

Selection table for accessories

Actuators														
Plug connectors														
SS4														
Solenoid														
C16-1														
RC12														
SR6														
SR11														
RC18														
MR														
SVM5														
Plug connector with cable														
Cable glands														
Mounting plates														
Bolts														
Actuators	SS4	Solenoid	C16-1	RC12	SR6	SR11	RC18	MR	SVM5	With cable	Cable glands	Mounting-plates	Bolts	Page
•														118
	•													127
		•												127
			•											127
				•										127
					•					•				128
						•				•				128
							•			•				129
							•			•				130
								•		•				131
									•	•				132
											•			132
												•		133
													•	143

Actuators for safety switches NZ.VZ, NZ.VZ.VS and TZ

- ▶ Two stainless safety screws per actuator
- ▶ Increased overtravel optional
- ▶ Packaging unit 25 pieces optional

Straight actuator

The straight actuator is used on sliding doors or hinged doors with door radii greater than 1000 mm. Safety screws prevent unscrewing of the actuator. The safety screws included can be inserted with a normal tool, but cannot be removed again.

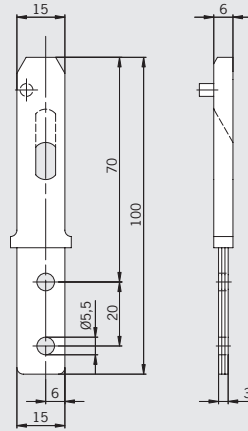
Actuator with overtravel

- ▶ **4 mm** for doors with normal play
- ▶ **16 mm** for doors with large play (optional)

Actuator Z-G straight

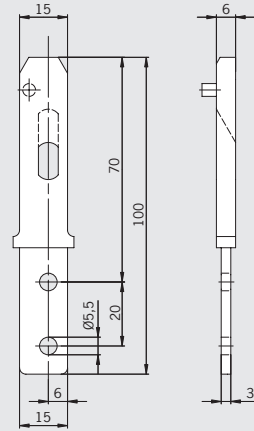
Overtravel 4 mm

Dimension drawings



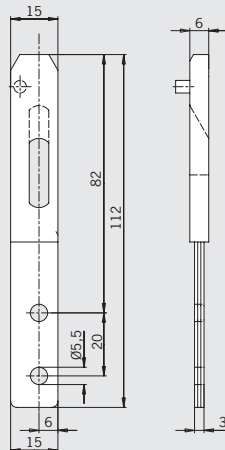
Actuator Z-GME straight

Overtravel 4 mm, solid stainless steel



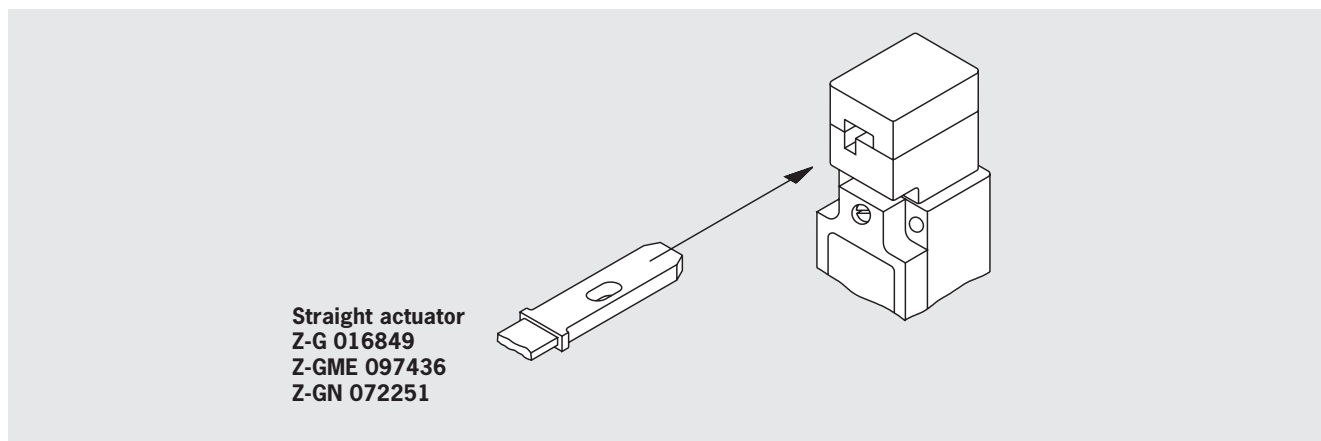
Actuator Z-GN straight

Overtravel 16 mm



Selection table for actuators

Actuator					
Actuator straight Z-G 016849 overtravel 4 mm					
		TZ-LE	NZ	TZ-RE	
Actuator straight Z-GME 097436 overtravel 4 mm					
		TZ-LE	NZ	TZ-RE	
Actuator straight Z-GN 072251 overtravel 16 mm					
		TZ-LE	NZ	TZ-RE	



Ordering table

Designation	Version	Min. door radius r [mm]	Packaging unit	Order No.
Actuator straight	Z-G 4 mm overtravel incl. 2 safety screws M5 x 10	≥ 1000	1 ea.	016849 ACTUATOR-Z-G
	Z-GME 4 mm overtravel, made of solid stainless steel incl. 2 safety screws M5x10	≥ 1000	25 ea.	074411 ACTUATOR-Z-G/V25
	Z-GN 16 mm overtravel incl. 2 safety screws M5x10	≥ 1000	1 ea.	097436 ACTUATOR-Z-GME
			1 ea.	072251 ACTUATOR-Z-GN

Actuators for safety switches NZ.VZ, NZ.VZ.VS and TZ

- ▶ Two stainless safety screws per actuator
- ▶ Smaller door radii optional
- ▶ Packaging unit 25 pieces optional

Hinged actuator

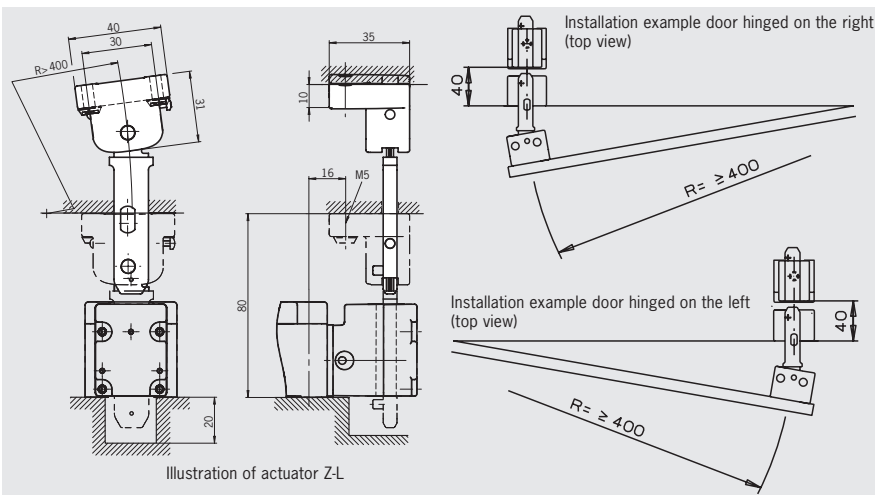
For door radii less than 1000 mm a hinged actuator should be used. The spring action movement of the actuator prevents damage due to the actuator jamming in the actuating head. Depending on the movement of the safety guard, the actuator must be selected for left/right or top/bottom.

Option C2241

Hinged actuator made of stainless steel.

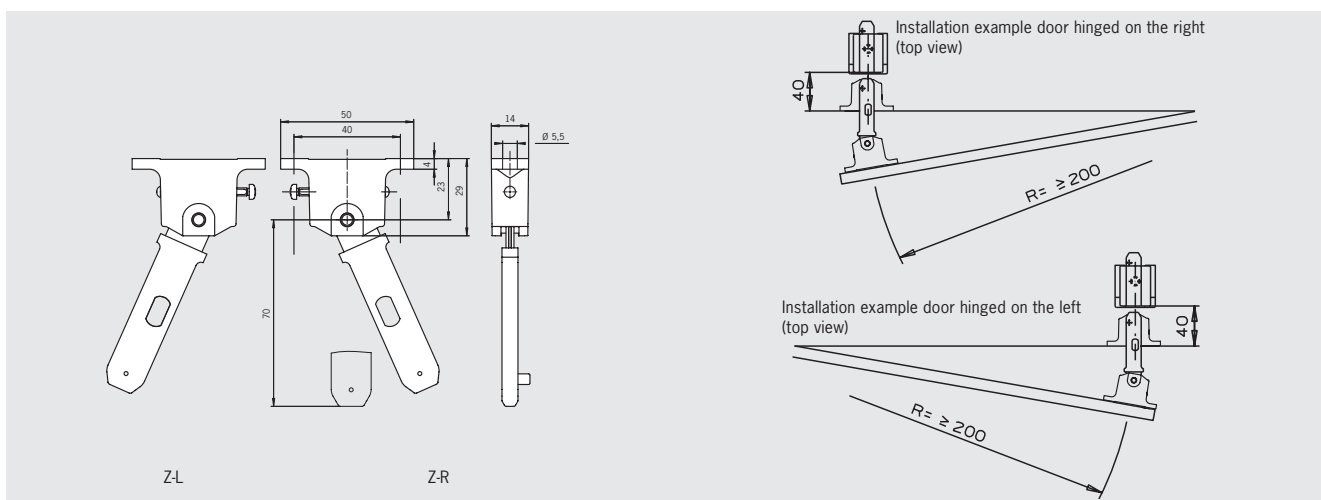
Hinged actuator Z-R/Z-L

Hinged ≥ 400 mm, safety guard hinged on the right/left



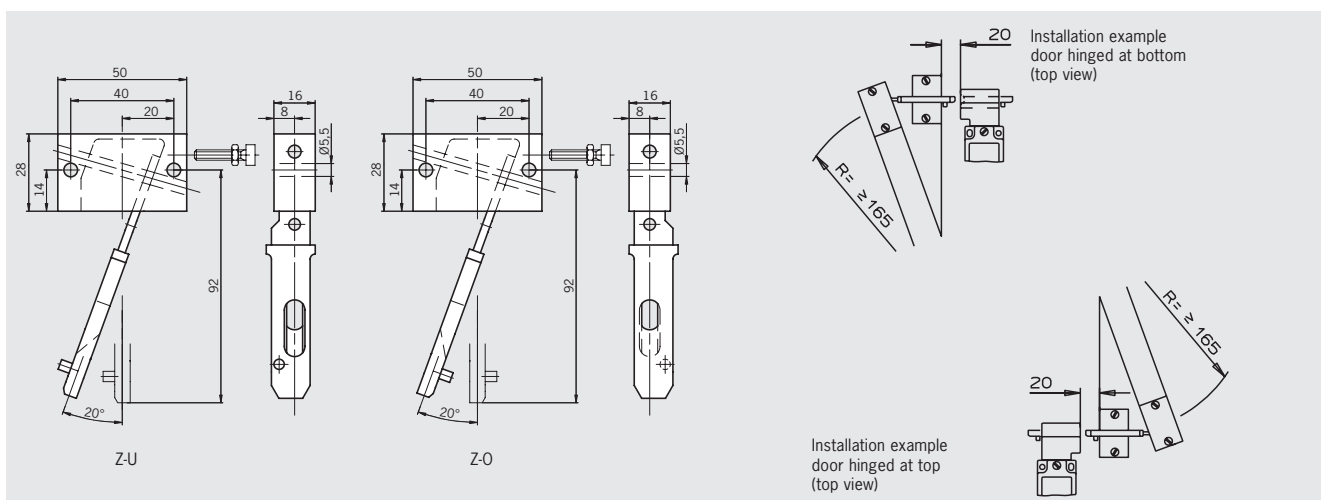
Hinged actuator Z-R-C2194/Z-L-C2194

Hinged ≥ 200 mm, safety guard hinged on the right/left



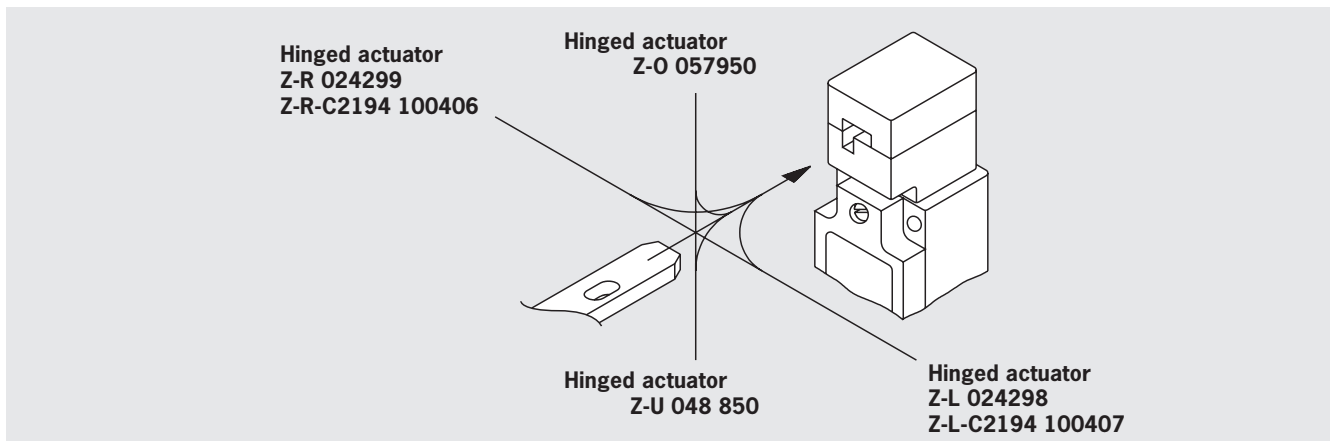
Hinged actuator Z-U/Z-O/Z-U-C2241/Z-O-C2241

Hinged ≥ 165 mm, safety guard hinged at bottom/top



Selection table for actuators

Actuator						
Hinged actuator Z-L 024298 Z-L-C2194 100 407						
Hinged actuator Z-R 024299 Z-R-C2194 100 406						
Hinged actuator Z-U 048850						
Hinged actuator Z-O 057950						



Ordering table

Designation	Type	Version	Min. door radius r [mm]	Packaging unit	Order No.	
Hinged actuator	Z-R Safety guard hinged on the left incl. 2 safety screws M5 x 16		≥ 200	1 ea.	024299 HINGED ACTUATOR-Z-R	
				25 ea.	074412 HINGED ACTUATOR-Z-R/V25	
	Z-L Safety guard hinged on the right incl. 2 safety screws M5 x 16		≥ 200	1 ea.	024298 HINGED ACTUATOR-Z-L	
				25 ea.	074413 HINGED ACTUATOR-Z-L/V25	
	Z-R-C2194 Safety guard hinged on the left incl. 2 safety screws M5 x 10	C2194 smaller door radius	≥ 200	1 ea.	100406 HINGED ACTUATOR-Z-R-C2194	
		Z-L-C2194 Safety guard hinged on the right incl. 2 safety screws M5 x 10	C2194 smaller door radius	≥ 200	1 ea.	100407 HINGED ACTUATOR-Z-L-C2194
	Z-U Safety guard hinged at bottom incl. 2 safety screws M5 x 25			≥ 165	1 ea.	048850 HINGED ACTUATOR-Z-U
					25 ea.	074414 HINGED ACTUATOR-Z-U/V25
		C2241 Material stainless steel	≥ 165	1 ea.	103845 HINGED ACTUATOR-Z-U-C2241	
	Z-O Safety guard hinged at top incl. 2 safety screws M5 x 25			≥ 165	1 ea.	057950 HINGED ACTUATOR-Z-O
				25 ea.	074415 HINGED ACTUATOR-Z-O/V25	
C2241 Material stainless steel		≥ 165	1 ea.	104068 HINGED ACTUATOR-Z-O-C2241		

Actuators for safety switches NX/TX

- ▶ Actuators made of stainless steel
- ▶ Two stainless safety screws per actuator
- ▶ With rubber bush

Straight actuator

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.

Actuator with overtravel

- ▶ **2 mm** for doors with normal play
- ▶ **7 mm** for doors with large play (optional)

Actuators with rubber bushings

For flexible mounting of the actuator.

Hinged actuator

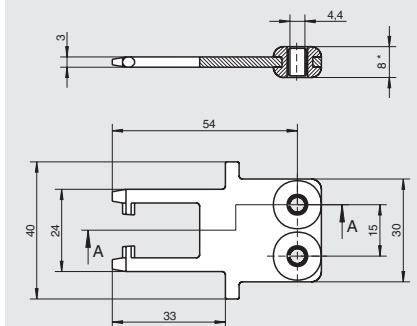
For door radii less than 300 mm a hinged actuator should be used. The spring action movement of the actuator prevents damage due to the actuator jamming in the actuating head. Depending on the movement of the safety guard, the actuator must be selected for left/right or top/bottom.

Screws made of stainless steel

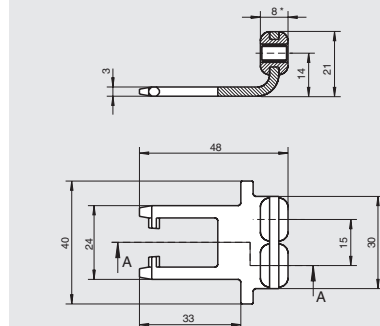
The safety screws included can be inserted with a normal tool, but cannot be removed again.

Actuator X-GQ straight
Rubber bush, overtravel 2 mm

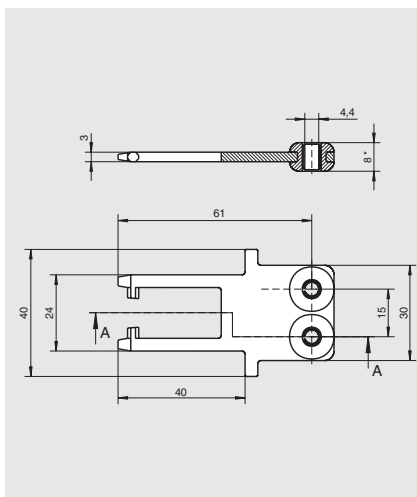
Dimension drawings



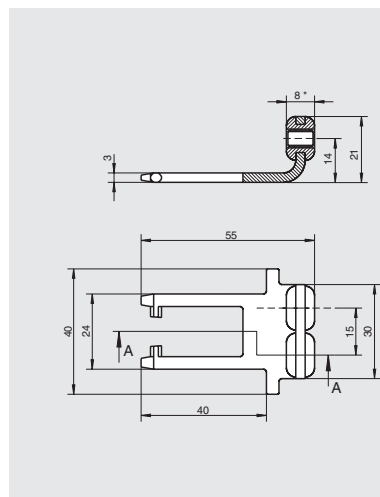
Actuator X-WQ bent
Rubber bush, overtravel 2 mm



Actuator X-GNQ straight
Rubber bush, overtravel 7 mm



Actuator X-WNQ bent
Rubber bush, overtravel 7 mm



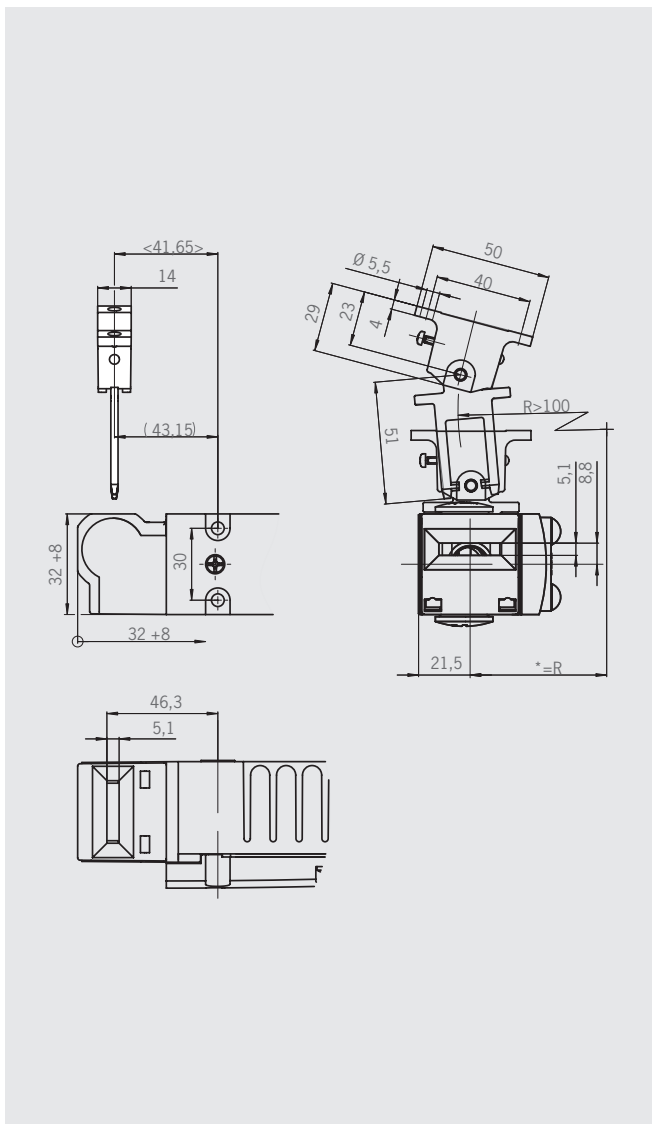
Ordering table

Designation	Version	Min. door radius r [mm]	Packaging unit	Order No.
Actuator straight rubber bush	X-GQ Overtravel 2 mm incl. 2 safety screws M4 x 14	300	1 ea.	079739 ACTUATOR-X-GQ
Actuator bent rubber bush	X-WQ Overtravel 2 mm incl. 2 safety screws M4 x 14	300	1 ea.	079740 ACTUATOR-X-WQ
Actuator straight rubber bush, overtravel	X-GNQ Overtravel 7 mm incl. 2 safety screws M4 x 14	440	1 ea.	079741 ACTUATOR-X-GNQ
Actuator bent rubber bush, overtravel	X-WNQ Overtravel 7 mm incl. 2 safety screws M4 x 14	440	1 ea.	079742 ACTUATOR-X-WNQ

* The dimension 8 relates to the fitted state

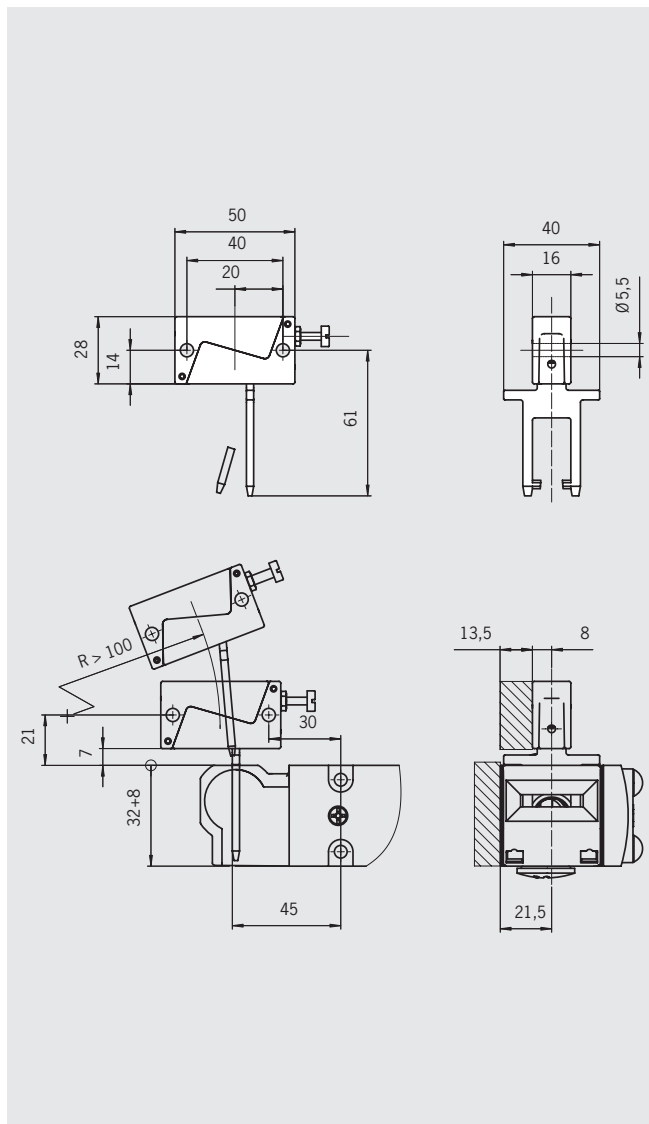
Hinged actuator X-LR-N

Hinged ≥ 100 mm, safety guard hinged on the right/left



Hinged actuator X-OU-N

Hinged ≥ 100 mm, safety guard hinged at bottom/top



Ordering table

Designation	Version	Min. door radius r [mm]	Packaging unit	Order No.
Hinged actuator	X-LR-N Safety guard hinged on the right or left incl. 2 safety screws M5 x 10	≥ 100	1 ea.	098082 HINGED ACTUATOR-X-LR-N
	X-OU-N Safety guard hinged at top or bottom incl. 2 safety screws M5 x 10	≥ 100	1 ea.	097906 HINGED ACTUATOR-X-OU-N

For safety precautions see page 196
For technical data see page 163

Actuators for safety switches SGA/STA

- ▶ Two stainless safety screws per actuator
- ▶ Actuators with 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 3000 N. 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

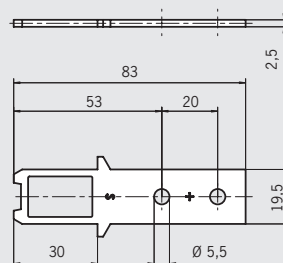
Suitable for a maximum tensile force of 1500 N.

Screws made of stainless steel

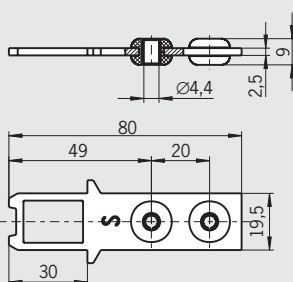
The safety screws included can be inserted with a normal tool, but cannot be removed again.

Standard actuator S, straight
without rubber bush, overtravel 5 mm

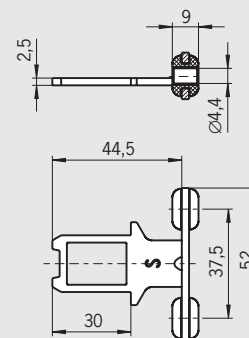
Dimension drawings



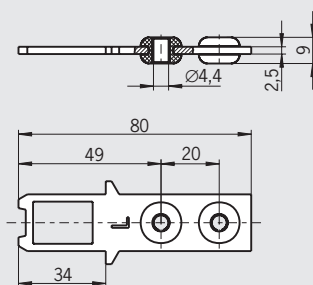
Standard actuator S, straight
with rubber bush, overtravel 5 mm



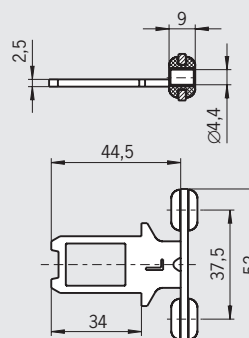
Standard actuator S, bent
with rubber bush, overtravel 5 mm



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.	097861 ACTUATOR S-G-SN-C2115
	S-GT-SN with rubber bush, overtravel 5 mm incl. 2 safety screws M4 x 14	300	1 ea.	095738 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.	095740 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.	095739 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.	095741 ACTUATOR S-WQ-LN

Hinged actuators for safety switches SGA/STA

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

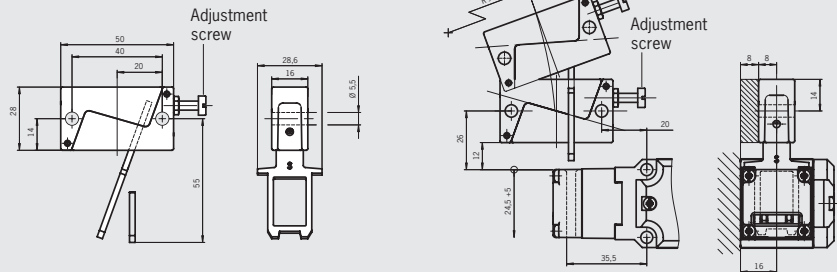
Hinged actuator

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

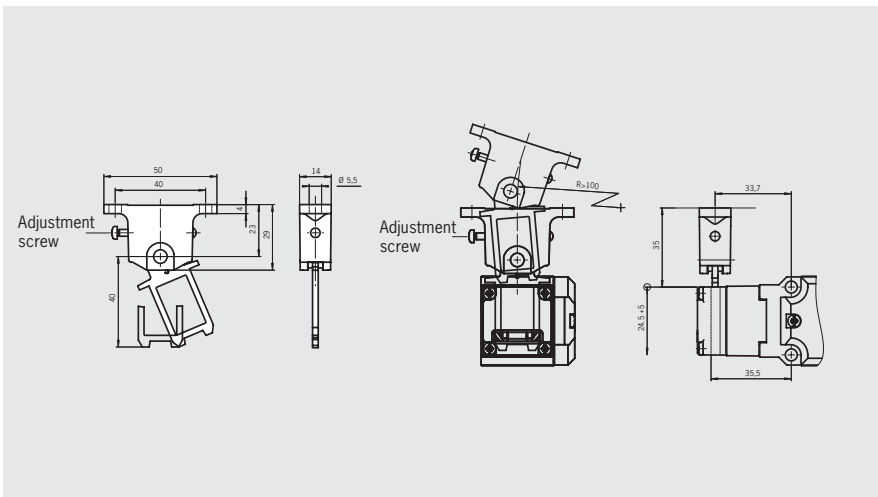
Hinged ≥ 200 mm, safety guard hinged at top/bottom, overtravel 5 mm

Dimension drawings



Hinged actuator S-LR-SN

Hinged ≥ 100 mm, 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.	095315 HINGED ACTUATOR-S-OU-SN
	S-LR-SN For left and right hinged doors overtravel 5 mm incl. 2 safety screws M5 x 10	200	1 ea.	096838 HINGED ACTUATOR-S-LR-SN

For safety precautions see page 196
For technical data see page 163

Hinged actuators for safety switches SGA/STA

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

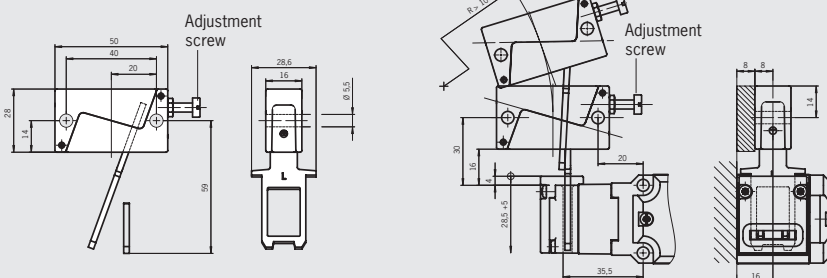
Hinged actuator

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

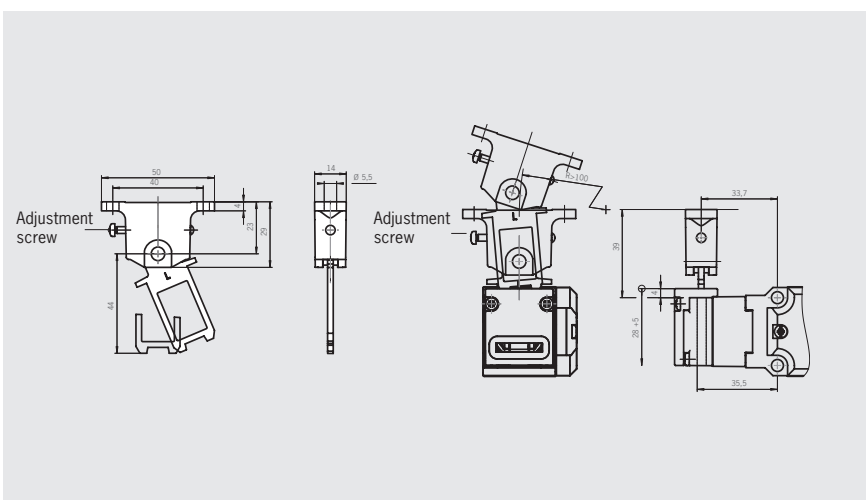
Hinged ≥ 200 mm, safety guard hinged at top/bottom, overtravel 5 mm

Dimension drawings



Hinged actuator S-LR-LN for insertion funnel

Hinged ≥ 100 mm, 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.	096697 HINGED ACTUATOR-S-OU-LN
	S-LR-LN For left and right hinged doors overtravel 5 mm incl. 2 safety screws M5 x 10	200	1 ea.	096844 HINGED ACTUATOR-S-LR-LN

Plug connectors SS4, C16-1, RC12 and solenoid plugs

For safety switches series NZ and TZ

- ▶ Plugs and sockets
- ▶ Dummy plug
- ▶ Solenoid plugs

Blanking plug

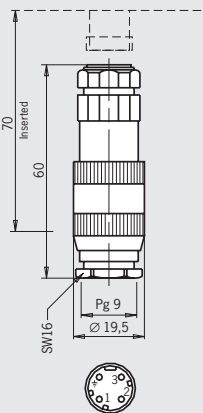
To cover the socket for the enabling switch on the safety switch TZ with socket RC12.

Plug connector for solenoid locking NZ.VZ.VS

- ▶ Without rectifier
For the connection of DC.
- ▶ With rectifier
For the connection of AC 110 V - AC 230 V.

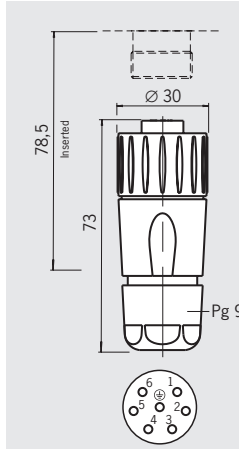
Male plug SS4
3-pin + PE

Dimension drawings



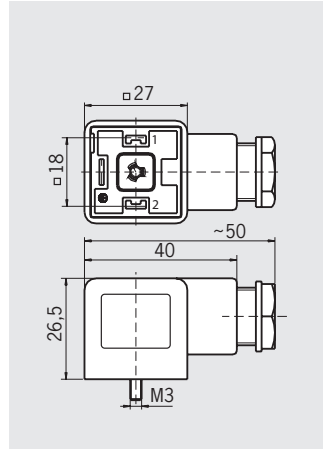
View of connection side, plug

Female plug C16-1
6-pin + PE

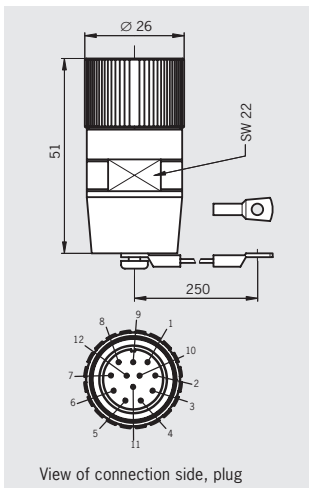


View of connection side, socket

Solenoid plug NZ.VZ.VS
2-pin + PE

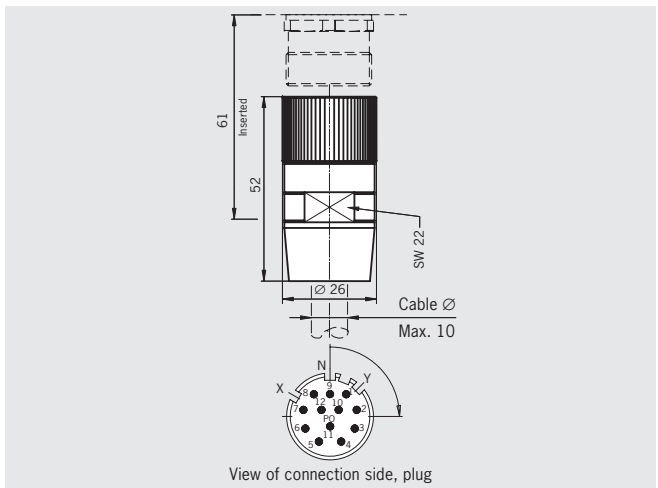


Blanking plug RC12
12-pin



View of connection side, plug

Male plug RC12
12-pin



View of connection side, plug

Ordering table

Designation	Version	Order No.
SS4 3-pin + PE	Male plug to socket BD4	002787 SS4
C16-1 ¹⁾ 6-pin + PE	Female plug	043861 Cable socket 6 + PE
RC12 ¹⁾ 12-pin	Male connector	073294 RC-12P1N8A8096
	Blanking plug without bridges	073293 RC-12P1N8A8300
Solenoid plug NZ..VZ..VS 2-pin + PE	For DC without rectifier	028345 Plug connector for solenoid locking
	For AC with rectifier max. AC 240 V	028338 Plug connector with rectifier for solenoid locking

For information on crimp contacts see page 142.
1) Crimp contacts are included.

For safety precautions see page 196
For technical data see page 163

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 adjusted.

Male socket

For fitting in safety switches.

Coding shells

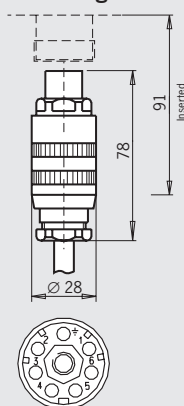
Two coding shells and screws. If used only matching connectors can be mated.

Cable (optional)

Cable sleeve PUR, color gray, wire cross-section 1.0 mm².

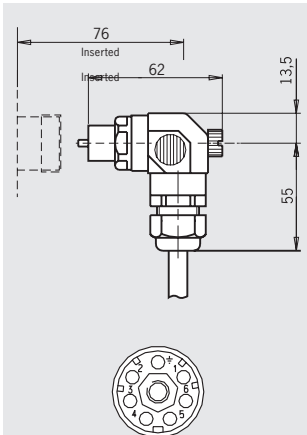
Female plug SR6 EF 6-pin + PE

Dimension drawings



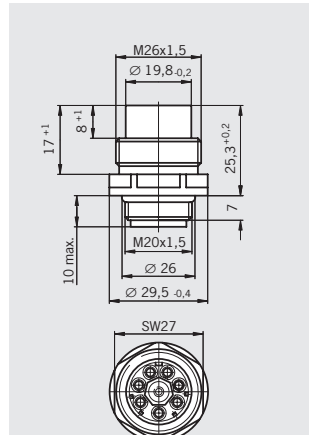
View of connection side, socket
Contact carrier can be adjusted

Female plug SR6 WF angled 6-pin + PE



View of connection side, socket
Contact carrier can be adjusted

Male socket SR6 AM 6-pin + PE

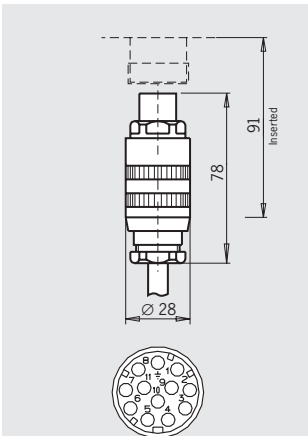


View of connection side, plug

Pin assignment for plug with cable

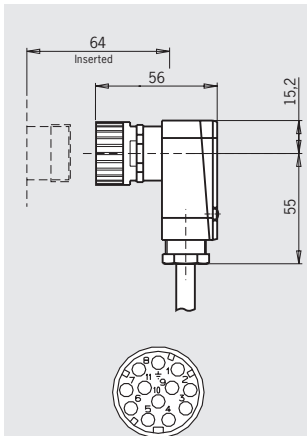
SR6		SR11	
Pin	Wire	Pin	Wire
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
⊕	7	7	7
		8	8
		9	9
		10	10
		11	11
		⊕	12

Female plug SR11 EF 11-pin + PE



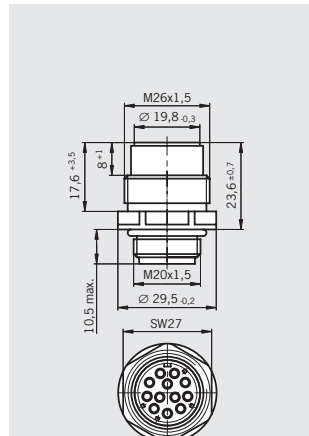
View of connection side, socket
Contact carrier can be adjusted

Female plug SR11 WF angled 11-pin + PE



View of connection side, socket
Contact carrier can be adjusted

Male socket SR11 AM 11-pin + PE



View of connection side, plug

Ordering table

Designation	Version	Cable					
		None	5 m	10 m	15 m	20 m	25 m
SR6 ¹⁾ 6-pin + PE	EF Female plug	013176 SR6EF	077632 SR6EF-5000	077633 SR6EF-10000	077634 SR6EF-15000	098128 SR6EF-20000	-
	WF Female plug angled	024999 SR6WF	077638 SR6WF-5000	077639 SR6WF-10000	077640 SR6WF-15000	-	-
	K Coding shells	013178 SR6K	-	-	-	-	-
	AM Male socket, connection M20 x 1.5	087180 SR6AM2-M20	-	-	-	-	-
SR11 ¹⁾ 11-pin + PE	EF Female plug	070859 SR11EF	077629 SR11EF-5000	077630 SR11EF-10000	077631 SR11EF-15000	096632 SR11EF-20000	094749 SR11EF-25000
	WF Female plug angled	054773 SR11WF	077635 SR11WF-5000	077636 SR11WF-10000	077637 SR11WF-15000	-	-
	AM Male socket, connection M20 x 1.5	091296 SR11AM2-M20	-	-	-	-	-
SR6 and SR11	Socket crimp contact Wire cross-section 0.5 - 1.5 mm	071260 SRF	-	-	-	-	-
	Pin crimp contacts Wire cross-section 0.5 - 1.5 mm	071261 SRM	-	-	-	-	-

For information on crimp contacts see page 142.

1) Crimp contacts are included.

Plug connectors RC18 and RC18 with option C1825

- ▶ 90° angled optional
- ▶ Cable optional
- ▶ Halogen-free cable optional

Crimp contacts

With 19 crimp pins for wire cross-section 0.75 - 1.00 mm².

Option C1825

With 16 crimp pins for wire cross-section 0.38 - 0.5 mm² and 3 pins for wire cross-section 0.75 - 1.0 mm² for control of the interlocking solenoid. This plug is easier to connect.

Important: only for switch with option C1825.

Plug connector angled (optional)

On plug connectors with cables the direction of the cable exit can be chosen on left/right. On plug connectors without cables the direction can be adjusted.

Cable (optional)

Cable sleeve PUR, color black, wire cross-section 0.5 mm² or 1.0 mm².

Cable halogen-free (optional)

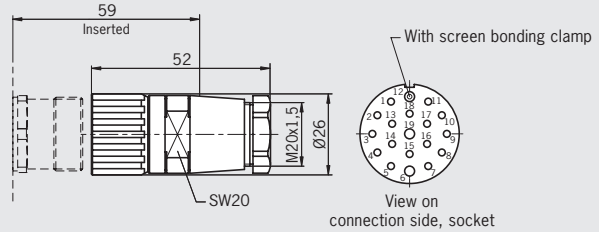
Cable sleeve PUR, color black, halogen-free, silicone-free. Reduction of toxic gases and smoke in case of fire.

Wire cross-section 0.5 mm² or 1.0 mm².

Female plug RC18 / RC18..C1825

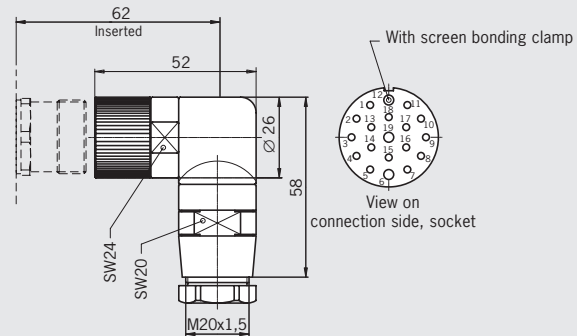
18-pin + PE (for cable diameter 10 ... 14 mm)

Dimension drawings



Female plug RC18 / RC18..C1825

angled 18-pin + PE (for cable diameter 10 ... 14 mm)



Ordering table

Designation	Version	Without cable
RC18 ²⁾ 18-pin + PE	EF Female plug ¹⁾	074616 RC18EF
	WF Female plug angled ¹⁾	074617 RC18WF
	Replacement socket crimp contacts ¹⁾ Wire cross-section 19 x 0.75 - 1 mm ²	094309 Pin crimp contact RCM
	EF-C1825 Female plug	077025 RC18EF-C1825
	WF-C1825 Female plug angled	077026 RC18WF-C1825
	Replacement socket crimp contacts Wire cross-section 16 x 0.38 - 0.5 mm ² 3 x 0.75 - 1 mm ²	094310 Pin crimp contact RCM-C1825

For information on crimp contacts see page 142.

1) Suitable for safety switches TZ without option C1825.

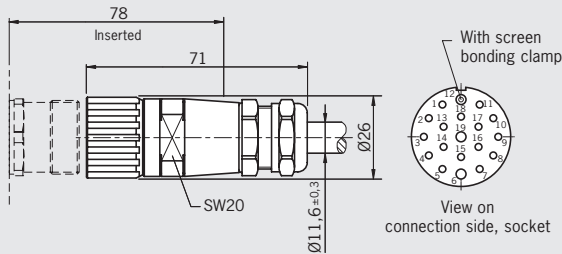
2) Crimp contacts are included.

Please turn over

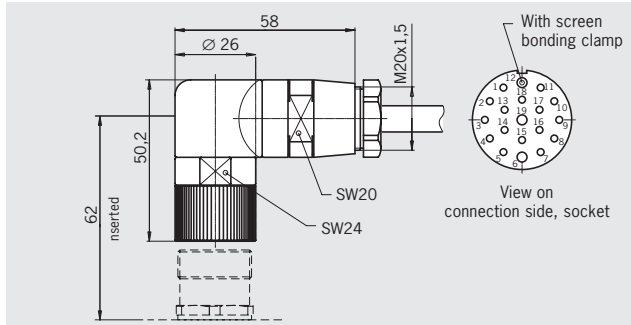
For safety precautions see page 196
For technical data see page 163

Female plug RC18 / RC18..C1825 with cable 18-pin + PE / 19-pin PUR

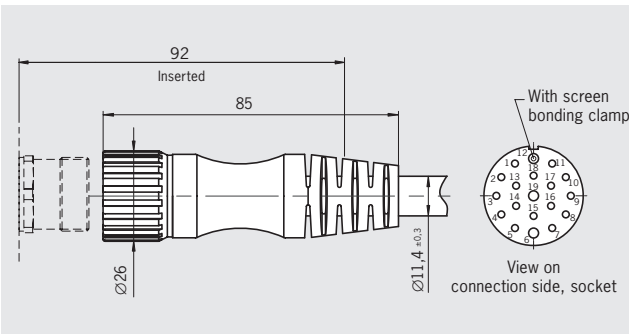
Dimension drawings



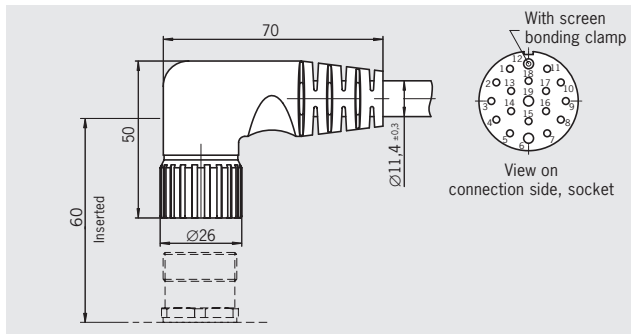
Female plug RC18 / RC18..C1825 angled with cable 18-pin + PE



Female plug RC18 / RC18..C1825 with cable halogen-free 18-pin + PE



Female plug RC18 / RC18..C1825 angled with cable halogen-free 18-pin + PE



Pin assignment plug RC18 with cable and option C1825

Pin	Wire color	Wire cross-section [mm]
1	VT	0.5
2	RD	0.5
3	GY	0.5
4	RD/BU	0.5
5	GN	0.5
6	BU	1.0
7	GY/PK	0.5
8	GN/WH	0.5
9	YE/WH	0.5

10	GY/WH	0.5
11	BK	0.5
12	GN/YE	1.0
13	PK	0.5
14	BN/GY	0.5
15	BN/YE	0.5
16	BN/GN	0.5
17	WH	0.5
18	YE	0.5
19	BN	1.0

Ordering table

Desig.	Version	Cable								
		1.5 m	3 m	6 m	8 m	10 m	15 m	20 m	25 m	30 m
RC18 18-pin + PE with cable	EF-C1825 Female plug	092761 RC18EF1,5M-C1825	092816 RC18EF3M-C1825	077014 RC18EF6M-C1825	077015 RC18EF8M-C1825	092898 RC18EF10M-C1825	077016 RC18EF15M-C1825	092726 RC18EF20M-C1825	092727 RC18EF25M-C1825	095993 RC18EF30M-C1825
	WFL-C1825 Female plug angled cable exit left	092906 RC18WF1,5ML-C1825	092908 RC18WF3ML-C1825	077018 RC18WF6ML-C1825	077019 RC18WF8ML-C1825	092901 RC18WF10ML-C1825	077020 RC18WF15ML-C1825	092910 RC18WF20ML-C1825	092912 RC18WF25ML-C1825	-
	WFR-C1825 Female plug angled cable exit right	092907 RC18WF1,5MR-C1825	092909 RC18WF3MR-C1825	085194 RC18WF6MR-C1825	085195 RC18WF8MR-C1825	092902 RC18WF10MR-C1825	085196 RC18WF15MR-C1825	092911 RC18WF20MR-C1825	092913 RC18WF25MR-C1825	-
RC18 18-pin + PE with cable halogen- free	EFF-C1825 Female plug	092883 RC18EF1,5MF-C1825	092884 RC18EF3MF-C1825	092885 RC18EF6MF-C1825	092886 RC18EF8MF-C1825	092887 RC18EF10MF-C1825	092888 RC18EF15MF-C1825	092889 RC18EF20MF-C1825	092890 RC18EF25MF-C1825	-
	WFLF-C1825 Female plug angled cable exit left	092891 RC18WF1,5MLF-C1825	092893 RC18WF3MLF-C1825	092697 RC18WF2MLF-C1825	092895 RC18WF8MLF-C1825	092699 RC18WF10MLF-C1825	092701 RC18WF15MLF-C1825	092704 RC18WF20MLF-C1825	092724 RC18WF25MLF-C1825	-
	WFRF-C1825 Female plug angled cable exit right	092892 RC18WF1,5MRF-C1825	092894 RC18WF3MRF-C1825	092698 RC18WF6MRF-C1825	092896 RC18WF8MRF-C1825	092700 RC18WF10MRF-C1825	092702 RC18WF15MRF-C1825	092708 RC18WF20MRF-C1825	092725 RC18WF25MRF-C1825	-

Ordering table female plug RC18 with cable PUR, 19-pin, separately numbered cores, black (Numbering as per the pin number)

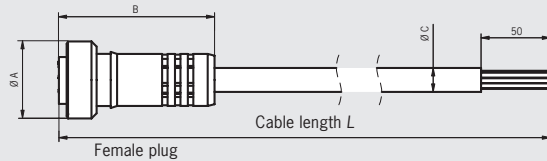
Version	Cable *						
	1.5 m	3 m	6 m	10 m	15 m	20 m	25 m
RC18 Female plug 19-pin with PUR cable	110301 CM23F19-PU01,5-MA-110301	110302 CM23F19-PU03,0-MA-110302	110303 CM23F19-PU06,0-MA-110303	110304 CM23F19-PU10,0-MA-110304	110305 CM23F19-PU15,0-MA-110305	110306 CM23F19-PU20,0-MA-110306	110307 CM23F19-PU25,0-MA-110307

* Core cross-section as connection cable on left.

Plug connector MR8/MR9/MR10/MR12 with cable

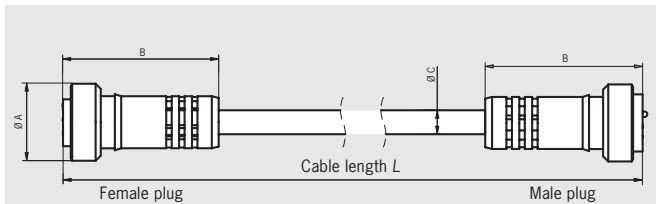
Female plug with cable 8-, 9-, 10-, 12-pin

Dimension drawings



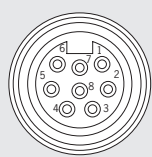
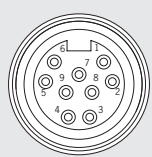
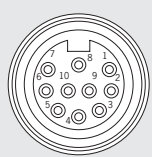
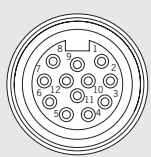
Dim.	8-pin	9-pin	10-pin	12-pin
A	∅ 29	∅ 32	∅ 32	∅ 32
B	59	64	64	64
C	∅ 8.9	∅ 9.7	∅ 9.8	∅ 10.4

Extension cable 8-, 9-, 10-, 12-pin



Dim.	8-pin	9-pin	10-pin	12-pin
A	∅ 29	∅ 32	∅ 32	∅ 32
B	59	64	64	64
C	∅ 8.9	∅ 9.7	∅ 9.8	∅ 10.4

Pin assignment (Wire cross-section 0.82 mm² / 18 AWG)

8-pin	Pin	Wire color	9-pin	Pin	Wire color	10-pin	Pin	Wire color	12-pin	Pin	Wire color
	1	OG		1	OG		1	OG		1	OG
	2	BU		2	BU		2	BU		2	BU
	3	WH/BK		3	RD/BK		3	WH/BK		3	WH/BK
	4	BK		4	GN/BK		4	RD/BK		4	RD/BK
	5	WH		5	WH		5	GN/BK		5	GN/BK
	6	RD		6	RD		6	OG/BK		6	OG/BK
	7	GN/YE		7	GN/YE		7	RD		7	BU/BK
	8	RD/BK		8	WH/BK		8	GN/YE		8	BK/WH
				9	BK		9	BK		9	GN/YE
							10	WH		10	RD
										11	WH
										12	BK

Ordering table

Version	Connection	Material	Cable length L [mm]								
			910	1800	3600	6000	9100	12100	15200	18200	24300
Female plug with cable	MR8	PVC	-	100938	100939	100940	100941	100942	103152	103153	-
		PUR	-	102506	100945	100946	102 507	102508	102509	103149	103150
	MR9	PVC	100947	102502	100948	102503	102504	103154	103155	103156	-
		PUR	-	102510	102511	102512	102513	102514	102515	103151	-
	MR10	PVC	-	100949	100950	100951	100952	102505	100953	103157	-
		PUR	-	102516	102517	102518	100956	102519	102520	102521	-
	MR12	PVC	-	100959	100960	100961	100962	103158	103159	103160	-
		PUR	-	100966	100967	102522	102523	102524	102525	102526	-
Extension cable	MR8	PVC	-	-	100943	-	100944	-	-	-	
		PUR	-	-	-	-	-	-	-	-	
	MR10	PVC	-	-	100954	-	100955	-	-	-	
		PUR	-	-	-	100957	-	-	100958	-	
	MR12	PVC	-	-	100963	100964	100965	-	-	-	
		PUR	-	102527	100968	-	-	-	-	-	

Plug connectors SGLF and SWLF with cable

For safety switches series NZ and N1A

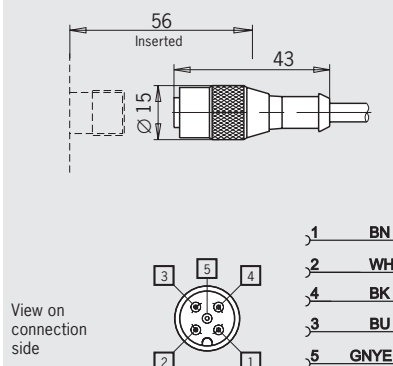
- ▶ Plug connector M12 with cable
- ▶ 90° angled optional

Cable

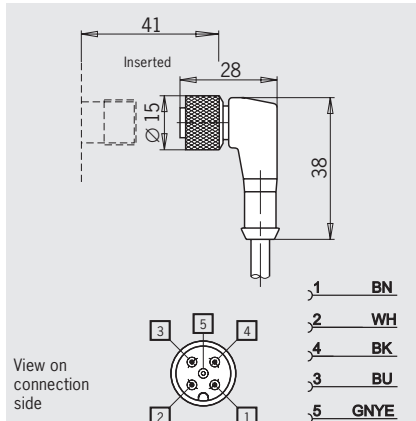
Cable sleeve PUR, color black, halogen-free, flame retardant. Reduction of toxic gases and smoke in case of fire. Wire cross-section 0.34 mm².

Plug connector SGLF with cable M12 plug, 5-pin

Dimension drawings



Plug connector SWLF with cable angled, M12 plug, 5-pin



Ordering table

Type	Number of pins	Version	Cable length 5 m
SGLF	5	Female plug M12 for male plug SVM5	073461 SGLF5-5000P
SWLF	5	Female plug M12 angled for male plug SVM5	073462 SWLF5-5000P

Cable glands

- ▶ M12 x 1.5
- ▶ M16 x 1.5
- ▶ M20 x 1.5

Cable glands

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

Item	Thread	Cable Ø [mm]	A [mm]	B [mm]	E [mm]	SW [mm]
EKV.12/04	M12 x 1.5	4 - 6.5	20	5	15.5	14
EKV.16/04	M16 x 1.5	4 - 6.5	20	6	20	18
EKP.16/05	M16 x 1.5	5 - 10	28	8	22	20
EKV.16/06	M16 x 1.5	6.5 - 9.5	20	6	20	18
EKV.20/06	M20 x 1.5	6.5 - 9.5	20	6	24.4	22
EKP.20/06	M20 x 1.5	6 - 12	26	11	27	24
EKV.20/09	M20 x 1.5	9 - 13	20	6	24.4	22
EKV.12/06	NPT 1/2"	6 - 12	22	13	27	24
EKVP0.12/06	NPT 1/2"	6 - 12	26	13	27	24

Ordering table

Thread	Version	Material	
		Metal	Plastic
M12 x 1.5	Cable diameter 4 - 6.5 mm	086327 EKVM12/04	-
	Cable diameter 4 - 6.5 mm	086328 EKVM16/04	-
M16 x 1.5	Cable diameter 5 - 10 mm	-	084572 EKPM16/05
	Cable diameter 6.5 - 9.5 mm	086330 EKVM16/06	-
M20 x 1.5	Cable diameter 6 - 12 mm	-	077679 EKPM20/06
	Cable diameter 6.5 - 9.5 mm	077683 EKVM20/06	-
	Cable diameter 9 - 13 mm	077684 EKVM20/09	-
NPT 1/2"	Cable diameter 6 - 12 mm	077691 EKVN12/06	077692 EKPN12/06

Mounting plates EMP for safety switches NZ.VZ

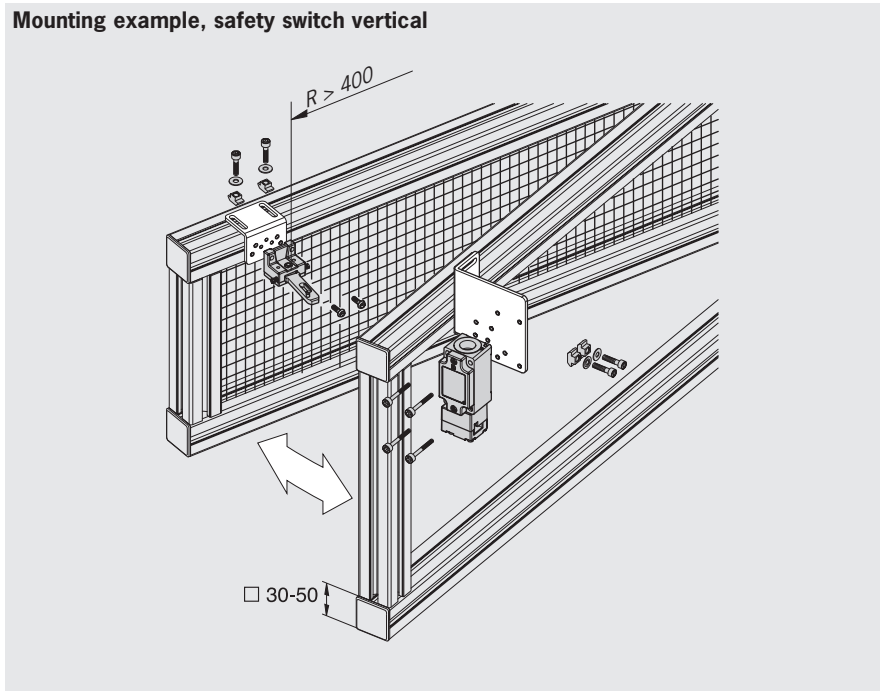
- ▶ For vertical and horizontal mounting of safety switch NZ.VZ

The mounting plates are used for fastening safety switches NZ and actuators to safety guards. The safety switches can be attached vertically and horizontally.

Note

- ▶ Mounting plate material: St37 galvanized

Mounting example, safety switch vertical



Ordering table

Switch	Installation method switch	Mounting plate switch	Mounting plate actuator	Actuator	Minimum distance hinge axis to switch
	A Vertical	085753 EMP-SC	093457 EMP-B1	 024298 024299 M5 x 16 (2x)	> 400 mm
		 M4 (4x) M5 (4x)	 100406 100407	> 200 mm	
	B Horizontal	 99, 45, 85, 103	 4, 46, 43, 56, M4 (4x), M5 (4x)	 048850 057950 M5 x 25 (2x)	> 165 mm

For safety precautions see page 196
For technical data see page 163

Mounting plates EMP for safety switches STA

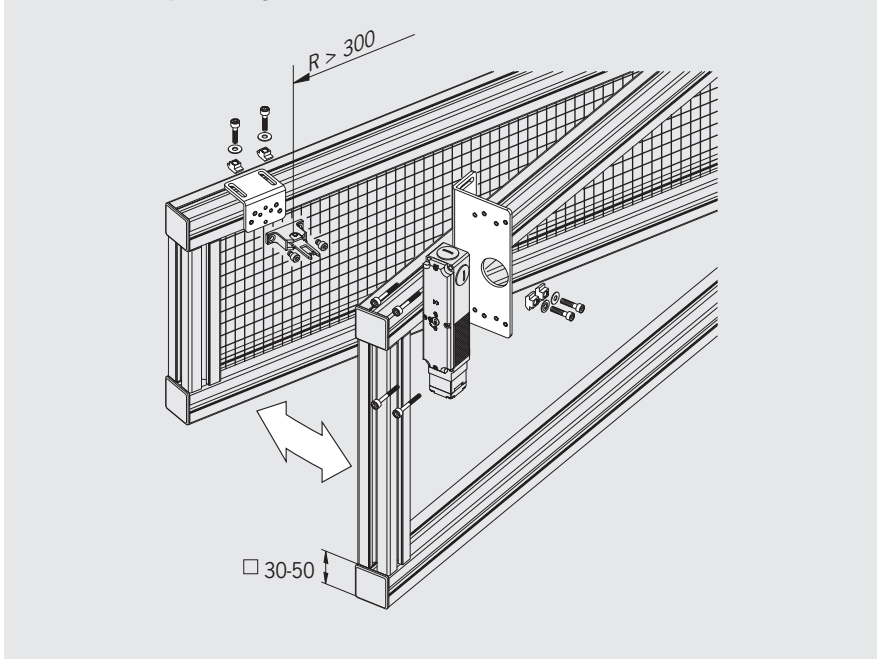
- ▶ For vertical and horizontal mounting of safety switch STA

The mounting plates are used for fastening safety switches STA and actuators to safety guards. The safety switches can be attached vertically and horizontally.

Note

- ▶ Mounting plate material: St37 galvanized

Mounting example, safety switch vertical



Ordering table

Switch	Installation method switch	Mounting plate switch	Mounting plate actuator	Actuator	Minimum distance hinge axis to switch
 STA...	A Vertical	093456 EMP-SB 	093457 EMP-B1 	095315 096697 Page 124/125	> 200 mm
	B Horizontal		093458 EMP-B2 	096838 096844 Page 124/125	> 200 mm

Mounting plates EMP for safety switches TX

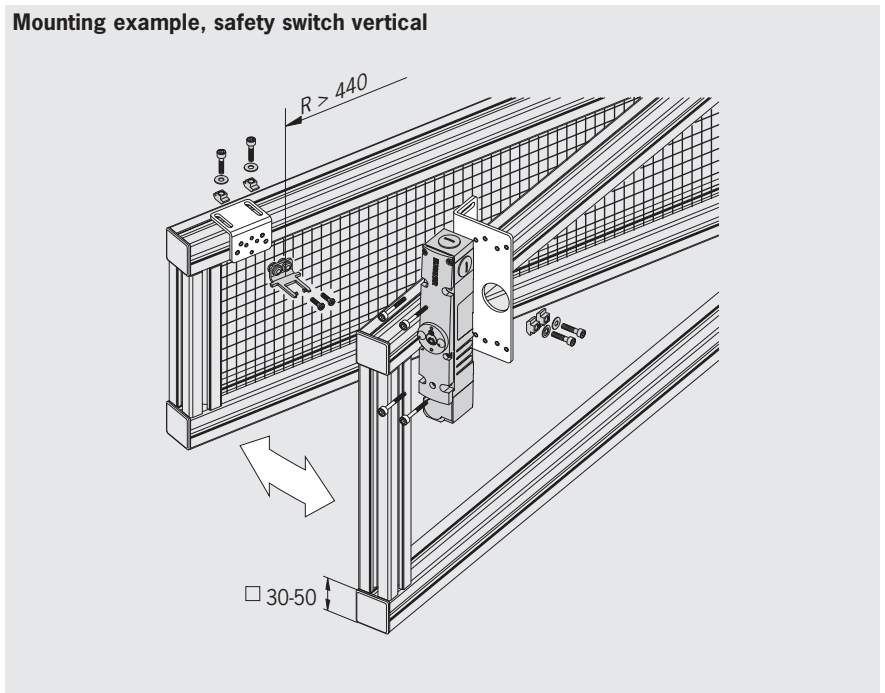
► For vertical mounting of safety switch TX

The mounting plates are used for fastening safety switches TX and actuators to safety guards. The safety switches can be attached vertically.

Note

- Mounting plate material: St37 galvanized
- The mounting plate EMP-SB is also suitable for the safety switches TX...C1991 with escape release from the rear.

Mounting example, safety switch vertical



Ordering table

Switch	Installation method switch	Mounting plate switch	Mounting plate actuator	Actuator	Minimum distance hinge axis to switch
<p>TX...</p>	<p>C Vertical</p>	<p>093456 EMP-SB</p>	<p>093457 EMP-B1</p>	<p>079740 079742</p> <p>M4 x 14</p> <p>Page 122</p>	> 400 mm
		<p>093458 EMP-B2</p>	<p>098082</p> <p>Page 123</p>	> 100 mm	
		<p>097906</p> <p>Page 123</p>	> 100 mm		

Mounting plates EMP for safety switches TZ

- ▶ For vertical and horizontal mounting of safety switch TZ

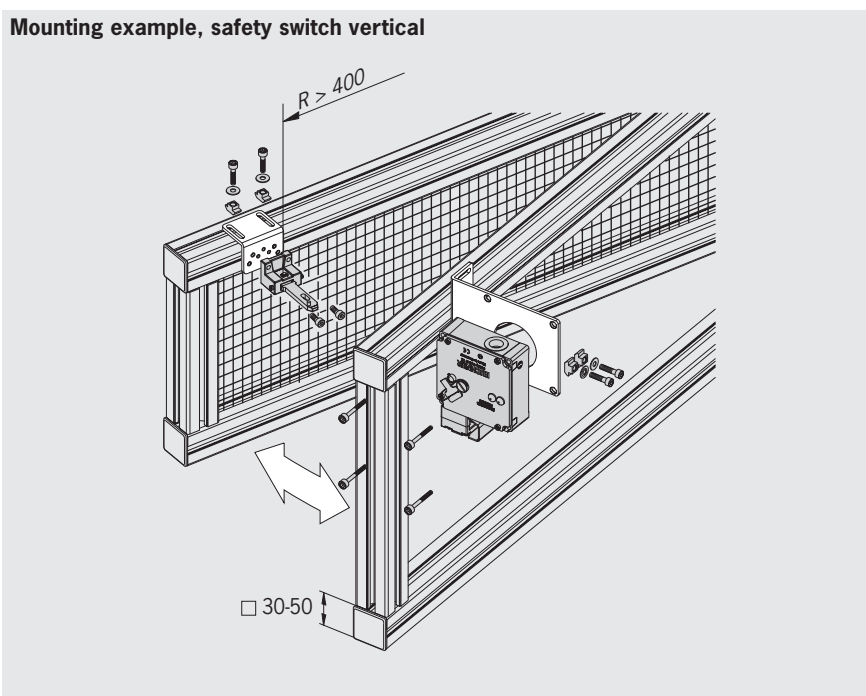
The mounting plates are used for fastening safety switches TZ and actuators to safety guards. The safety switches can be attached horizontally or vertically.

The mounting plate EMP-SA is also suitable for safety switches with escape release from the rear.

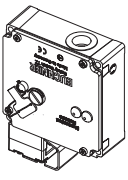
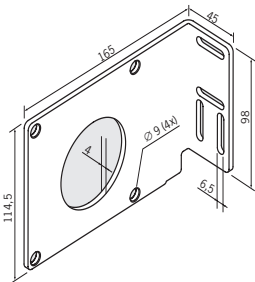
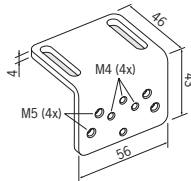
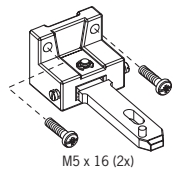
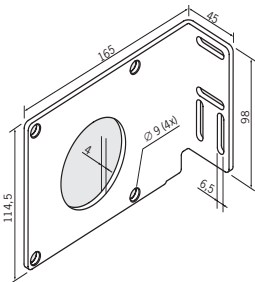
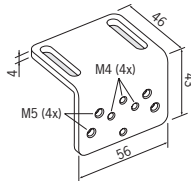
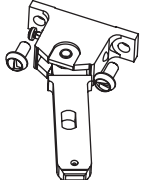
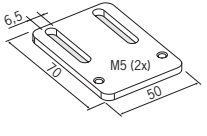
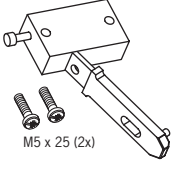
Note

- ▶ Mounting plate material: St37 galvanized
- ▶ The mounting plate EMP-SA is also suitable for the safety switches TZ...C1684, TZ...C1815 and TZ...C1828 with escape release from the rear.

Mounting example, safety switch vertical



Ordering table

Switch	Installation method switch	Mounting plate switch	Mounting plate actuator	Actuator	Minimum distance hinge axis to switch
 TZ...	A Vertical	094401 EMP-SA 	093457 EMP-B1 	024298 024299  M5 x 16 (2x) Page 121	> 400 mm
	B Horizontal			100406 100407  Page 121	> 200 mm
			093458 EMP-B2 	048850 057950  M5 x 25 (2x) Page 121	> 165 mm

Miscellaneous accessories

- ▶ Lockout bar
- ▶ Insertion funnel

Lockout bar

With the safety door open, can be slid into the actuating head on a switch with separate actuator instead of an actuator. Removal can be prevented using a commercially available padlock. For the protection of people in areas with a possible hazard. Cannot be used in combination with the protective plate.

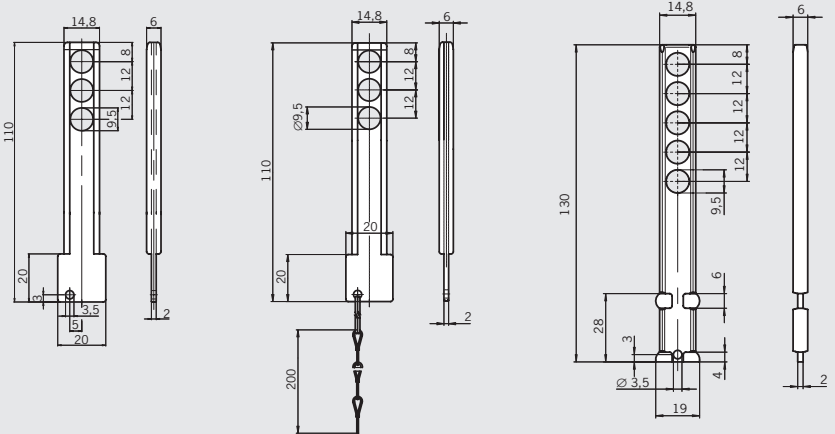
Insertion funnel

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.

Lockout bars

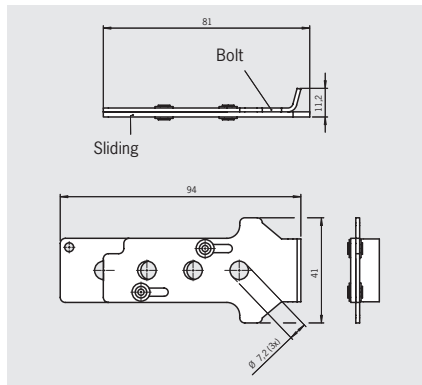
For safety switches NZ.VZ and TZ

Dimension drawings



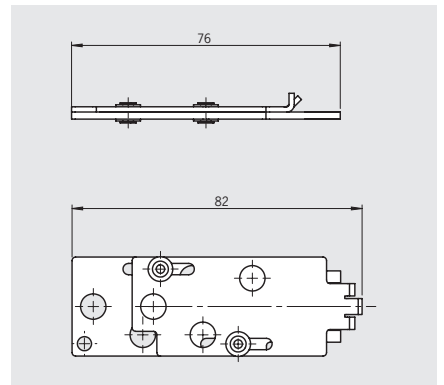
Lockout bar

For safety switches NX and TX



Lockout bar

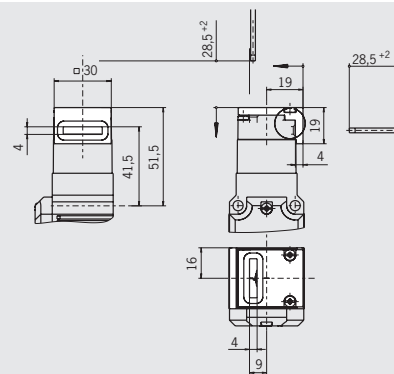
For safety switches STA



Insertion funnel

For safety switches STA/STP

Dimension drawings



Minimum door radius with insertion funnel
R > 300 mm

Ordering table

Designation	Version	Use	Order No.
Lockout bar	3 holes	For safety switches series NZ.VZ and TZ without protective plate	046730 Lockout bar Z
	3 holes with chain	For safety switches series NZ.VZ and TZ without protective plate	091305 Lockout bar with chain
	3 holes	For safety switches series	105701 Lockout bar STP
	5 holes	For safety switches series NZ.VZ and TZ without protective plate	086538 Lockout bar Z
	3 holes	For safety switches NX and TX	096098 Lockout bar TX
Insertion funnel	Incl. 2 fastening screws	For safety switches STA/STP	093157 Insertion funnel STA

Miscellaneous accessories

- ▶ Protective plate
- ▶ Replacement head for NZ.VZ
- ▶ Lead seal kit
- ▶ LED function display
- ▶ Safety screws

Protective plate

Optimal protection against tampering on safety switches with separate actuator (NZ.VZ and TZ). The protective plate prevents modification of the switch via the actuator outlet opening.

Replacement head for NZ.VZ

Replacement head for a safety switch with separate actuator (NZ.VZ). With 4 safety screws and replacement screws. As the switches are safety components, in case of defects we recommend replacing the entire safety switch. Not suitable for the safety switches TZ!

Lead seal kit TZ

For sealing the mechanical release on the safety switch TZ. The locking screw is included.

Lead seal kit TZ-C1937

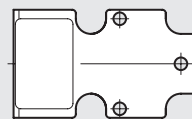
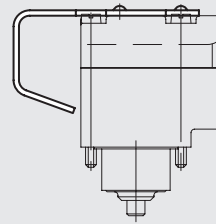
For sealing the emergency unlocking on the safety switch TZ.

Safety screws

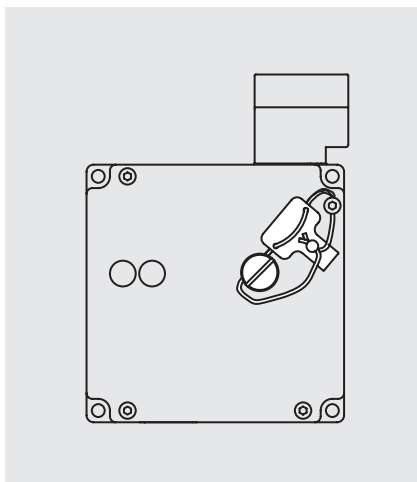
To prevent unscrewing of actuators and actuating heads. The screws can be tightened using a normal tool, but cannot be removed again.

Protective plate

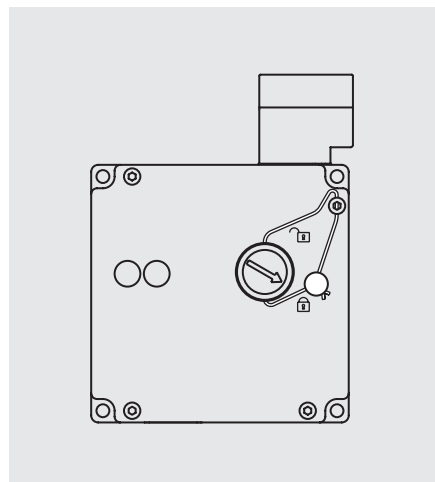
Dimension drawings



Lead seal kit TZ



Lead seal kit TZ-C1937



Ordering table

Designation	Version	Use	Order No.
Protective plate		For safety switches with separate safety function (NZ.VZ and TZ)	059136 Protective plate NZ/TZ
Replacement head NZ.VZ		Not suitable for safety switches TZ!	076250 Actuating head NZVZ
Lead seal kit	consists of lead seal, wire, locking screw and key	For safety switches TZ	048257 Lead seal kit TZ
	consists of lead seal and wire	For safety switches TZ with rotary emergency unlocking	087256 Lead seal kit TZ-C1937
Safety screws VPE: 100 ea.	M4 x 14	For actuators 079739, 079740, 079741 and 079742	074063 M4X14/V100
	M5 x 10	For actuators 016849, 072251, 100406 and 100407	073455 M5X10/V100
	M5 x 16	For hinged actuators 024299 and 024298	073456 M5X16/V100
	M5 x 25	For hinged actuators 048850 and 057950	073457 M5X25/V100
	M3 x 40	For actuator head NZ and TZ	075530 M3X40/V100
	M3 x 70	For actuator head NZ.VZ..VSE and NZ.VZ..VSM	075531 M3X70/V100

Miscellaneous accessories

► LED function display

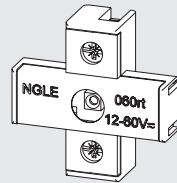
LED function display

Upgrade kits with LEDs are available for the safety switches N1A and NZ. The intensity of the light from the indicators is always the same independent of the voltage applied.

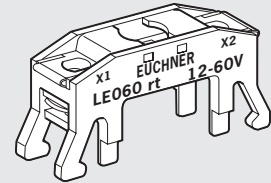
Note: The LED function display can only be used in conjunction with double switching elements.

LED function display

Dimension drawings



NGLE...



LE...

Ordering table

Designation	Version	Voltage					
		12-60 V red LED	12-60 V yellow	12-60 V green	110 V red LED	230 V red LED	230 V yellow LED
LED function display NGLE	For safety switches NZ	029220	029222	029221	045822	045825	045827
		NGLE060RT	NGLE060GE	NGLE060GR	NGLE110RT	NGLE220RT	NGLE220GE
LED function display LE	For safety switches N1A	035495	035497	035496	045579	045582	045584
		LE060RT	LE060GE	LE060GR	LE110RT	LE220RT	LE220GE

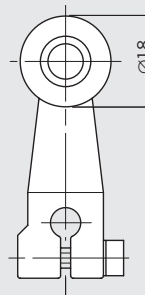
► Replacement roller arm

Replacement roller arm

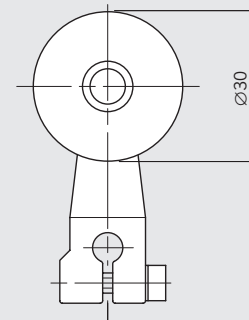
Replacement roller lever for safety switches with safety function with lever arm. As the switches are safety components, in case of defects we recommend replacing the entire switch. Complete switch heads are not available.

Replacement roller arm

Dimension drawings



NHS (steel roller)
NHB (plastic roller)



NHBC569

Ordering table

Designation	Version	Order No.
Replacement roller arm	Replacement plunger for NZ.HS	012043 Roller arm NHS
	Replacement plunger for NZ.HB	012042 Roller arm NHB
	Replacement plunger for NZ.HB...C569	012044 Roller arm NHBC569

For safety precautions see page 196
For technical data see page 163

Miscellaneous accessories

- ▶ **Emergency unlocking with manual return for safety switches TX**
- ▶ **Manual release with automatic return for safety switches TX**
- ▶ **Lock for emergency unlocking with manual return for safety switches TX**
- ▶ **Triangular key for safety switches TZ**

Emergency unlocking

Is used for the manual release of the guard locking without tools. The emergency unlocking mechanism must be returned to the locked state manually. A sealing wire can be fitted to protect against tampering.

Attention: Prior to mounting, the locking screw for the mechanical release must be removed.

Manual release

Is used for the manual release of the guard locking. The integrated spring automatically returns the emergency unlocking to the locked state. A sealing wire can be fitted to protect against tampering.

Attention: Prior to mounting, the locking screw for the mechanical release must be removed.

Lock

The lock is used in combination with safety switch TX. 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.

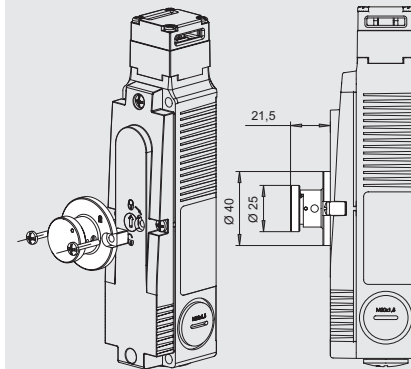
Two screws are used to fix the lock to the cover of the safety switch TX (above the mechanical release).

Attention: Prior to mounting, the locking screw for the mechanical release must be removed.

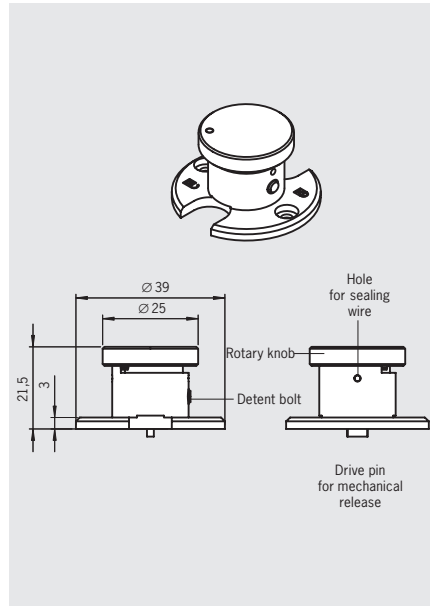
- ▶ Please order safety switch TX separately
- ▶ 2 keys are included
- ▶ Every safety switch of series TX can be upgraded to include a lock

Emergency unlocking For safety switches TX

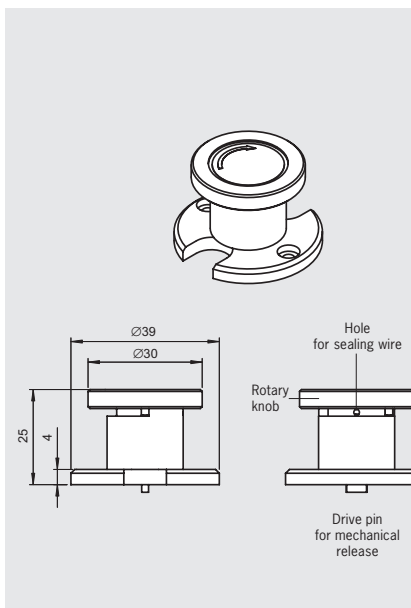
Dimension drawings



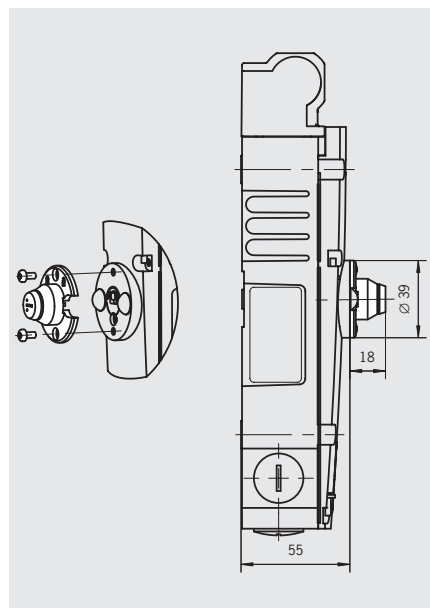
Emergency unlocking For safety switches TX



Manual release For safety switches TX



Lock For safety switches TX



Ordering table

Designation	Version	Use	Order No.
Emergency unlocking	Incl. 2 screws 3.5 x 19	For safety switches STA	099876 Emergency unlocking STA
	Incl. 2 screws M3 x 6	For safety switches TX	094771 Emergency unlocking TX
Manual release	Incl. 2 screws M3 x 6	For safety switches TX	094773 Manual release, automatic return TX
Lead seal kit		For emergency unlocking TX and mechanical release TX	087256 Lead seal kit
Lock	Unique (unique key needed to open)	For safety switches TX	079796 Lock TX
	Identical (identical locks)	For safety switches TX	079795 Lock TX
	Replacement key (2 ea.) for identical lock	For safety switches TX	077206 Replacement key TX
Triangular key	DIN 22417 M5 100 mm	For safety switches TZ	103057 Triangular key

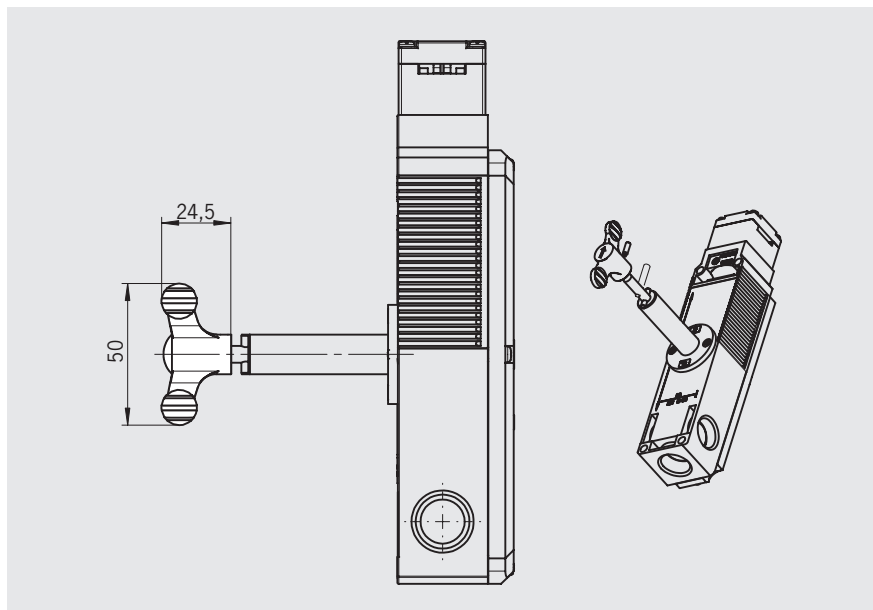
Miscellaneous accessories

► Handle for escape release

Handle for escape release

Can be mounted on all escape release actuator shafts C1993 for safety switches STA for easier use.

Handle for escape release For safety switch STA



Ordering table

Designation	Version	Use	Order No.
Handle for escape release		for safety switch STA	105329 FE-Griff

List of plug connector suppliers

We provide no guarantee for the completeness and correctness of the ordering data given. The data was valid in October 2004. The related manufacturers reserve the right to make changes without notice. The plug connectors and accessories listed are also available from other manufacturers.

► Plug connectors and accessories

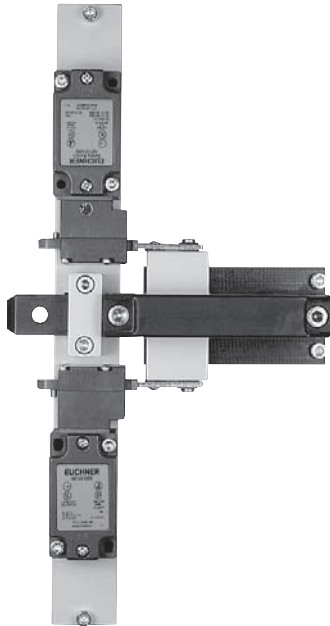
Type	Version	Manufacturer's designation	
SVM5 5 pins	Female plug M12	99-0436-57-05 Cable socket	Binder www.binder-connector.de
	Female flange connector M12	09-3442-700-05 Flange connector with wires	
	Dummy plug M12	08-2425-000-000 Protective cap for socket with retaining strap	
CE5 3 pins + N + PE	Mating connector (socket)	CEE plug as per CEE standard	
C16-1 6 pins + PE	Female flange connector	T3107 500 Female receptacle	Amphenol-Tuchel www.amphenol-tuchel.com
	Female crimp contacts for C16-1, VPE 100 pcs.	VN02 016 0002 (1) Single contact, silver, 0.5-1.5 mm ²	
	Dummy plug	T6483 000 Protective cap for female receptacle	
HAN10 10 pins + PE	Flange connector 1 cable exit	19 20 010 0251 Socket housing 1 cable exit	Harting www.harting.com
	Socket contacts (installation for flange socket)	09 20 010 3101 Socket contact insert crimp connection	
	Socket contacts for crimping	09 33 000 6220 Socket crimp contacts 0.5 mm ²	
	Dummy plug	09 20 010 5425 Cover	
RC17-Y coded 17 pins	Female flange connector, solder for male plug RC17Y)	RC-17S1Y122000 Flange plug connector 1.7-pin	Coninvers www.coninvers.com
	Blanking plug	RC-17P1N8A83NN Protective cap for socket with retaining strap	

► Crimp and extraction tools

For plug connectors	Function	Manufacturer's designation	
SR6 and SR11	Crimp tool	932 507-002 XZC 0701	Hirschmann www.hirschmann.com
	Extraction tool	931 812-001 XWA 164	
C16-1	Crimp tool	TA0500 + TA0000163 + TA0002016001 Crimp pliers, jaws and contact receptacle	Amphenol-Tuchel www.amphenol-tuchel.com
	Extraction tool	FG 0300 1461 Extraction tool	
RC12	Crimp tool	RC-Z 2378 Crimp pliers for machined contacts	Coninvers www.coninvers.com
	Extraction tool	RC-Z 2097 Extraction tool/insertion tool	
RC18	Crimp tool	RC-Z 2378 Crimp pliers for machined contacts	Coninvers www.coninvers.com
	Extraction tool	RC-Z 2274 Extraction tool	
VP19	Crimp tool	T98143 DAK 83S-30 / 11-7576T3 Insertion tool	Litton/Vearn www.littonvearn.com
	Extraction tool	46592-MT50 / 11-7576T3 Removal tool	
UT23	Crimp tool	Y16RCM Crimping tool for machined contacts	Burndy www.burndy.com
	Extraction tool	RX2025GE1 Extraction tool	
TB24	Crimp tool	WT10-04 Crimp tool	Thomas & Betts www.tb.com
	Extraction tool	TRT16 Contact removal tool	

Bolts for safety guards

- ▶ For 2 safety switches NZ.VZ on one bolt



Special features

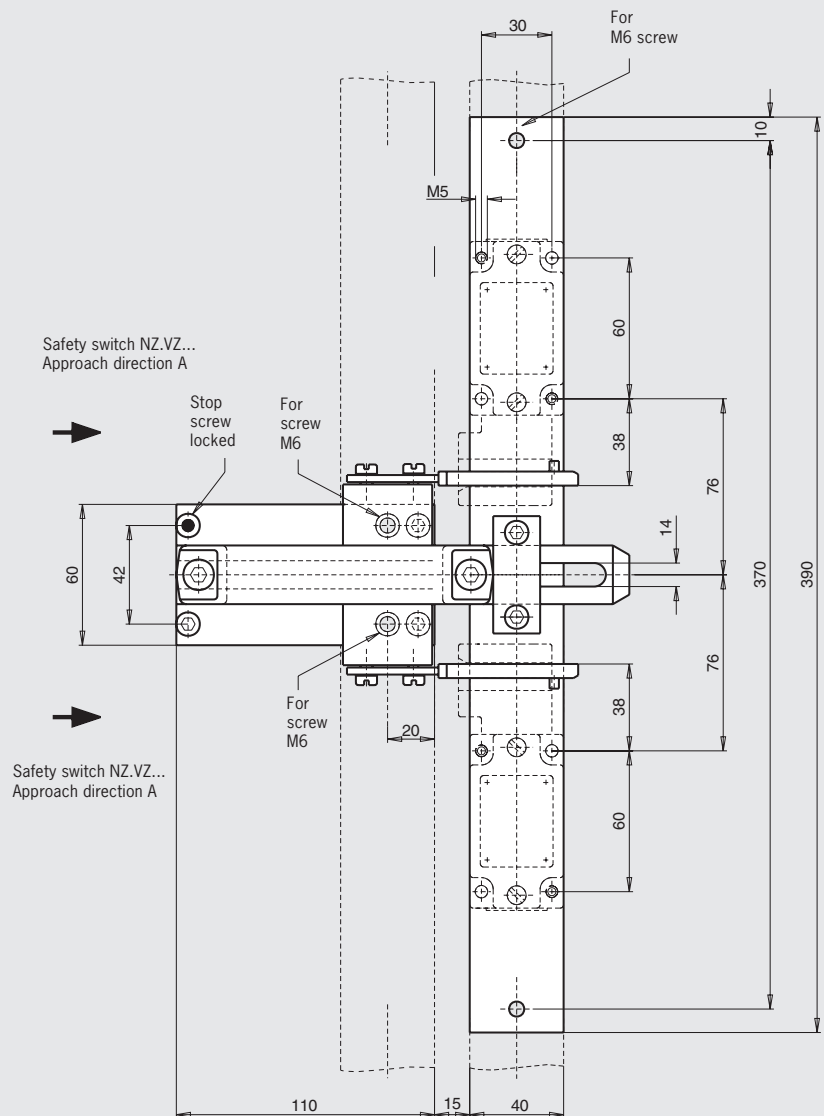
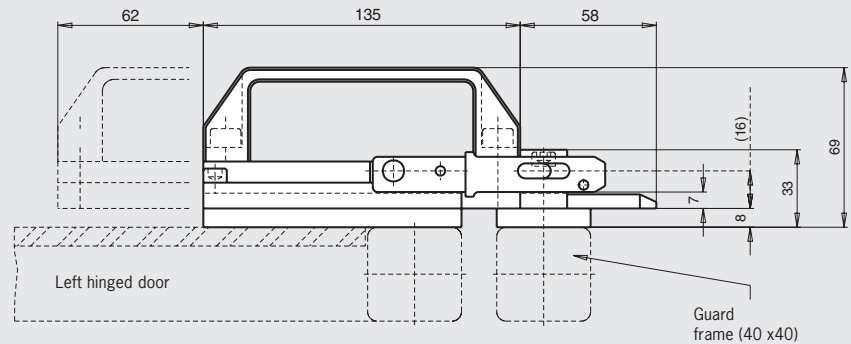
- ▶ One bolt for 2 safety switches
 - ▶ High safety category acc. to EN ISO 13849-1 (e. g. category 4) is achieved
- ▶ Bolt can be used for doors hinged on the right or left

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

Bolt for 2 safety switches NZ.VZ on one bolt

Dimension drawings

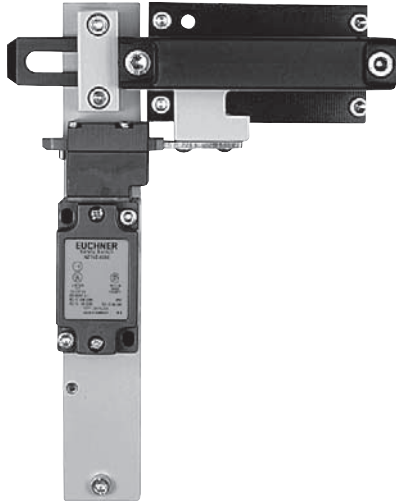


Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ-AC	None	For right or left hinged doors, 2 safety switches on one bolt, actuator included	076188 Bolt NZ-AC

Bolts for safety guards

- ▶ For safety switches NZ.VZ
- ▶ Lever for escape release from the danger area
- ▶ Bolt with detent knob
- ▶ For right or left hinged doors



Special features

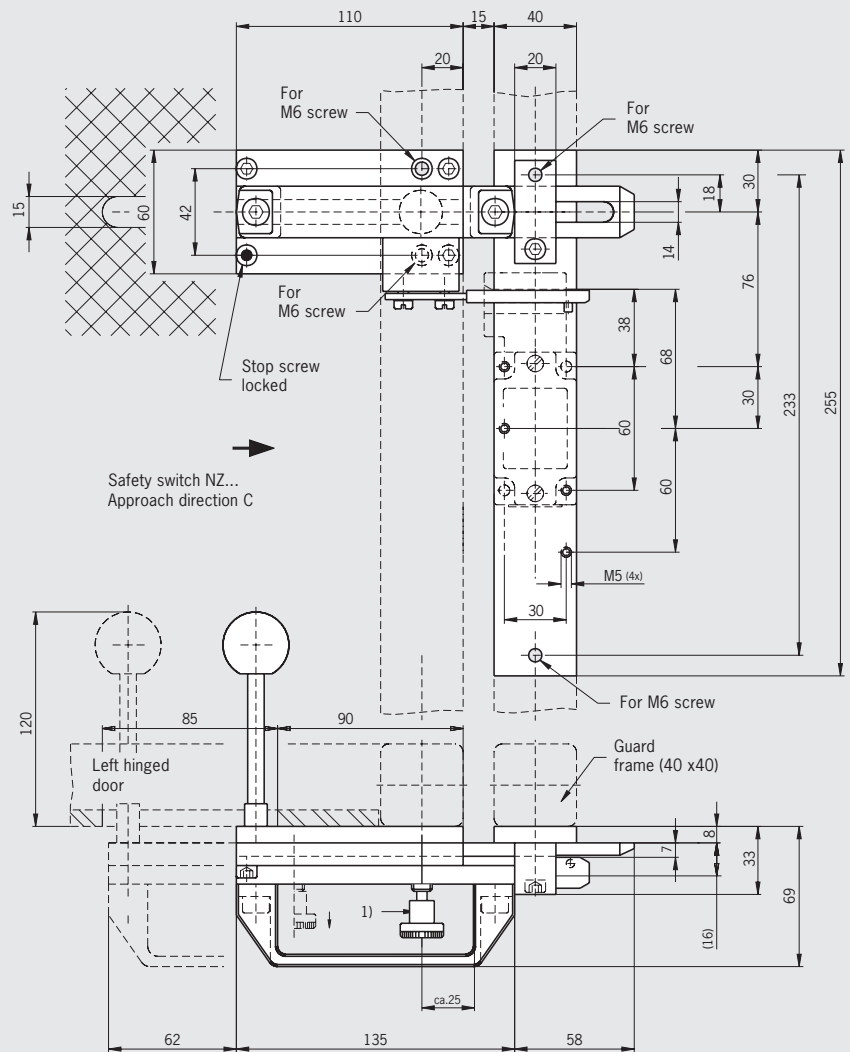
- ▶ Bolt with detent mechanism
 - ▶ The bolt latches in open position to prevent unintended closing

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

Bolt for safety switches NZ.VZ

Dimension drawings



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

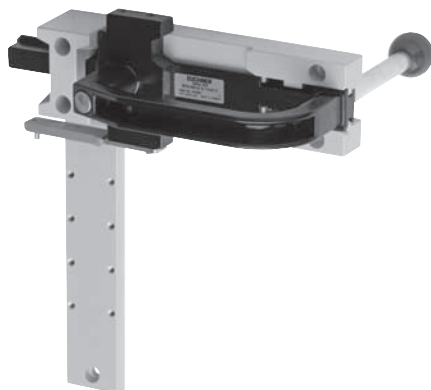
Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ-AF	Detent knob	For right hinged doors, escape release from the danger area, actuator included	078451 Bolt NZ-AF
Bolt NZ-CF	Detent knob	For left hinged doors, escape release from the danger area, actuator included	078452 Bolt NZ-CF

For safety precautions see page 196
For technical data see page 163

Bolts for safety guards

- ▶ For safety switches NZ.VZ and NZ.VZ.VS
- ▶ Material: die-cast aluminum
- ▶ Lever for escape release from the danger area (optional)
- ▶ For doors hinged on the right or left



Special features

(only for bolt BTC-NZVZ-S-TH-01-F with escape release)

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

Features

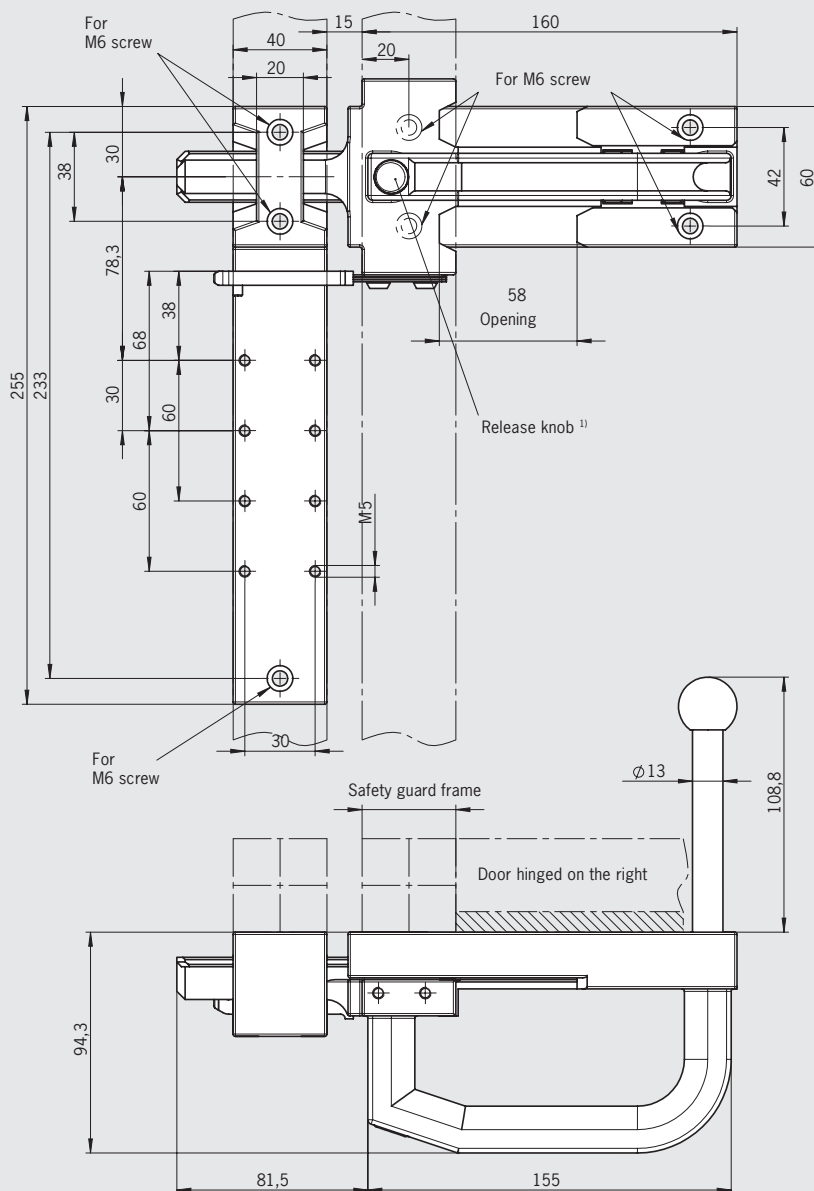
- ▶ Easily fitted to standard aluminum profiles and machine covers with screw connection
- ▶ Distinctive yellow color for easy recognition
- ▶ Robust version for heavy doors
- ▶ No additional door handle necessary

Notes

- ▶ Actuator included
- ▶ Order safety switch separately

Bolt for safety switches NZ.VZ and NZ.VZ.VS

Dimension drawings (here: shown with escape release)



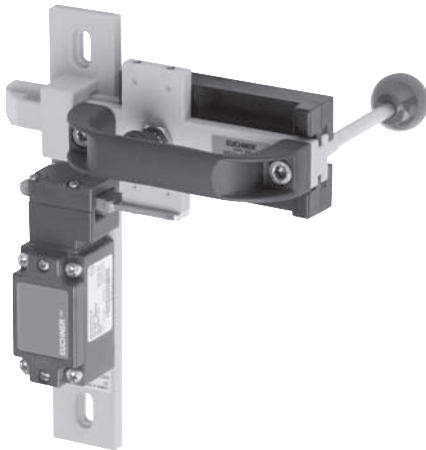
1) Bolt with detent mechanism (only for bolt BTC-NZVZ-S-TH-01-F with escape release): latches in open position and prevents unintended closing of the bolt. Unlocked by pressing the knob

Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt BTC-NZVZ-S-TH-01-F	1 x detent mechanism open	For doors hinged on the right or left with escape release	104399 Bolt BTC-NZVZ-S-TH-01-F
Bolt BTC-NZVZ-S-TH-00-X	Without	For doors hinged on the right or left without escape release	104398 Bolt BTC-NZVZ-S-TH-00-X

Bolts for safety guards

- ▶ For safety switches NZ.VZ
- ▶ Material: reinforced plastic
- ▶ Lever for escape release from the danger area
- ▶ Bolt with detent knob
- ▶ For right or left 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

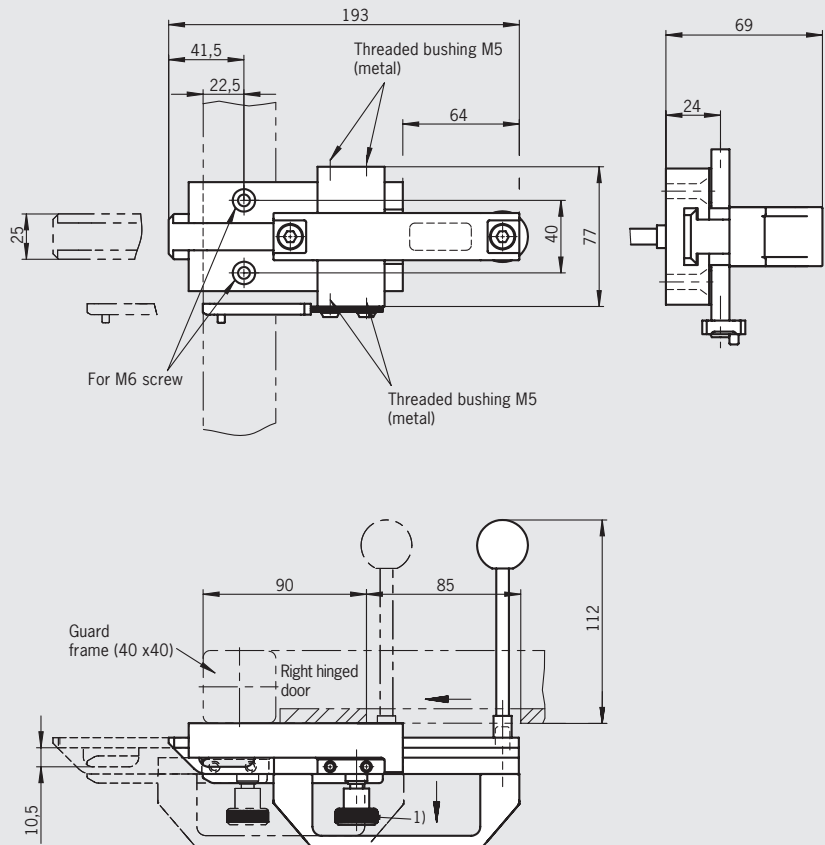
- ▶ Easily fitted to standard aluminum profiles and machine covers by screw connection
- ▶ Distinctive yellow color for easy recognition
- ▶ Robust version for heavy doors
- ▶ No additional door handle necessary
- ▶ Slot on the bolt permits attachment of padlocks

Notes

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

Bolt for safety switches NZ.VZ

Dimension drawings



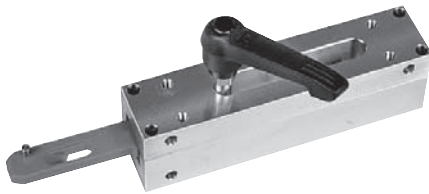
- 1) Bolt with detent mechanism (only for bolts with escape release)
Latches in open position and prevents unintended closing of the bolt.
Unlocked by pulling the detent knob upward.

Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ-GFK	Without	For right hinged doors, without escape release; actuator included	096617 Bolt NZ-GFK
Bolt NZ-GFK-F	Detent knob	For left hinged doors, escape release from the danger area, actuator included	097603 Bolt NZ-GFK-F
Switch bracket NZ-GFK		Separate	096614 Switch bracket NZ-GFK

Bolts for safety guards

- ▶ For safety switches NZ.VZ, NZ.VZ.VS and TZ...
- ▶ Bolt with hand lever
- ▶ For right or left hinged doors



Special features

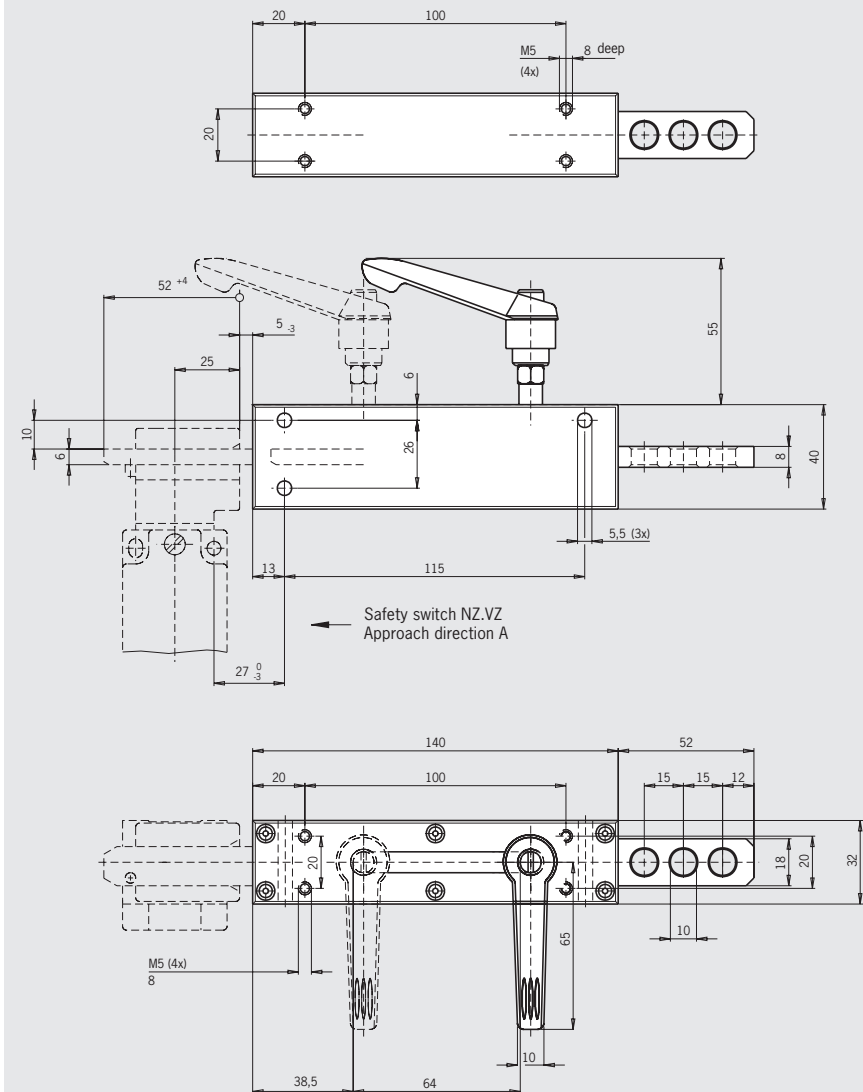
- ▶ The hand lever can be permanently set to 20 rotary positions (in 18° increments)
- ▶ On bolt **NZ/TZ-G1**, actuating pin on bottom
 - ▶ Safety switch fastened as shown in illustration
- ▶ On bolt **NZ/TZ-G2**, actuating pin on top
 - ▶ Safety switch fastened rotated by 180°
- ▶ After the door is opened, the actuator is automatically withdrawn into the bolt by a built-in return spring
 - ▶ The operator is protected
When the door is open there is no risk of injury due to protruding actuator
 - ▶ The actuator is protected
When hinged doors are closed it is ensured that the actuator is not used as an end stop

Features

- ▶ Three holes enable padlocks to be attached

Bolt for safety switches NZ.VZ, NZ.VZ.VS and TZ

Dimension drawings



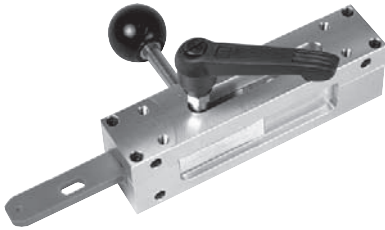
1) Bolt fastening

Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ/TZ-G1	None	For right or left hinged doors, actuating pin on bottom, actuator included	028358 Bolt NZ/TZ-G1
Bolt NZ/TZ-G2	None	For right or left hinged doors, actuating pin on top, actuator included	028360 Bolt NZ/TZ-G2

Bolts for safety guards

- ▶ For safety switches NZ.VZ, NZ.VZ.VS and TZ with escape release
- ▶ Lever for escape release from the danger area
- ▶ Bolt with hand lever
- ▶ For right or left hinged doors



Special features

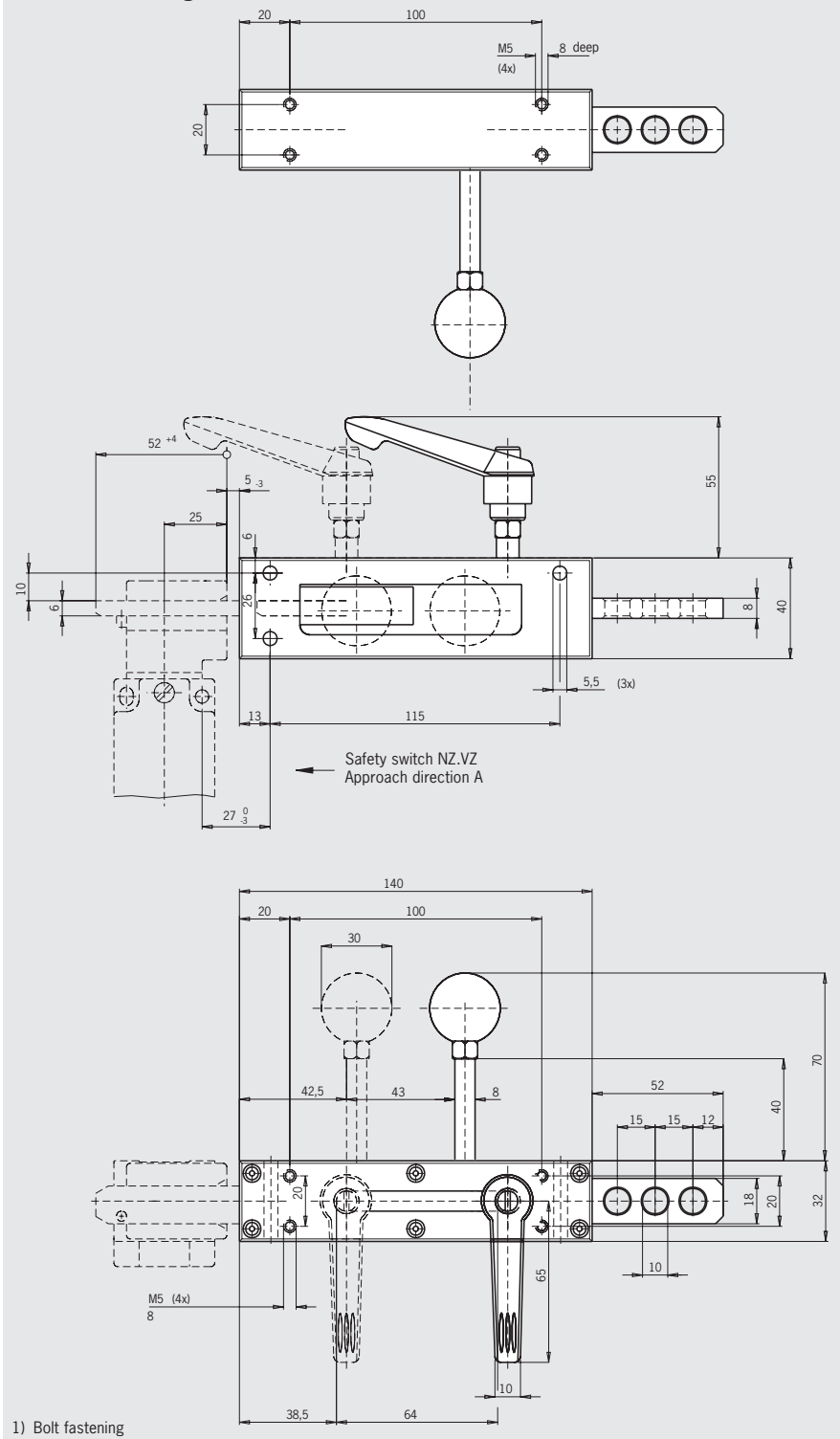
- ▶ The hand lever can be permanently set to 20 rotary positions (in 18° increments)
- ▶ After the door is opened, the actuator is automatically withdrawn into the bolt by a built-in return spring
 - ▶ The operator is protected
When the door is open there is no risk of injury due to protruding actuator
 - ▶ The actuator is protected
When hinged doors are closed it is ensured that the actuator is not used as an end stop

Features

- ▶ The lever for the escape release only enables the doors to be **opened** from inside the danger area
- ▶ Three holes enable padlocks to be attached

Bolt for safety switches NZ.VZ, NZ.VZ.VS and TZ with escape release

Dimension drawings



Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ/TZ-G1/AF	None	For right hinged doors, escape release from the danger area, actuator included	079788 Bolt NZ/TZ-G1/AF
Bolt NZ/TZ-G1/CF	None	For left hinged doors, escape release from the danger area, actuator included	079787 Bolt NZ/TZ-G1/CF

For safety precautions see page 196
For technical data see page 163

Bolts for safety guards

- ▶ For safety switches NZ.VZ, NZ.VZ.VS and TZ...
- ▶ Bolt with ball handle
- ▶ For right or left hinged doors



Special features

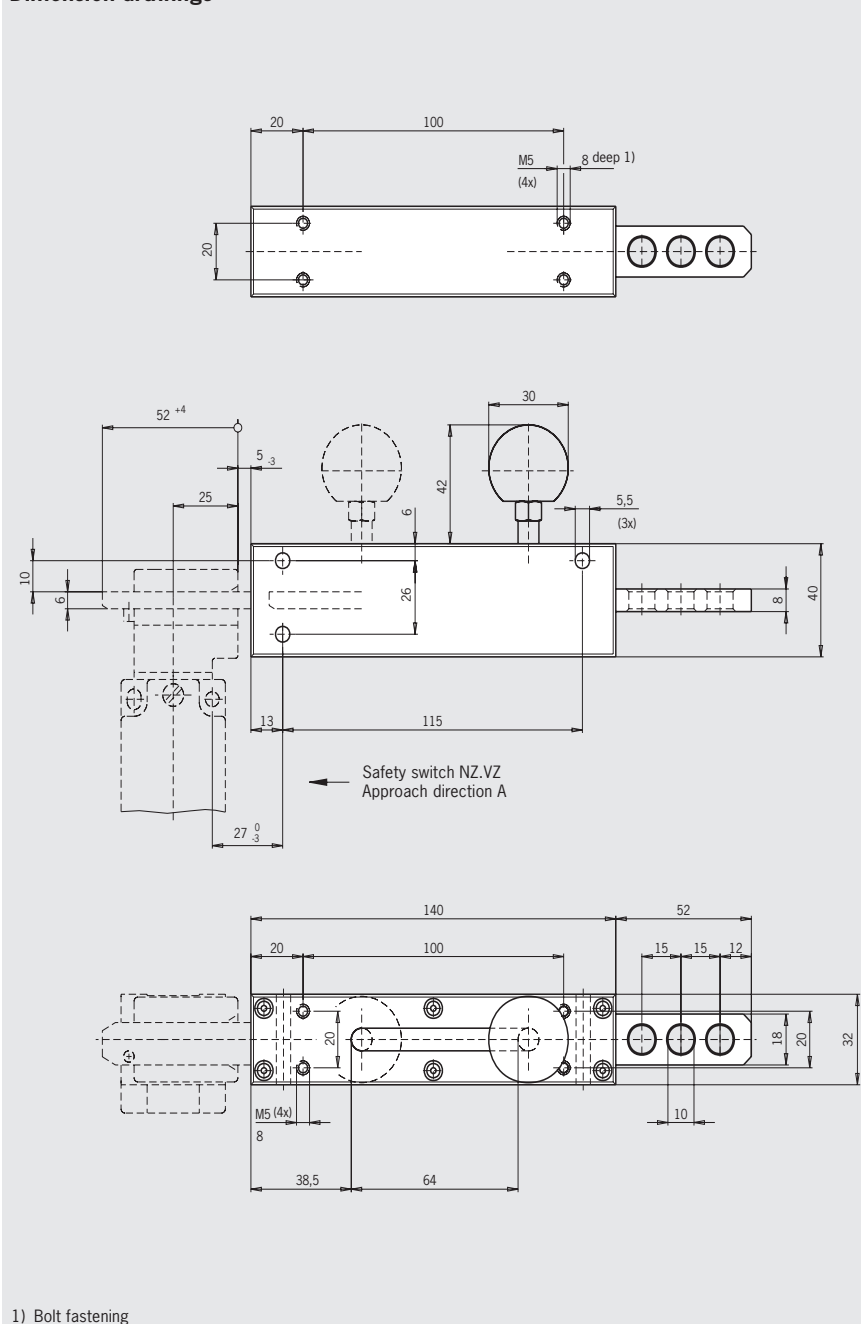
- ▶ On bolt **NZ/TZ-S1**, actuating pin on bottom
 - ▶ Safety switch fastened as shown in illustration
- ▶ On bolt **NZ/TZ-S2**, actuating pin on top
 - ▶ Safety switch fastened rotated by 180°
- ▶ After the door is opened, the actuator is automatically withdrawn into the bolt by a built-in return spring
 - ▶ The operator is protected
 - ▶ When the door is open there is no risk of injury due to protruding actuator
 - ▶ The actuator is protected
 - ▶ When hinged doors are closed it is ensured that the actuator is not used as an end stop

Features

- ▶ Three holes enable padlocks to be attached

Bolt for safety switches NZ.VZ, NZ.VZ.VS and TZ

Dimension drawings

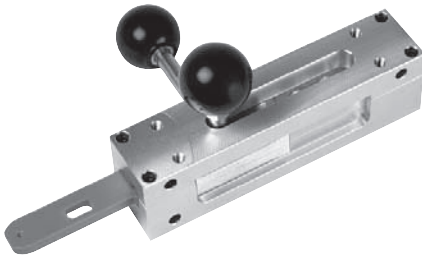


Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ/TZ-S1	None	For right or left hinged doors, actuating pin on bottom, actuator included	028357 Bolt NZ/TZ-S1
Bolt NZ/TZ-S2	None	For right or left hinged doors, actuating pin on top, actuator included	028359 Bolt NZ/TZ-S2

Bolts for safety guards

- ▶ For safety switches NZ.VZ, NZ.VZ.VS and TZ with escape release
- ▶ Lever for escape release from the danger area
- ▶ Bolt with ball handle
- ▶ For right or left hinged doors



Special features

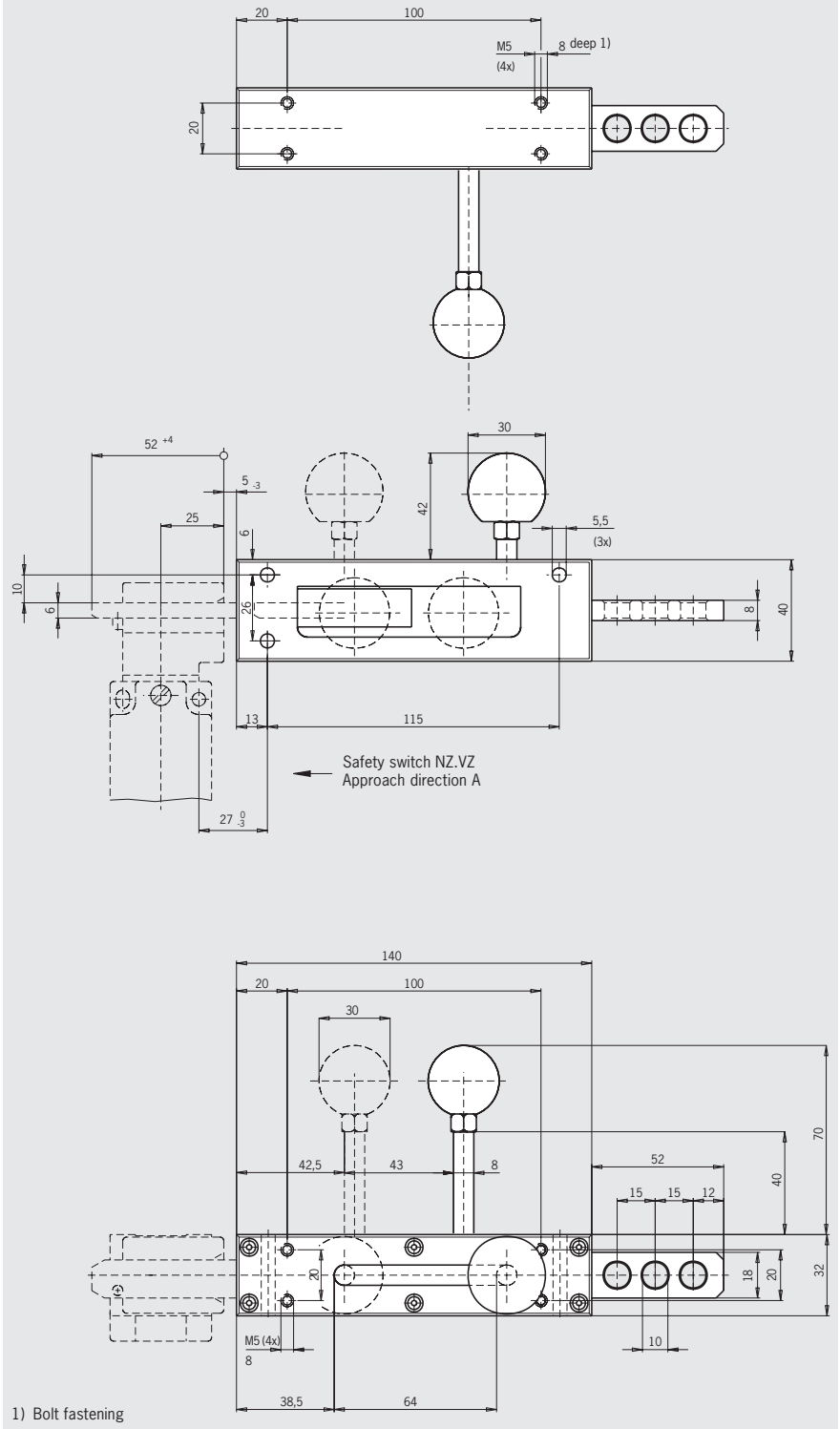
- ▶ After the door is opened, the actuator is automatically withdrawn into the bolt by a built-in return spring
 - ▶ The operator is protected
 - ▶ When the door is open there is no risk of injury due to protruding actuator
 - ▶ The actuator is protected
 - ▶ When hinged doors are closed it is ensured that the actuator is not used as an end stop

Features

- ▶ The lever for the escape release only enables the doors to be **opened** from inside the danger area
- ▶ Three holes enable padlocks to be attached

Bolt for safety switches NZ.VZ, NZ.VZ.VS and TZ with escape release

Dimension drawings

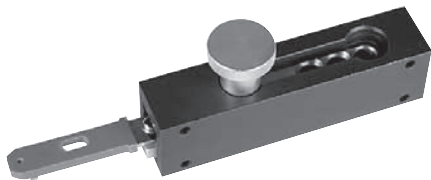


Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ/TZ-S1/AF	None	For right hinged doors, escape release from the danger area, actuator included	079786 Bolt NZ/TZ-S1/AF
Bolt NZ/TZ-S1/CF	None	For left hinged doors, escape release from the danger area, actuator included	079785 Bolt NZ/TZ-S1/CF

Bolts for safety guards

- ▶ For safety switches NZ.VZ, NZ.VZ.VS and TZ...
- ▶ Bolt with knurled knob
- ▶ For right or left hinged doors



Special features

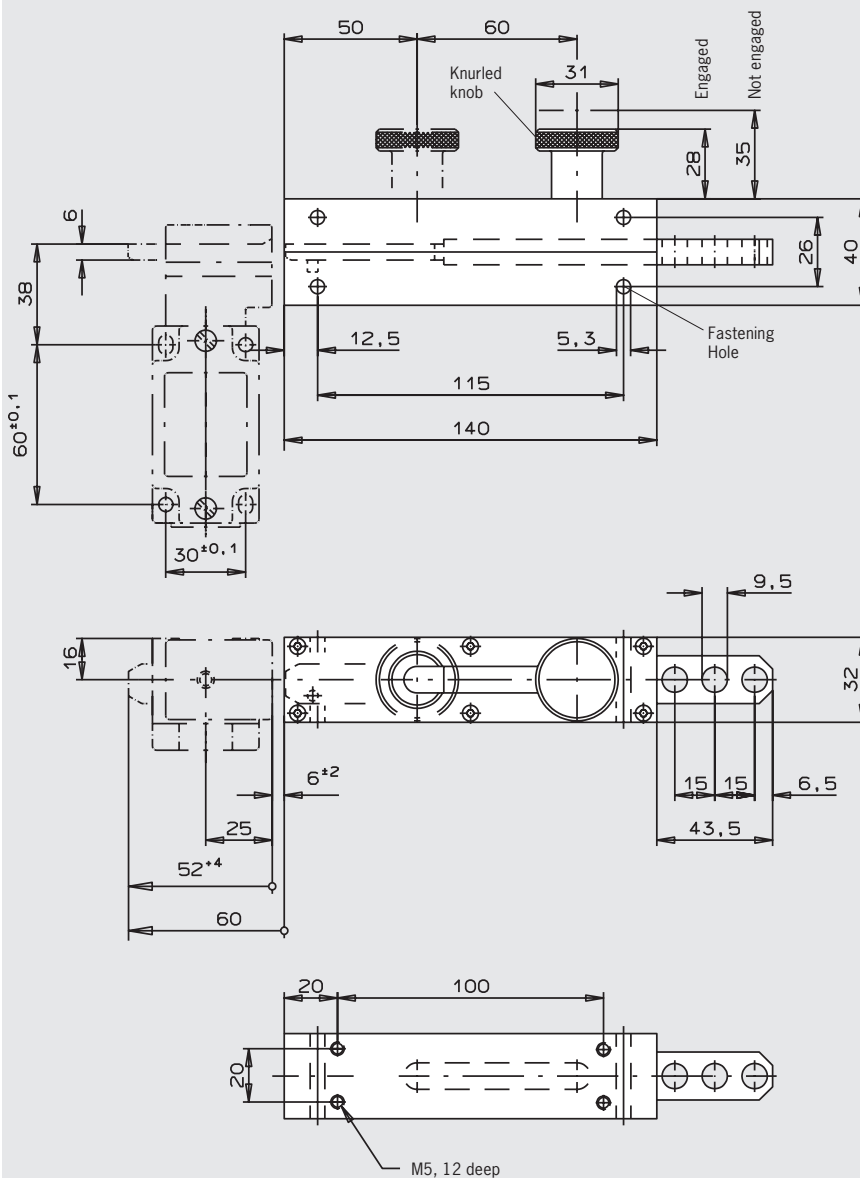
- ▶ Bolt knob engages in open and closed position. The actuator can be inserted in the safety switch by pulling the knurled knob

Features

- ▶ Three holes enable padlocks to be attached

Bolt for safety switches NZ.VZ, NZ.VZ.VS and TZ

Dimension drawings

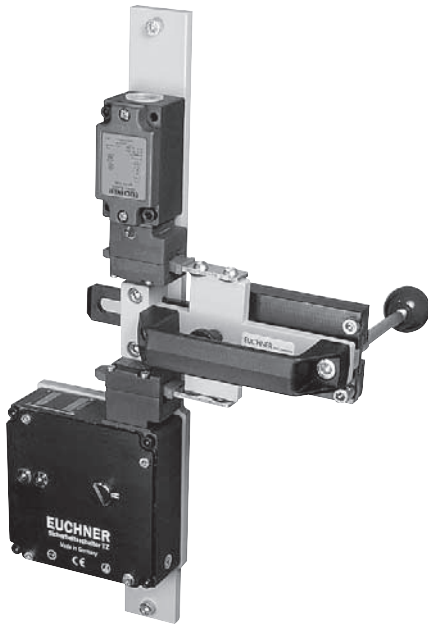


Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ/TZ-Z	Knurled knob	For right or left hinged doors, actuator included	057770 Bolt NZ/TZ-Z

Bolts for safety guards

- ▶ For safety switches NZ.VZ and TZ with escape release
- ▶ Lever for escape release from the danger area
- ▶ For 2 safety switches on one bolt (NZ and TZ)
- ▶ For right or left hinged doors



Special features

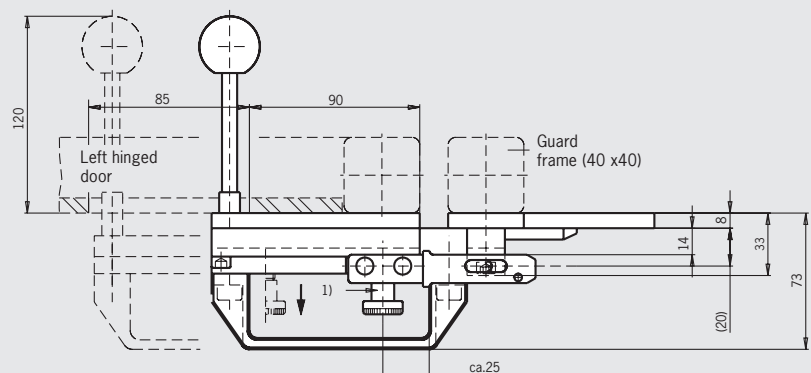
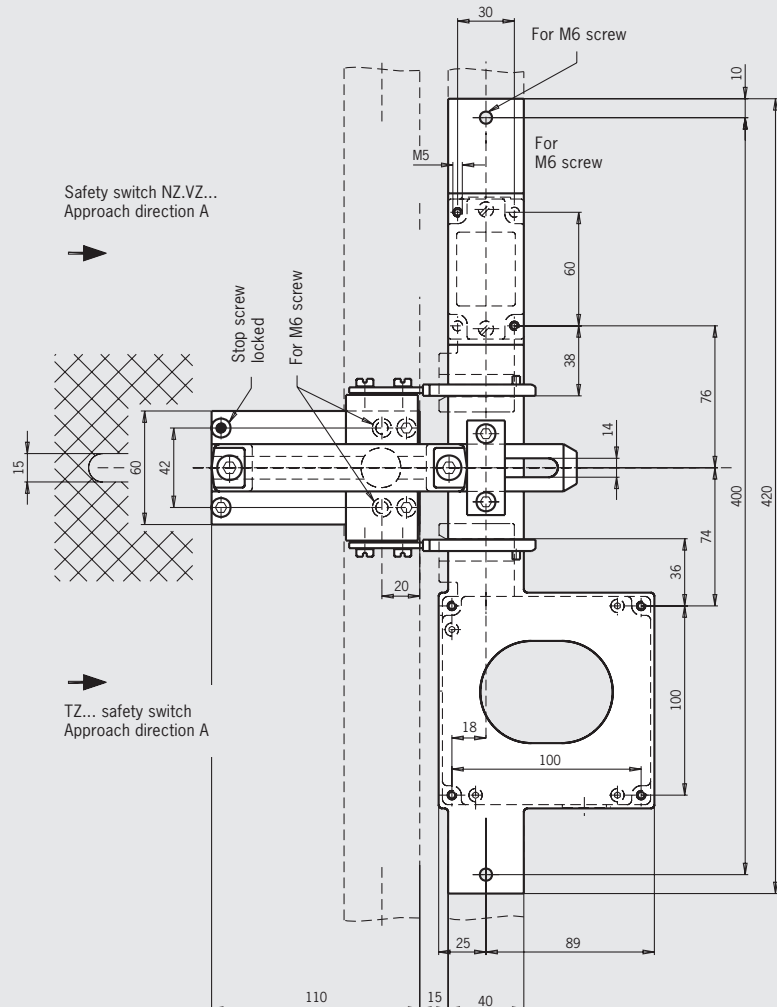
- ▶ One bolt for 2 safety switches (NZ and TZ with guard locking)
 - ▶ High safety category acc. to EN ISO 13849-1 (e. g. category 4) is achieved
- ▶ Bolt with detent mechanism
 - ▶ The bolt latches in open position to prevent unintended closing

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

Bolt for 2 safety switches NZ.VZ and TZ on one bolt

Dimension drawings



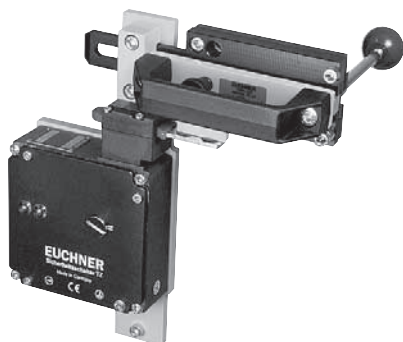
1) Bolt with detent mechanism:
Latches in open position and prevents unintended closing of the bolt.
Unlocked by pulling the detent knob upward.

Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt NZ/TZ-ACF	Detent knob	For right or left hinged doors, 2 safety switches on one bolt, escape release from the danger area, actuator included	083900 Bolt NZ/TZ-ACF

Bolts for safety guards

- ▶ For safety switches TZ with escape release
- ▶ Lever for escape release from the danger area
- ▶ For right or left hinged doors



Special features

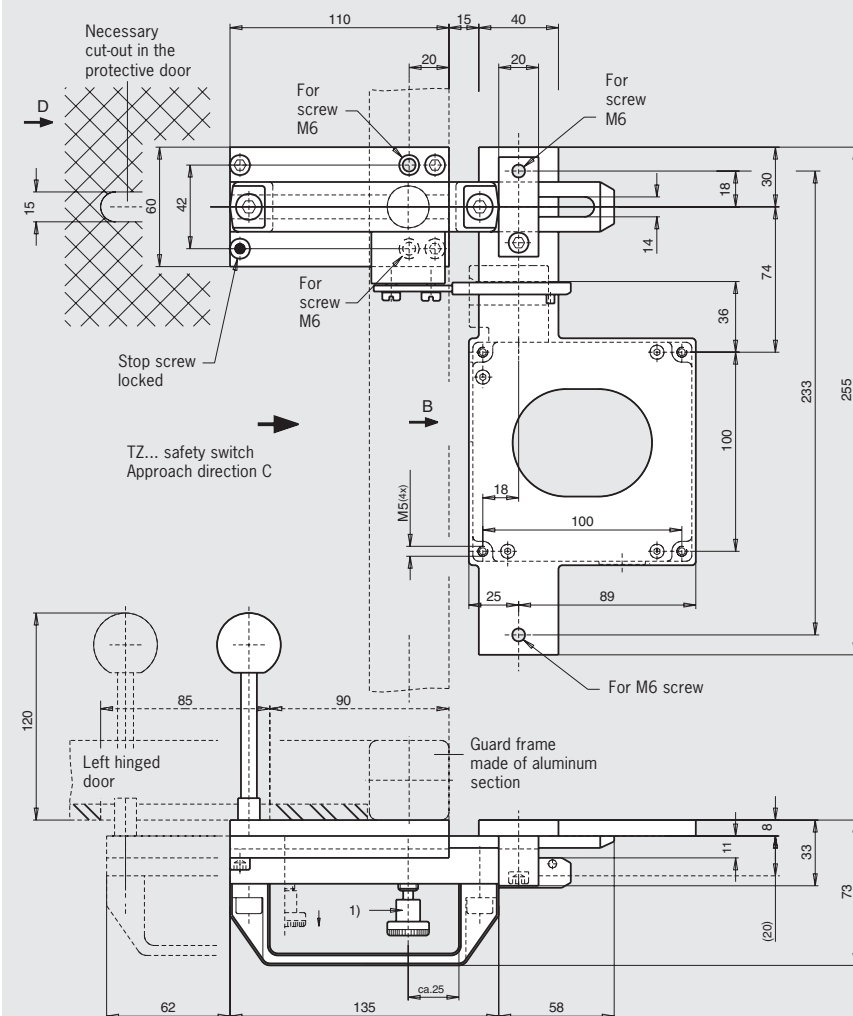
- ▶ Bolt with detent mechanism
 - ▶ The bolt latches in open position to prevent unintended closing

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

Bolt for safety switches TZ with escape release

Dimension drawings



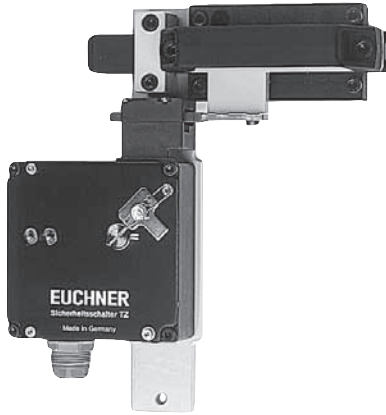
1) Bolt with detent mechanism:
Latches in open position and prevents unintended closing of the bolt.
Unlocked by pulling the detent knob upward.

Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt TZ-AF	Detent knob	For right hinged doors, escape release from the danger area, actuator and switch bracket included	076200 Bolt TZ-AF
Bolt TZ-CF	Detent knob	For left hinged doors, escape release from the danger area, actuator and switch bracket included	076199 Bolt TZ-CF

Bolts for safety guards

- ▶ For safety switches TZ
- ▶ Optional stainless steel bolt, 1.4301
- ▶ For right or left hinged doors



Features

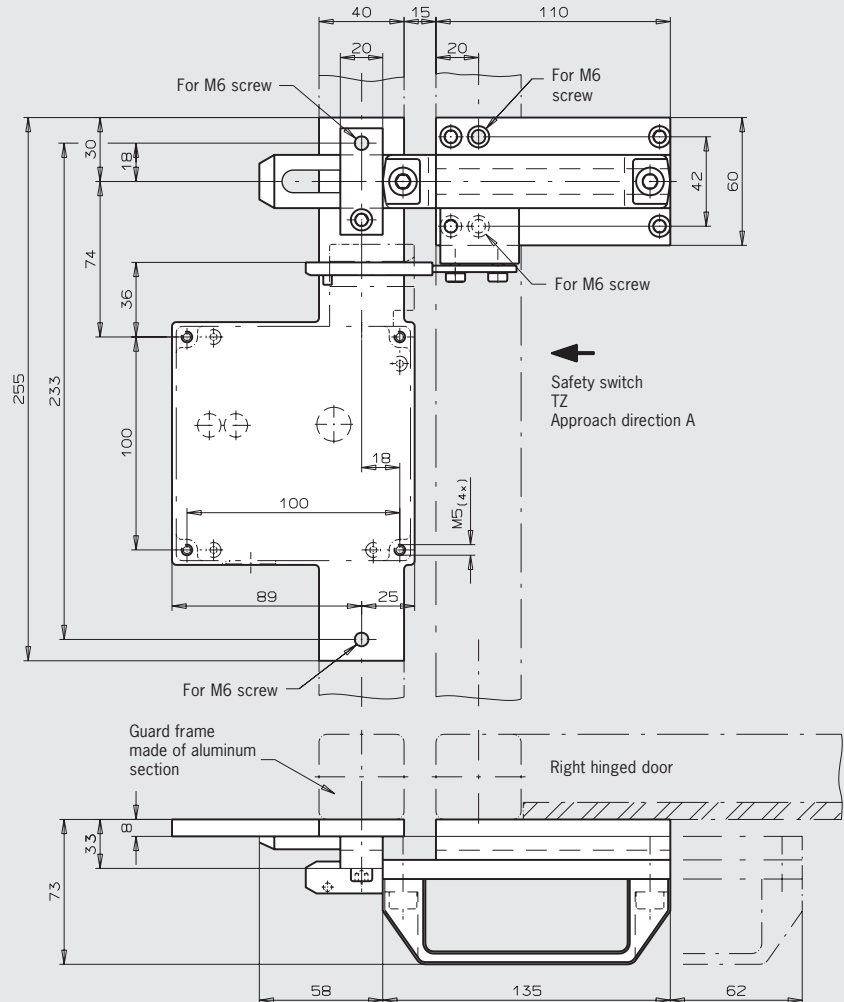
- ▶ Easily fitted to standard aluminum profiles and machine covers by screw connection
- ▶ Easy to use
- ▶ Distinctive yellow color for easy recognition
- ▶ Robust version for heavy doors
- ▶ No additional door handle necessary
- ▶ Slot on the bolt permits attachment of padlocks

Version in stainless steel 1.4301

- ▶ Suitable for use in the chemical and foodstuff industries
- ▶ Screw material stainless steel V2A
- ▶ Handle material polypropylene
- ▶ Slide strip material polyethylene

Bolts for safety switches TZ

Dimension drawings



Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt TZ-A	None	For right hinged doors actuator and switch bracket included	057736 Bolt TZ-A
Bolt TZ-C	None	For left hinged doors actuator and switch bracket included	057737 Bolt TZ-C
Bolt TZ-A-NIRO	None	For right hinged doors, bolt made of stainless steel 1.4301, actuator and switch bracket included	079798 Bolt TZ-A-NIRO
Bolt TZ-C-NIRO	None	For left hinged doors, bolt made of stainless steel 1.4301, actuator and switch bracket included	079799 Bolt TZ-C-NIRO
Bolt TZ-A-NIRO-C2101	None	For right hinged doors, bolt made of stainless steel 1.4301, screws made of stainless steel V2A, handle and slide strips made of stainless steel 1.4301, actuator and switch bracket included (similar to figure)	096057 Bolt TZ-A-NIRO-C2101
Bolt TZ-C-NIRO-C2101	None	For left hinged doors, bolt made of stainless steel 1.4301, screws made of stainless steel V2A, handle and slide strips made of stainless steel 1.4301, actuator and switch bracket included (similar to figure)	096058 Bolt TZ-C-NIRO-C2101

For safety precautions see page 196
For technical data see page 163

Bolts for safety guards

- ▶ For safety switches TX and NX
- ▶ For right or left hinged doors

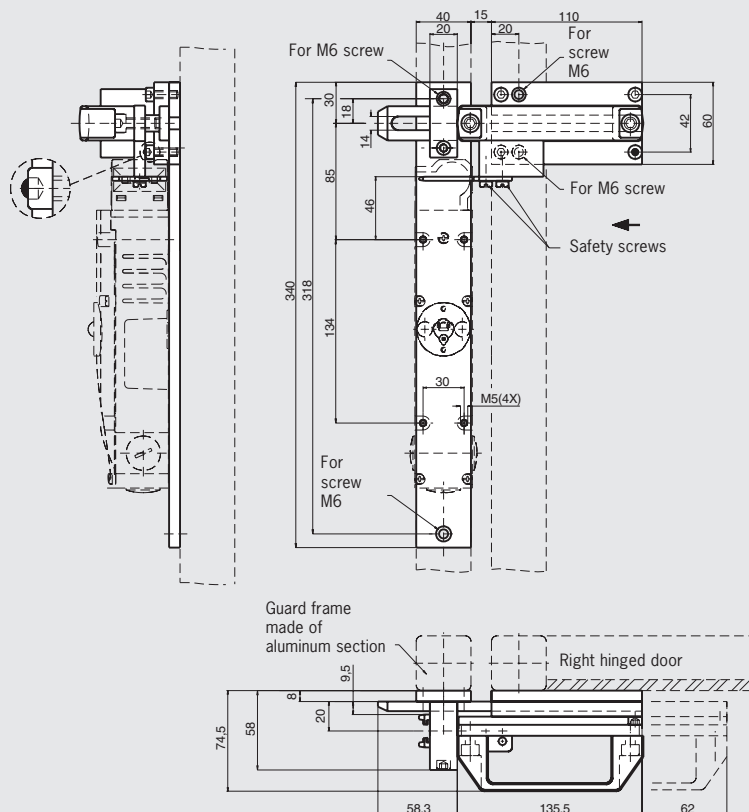


Features

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

Bolt for safety switches TX and NX

Dimension drawings



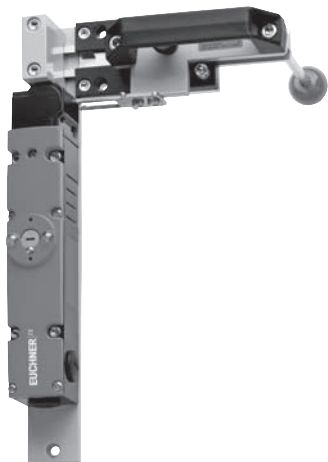
Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt TX-A	None	Without escape release, for right hinged doors actuator and switch bracket included	082990 Bolt TX-A
Bolt TX-C	None	Without escape release, for left hinged doors actuator and switch bracket included	082991 Bolt TX-C

For safety precautions see page 196
For technical data see page 163

Bolts for safety guards

- ▶ For safety switches TX...C1991 with escape release
- ▶ For right or left hinged doors

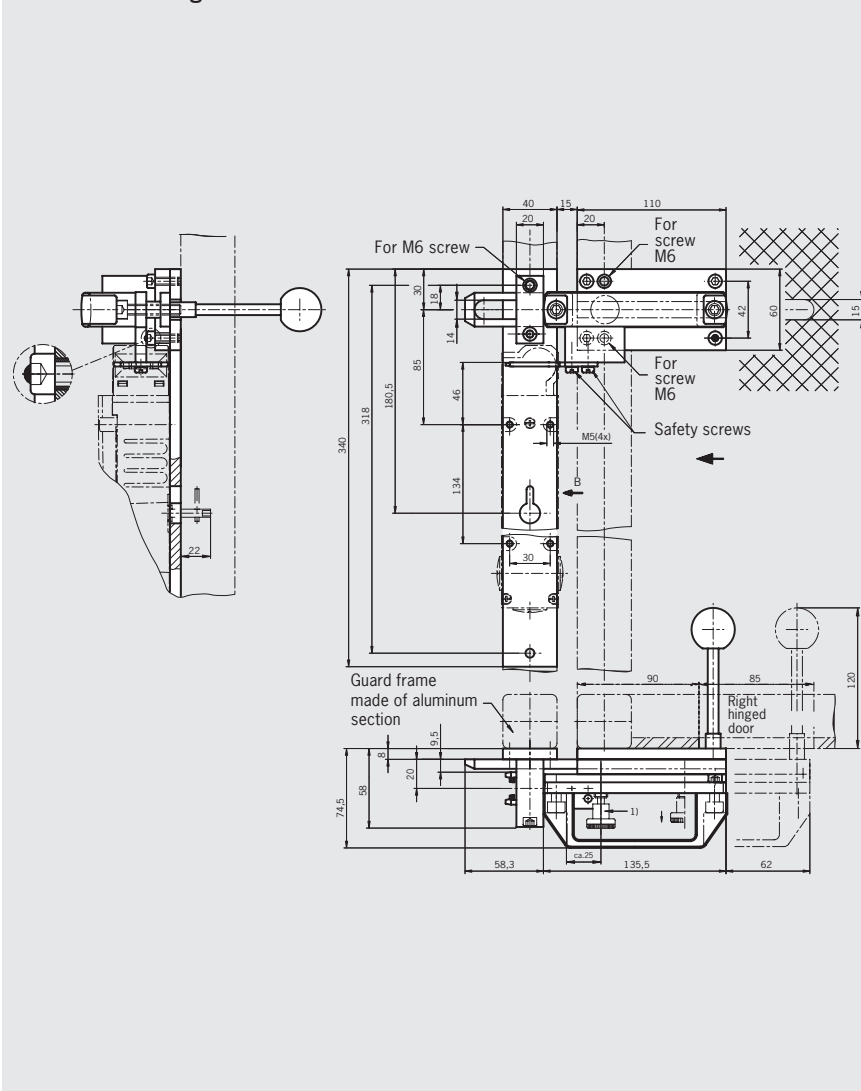


Features

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

Bolts for safety switches TX...C1991 with escape release

Dimension drawings



Ordering table

Designation	Detent mechanism	Version	Order No.
Bolt TX-AF	Detent knob	With escape release, for right hinged doors actuator and switch bracket included	085392 Bolt TX-AF
Bolt TX-CF	Detent knob	With escape release, for left hinged doors actuator and switch bracket included	085393 Bolt TX-CF

Bolts for safety guards for safety switches SGA/STA

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



Special features

(only for bolts S-AF and S-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

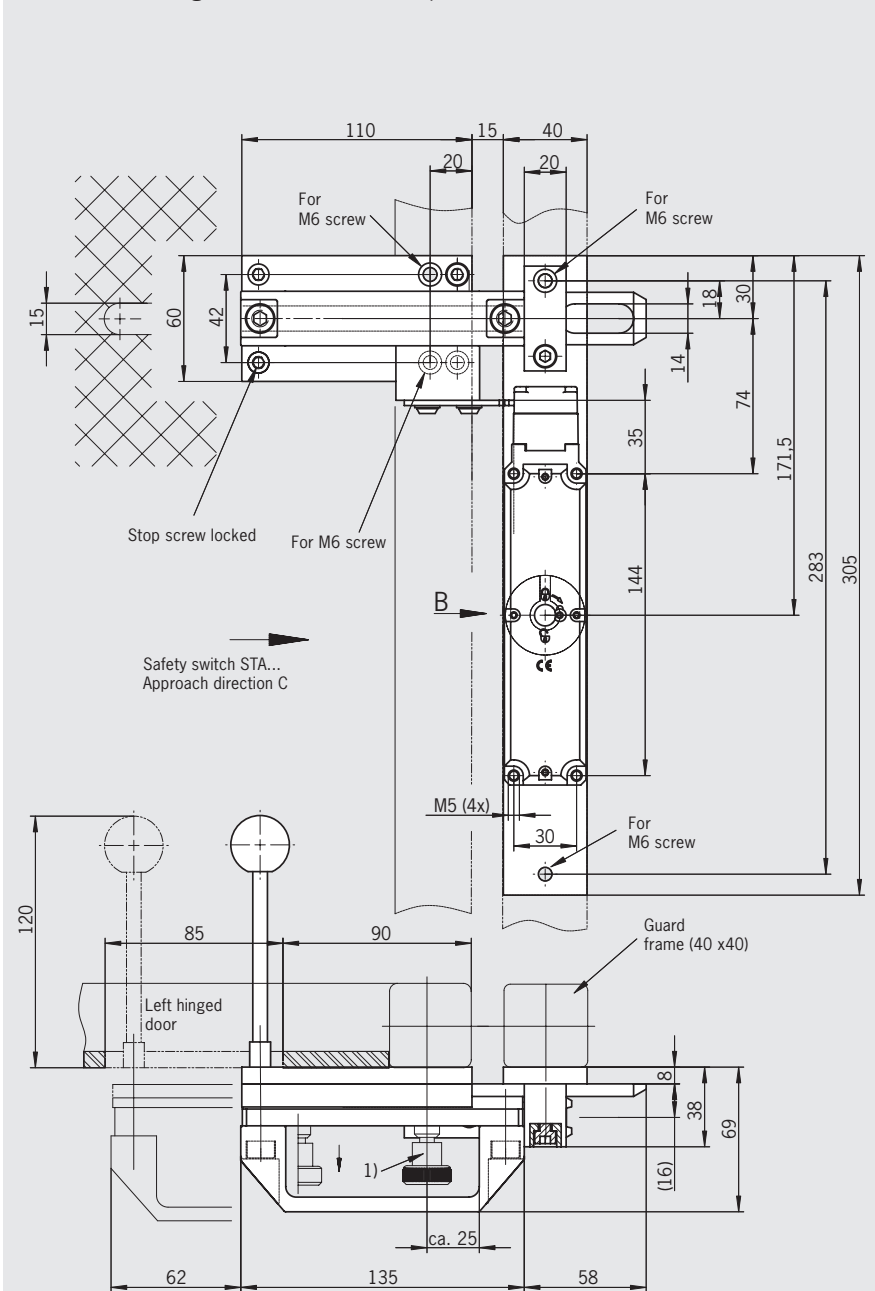
- ▶ Easily fitted to standard aluminum profiles and machine covers by screw connection
- ▶ Distinctive yellow color for easy recognition
- ▶ Robust version for heavy doors
- ▶ No additional door handle necessary
- ▶ Slot on the bolt permits attachment of padlocks

Notes

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

Bolt for safety switches SGA/STA

Dimension drawings (here: shown with escape release)



1) Bolt with detent mechanism (only for bolts S-AF and S-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	096390 Bolt S-AF
Bolt S-CF	Detent knob	For left hinged doors, with escape release	096391 Bolt S-CF
Bolt S-A	without	For right hinged doors, without escape release	096384 Bolt S-A
Bolt S-C	without	For left hinged doors, without escape release	096385 Bolt S-C

Bolts for safety guards for safety switches SGA/STA

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

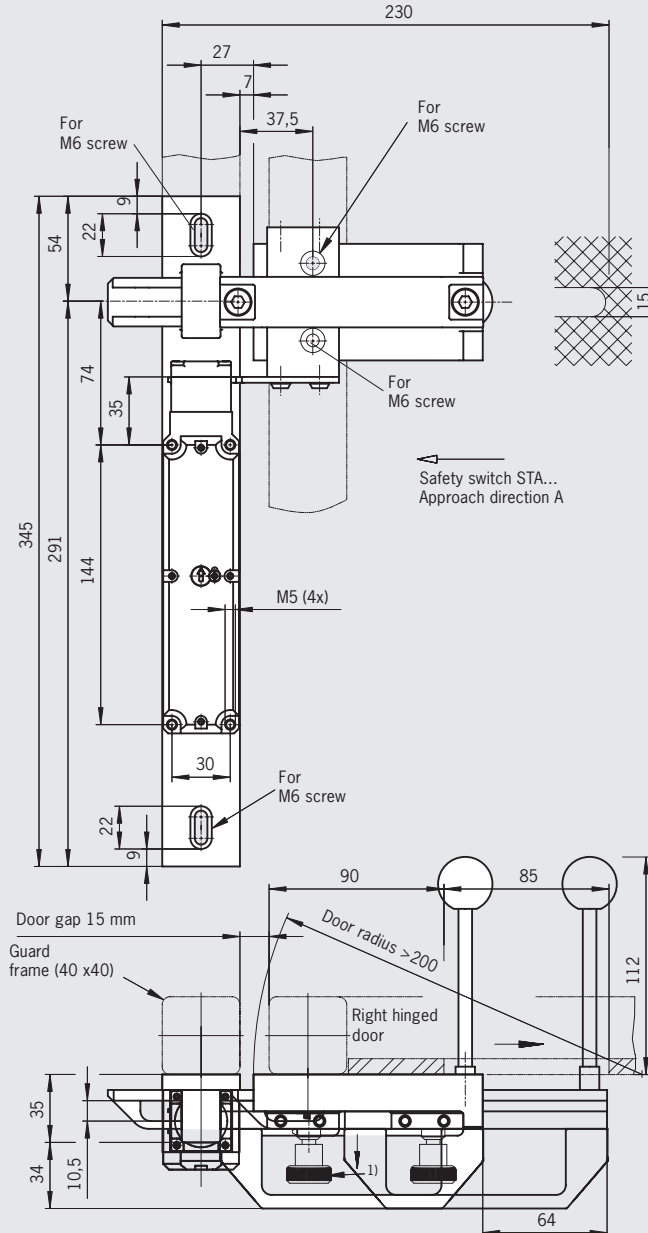
- ▶ Easily fitted to standard aluminum profiles and machine covers by screw connection
- ▶ Distinctive yellow color for easy recognition
- ▶ Robust version for heavy doors
- ▶ No additional door handle necessary
- ▶ Slot on the bolt permits attachment of padlocks

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 SGA/STA

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 STP-GFK	without	For right or left hinged doors, without escape release (also for SGA/STA)	098121 Bolt STP-GFK
Switch bracket TP-GFK		Separate (also for SGA/STA)	096613 Switch bracket TP-GFK

Accessories for bolts

- ▶ Adapter NZ/TZ... for safety switches
NZ.../TZ... for Bosch EcoSafe 45x45
and 30x30
- ▶ Replacement handle for EUCHNER bolts

Adapter NZ/TZ

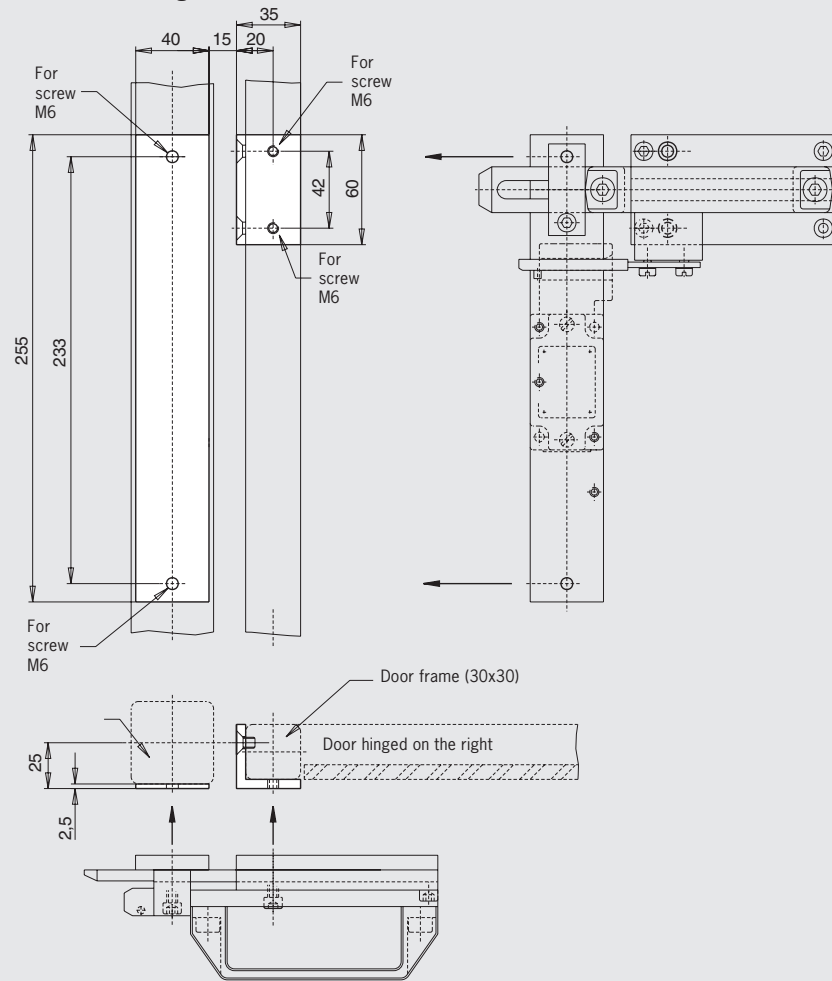
Using the adapter set the **NZ...** and **TZ...** bolts can be fastened to aluminum profiles (Bosch EcoSafe)

The adapter set is only suitable for protection cross-beams 45x45 mm in combination with safety doors 30x30 mm

- ▶ Simple screw mounting
- ▶ Symmetrical design for doors hinged on the right or left

Adapter NZ/TZ...

Dimension drawings

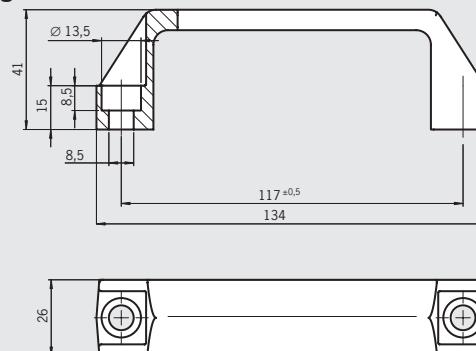


Replacement handle for EUCHNER bolts

- ▶ Material: plastic, reinforced polypropylene (PP)
- ▶ Color: black, mat
- ▶ Temperature resistance up to 100 °C

Replacement handle for EUCHNER bolts

Dimension drawings



Ordering table

Designation	Version	Order No.
Adapter NZ/TZ 45/30	Incl. 4 fastening screws for elbow adapter	079033 Adapter NZ/TZ 45/30
Bolt handle/V5	Packaging unit 5 pieces, screws not included	093500 Bolt handle/V5