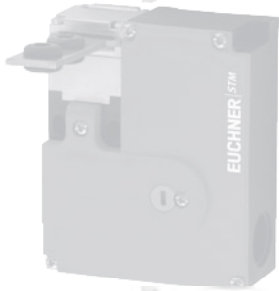


Selection table for safety switches STM with guard locking and guard lock monitoring

Release feature, front			
HE	Mechanical release on the front		
Connection			
M	Thread M20x1.5 for cable glands		
Switching element			
	1 NC \ominus (ÜK) + 2 NC \ominus (SK) or		
	1 NC \ominus (ÜK) + 1 NC \ominus (SK) + 1 NO (SK)		
			
Manual release HE	Connection M	Switching element three contacts	Page
●	●	●	68



Safety switch STM with guard locking and guard lock monitoring

- ▶ Actuating head optionally made of metal or plastic
- ▶ Mechanical release on the front

Cable entry M20 x 1.5



Approach direction



Horizontal and vertical
Can be adjusted in 90° steps

Mechanical release

Is used for releasing the guard locking with the aid of a tool. The mechanical release is sealed with sealing lacquer to prevent tampering.

Solenoid operating voltage

- AC/DC 24 V +10%, -15%
- AC 230 V +10%, -15%

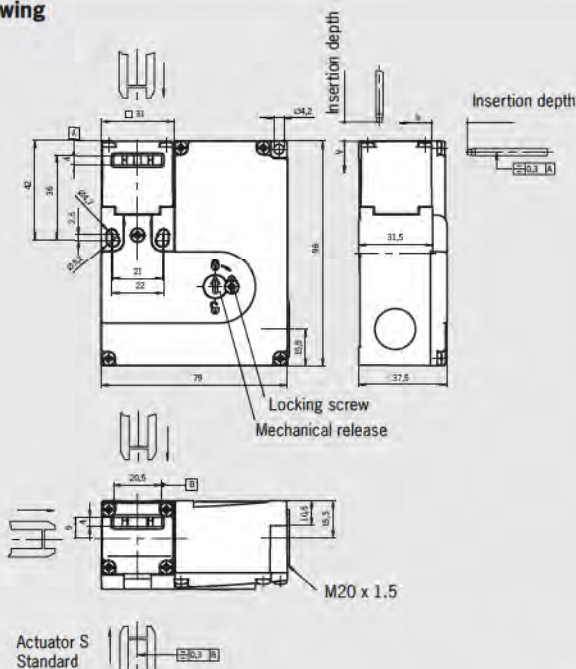
Guard locking types

- STM1** Closed-circuit current principle, guard locking by spring force. Release by applying voltage to the interlocking solenoid.
- STM2** Open-circuit current principle, guard locking by applying voltage to the interlocking solenoid. Release by spring force.

Switching elements

- ÜK** For monitoring the guard locking (built-in solenoid)
Slow-action switching element 1 NC ⊖
- SK** For monitoring the door/actuator position
222 Slow-action switching element
2 NC ⊖
- 242** Slow-action switching element
1 NC ⊖ +1 NO

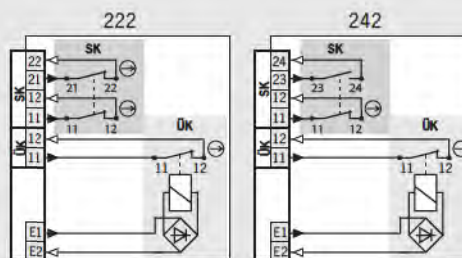
Dimension drawing



Please order actuator separately (see pages 80-82)

For cable glands see page 89

Wiring diagrams Actuator inserted and locked



For switching functions see technical data on page 118

- Solenoid monitoring
- Door monitoring

Ordering table

Series	Connection	Guard locking	Actuating head	Switching element	Solenoid operating voltage		
					AC/DC 24 V	AC 110 V	AC 230 V
STM	Cable entry 1 x M20 x 1.5	1 Mechanical	N Plastic	ÜK: 1 NC ⊖ SK: 222 2 NC ⊖	091 865 STM1N-222B024-M	On request	098 714 STM1N-222B230-M
				ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ + 1 NO	092 031 STM1N-242B024-M	On request	On request
				ÜK: 1 NC ⊖ SK: 222 2 NC ⊖	095 396 STM1A-222B024-M	On request	098 036 STM1A-222B230-M
			A Metal	ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ + 1 NO	095 397 STM1A-242B024-M	On request	On request
				ÜK: 1 NC ⊖ SK: 222 2 NC ⊖	092 048 STM2N-222B024-M	On request	On request
				ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ + 1 NO	092 050 STM2N-242B024-M	On request	On request
		2 Electrical	N Plastic	ÜK: 1 NC ⊖ SK: 222 2 NC ⊖	095 398 STM2A-222B024-M	On request	On request
				ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ + 1 NO	095 399 STM2A-242B024-M	On request	On request
				ÜK: 1 NC ⊖ SK: 222 2 NC ⊖	095 399 STM2A-242B024-M	On request	On request
			A Metal	ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ + 1 NO	095 398 STM2A-222B024-M	On request	On request
				ÜK: 1 NC ⊖ SK: 222 2 NC ⊖	095 399 STM2A-242B024-M	On request	On request
				ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ + 1 NO	095 399 STM2A-242B024-M	On request	On request

Safety switch STM with guard locking and guard lock monitoring



The technical data on switches, switching elements and guard locking apply to all connections. Further technical data are given for the connection selected.

Switch		Value		Unit
Housing material		Reinforced thermoplastic		
Mechanical life		2 x 10 ⁶ operating cycles		
Ambient temperature		- 20 ... + 55		°C
Weight		approx. 0.4		kg
Max. approach speed		20		m/min
Actuating force		35		N
Extraction force (not locked)		30		N
Retention force		20		N
Locking force, max.		Approach direction		
		From top (v)	Side (h)	
STM.A... (metal head)		2000	2000	N
STM.N... (plastic head)		1000	1000	
Locking force F _{Zh} in accordance with test principles GSET-19		Approach direction		
		From top (v)	Side (h)	
STM.A... (metal head)		1500	1500	N
STM.N... (plastic head)		700	700	
Insertion depth (minimum required travel + permissible overtravel)		Actuator S standard		
Approach direction side (h)		24.5 + 5		mm
Approach direction from top (v)		24.5 + 5		mm

Switching element		Value		Unit
Switching principle		Slow-action switching element		
Switching elements		ÜK: 1 NC ⊖ SK: 222 2 NC ⊖	ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ + 1 NO	
Switching current, min., at 24 V		1		mA
Switching voltage, min., at 10 mA		12		V
Contact material		Silver alloy, gold flashed		

Guard locking		Value		Unit
Solenoid operating voltage		AC/DC 24 V +10/-15%		
Connection		Reverse polarity protected, integrated bridge rectifier		
Duty cycle ED		100		%
Power consumption		6		W

Connection, cable entry M20 x 1.5		Value		Unit
Connection		Screw terminal		
Version		M20 x 1.5		
Conductor cross-section max.		0.34 ... 1.5		mm ²
Degree of protection acc. to IEC 60529		IP 67		
Rated insulation voltage U _i		250		V AC/DC
Rated impulse withstand voltage U _{imp}		1.5		kV
Conventional thermal current I _{th}		4		A
Short circuit protection according to IEC 60269-1 (control circuit fuse)		4		A gG
Utilization category to IEC 60947-5-1	AC15	I _e 4 A U _e 230 V		
	DC13	I _e 4 A U _e 24 V		

Switching functions STM

