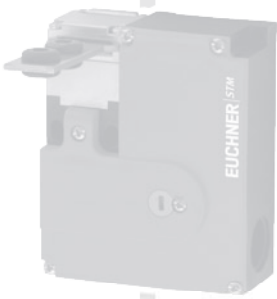


Selection table for safety switches STM with guard locking and guard lock monitoring

Release feature, front			
	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%

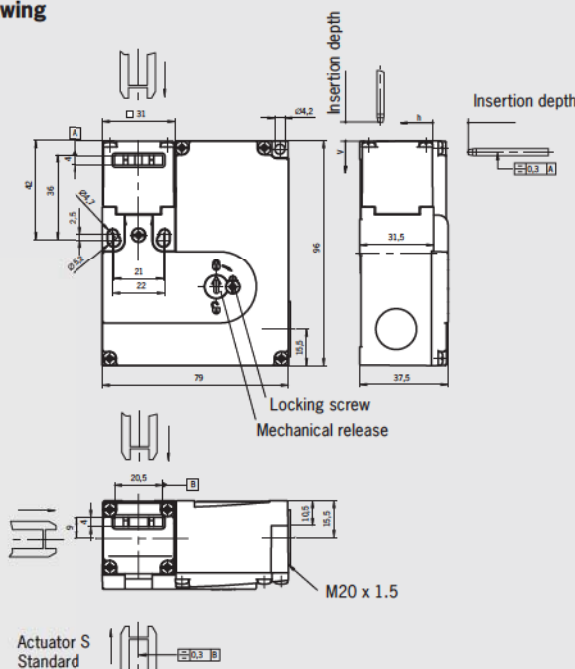
Guard locking types

- 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

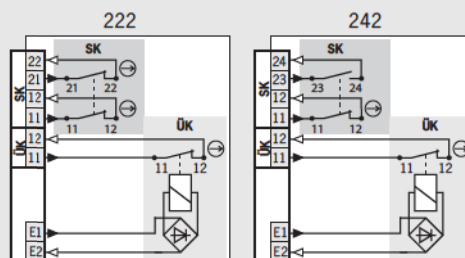
Dimension drawing



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 ⊖			
			A Metal	ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ +1 NO			
				ÜK: 1 NC ⊖ SK: 222 2 NC ⊖			
				ÜK: 1 NC ⊖ SK: 242 1 NC ⊖ +1 NO			


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 		
Parameter	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
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
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 		
Parameter	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 		
Parameter	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 		
Parameter	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 DC13	I _e 4 A U _e 230 V I _e 4 A U _e 24 V

Switching functions STM

