



EXPERT ASSESSMENT

Certificate No.:	G 334-1
Testing Body:	TÜV SÜD Industrie Service GmbH Department New Technologies Gottlieb-Daimler-Str. 7 70794 Filderstadt - Germany
Certificate Holder:	Hans & Jos. Kronenberg GmbH Kurt-Schumacher-Str. 1 51427 Bergisch Gladbach - Germany
Manufacturer	Hans & Jos. Kronenberg GmbH Kurt-Schumacher-Str. 1 51427 Bergisch Gladbach - Germany
Product:	Safety contact with positive operation with tactile contacts for use as lock contact of landing door and car door locking devices or as door switch of lift doors
Type:	DZRK
Basis of examination:	- EN 81-20:2020 - EN 81-50:2020
Test report:	G 334-1 dated 2023-09-05
Outcome:	The product conforms to the requirements of the basis of examination if the requirements of the annex to this expert assessment are kept.
Date of Issue:	2023-09-05
Valid until:	2028-09-04

Mark Dietz

Technical Body LCC



Annex to the Expert Assessment No. G 334-1 of 2023-09-05



1 Scope of application

- 1.1 The safety switch with forced actuation, type DZRK, basically consists of spring-loaded, double-break tactile contacts.
- 1.2 The slight transverse movement of the contacts ensures that they are self-cleaning. The housing of the switch consists of two housing parts. The housing material of the switch consists of insulating material (thermoplastic, self-extinguishing). The clamping screws for the electrical connection are designed with captive, self-lifting clamping plates on the clamping screws.
- 1.3 The two tactile contacts are housed in separate contact chambers. The contact chambers are made of transparent insulating material. The direction of actuation can be varied by rotating the contact chambers. If the insertion opening of the contact chamber is on the same side as the connection chamber, a cover-side actuation variant, type DZRK-D, is obtained. When changing the plunge opening of the contact chamber to the bottom of the housing, a bottom actuation variant, type DZRK-B, is obtained.

Unless otherwise stated, the type designation DZRK is used for both variants in the following.
- 1.4 In addition to the contact clips, the safety switch contains a reed contact for increased manipulation protection.
- 1.5 The electrical connection cables are fed through the cable entry into the connection chamber of the safety switch. Single-core or two-core connection cables including protective sheaths can be inserted into the switch housing through the cable entries.
- 1.6 The housing of the safety switch, type DZRK is designed in protection class IP 20.
- 1.7 The safety switch with forced actuation, type DZRK can be actuated with the following switch bridges:
 - Switch bridge with magnet, type DZM 21; with 21 mm long contact pins; insulated screw-on plate: 70 mm long; longitudinally adjustable by $\pm 3,8$ mm.

2 Conditions

- 2.1 Electrical nominal values of the safety contact
Alternating current: 230 V / 2 A
Direct current: 200 V / 2 A
- 2.2 For identification and information about the fundamental method of construction of the safety contact the
Datasheet "Türschalter DZRK" dated May 2023
with test remark of 2023-09-05, has to be enclosed to this Confirmation about a test assessment.
- 2.3 The creepage distances of the switch of at least 4 mm and the clearances of the switch of at least 3 mm in relation to conductive or metallic components in the surroundings, must be guaranteed by the arrangement of the switch-box and the switch-bridge or by inserting additional insulating shims.

**Annex to the Expert Assessment
No. G 334-1 of 2023-09-05**



3 Remarks

- 3.1 This confirmation about a test assessment was issued according to the following standards:
- EN 81-20:2020, 5.11.2.2
 - EN 81-50:2020, 5.2.2.4
- 3.2 The test results refer only to the test product and to the related certificate concerning the Confirmation about a test assessment.
- 3.3 The Confirmation about a test assessment may be used only in connection with the pertinent Annex.
- 3.4 For legal reasons, this expert assessment does not correspond to an EC type-examination certificate according to Annex I of Directive 2014/33/EU (Lift Directive), but can be used as a decision-making aid.
- 3.5 This certificate does not assess the observance of the requirements with regard to “protection classes provided by enclosures according to EN 60529 (IP-Code) concerning protection against foreign matter (objects) and against water” for electric devices.
- 3.6 The product shall be clearly labelled with the name of the manufacturer and the type specification, to be able to check the conformity of the examined product with the series production.
- 3.7 This test report does not assess the fire behaviour of the safety switch and the switch bridges.
- 3.8 Safety switches are not included in the list of safety components (Annex III of Directive 2014/33/EU). Therefore, an EU-type examination certificate according to Annex IV Section A (EU-type examination for safety components) of Directive 2014/33/EU cannot be issued for them.
- 3.9 This Confirmation about a test assessment is based on the state of the art, which is documented through the current harmonized standards. Changes resp. extensions of these standards or a further development of the state of the art may make a revision of this report necessary.
- 3.10 If new knowledge should occur, the test laboratory reserves the right, to give additional conditions concerning the use of the safety contact, or to modify existing conditions.

dargestellt / shown:
DZRK



dargestellt / shown:
DZM21



Merkmale

- Sicherheitsschalter mit Zwangsbetätigung
- zusätzlicher Reedkontakt (Schutzgaskontakt) für erhöhten Manipulationsschutz
- hohe Kontaktsicherheit durch Selbstreinigung
- Gehäuse aus Thermoplast, selbstverlöschend
- geräuscharme Funktionsweise
- Befestigungsunterlagen aus Metall zur sicheren Befestigung
- nur in Kombination mit Kontaktbrücke DZM21 (mit integriertem Magnet)



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features

- safety switch with positive contact
- additional reed contact (inert gas contact) for increased protection against manipulation
- high contact safety by self-cleaning
- enclosure made of thermoplastic, self-extinguishing
- quiet functioning
- mounting brackets made of metal for secure fixation
- only in combination with contact bridge DZM21 (with integrated magnet)

Bestellangaben / order information codes:

- | | |
|--------|---|
| DZRK-B | Türschalter mit Reedkontakt, bodenseitig betätigt / door switch with reed contact, base side actuated |
| DZM21 | Kontaktbrücke mit Magnet für DZRK / contact bridge with magnet for DZRK |

Technische Daten:

Normen	EN 81-20, EN 81-50, EN 60947-5-1
Schaltleistung:	U _i = 500 V I _{th} = 6 A U _{imp} = 4 kV
Zwangsöffner	AC-15: U _e = 230 V I _e = 2 A DC-13: U _e = 200 V I _e = 2 A
Reedkontakt	120 VA 250 V AC/DC 3 A I _{th} = 3 A
Kurzschlussfestigkeit	T10 A F 16 A
Kontaktwerkstoff	Feinsilber, Reedkontakt aus Ruthenium
Betätigungskraft	Anfangskraft 0,5 N Endkraft 2,0 N
Anschluss	über Schraubklemme max. 2,5 mm ² , unverlierbar
Schutzart	IP20
Umgebungstemperatur	-25 °C bis +70 °C
Einbaulage	beliebig
Gewicht	DZRK-B = 56 g DZM21 = 17 g

technical data:

norms	EN 81-20, EN 81-50, EN 60947-5-1
switching capacity:	U _i = 500 V I _{th} = 6 A U _{imp} = 4 kV
positively driven normally closed contact	AC-15: U _e = 230 V I _e = 2 A DC-13: U _e = 200 V I _e = 2 A
reed contact	120 VA 250 V AC/DC 3 A I _{th} = 3 A
short-circuit capacity	T10 A F 16 A
contact material	fine silver, reed contact made of ruthenium
actuation force	initial force 0.5 N ultimate force 2.0 N
connection	by screw terminal max. 2.5 mm ² , captive
level of protection	IP20
ambient air temperature	-25 °C up to +70 °C
installation position	any
weight	DZRK-B = 56 g DZM21 = 17 g



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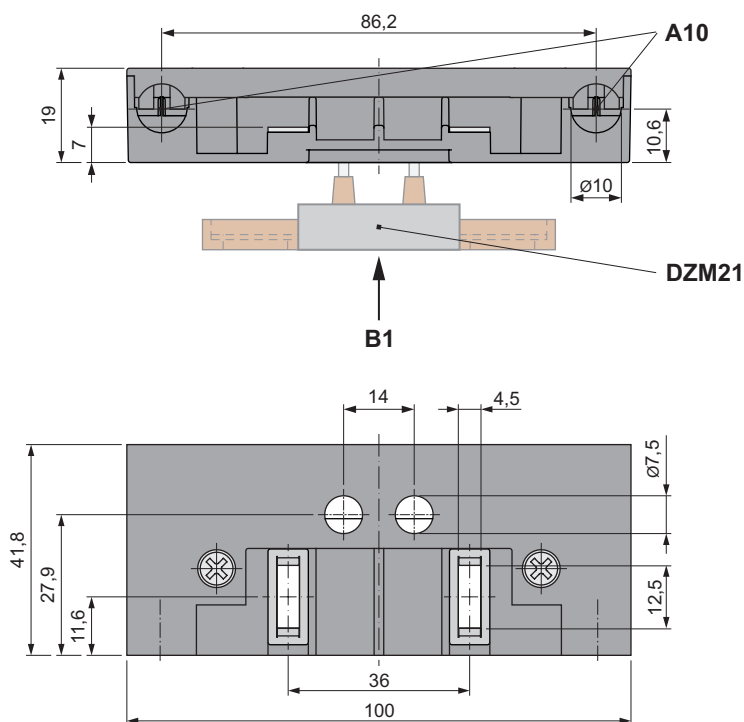
Zubehör / accessories:

DZ-U1	Unterlage, 1 mm dick für DZ18, DZ21, DZM21 / pad, 1 mm thick for DZ18, DZ21, DZM21
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Geräteabmessungen / device dimensions:

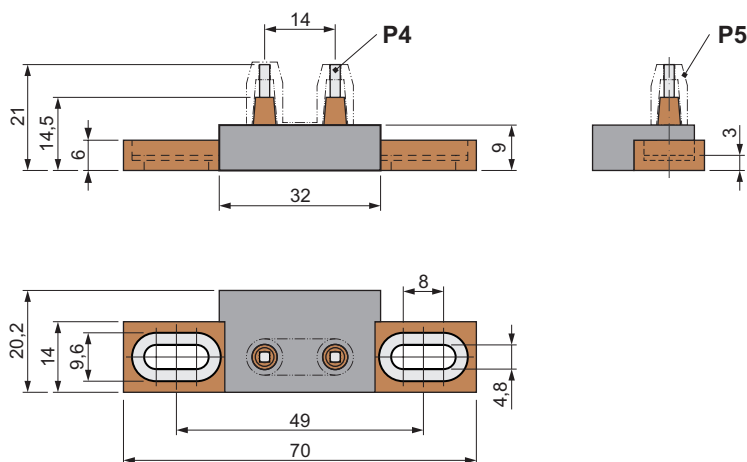
DZRK-B

Türschalter mit Reedkontakt, bodenseitig betätigt / door switch with reed contact, base side actuated



DZM21

Kontaktbrücke mit Magnet / contact bridge with magnet

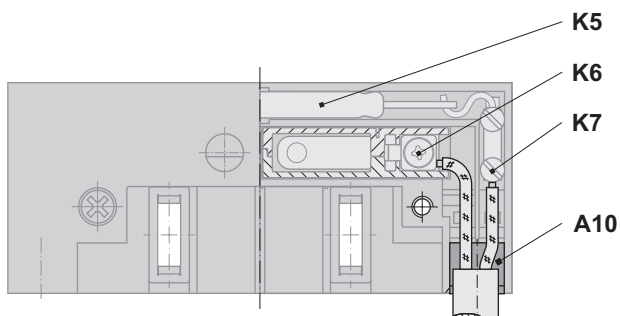


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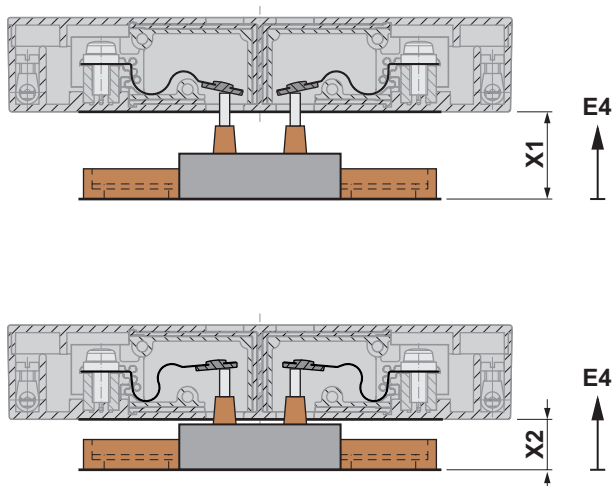
- A10 *Kabeleinführung zweiadrig, max. \varnothing 10 mm (max. 2,5 mm²)
cable entry twin core, max. \varnothing 10 mm (max. 2.5 mm²)*
- B1 *bodenseitig betätigt
base side actuated*
- DZM21 *Kontaktbrücke
contact bridge*
- P4 *Kontaktwerkstoff: Feinsilber
contact material: fine silver*
- P5 *Einstelllehre nach Justage entfernen
remove setting gauge after adjustment*

Kabeleinführung / cable entry:



Schaltweg X / contact travel X:

am Beispiel von DZRK-B mit DZM21 / by the example of DZRK-B with DZM21



05.09.2023

X	Schaltweg (in mm) contact travel (in mm)	DZM21
X1	Kontaktberührung contact touch	17
X _{opt.}	optimaler Durchhub optimal overtravel	12
X2	maximal zulässiger Durchhub maximum permissible overtravel	10

A10 Kabeleinführung zweiadrig,
 max. ø 10 mm (max. 2,5 mm²)
 cable entry twin core,
 max. ø 10 mm (max. 2.5 mm²)

K5 Reedkontakt
 reed contact
 K6 Anschluss Zwangskontakt
 connection positive contact
 K7 Anschluss Reedkontakt
 connection reed contact

E4 Betätigungsrichtung
 actuating direction