



Industrie Service

EXPERT ASSESSMENT

Certificate No.:	G 330-2
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:	DZ73
Basis of examination:	- EN 81-20:2020 - EN 81-50:2020
Test report:	G 330-2 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



1 Scope of application

- 1.1 The safety switch with forced actuation, type DZ73, 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 DZ 73 D, is obtained. When changing the plunge opening of the contact chamber to the bottom of the housing, a bottom actuation variant, type DZ73-B, is obtained.

Unless otherwise stated, the type designation DZ 73 is used for both variants in the following.

- 1.4 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.
- 1.5 The housing of the safety switch, type DZ 73 is designed in protection class IP 20.
- 1.6 The safety switch with forced actuation, type DZ 73 can be actuated with the following switch bridges:
- Switch bridge, type PZ 18; with 18 mm long contact pins; insulated screw-on plate: 40.5 mm long; longitudinally adjustable by ± 2 mm.
 - Switch bridge, type PZ 21; with 21 mm long contact pins; insulated screw-on plate: 40.5 mm long; longitudinally adjustable by ± 2 mm
 - Switch bridge, type DZ 18; with 18 mm long contact pins; insulated screw-on plate: 70 mm long; longitudinally adjustable by ± 4 mm
 - Switch bridge, type DZ 21; with 21 mm long contact pins; insulated screw-on plate: 70 mm long; adjustable by ± 4 mm in longitudinal direction
 - Switch bridge, type PZ 18SO; with 18 mm long contact pins; insulated screw-on plate: 44 mm long; adjustable by ± 2 mm in transverse direction

The height of the contact pin insulation is identical for each of the switch bridges listed above. In the case of the switch bridges with 21 mm long contact pins, the bare contact pin is 3 mm longer than the switch bridges with 18 mm long contact pins.

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 DZ73" 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 330-2 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 IV 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.



Merkmale

- Sicherheitsschalter mit Zwangsbetätigung
- Einsatz zur Überwachung der Schließstellung von Aufzugtüren bzw. als Sperrmittelschalter bei automatischen Türen
- Gehäuse aus Thermoplast, selbstverlöschend
- Betätigungsrichtung kann umgebaut werden
- hohe Kontaktsicherheit durch Selbstreinigung
- geräuscharme Funktionsweise
- Befestigungsunterlagen aus Metall zur sicheren Befestigung

features

- safety switch with positive contact
- use for monitoring the closure position of lift doors resp. as switch for locking mechanism of automatic doors
- enclosure made of thermoplastic, self-extinguishing
- actuation direction can be changed
- high contact safety by self-cleaning
- quiet functioning
- mounting brackets made of metal for secure fixation



05.09.2023

Bestellangaben / order information codes:

- | | |
|---------------|--|
| DZ73-B | Türschalter, bodenseitig betätigt / door switch, base side actuation |
| DZ73-D | Türschalter, deckelseitig betätigt / door switch, cover side actuation |

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
	AC-15: U _e = 230 V I _e = 2 A DC-13: U _e = 200 V I _e = 2 A
Kurzschlussfestigkeit	T10 A F 16 A
Kontaktwerkstoff	Feinsilber
Betätigungskraft	Anfangskraft 0,5 N Endkraft 2,0 N
Anschluss	über Schraubklemme max. 2,5 mm ²
Schutzart	IP20
Umgebungstemperatur	-30 °C bis +80 °C
Einbaulage	beliebig
Gewicht	44 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
	AC-15: U _e = 230 V I _e = 2 A DC-13: U _e = 200 V I _e = 2 A
short-circuit capacity	T10 A F 16 A
contact material	fine silver
actuation force	initial force 0.5 N ultimate force 2.0 N
connection	by screw terminal max. 2.5 mm ²
level of protection	IP20
ambient air temperature	-30 °C up to +80 °C
installation position	any
weight	44 g



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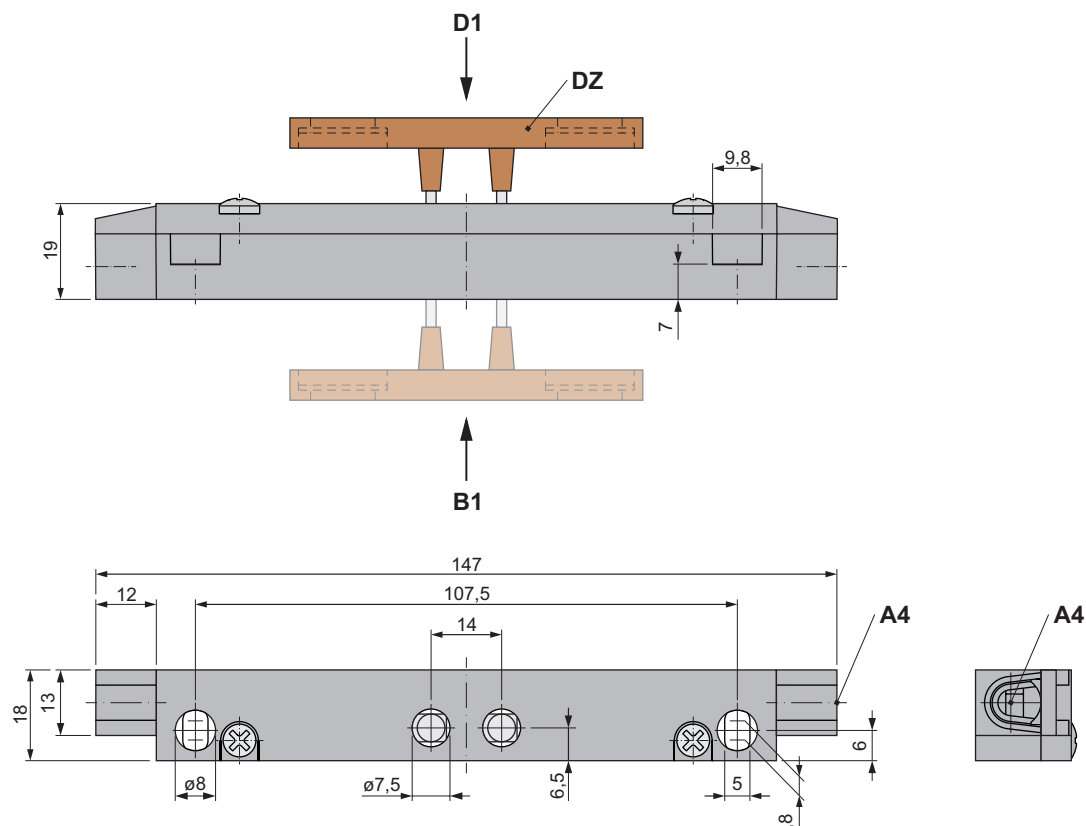
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Zubehör / accessories:

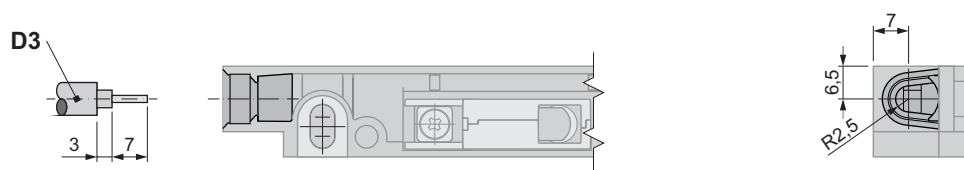
DZ18	Kontaktbrücke, Höhe 18 mm / contact bridge, height 18 mm
DZ21	Kontaktbrücke, Höhe 21 mm / contact bridge, height 21 mm
DZ-U1	Unterlage, 1 mm dick für DZ18, DZ21, DZM21 / pad, 1 mm thick for DZ18, DZ21, DZM21

Geräteabmessungen / device dimensions:

dargestellt / shown:
DZ73-D



Kabeleinführung / cable entry:



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A4 Kabeleinführung zweiadrig,
max. \varnothing 9 mm
cable entry twin core,
max. \varnothing 9 mm

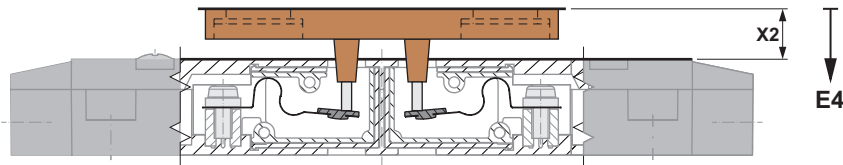
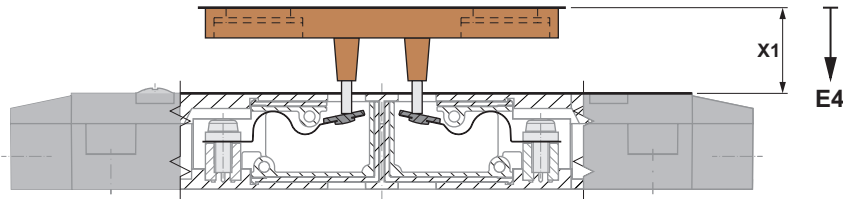
B1 bodenseitig betätigt
base side actuated

D1 deckelseitig betätigt
cover side actuated

D3 Abisolierung der Anschlussleitung
stripping of connection cable

DZ Kontaktbrücke DZ18 oder DZ21
contact bridge DZ18 or DZ21

Schaltweg X / contact travel X:
am Beispiel von DZ73-D mit DZ21 / by the example of DZ73-D with DZ21



X	Schaltweg (in mm) contact travel (in mm)	DZ18	DZ21
X1	Kontaktberührung contact touch	14	17
X _{opt.}	optimaler Durchhub optimal overtravel	9	12
X2	maximal zulässiger Durchhub maximum permissible overtravel	7	10



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05.09.2023

E4 Betätigungsrichtung
actuating direction