

TQ1-0302G024-5000 (ORDER NO. 103378)

Safety switch TQ

- ▶ Compact housing
- ▶ Auxiliary release from 3 sides
- ▶ Any installation orientation
- ▶ LED indicator
- ▶ Connecting cable 5m



Description

Guard locking types

TQ1 Closed-circuit current principle, guard locking by spring force. Release by applying voltage to the guard locking solenoid.

Switching elements

SK For monitoring the door/actuator position.

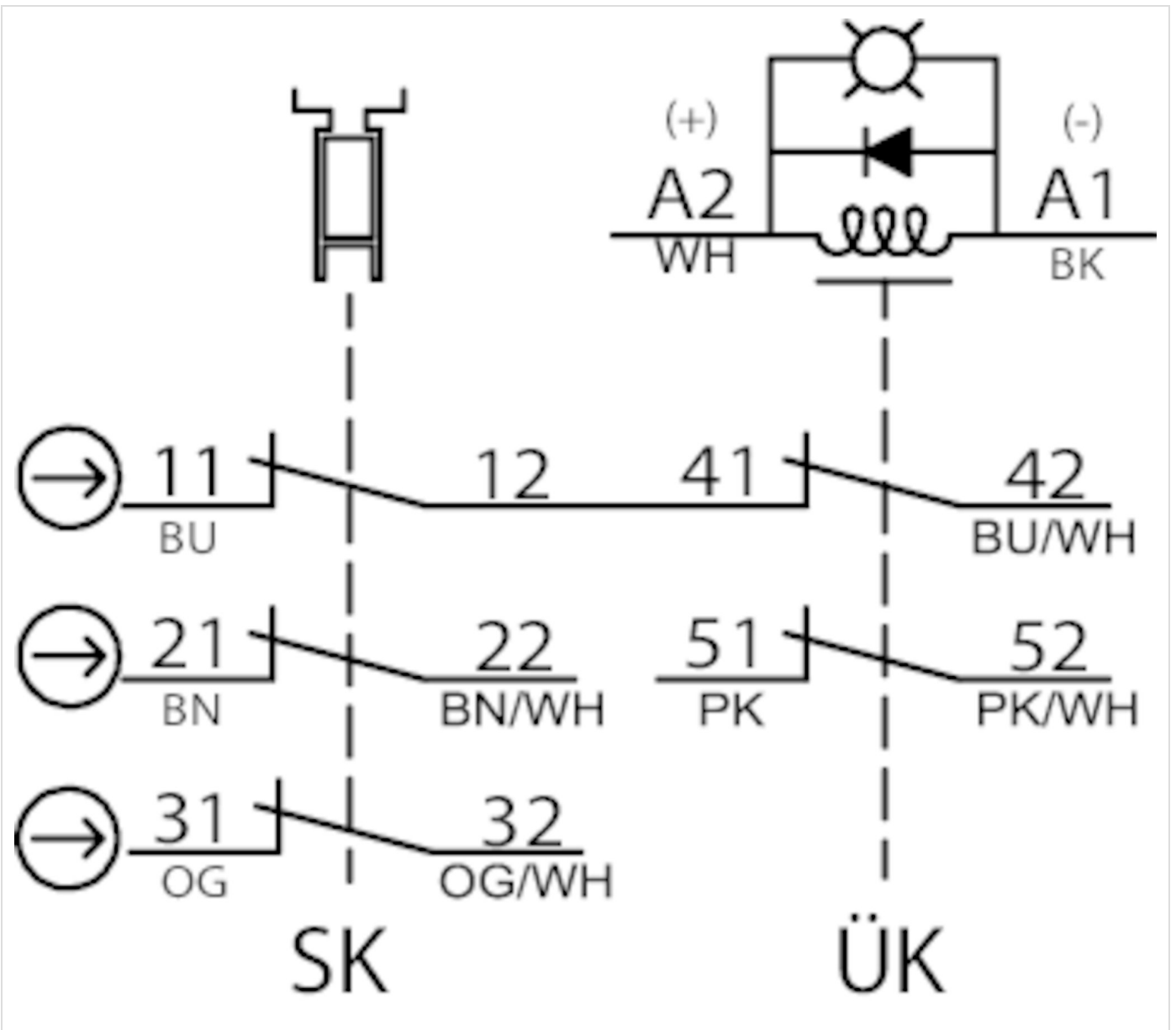
ÜK Monitoring contact for monitoring the guard locking (built-in solenoid).

0302 Slow-action switching contact 3 NC \rightarrow + 2 NC

Auxiliary release

This releases the guard locking after operation with a triangular key (included).

Dimension drawing



Technical data

Approvals



Mechanical values and environment

Housing material	Housing Reinforced thermoplastic
Weight	Net 0,5 kg
Ambient temperature	-20 ... 50 °C
Degree of protection	IP67
Mechanical life	1 x 10 ⁶
Contact material	Silver alloy, gold flashed
Switching principle	Slow-action switching contact
Installation orientation	Any
Number of door position positively driven contacts	3
Number of guard lock monitoring NC contacts	2
Connection	Connection cable 5m
Approach speed	0,05 ... 1 m/min
Actuation frequency	max.900 1/h
Guard locking principle	Closed-circuit current principle
Locking force F _{max}	500 N
Retention force	1 N
Extraction force	10 N
Actuating force	5 N
Insertion depth	26,3 mm

Electrical connection ratings

Thermal rated current I _{th}	2,5 A
Utilization category acc. to EN 60947-5-1	
	AC-15 0.75A 250V
	1A 125V
	DC-13 0.27A 250V
	0.22A 125V
Solenoid operating voltage	
	DC 24 V -15% ... +10%
Short circuit protection according to IEC 60269-1	2A gG
Rated insulation voltage U _i	300 V
Rated impulse withstand voltage U _{imp}	2,5 kV
Switching voltage	
	Min. at 10mA 12 V
Switching current	
	Min. at 24V 1 mA
Connection rating	2,7 W
Solenoid duty cycle	100 %

Reliability values according to EN ISO 13849-1

Monitoring of the position of the safety guard

B10_D2 x 10⁶

Control of the guard locking

Category

Depending on external control of guard locking

Performance Level

Depending on external control of guard locking

PFH_DDepending on external control of guard locking

In combination with Actuator BETAETIGER-Q-GT, RADIUSBETAETIGER-Q-RO, RADIUSBETAETIGER-Q-LU, BETAETIGER-Q-WT

Mechanical values and environment

Overtravel A B C D E

1,9 mm

In combination with Actuator BETAETIGER-Q-WTB

Mechanical values and environment

Overtravel A B C D E

1,3 mm

Accessories**Actuator**

Actuator for safety switches NQ/TQ



103390
BETAETIGER-Q-WTB

- ▶ With rubber bush
- ▶ Minimum door radius 160 mm
- ▶ Maximum locking force 500 N
- ▶ With mounting plate
- ▶ Mounting aid included



103386
BETAETIGER-Q-GT

- ▶ With rubber bush
- ▶ Minimum door radius 160 mm
- ▶ Maximum locking force 500 N
- ▶ Mounting aid included



103389
BETAETIGER-Q-WT

- ▶ With rubber bush
- ▶ Minimum door radius 160 mm
- ▶ Maximum locking force 500 N
- ▶ Mounting aid included

Hinged actuator left/bottom for safety switches NQ/TQ



103388
RADIUSBETAETIGER-Q-LU

- ▶ Minimum door radius 50 mm
- ▶ For doors hinged on left and at bottom
- ▶ Maximum locking force 500 N
- ▶ Mounting aid included

Hinged actuator right/top for safety switches NQ/TQ



103387
RADIUSBETAETIGER-Q-RO

- ▶ Minimum door radius 50 mm
- ▶ For doors hinged on right and at top
- ▶ Maximum locking force 500 N
- ▶ Mounting aid included

Contacts

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