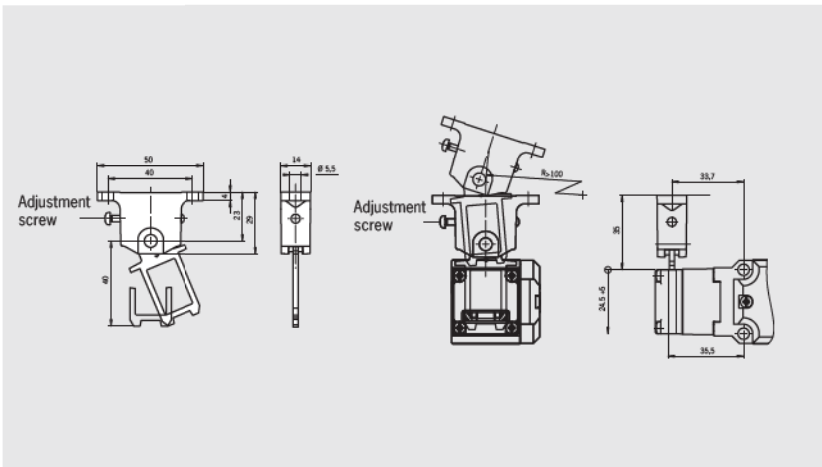
Safety guard hinged at top/bottom, overtravel 5 mm

Dimension drawings



Hinged actuator S-LR-SN

Safety guard hinged on left/right, overtravel 5 mm



Ordering table

Designation	Version	Min. door radius r [mm]	Packaging unit	Order No.
Hinged actuator	S-OU-SN For top and bottom hinged doors overtravel 5 mm incl. 2 safety screws M5 x 25	200	1 ea.	095 315 HINGED ACTUATOR-S-OU-SN
	S-LR-SN For left and right hinged doors overtravel 5 mm incl. 2 safety screws M5 x 10	100	1 ea.	096 838 HINGED ACTUATOR-S-LR-SN

Hinged actuators for safety switches SGP/STA/STP/STM

- ▶ Actuators made of stainless steel
- ▶ Two stainless safety screws per actuator
- ▶ For top and bottom hinged doors
- ▶ For right and left hinged doors

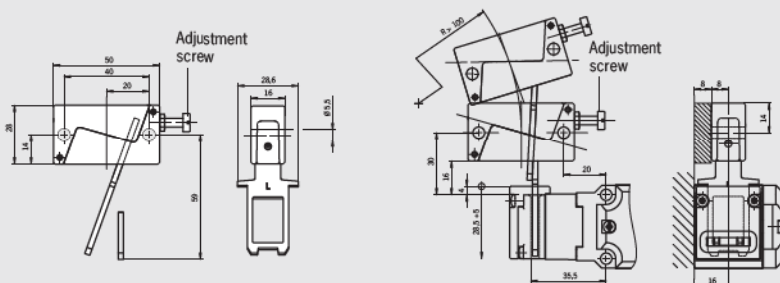
Hinged actuator

For door radii less than 1000 mm a hinged actuator should be used. The spring action movement of the actuator prevents damage due to the actuator jamming in the actuating head. Depending on the movement of the safety guard, the actuator must be selected for left/right or top/bottom.

Hinged actuator S-OU-LN for insertion funnel

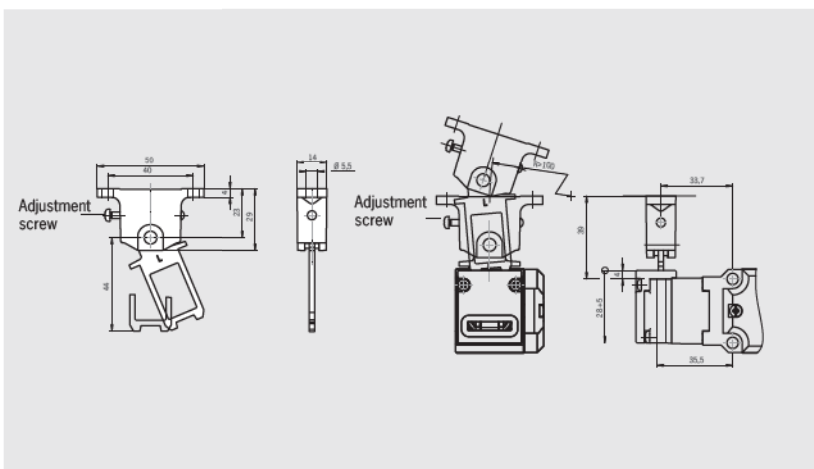
Safety guard hinged at top/bottom, overtravel 5 mm

Dimension drawings



Hinged actuator S-LR-LN for insertion funnel

Safety guard hinged on left/right, overtravel 5 mm



Ordering table

Designation	Version	Min. door radius r [mm]	Packaging unit	Order No.
Hinged actuator	S-OU-LN For top and bottom hinged doors overtravel 5 mm incl. 2 safety screws M5 x 25	200	1 ea.	096 697 HINGED ACTUATOR-S-OU-LN
	S-LR-LN For left and right hinged doors overtravel 5 mm incl. 2 safety screws M5 x 10	100	1 ea.	096 844 HINGED ACTUATOR-S-LR-LN

Insertion funnels/adapters

- ▶ **Insertion funnel**
- ▶ **Adapter NP-K**

Insertion funnel

If an insertion funnel is used, even in exactly positioned actuators are inserted reliably in the actuating head due to the large opening aperture, thus protecting the safety switch against mechanical influences.

- ▶ Cannot be used in conjunction with TP safety switches with increased overtravel from top
- ▶ The insertion funnel for TP can only be used in conjunction with an actuator with long overtravel
- ▶ The insertion funnel for STP can only be used in conjunction with an actuator for insertion funnel

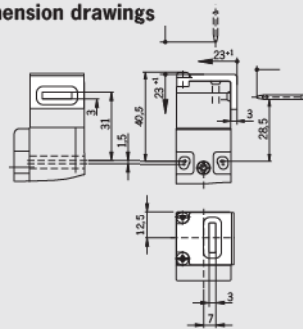
Adapter NP-K

The adapter NP-K is used for top entry overtravel applications for the NP series.

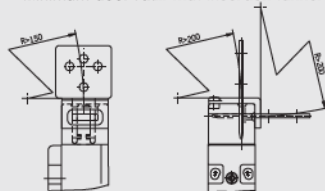
- ▶ The adapter **cannot** be used for safety switches of the GP/TP series
- ▶ 4 screws 3 x 38 (not safety screws) are supplied

Insertion funnel For safety switches NM..VZ

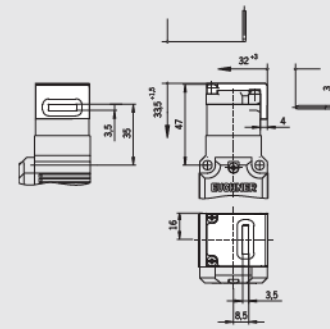
Dimension drawings



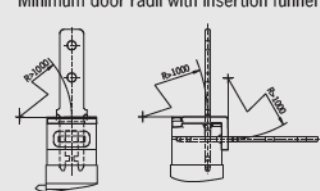
Minimum door radii with insertion funnel



Insertion funnel For safety switches NP..A/GP/TP..A

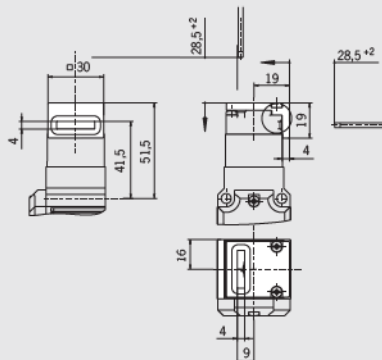


Minimum door radii with insertion funnel



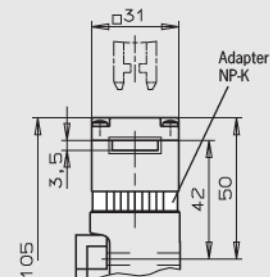
Insertion funnel For safety switches SGP/STA/STP/STM

Dimension drawings



Minimum door radius with insertion funnel R > 300 mm

Adapter NP-K For safety switches NP



Ordering table

Designation	Version	Use	Order No.
Insertion funnel	Incl. 2 fastening screws	For safety switches NM..VZ	083 565 Insertion funnel M
		For safety switches NP..A/GP/TP..A without adapter	086 237 Insertion funnel NP/GP/TP
		For safety switches SGP/STA/STP/STM	093 157 Insertion funnel STP/STM
Adapter NP-K	Incl. 4 fastening screws	For safety switches NP	074 578 Adapter NP-K

Plug connectors SR6 and SR11

- ▶ Plugs and sockets
- ▶ Crimp contacts
- ▶ 90° angled optional
- ▶ Cable optional
- ▶ Coding shells

Angled plug connector

On plug connectors without cables the direction of the cable exit can be chosen.

Male socket

For fitting in safety switches.

Coding shells

Two coding shells and screws. If used only matching connectors can be mated.

Cable (optional)

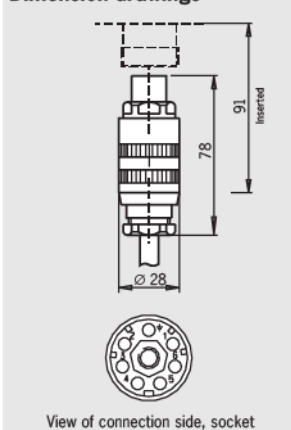
Cable sleeve PUR, color gray, wire cross-section 1.0 mm² (individual lines numbered).

Pin assignment for plug with cable

SR6		SR11	
Pin	Wire	Pin	Wire
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
⊕	7	7	7
		8	8
		9	9
		10	10
		11	11
		⊕	12

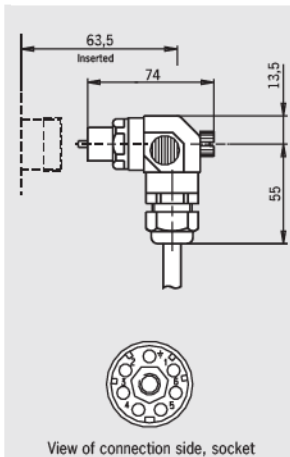
Female plug SR6 EF
6-pin + PE

Dimension drawings



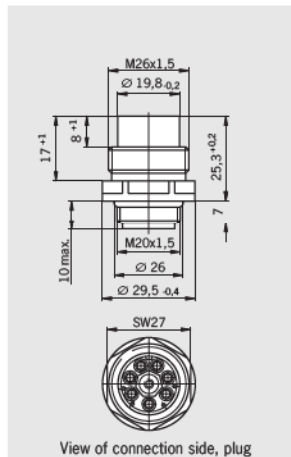
View of connection side, socket

Female plug SR6 WF angled
6-pin + PE



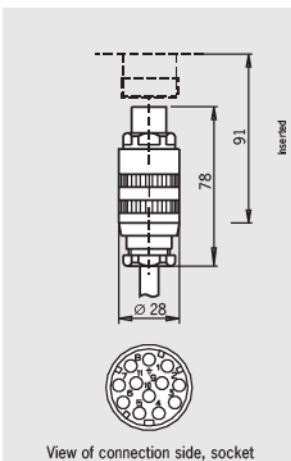
View of connection side, socket

Male socket SR6 AM
6-pin + PE



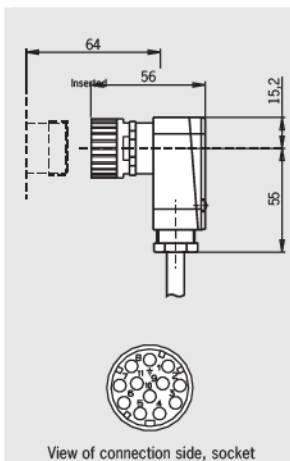
View of connection side, plug

Female plug SR11 EF
11-pin + PE



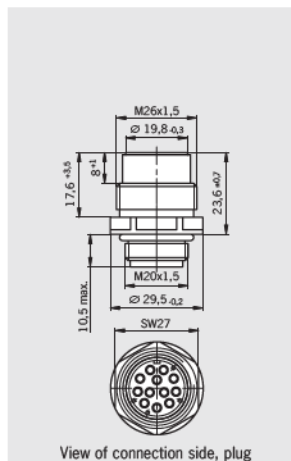
View of connection side, socket

Female plug SR11 WF angled
11-pin + PE



View of connection side, socket

Male socket SR11 AM
11-pin + PE



View of connection side, plug

Ordering table

Designation	Version	Cable				
		None	5 m	10 m	15 m	25 m
SR6 ¹⁾ 6-pin + PE	EF Female plug	013 176 SR6EF	077 632 SR6EF-5000	077 633 SR6EF-10000	077 634 SR6EF-15000	-
	WF Female plug angled	024 999 SR6WF	077 638 SR6WF-5000	077 639 SR6WF-10000	077 640 SR6WF-15000	-
	K Coding shells	013 178 SR6K	-	-	-	-
	AM Male socket, connection M20 x 1.5	087 180 SR6AM2-M20	-	-	-	-
SR11 ¹⁾ 11-pin + PE	EF Female plug	070 859 SR11EF	077 629 SR11EF-5000	077 630 SR11EF-10000	077 631 SR11EF-15000	094 749 SR11EF-25000
	WF Female plug angled	054 773 SR11WF	077 635 SR11WF-5000	077 636 SR11WF-10000	077 637 SR11WF-15000	-
	AM Male socket, connection M20 x 1.5	091 296 SR11AM2-M20	-	-	-	-
SR6 and SR11	Socket crimp contacts Wire cross-section 0.5 - 1.5 mm	071 260 SRF	-	-	-	-
	Pin crimp contacts Wire cross-section 0.5 - 1.5 mm	071 261 SRM	-	-	-	-

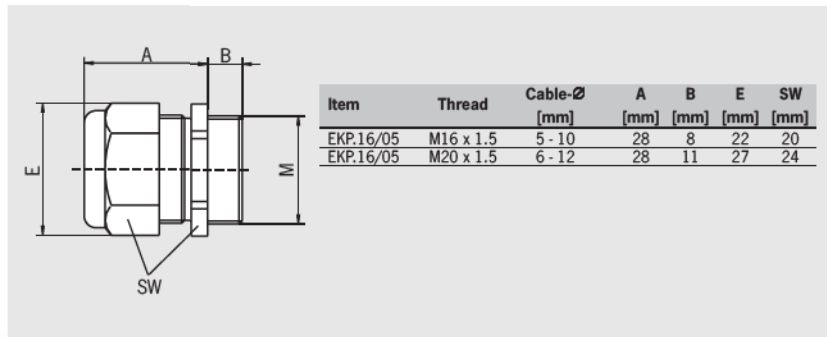
1) Crimp contacts supplied. For information on crimp contacts see page 98.

Cable glands

- ▶ M16 x 1.5
- ▶ M20 x 1.5

Cable glands

Suitable for various cable diameters. Versions available in plastic and metal.



Ordering table

Thread	Version	Material	
		Metal	Plastic
M16 x 1.5	Cable diameter 5 - 10 mm	-	084 572 EKPM16/05
		-	086 233 EKPM20/06
M20 x 1.5	Cable diameter 6 - 12 mm	-	086 233 EKPM20/06
		-	086 233 EKPM20/06

LED displays for safety switches GP/ TP and STP

- ▶ LED set
- ▶ Built-in LED

LED set

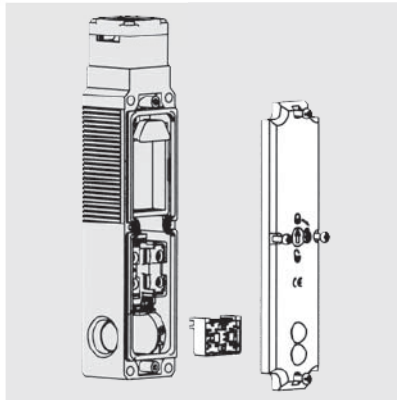
Consisting of cover with lamp caps, LED module with rectifier and two LEDs (green/red). For retrofitting safety switches TP and STP with an LED display.
Operating voltage AC/DC 24 V +10%, -15%.

Built-in LED

The built-in LED is suitable for direct installation in one of the M20 x 1.5 threads of the three cable entries of the safety switches GP/TP/STP. The built-in LED indicates to the user whether the switch is locked or whether the door is open/closed.
The switching element can be wired individually.
Operating voltage DC 24 V +10%, -15%.

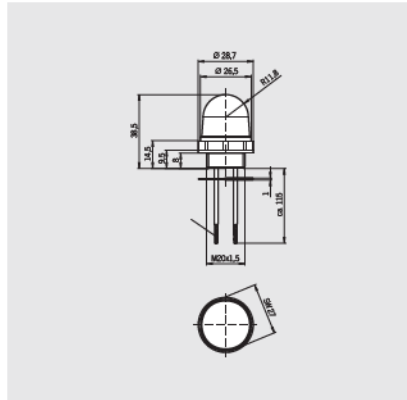
LED set

For safety switches TP/STP



Built-in LED

For safety switches GP/TP/STP/STA



Ordering table

Designation	Version	Use	Packaging unit	Order No.
LED set	Incl. cover with lamp caps and LED module with rectifier and 2 LEDs (red/green)	For safety switches TP	1 ea.	093 752 LED set TP
		For safety switches STP	1 ea.	098 035 LED set STP
Built-in LED (IP65)	Color red for cable entry M20 x 1.5, with seal light radiation to side	For safety switches GP/TP/STA/STP	1 ea.	087 423 LED M20x1.5
	Color red for cable entry M20 x 1.5, with seal light radiation to front	For safety switches GP/TP/STA/STP	1 ea.	095 510 LED-F M20x1.5

Miscellaneous accessories

- ▶ **Latch spring for increased retention force**
- ▶ **Lockout bar**
- ▶ **Lock for mechanical release**

Latch spring

Provides an increased retention force of approx. 30N for the safety switches NP and GP or TP in unlocked condition.

May only be used in conjunction with the straight actuator with rubber bush (Order No. 070 046).

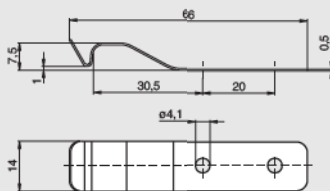
Lockout bar

With the safety door open, can be slid into the actuating head on a switch with separate actuator (NP/GP/TP) instead of an actuator. Removal can be prevented using a commercially available padlock (max. 2 ea.). For the protection of people in areas with a possible hazard.

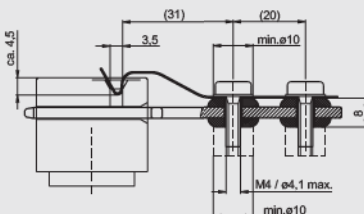
Latch spring for increased retention force

For safety switches NP/GP/TP

Dimension drawings

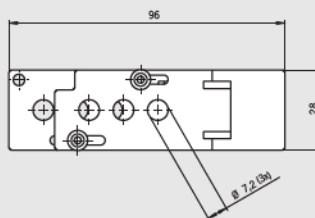
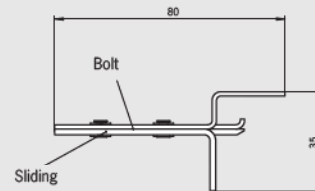


Installation example



Lockout bar

For safety switches NP/GP/TP



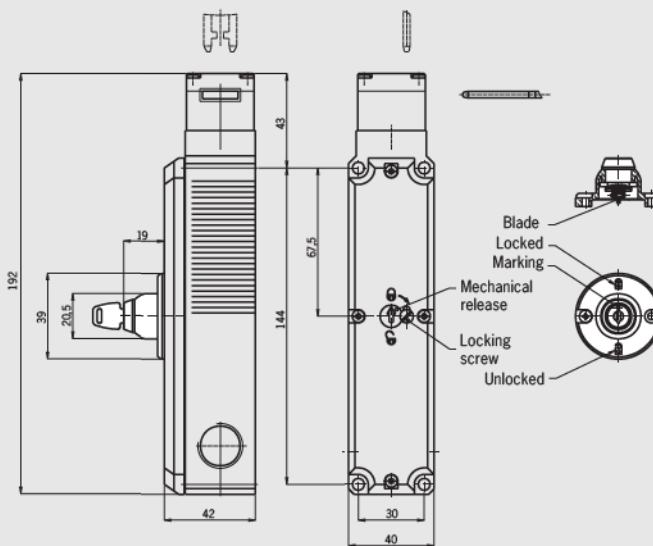
Lock

The lock is used in combination with safety switch TP/STP. The mechanical key release enables authorized personnel to actuate the mechanical release using the related key in certain situations. The unlocking mechanism holds the solenoid in the "unlocked" position. Two screws are used to fix the lock to the cover of the safety switch TP/STP (above the mechanical release).

- ▶ Order safety switch TP/STP separately
- ▶ 2 keys are included
- ▶ Every safety switch of the series TP/STP can be upgraded to include a lock

Lock

For safety switches TP/STP



Ordering table

Designation	Version	Use	Order No.
Lockout bar	2 holes	For safety switches NP/GP/TP	096 105 Lockout bar
Latch spring		For safety switches NP/GP/TP	076 501 Latch spring NP/TP
Lock	Unique locking (unique key needed to open)	For safety switches TP/STP	084 177 Lock TP
	Identical locking (identical locks)	For safety switches TP/STP	086 236 Lock TP
	Replacement key (2 ea.) for identical locking	For safety switches TP/STP/SGP-TW	099 434 Replacement key for identical TP

Miscellaneous accessories

- ▶ **Wire front release (bowden)**
- ▶ **Handle for wire front release (bowden)**
- ▶ **Safety screws**
- ▶ **Replacement screws**

Wire front release (bowden)

Flexible routing of the cabling rope permits release of the guard locking in all installation situations.

- ▶ Use as emergency unlocking in the case of inaccessible mounting of the safety switch.
- ▶ Use as escape release for release of the guard locking from within the danger area.
- ▶ Can be retrofitted on all safety switches series TP/STP.

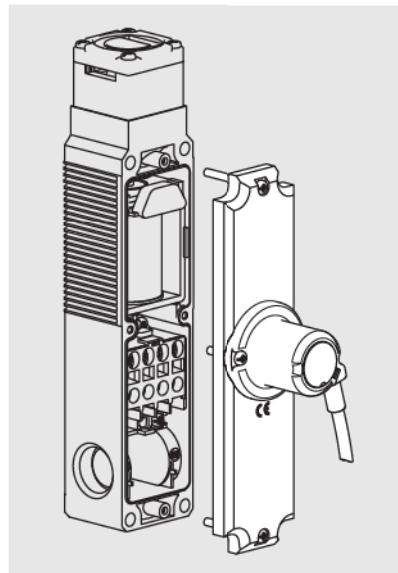
Safety screws

To prevent unscrewing of actuators and actuating heads. The screws can be tightened using a normal tool, but cannot be removed again.

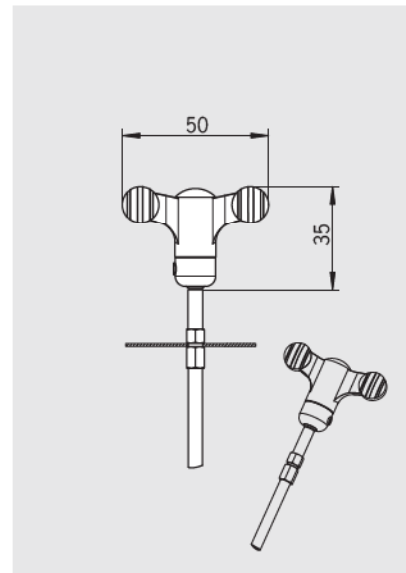
Replacement screws

For mounting actuating heads (not safety screws).

Front wire release (bowden)
For safety switches TP/STP



Handle for front wire release
For safety switches TP/STP



Ordering table

Designation	Version	Use	Order No.
Front wire release (bowden) pre-assembled incl. cover and pull wire	Length 3 m (2 m sheathed)	For safety switches TP	096 230 BW-TP-C-2000
	Length 4 m (3 m sheathed)	For safety switches TP	098 313 BW-TP-C-3000
	Length 5 m (4 m sheathed)	For safety switches TP	098 314 BW-TP-C-4000
	Length 3 m (2 m sheathed)	For safety switches STP	097 952 BW-STP-C-2000
Handle for wire front release		For safety switches TP/STP	099 795 BW handle
Safety screws VPE: 100 ea.	M5 x 25	For hinged actuators for top and bottom hinged doors of series NM..VZ, NP..., GP... and TP...	073 457 M5x25/V100
	M5 x 10 Material: stainless steel	For actuators straight/bent/hinged actuators for right and left hung doors of series NM..VZ, NP..., GP... and TP...	073 455 M5x10/V100
	M4 x 14	For all actuators in series NM..VZ	074 063 M4x14/V100
	M4 x 14 Material: stainless steel	For actuators straight/bent/hinged with bush of series NP..., GP... and TP...	086 232 M4x14/V100
	PL3x30	Cap screws for series NP...A, GP... and TP...A	075 532 PL3x30/V100
	PL3x26	Cap screws for series NM..AL, NM..AG, NM..AK, NM..AV and NM..VZ	085 576 PL3x26/V100
	PL3x8	Cap screws for series NM..HB, NM..KB, NM..RB and NM..WO	085 577 PL3x8/V100
Replacement screws VPE: 100 ea. (not safety screws)	PL3x30 Material: stainless steel	Cap screws for series NP...A, GP... and TP...A	082 237 PL3x30/V100
	PL3x38	Cap screws for series NP...K and TP...K	076 755 PL3x38/V100

Bolts for safety guards for safety switches STP/STA/SGP

- ▶ Lever for escape release from the danger area (optional)



Special features

(only for bolt STP-AF and STP-CF with escape release)

- ▶ Bolt with detent mechanism
The bolt latches in open position to prevent unintended closing
- ▶ Lever for escape release from the danger area (optional)

Features

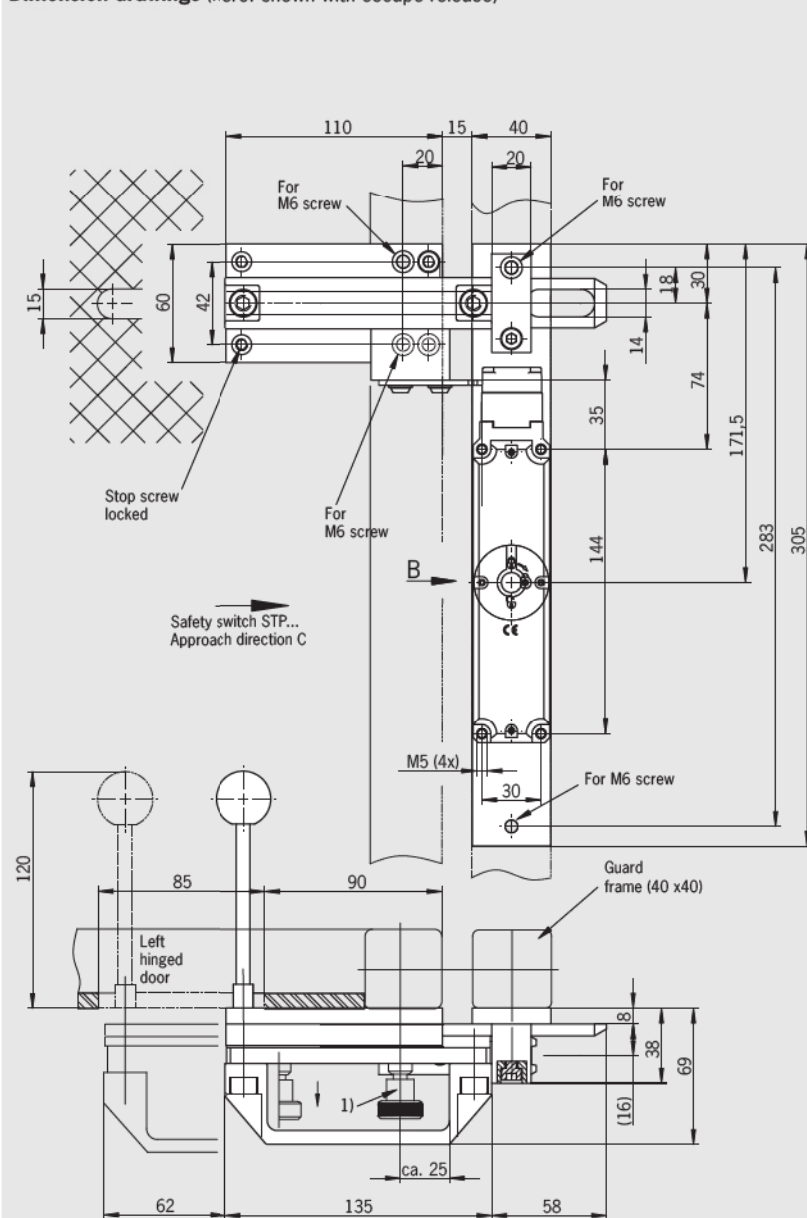
- ▶ Easily fitted to standard aluminum profiles and machine covers by screw connection
- ▶ Distinctive yellow color for easy recognition
- ▶ Robust version for heavy doors
- ▶ No additional door handle necessary
- ▶ Slot on the bolt permits attachment of padlocks

Notes

- ▶ The bolts are only suitable for series **STP.../STA.../SGP...**
- ▶ Actuator included
- ▶ Please order safety switch separately

Bolts for safety switches series STP.../STA.../SGP...

Dimension drawings (here: shown with escape release)



1) Bolt with detent mechanism (only for bolt STP-AF and STP-CF with escape release): Latches in open position and prevents unintended closing of the bolt. Unlocked by pulling the detent knob upward.

Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt S-AF	Detent knob	For right hinged doors with escape release	096 390 Bolt S-AF
Bolt S-CF	Detent knob	For left hinged doors with escape release	096 391 Bolt S-CF
Bolt S-A	None	For right hinged doors without escape release	096 384 Bolt S-A
Bolt S-C	None	For left hinged doors without escape release	096 385 Bolt S-C

Bolt for safety guards for safety switches GP, SGP, TP, STA and STP

- ▶ Material: reinforced plastic
- ▶ Lever for escape release from the danger area
- ▶ For left or right hinged doors



Special features

- ▶ Bolt with detent mechanism (only for bolts with escape release)
- ▶ The bolt latches in open position to prevent unintended closing

Features

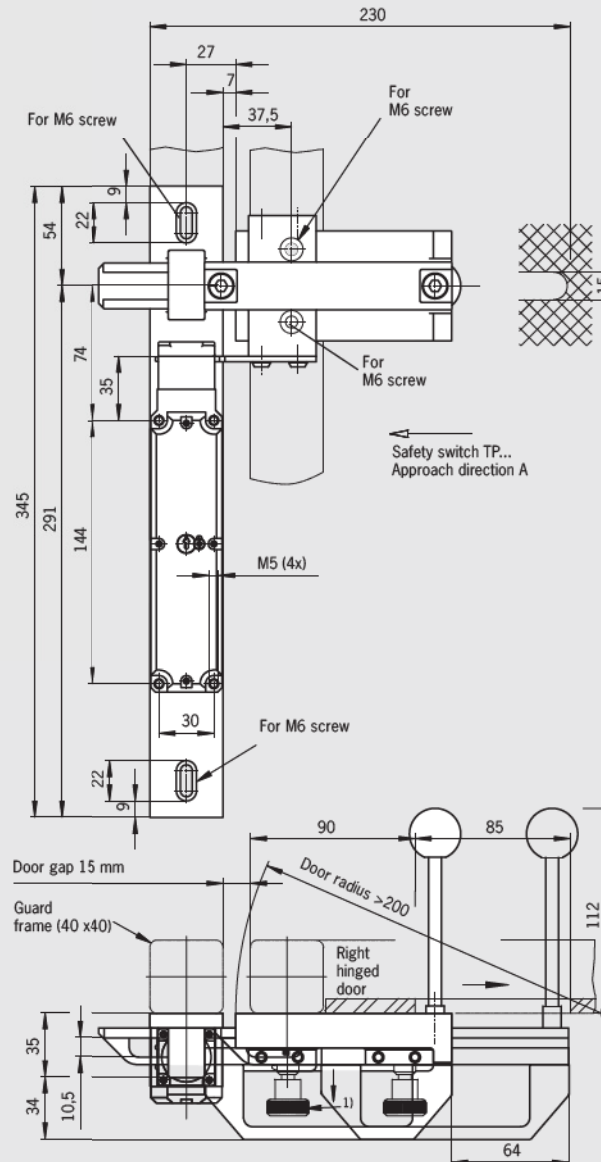
- ▶ Easily fitted to standard aluminum profiles and machine covers by screw connection
- ▶ Distinctive yellow color for easy recognition
- ▶ Robust version for heavy doors
- ▶ No additional door handle necessary
- ▶ Slot on the bolt permits attachment of padlocks

Notes

- ▶ Functions only in conjunction with switch bracket TP-GFK
- ▶ Actuator included
- ▶ Please order safety switch separately
- ▶ Order switch bracket separately

Bolt for safety switches GP.../TP...A/TP.A.-C1743/TP...A.-C1993

Dimension drawings (here: shown with escape release)



1) Bolt with detent mechanism (only for bolts with escape release):
Latches in open position and prevents unintended closing of the bolt.
Unlocked by pulling the detent knob upward.

Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt TP-GFK-F	Detent knob	For right or left hinged doors with escape release (also for GP)	097 602 Bolt TP-GFK-F
Bolt TP-GFK	without	For right or left hinged doors without escape release (also for GP)	096 616 Bolt TP-GFK
Bolt STP-GFK	without	For right or left hinged doors without escape release (also for SGP/STA)	098 121 Bolt STP-GFK
Switch bracket TP-GFK		Separate (also for GP/SGP/STP/STA)	096 613 Switch bracket TP-GFK