



TYPE EXAMINATION CERTIFICATE

According to Lifts Regulations 2016, Schedule 11, Section A

Certificate No.:	UK-DL 808-2
Approved Body:	TUV SUD BABT UNLIMITED Octagon House Concorde Way, Segensworth North Fareham, Hampshire, PO15 5RL, UK Identification No. 0168
Certificate Holder:	Hans & Jos. Kronenberg GmbH Kurt-Schumacher-Str. 1 51427 Bergisch Gladbach - Germany
Manufacturer of the Test Sample: <small>(Manufacturer of Serial Production - see Enclosure)</small>	Hans & Jos. Kronenberg GmbH Kurt-Schumacher-Str. 1 51427 Bergisch Gladbach - Germany
Product:	Locking device with bolt type locking element, with means used to prove the position of a locking element and with motor drive for direct locking action of landing doors
Type:	DLF1MO and DLF2MO
Regulation:	Lifts Regulations 2016
Reference Standards:	EN 81-20:2020 EN 81-50:2020
Test report:	UK-DL Kronenberg dated 2023-10-05
Outcome:	The product conforms to the essential health and safety requirements of the mentioned Regulation if the requirements of the annex to this type examination certificate are kept.
Date of Issue:	2023-10-05


Achim Janocha

TUV SUD BABT UNLIMITED



1 Scope of application

1.1 Locking device of types DLF1MO (for 1 panel doors) and DLF2MO (for 2 panel doors) with bolt type locking element with means used to prove the position of a locking element and with motor drive operation as part of landing door locking device for landing doors. The use for certain door types and the additional parts involved in the locking of landing doors and their monitoring are not part of this type examination. An additional device integrated into the locking device for monitoring the position of the locking means (means used to prove the position) prevents the lift from being set in motion by a single, non-operational intervention when the door is open or unlocked. The bolt type locking element engages directly with a bolt catch (bolt bush) located in the door leaf.

The locking device is alternatively manufactured or used in various types and installation positions and with additional control switches (auxiliary switches).

The locking device type DLF1MO may also be used for 2 panel landing doors, if a direct locking of each door panel is carried out with a door lock type DLF1MO with bolt type locking element with means used to prove the position of a locking element.

Main components of the locking device in the basic version:

- Sliding bolt with bevelled edge (mounted in the interlock housing)
- Locking device switch with non-latching contacts (integrated in the interlock housing)
- Motorised actuation of the locking device
- Gear unit
- Kinematic coupling
- Pulley
- Emergency unlocking device with unlocking triangle or with lever or connection for pull rope

1.2 The locking device may only be used as part of a locking device for landing doors, if the assignment of the locking device to a specific door type and for potentially existing additional parts, which are involved in the locking action and its monitoring, a separate Type Examination certificate according to the lift directive 2014/33/EU exists.

1.3 Nominal values of the electrical safety devices (lock contact):

Alternating current	230 V, 2 A
Direct current	200 V, 2 A

2 Conditions

2.1 The approval drawing no. 06.50.026 dated 2023-07-19 with certification stamp dated 2023-09-11 must be enclosed to this Type Examination certificate and its annex. The written notes and dimension details contained therein must be observed.

2.2 The locking device, type DLF1MO and DLF2MO has to engage overall at least 17,5 mm (or at least 14 mm at the moment of connection of the electric safety device of the locking device) into or behind the part which is to be locked, so that the means which check the position of the locking means used to prove the position of a locking element are forced to act.

2.3 At the locking device shall be a label with the information necessary for the component's identification with the name of the manufacturer, Type Examination sign and details of type.

2.4 The closing position of the landing door must be supervised by a separate electric safety device (door switch). This type examination does not include the test of this electric safety device.

2.5 It must be ensured by the lift control with a two-channel safety circuit, according to EN 81-20, 5.11.2.2 that only the landing door gets unlocked behind which the car is in the unlocking zone.

2.6 In case of a closed shaft there is the risk that testing and maintenance staff becoming trapped. For this reason, there is an option of an emergency unlocking in the shaft (a triangle or optional a lever on the cover side of the locking device).

**Annex to the Type Examination Certificate
No. UK-DL 808-2 of 2023-10-05**



- 2.7 An additional device shall prevent the lift from being moved with door open or unlocked by one single action not according to normal operation (The types DLF1MO and DLF2MO already consists the means used to prove the position of a locking element).
- 2.8 Securing the screwed connections for the fixation of the locking device against automatic loosening.
- 2.9 If the emergency release is located more than 2 m above the floor of the landing or 1.80 m above the pit ladder, an additional emergency release must be provided at a suitable height.
- 2.10 Deviations of the locking device from the approval drawings like
- types of design,
 - mounting positions,
 - actuating devices or
 - additional control switches
- are not allowed.
- 2.11 The Type Examination certificate may only be used in connection with the pertinent annex and the enclosure (list of the authorised manufacturers of series production). This enclosure shall be updated and re-edited following information of the certificate holder.

3 Remarks

- 3.1 This Type Examination was issued on basis of the following designated standards:
- EN 81-20:2020, 5.3.9.1
 - EN 81-50:2020, 5.2
- In case of changes resp. amendments of the above-named standards resp. advancements of the state of the art, a revision of this Type Examination Certificate will be necessary.
- 3.2 Electrical safety devices for monitoring the closing position of the landing door (door switch) in a different arrangement or design than in the data sheet according to point 2.1 of this annex may be used if they meet the requirements of the relevant regulations.
- 3.3 The test results refer only to the safety component "locking device for landing doors" and the associated type examination.
- 3.4 This Type examination does not cover the assessment of these and other measures against the drawing in of children's hands for sliding landing doors with glass panels and the required gaps between the door panels and frames.
- 3.5 The measures and their impact on the limitation of the closing and moving force of the horizontal sliding landing doors are not part of the Type examination of the locking device.
- 3.6 This Type Examination certificate does not take into account compliance with to the conditions of the IP-protection class for electrical equipment according EN 60529.

**Enclosure to the Type Examination Certificate
No. UK-DL 808-2 of 2023-10-05**



Authorised Manufacturer of Serial Production – Production Sites (valid from: 2023-10-05):

Company Hans & Jos. Kronenberg GmbH
Address Kurt-Schumacher-Str. 1
51427 Bergisch Gladbach - Germany

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Bestellangaben / order information codes:**Grundgerät ohne Fehlschließesicherung / basic device without faulty closure device**

DL1MO	Betätigung mit Elektromotor für einflügelige Türen actuation with electric motor for single-leaf doors
DL2MO	Betätigung mit Elektromotor für zweiflügelige Türen actuation with electric motor for double-leaf doors

Grundgerät mit Fehlschließesicherung / basic device with faulty closure device

DLF1MO	Betätigung mit Elektromotor für einflügelige Türen actuation with electric motor for single-leaf doors
DLF2MO	Betätigung mit Elektromotor für zweiflügelige Türen actuation with electric motor for double-leaf doors

Ausführung / operating direction

-L	Linksausführung / left-hand operation
-R	Rechtsausführung / right-hand operation

Schutzart und Gebrauchslage / level of protection and customary position

ohne Angabe without specification	IP40
-W	IP54 (horizontale Gebrauchslage / horizontal customary position)
-WV	IP54 (vertikale Gebrauchslage / vertical customary position)

Bolzenlänge / length of latch bolt

X...	Maß zwischen Türverschluss und Türkante ($X \geq 5$ mm) dimension between door interlock and door edge ($X \geq 5$ mm)
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Anschrägung des Riegelbolzens / bevel of latch bolt

ohne Angabe without specification	Anschrägung für Bolzen ohne Fehlschließesicherung $45^\circ \times 16$ mm und für Bolzen mit Fehlschließesicherung $35^\circ \times 5$ mm bevel for latch bolt without faulty closure device $45^\circ \times 16$ mm and for latch bolt with faulty closure device $35^\circ \times 5$ mm
(ANS0)	keine Anschrägung / without bevel
(ANS...)	Sonderanschragung / special bevel

Position der Anschragung / position of the bevel

(u)	bodenseitig (unten) / base side (below)
(o)	deckelseitig (oben) / cover side (above)
(i)	innen / inside
(a)	außen / outside
(i+a)	innen und außen / inside and outside

Zulassungsvermerk / certificate attestation

11. SEP. 2023

**GEPRÜFT / APPROVED**

TÜV SÜD Industrie Service GmbH
 Prüflaboratorium für Produkte der Fördertechnik
 Westendstraße 199
 80686 München
 Sachverständige(r) / Expert

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Technische Änderungen vorbehalten
 subject to technical alterations

Bestellangaben / order information codes:**Notentriegelung / emergency release**

- | | |
|------|--|
| .1 | bodenseitig und deckelseitig / base side and cover side |
| .5 | extern über Seilzug oder Handbetätigung / external by cable pull or manual operation |
| .14 | extern über Bowdenzug / external by bowden cable |
| .14S | extern über Bowdenzug, Sonderausführung / external by bowden cable, special version |

Externer Türschalter auf Anbauplatte / external door switch on attached mounting plate

- | | |
|--------------------------------------|--|
| ohne Angabe
without specification | kein Türschalter
no door switch |
| .60 | bodenseitig betätigt / actuated from the base side |
| .70 | deckelseitig betätigt / actuated from the cover side |

Hilfsschalter / auxiliary switch

- | | |
|--------------------------------------|--|
| ohne Angabe
without specification | kein Hilfsschalter
no auxiliary switch |
| .90/01 | 1 Kontakt bei entriegelter Tür geschlossen / 1 contact at unlocked door closed |
| .90/10 | 1 Kontakt bei entriegelter Tür offen / 1 contact at unlocked door open |

Überwachung der Endposition / monitoring of the end position

- | | |
|--------------------------------------|--|
| ohne Angabe
without specification | keine Überwachung
no monitoring |
| .P | Sensor zur Überwachung der Endposition / sensor for monitoring of the end position |

Optionen und Sonderausführungen / options and special versions

- | | |
|-------|---|
| .-30° | vergrößertes Lagerspiel und Schmierstoffe für -30 °C
enlarged bearing clearance and lubricants for temperatures up to -30 °C |
| -CHR | Riegelbolzen verchromt (Standard bei IP54) / latch bolt chrome-plated (standard at IP54) |
| -V2A | Riegelbolzen aus Edelstahl / latch bolt made of stainless steel |

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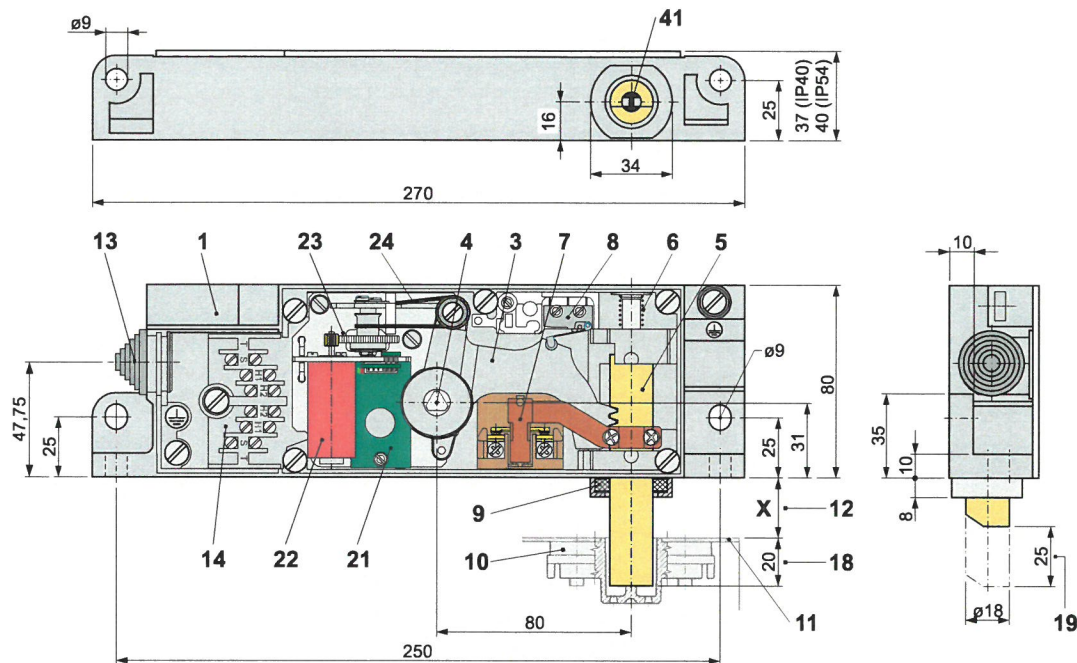
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Geräteabmessungen und Teilebezeichnungen DL(F)1MO
device dimensions and parts description DL(F)1MO:



- | | |
|---|--|
| 1 Gehäuse | 1 housing |
| 3 Zahnhebel | 3 tooth lever |
| 4 Zahnhebelachse mit Dreikant
(boden- und deckelseitig) | 4 tooth lever axis with triangle
(base and cover side) |
| 5 Riegelbolzen (Sperrmittel) | 5 latch bolt (locking mechanism) |
| 6 Rückdruckfeder | 6 return spring |
| 7 Sperrmittelschalter | 7 switch for locking mechanism |
| 8 Hilfsschalter (optional) | 8 auxiliary switch (as option) |
| 9 geölter Filzring mit Halter (ab $X \geq 10$ mm) | 9 oiled felt ring with holder (from $X \geq 10$) |
| 10 Riegelbüchse (entfällt bei DL1MO) | 10 latch plate (does not apply at DL1MO) |
| 11 Türblatt | 11 door leaf |
| 12 X-Maß nach Kundenvorgabe | 12 X-dimension according to customer specification |
| 13 Kabeleinführung | 13 cable entry |
| 14 Anschlussklemmen | 14 connecting terminals |
| 18 Eintauchtiefe des Riegelbolzens in
die Riegelbüchse (Nennmaß) | 18 immersion depth of the latch bolt
into the latch plate (nominal dimension) |
| 19 Bolzenhub | 19 bolt stroke |
| 21 Motorelektronik | 21 motor electronics |
| 22 Elektromotor | 22 electrical motor |
| 23 Getriebe | 23 gear |
| 24 Zugseil | 24 pull rope |
| 41 Fehlschließesicherung (entfällt bei DL1MO) | 41 faulty closure device (does not apply at DL1MO) |

Zulassungsvermerk / certificate attestation



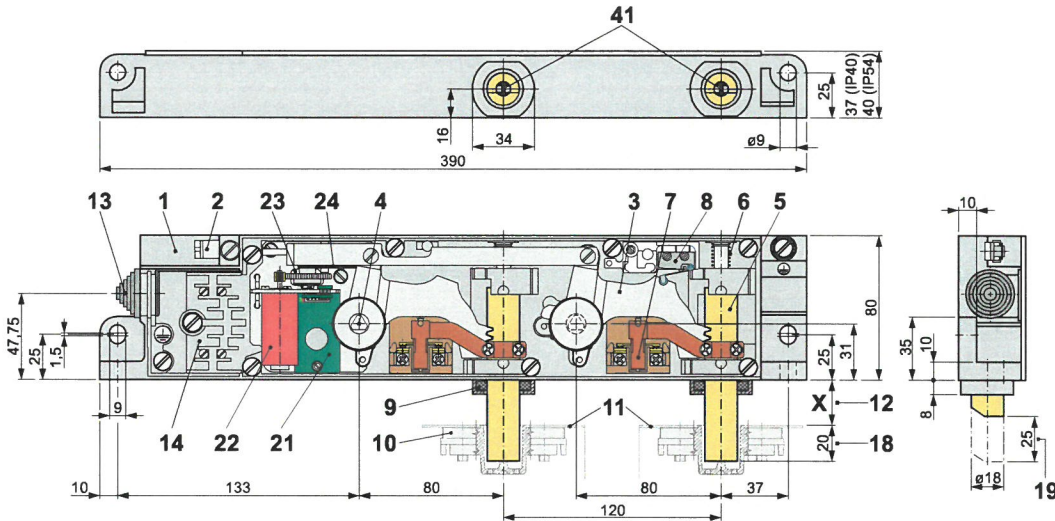
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Geräteabmessungen und Teilebezeichnungen DL(F)2MO
device dimensions and parts description DL(F)2MO:



- | | |
|---|--|
| 1 Gehäuse | 1 housing |
| 2 Zugstange | 2 pull rod |
| 3 Zahnhebel | 3 tooth lever |
| 4 Zahnhebelachse mit Dreikant
(boden- und deckelseitig) | 4 tooth lever axis with triangle
(base or cover side) |
| 5 Riegelbolzen (Sperrmittel) | 5 latch bolt (locking mechanism) |
| 6 Rückdruckfeder | 6 return spring |
| 7 Sperrmittelschalter | 7 switch for locking mechanism |
| 8 Hilfsschalter (optional) | 8 auxiliary switch (as option) |
| 9 geölter Filzring mit Halter (ab $X \geq 10$ mm) | 9 oiled felt ring with holder (from $X \geq 10$ mm) |
| 10 Riegelbüchse (entfällt bei DL2) | 10 latch plate (does not apply at DL2) |
| 11 Türblatt / Türkante | 11 door leaf / door edge |
| 12 X-Maß nach Kundenvorgabe | 12 X-dimension according to customer specification |
| 13 Kabeleinführung | 13 cable entry |
| 14 Anschlussklemmen | 14 connecting terminals |
| 18 Eintauchtiefe des Riegelbolzens in
die Riegelbüchse (Nennmaß) | 18 immersion depth of the latch bolt
into the latch plate (nominal dimension) |
| 19 Bolzenhub | 19 bolt stroke |
| 21 Motorelektronik | 21 motor electronics |
| 22 Elektromotor | 22 electrical motor |
| 23 Getriebe | 23 gear |
| 24 Zugseil | 24 pull rope |
| 41 Fehlschließsicherung (entfällt bei DL2) | 41 faulty closure device (does not apply at DL2) |

Erstellt am / created on: 19.07.2023 / H. Klaus

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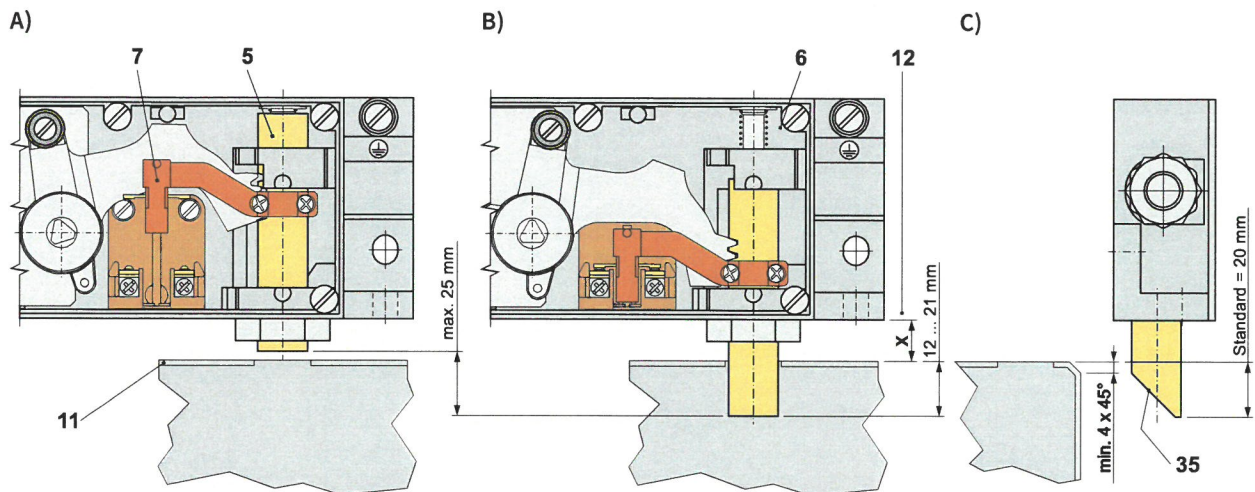
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Arbeitsweise ohne Fehlschließesicherung
method of operation without faulty closure device:



A) Öffnungsstellung / open position:

Beim Anlegen der Betriebsspannung an die Anschlussklemmen der Elektronik [21] wird der Riegelbolzen [5] von dem Motor [22] bzw. Elektromagnet [25] über weitere mechanische Komponenten [23, 24, 3] bzw. [26, 2, 3] angezogen. Der Sperrmittelschalter [7] wird dabei zwangsgeführt geöffnet, die Druckfeder [6] wird gespannt. In der Endlage wird die Bewegung automatisch gestoppt. Solange die Betriebsspannung anliegt, wird der Riegelbolzen [5] in dieser Position gehalten.

When applying the supply voltage to the connecting terminals of the motor electronics [21] the latch bolt [5] is attracted by the motor [22] resp. electro magnet [25] via further mechanical components [23, 24, 3] resp. [26, 2, 3]. The switch for locking means [7] is thereby positively driven open, the return spring [6] is tightened. In the end position the motor is stopped automatically. As long as the supply voltage applies, the latch bolt [5] remains in this position.

B) Schließstellung / close position:

Nach Abschalten der Betriebsspannung wird der Riegelbolzen [5] von der Druckfeder [6] in die Bohrung des Türblattes [11] bewegt. Der Sperrmittelschalter [7] wird geschlossen. Die Eintauchtiefe des Riegelbolzens [5] in die Bohrung des Türblattes [11] muss mindestens 8 mm betragen.

After switching off the supply voltage the latch bolt [5] is moved into the borehole of the door leaf [11] by the return spring [6]. The contact for locking means [7] is closed. The immersion depth of the latch bolt [5] into the borehole of the door leaf [11] must be at least 8 mm.

C) Zuschlagbarkeit / closing ability:

Die Standard Eintauchtiefe beträgt 20 mm. Zur Gewährleistung der Zuschlagbarkeit bei 20 mm Eintauchtiefe und der Standardanschragung 45° x 16 mm [35] muss die Türkante [11] eine Schräge von min. 4 mm aufweisen. Alternativ kann die Eintauchtiefe durch die Verwendung einer Türverriegelung mit reduziertem X-Maß [12] verringert werden, um so die Zuschlagbarkeit sicherzustellen.

The standard immersion depth is 20 mm. To ensure the closing ability at 20 mm immersion depth and the standard bevel 45° x 16 mm [35] the door edge [11] must have a minimum bevel of 4 mm. Alternatively the immersion depth can be minimised by using a door interlock with reduced X-dimension [12] to thus ensure the closing ability.

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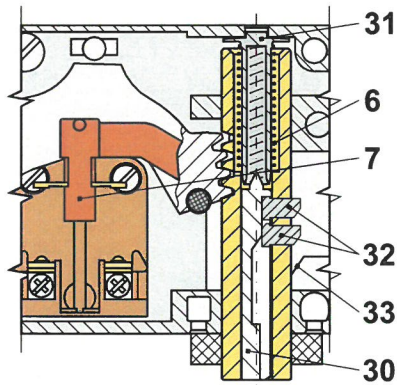
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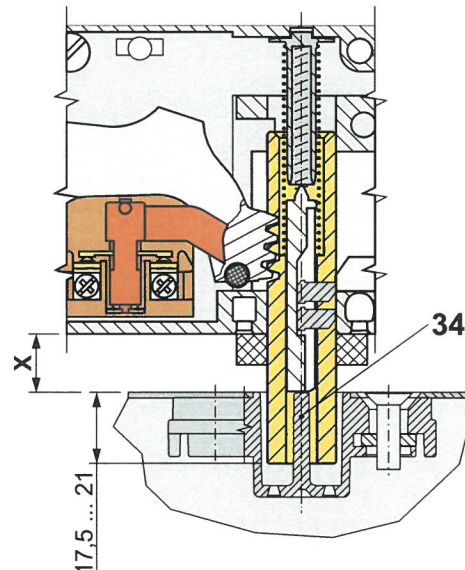
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Arbeitsweise mit Fehlschließsicherung
method of operation with faulty closure device:

A)



B)

**A) Öffnungsstellung / open position:**

Beim Anlegen der Betriebsspannung an die Anschlussklemmen der Elektronik [21] wird der Riegelbolzen [5] von dem Motor [22] bzw. Elektromagnet [25] über weitere mechanische Komponenten [23, 24, 3] bzw. [26, 2, 3] angezogen. Der Sperrmittelschalter [7] wird dabei zwangsgeführt geöffnet, die Druckfeder [6] wird gespannt. Der Sperrschieber [30] bewegt die beiden Sperrstifte [32] durch die Federführung [31] zwangsweise in die Position der Sperrbereitschaft. In der Endlage wird die Bewegung automatisch gestoppt. Solange die Betriebsspannung anliegt, wird der Riegelbolzen [5] in dieser Position gehalten.

When applying the supply voltage to the connecting terminals of the motor electronics [21] the latch bolt [5] is attracted by the motor [22] resp. electro magnet [25] via further mechanical components [23, 24, 3] resp. [26, 2, 3]. The switch for locking means [7] is thereby positively driven open, the return spring [6] is tightened. The stop valve [30] moves the two locking pins [32] through the spring guide [31] positively into the position of locking readiness. In the end position the movement is stopped automatically. As long as the supply voltage applies, the latch bolt [5] remains in this position.

B) Schließstellung / close position:

Nach Abschalten der Betriebsspannung wird der Riegelbolzen [5] von der Druckfeder [6] in die Riegelbüchse [10] bewegt. Der Sperrschieber [30] wird durch den Fehlschließstift [34] der Riegelbüchse [10] angehalten. Die beiden Sperrstifte [32] können durch eine Anchrägung [33] im Gehäuse [1] in den Riegelbolzen [5] eintauchen. Der Sperrmittelschalter [7] wird geschlossen. Die Eintauchtiefe des Riegelbolzens [5] in die Riegelbüchse [10] muss mindestens 17,5 mm betragen.

After switching off the supply voltage the latch bolt [5] is moved into the latch plate [10] by the return spring [6]. The stop valve [30] is stopped by the faulty closure pin [34] of the latch plate [10]. The two locking pins [32] can plunge into the latch bolt [5] through a bevel [33] in the housing [1]. The contact for locking means [7] is closed. The immersion depth of the latch bolt [5] into the latch plate [10] must be at least 17.5 mm.

Zulassungsvermerk / certificate attestation

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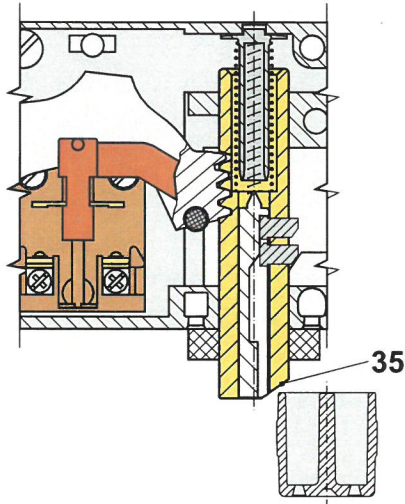


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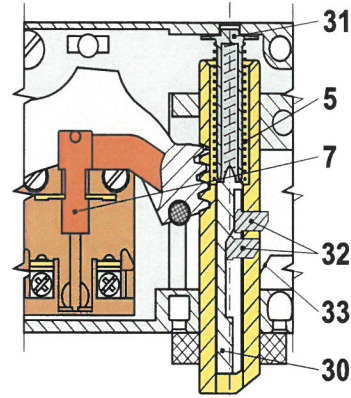
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Arbeitsweise mit Fehlschließsicherung
method of operation with faulty closure device:

C)



D)



C) Fehlschließstellung / faulty closure position:

Wird die Betriebsspannung abgeschaltet, obwohl die Schachttür [11] nicht geschlossen ist (gestörter Betriebsfall), wird die Bewegung des Riegelbolzens [5] durch das Zusammenwirken von Sperrschieber [30], Sperrstiften [32] und Anchrägung [33] im Gehäuse [1] begrenzt. Der Sperrmittelschalter [7] bleibt geöffnet. Durch die Anchrägung [35] des Riegelbolzens [5] kann die Schachttür normal geschlossen werden. Der Riegelbolzen [5] der Türverriegelung wird dann die geschlossene Position einnehmen.

If the supply voltage is switched off, although the landing door [11] is not closed (faulty operation), the movement of the latch bolt [5] will be limited by the interaction of the stop valve [30], locking pins [32] and bevel [33] in the housing [1]. The contact for locking means [7] remains opened. Due to the bevel [35] of the latch bolt [5] the landing door can be closed normally. The latch bolt [5] of the door interlock will then be in close position.

D) Zwangsläufige Sperrbereitschaft / positive locking readiness:

Durch das Zusammenwirken der Federführung [31], des Sperrschiebers [30] und der Öffnungsbewegung des Riegelbolzens [5] werden die beiden Sperrstifte [32] zwangsläufig aus dem Riegelbolzen heraus bewegt. Sie befinden sich dort in der Position der Sperrbereitschaft.

By the interplay of the spring guide [31], the stop valve [30] and the opening movement of the latch bolt [5] the two locking pins [32] are positively moved out of the latch bolt. They are in the position of the locking readiness.

Zulassungsvermerk / certificate attestation

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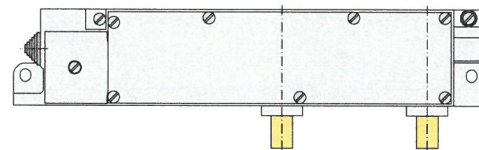
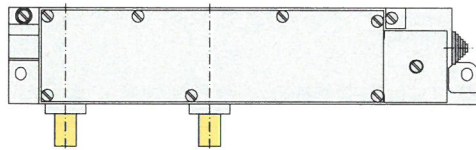
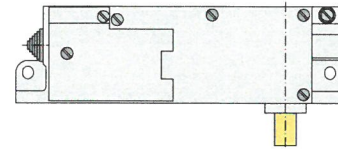
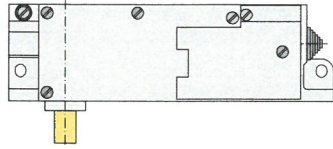
Ausführungen / operating direction:

- L

linke Ausführung / left version

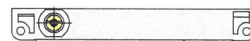
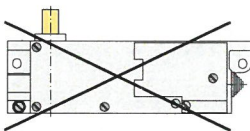
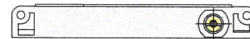
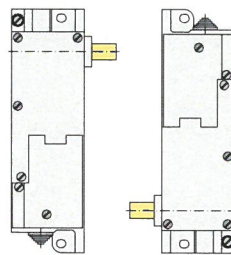
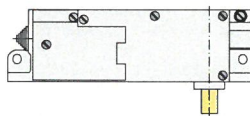
- R

rechte Ausführung / right version

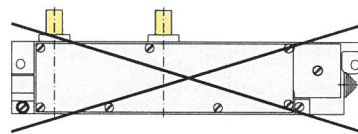
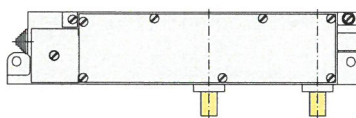


Gebrauchslagen / customary positions:

DL(F)1MO



DL(F)2MO



Zulassungsvermerk / certificate attestation

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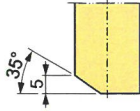


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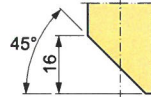
Technische Änderungen vorbehalten
subject to technical alterations

Anschrägungen (Auswahl) / bevels (selection):

DLF1MO, DLF2MO
Standard



DL1MO, DL2MO
Standard

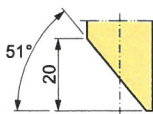


keine / without
ANS0

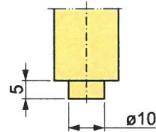


DL1MO, DL2MO
Sonderanschrägungen / special bevels

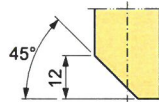
ANS1



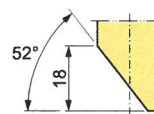
ANS2



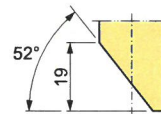
ANS4



ANS6

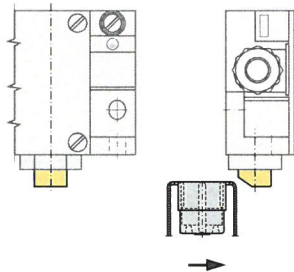


ANS7

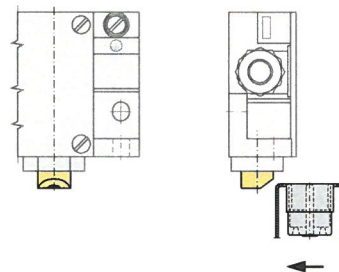


Position der Anschrägungen / position of the bevels:

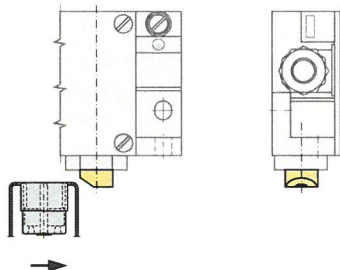
(u)
bodenseitig (unten) / base side (below)



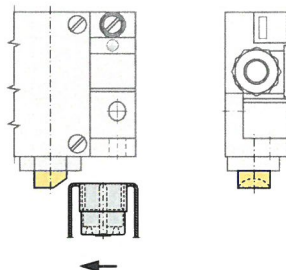
(o)
deckelseitig (oben) / cover side (above)



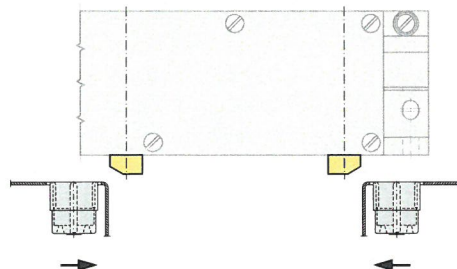
(i)
innen / inside



(a)
aussen / outside



(i+a)
innen und außen / inside and outside



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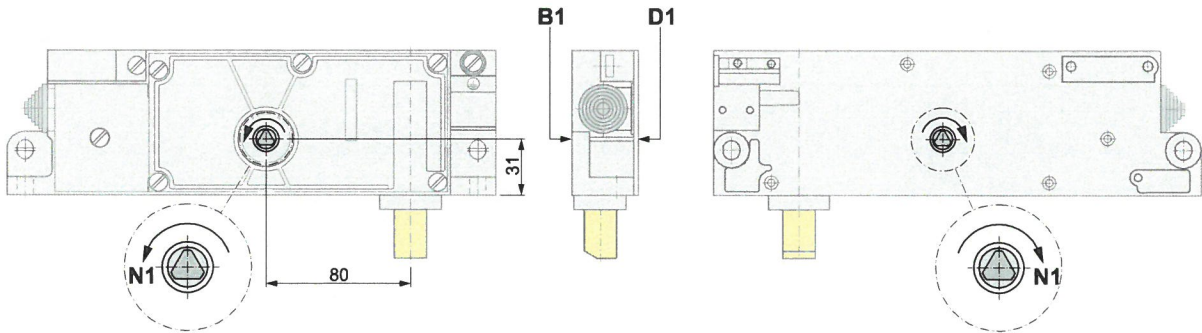
Handwritten signature

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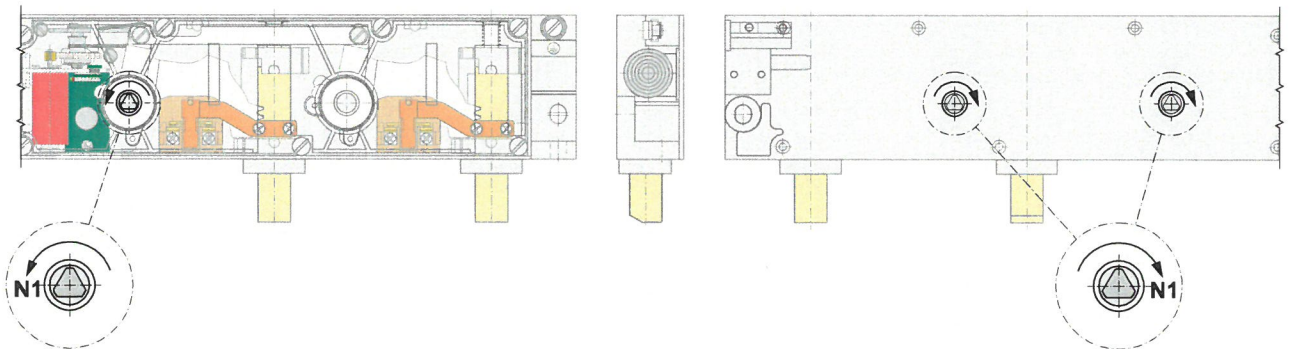
Notentriegelung / emergency release:

.1

DL(F)1MO



DL(F)2MO



B1 bodenseitig (stets vorhanden)
base side (always existing)

D1 deckelseitig zusätzlich
cover side additionally

N1 Entriegelungsrichtung Notentriegelung
unlocking direction emergency release

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Zulassungsvermerk / certificate attestation

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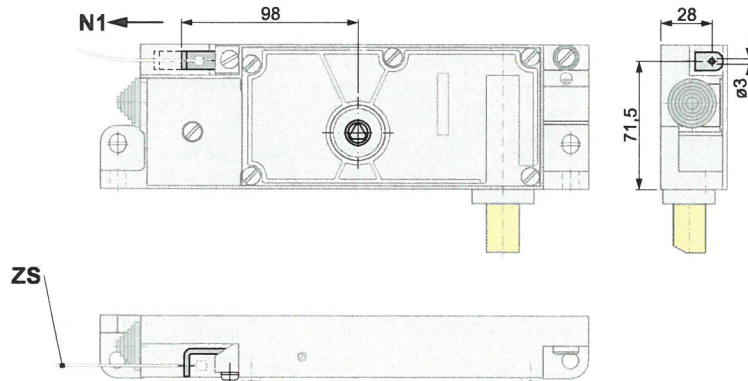


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Notentriegelung / emergency release:

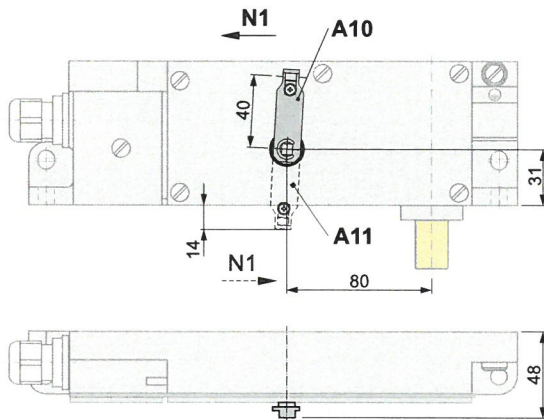
.5

bei Schutzart IP40 / at level of protection IP40



.5

bei Schutzart IP54 / at level of protection IP54



A10 Hebel / lever

A11 zum Ändern der Entriegelungsrichtung
Hebel umbauen, Abmessungen beachten
convert the lever to change the unlocking
direction, please note the dimensions

N1 Entriegelungsrichtung Notentriegelung
unlocking direction emergency release

ZS Zugseil ZS-... (Zubehör)
pull rope ZS-... (accessories)

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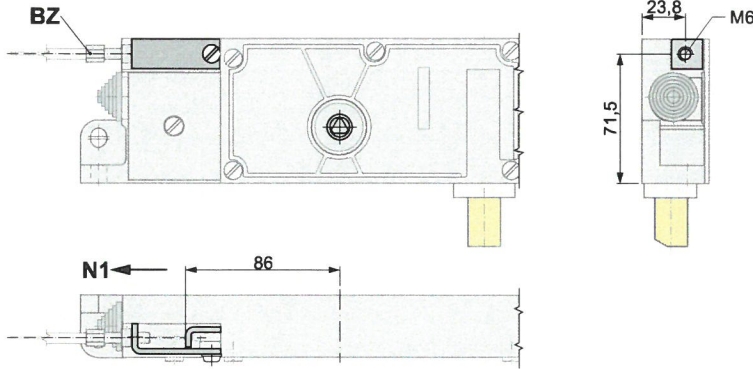
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Notentriegelung / emergency release:

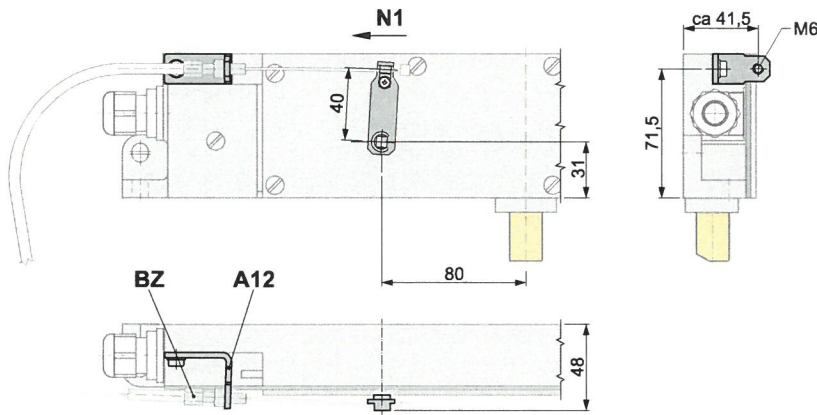
.14

bei Schutzart IP40 / at level of protection IP40



.14

bei Schutzart IP54 / at level of protection IP54



A12 Aufnahmewinkel für Bowdenzug
support angle for bowden cable

BZ Bowdenzug BZ-... (Zubehör)
bowden cable BZ-... (accessories)

N1 Entriegelungsrichtung Notentriegelung
unlocking direction emergency release

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Zulassungsvermerk / certificate attestation



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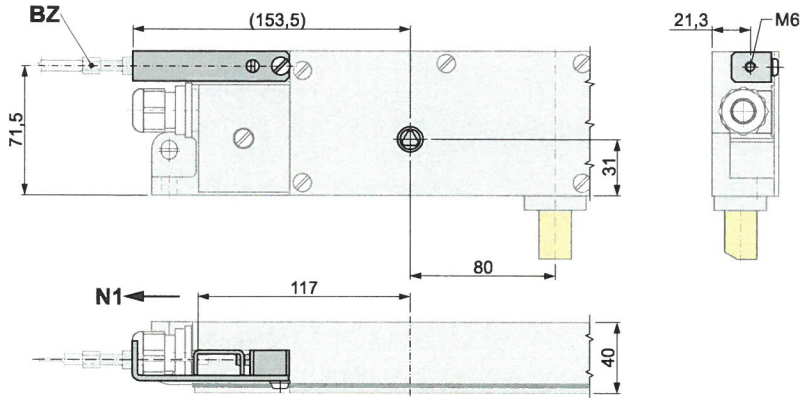
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pl

Notentriegelung / emergency release:

.14S

bei Schutzart IP54 / at level of protection IP54



BZ Bowdenzug BZ-... (Zubehör)
bowden cable BZ-... (accessories)

N1 Entriegelungsrichtung Notentriegelung
unlocking direction emergency release

Zulassungsvermerk / certificate attestation

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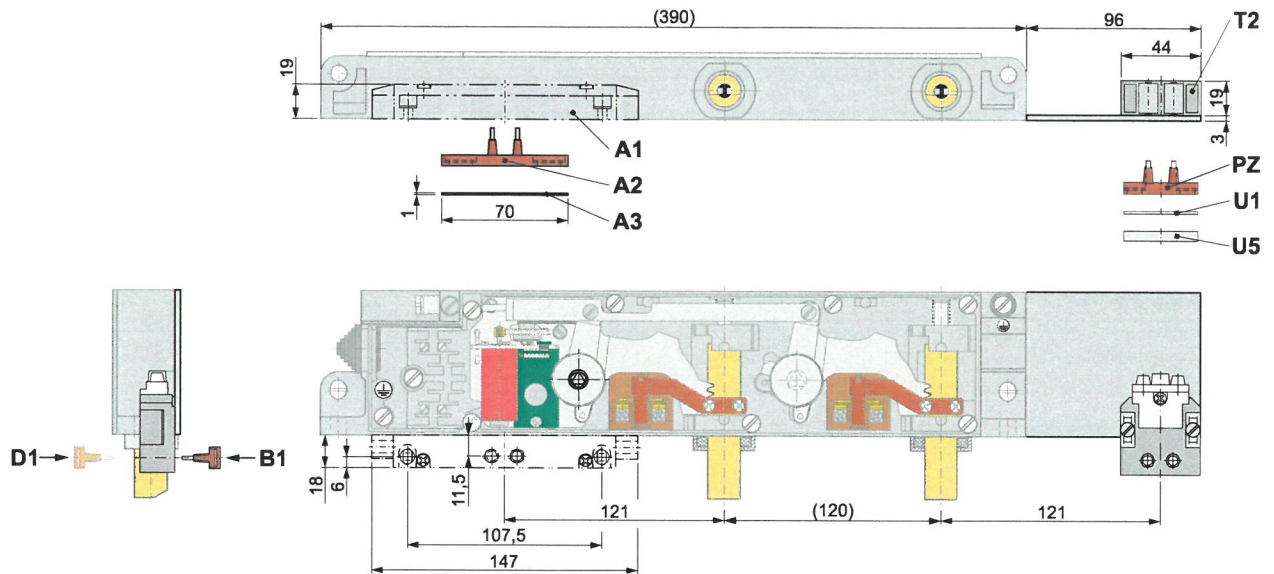


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Externer Türschalter / external door switch:

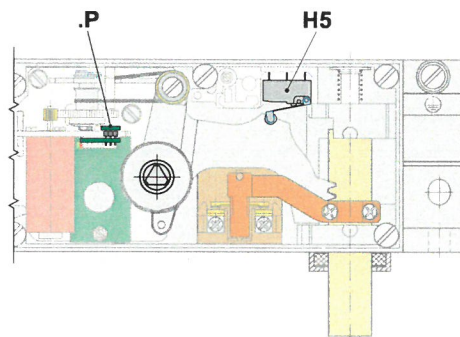
.60 / .70



- A1 bauseits Türschalter DZ73 / on site door switch DZ73
- A2 optional Kontaktbrücke, z. B. DZ18 / optional contact bridge, e.g. DZ18
- A3 optional Unterlage DZ-U1 / optional pad DZ-U1
- B1 bodenseitig betätigt / base side actuated
- D1 deckelseitig betätigt / cover side actuated
- PZ optional Kontaktbrücke, z. B. PZ18 / optional contact bridge, e.g. PZ18
- T2 Türschalter PZ73 angebaut / door switch PZ73 attached
- U1 optional Unterlage PZ-U1 / optional pad PZ-U1
- U5 optional Unterlage PZ-U5 / optional pad PZ-U5

Hilfsschalter und Überwachung der Endposition / auxiliary switch and monitoring of the end position:

.90/...
.P



- H5 Hilfsschalter / auxiliary switch
- .P Überwachung der Endposition / monitoring of the end position

Zulassungsvermerk / certificate attestation

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Technische Daten / technical data:**Sperrmittelschalter / switch for locking mechanism**

Normen / norms	EN 81-20, EN 81-50, EN 60947-5-1 U _i = 250 V, I _{th} = 10 A, U _{imp} = 4 kV
Schaltleistung / switching capacity	AC-15: U _e = 230 V I _e = 2 A DC-13: U _e = 200 V I _e = 2 A
Kurzschlussfestigkeit / short-circuit capacity	T 10 A, F 16 A
Kontaktmaterial / contact material	Feinsilber / refined silver

Hilfsschalter / auxiliary switch - .90/...

Schaltleistung / switching capacity	AC: U _e = 250 V, I _e = 6 A EN 61058 DC: U _e = 200 V, I _e = 0,25 (0,1) A DC: U _e = 60 V, I _e = 1,0 (0,5) A DC: U _e = 24 V, I _e = 3,0 (2,0) A
-------------------------------------	--

Antrieb des Riegelbolzens / motor drive of the latch bolt

Betriebsspannung / operating voltage	24 V DC (-15% / +25%) geregelt / regulated
Anzugstrom / pull-in current	1 A
Haltestrom / holding current	0,2 A

Allgemein / general

Anschluss / connection	über Schraubklemme, max. 2,5 mm ² by screw terminal, max. 2.5 mm ²
Kabeleinführung / cable entry	Ø = 23 mm mit Gummitülle with rubber grommet M25 mit Reduzierring und Kabelverschraubung M20x1,5 (bei -W, -WV) M25 with reducing ring and cable gland M20x1.5 (at -W, -WV)
Schutzart / level of protection	IP40 IP20 (externer Türschalter .60, .70 / external door switch .60, .70) IP54 (optional / optional)
Umgebungstemperatur / ambient air temperature	-10 °C bis 45 °C (bei -W, -WV) / -10 °C up to 45 °C (at -W, -WV) -30 °C bis 45 °C (bei -.30°) / -30 °C up to 45 °C (at -.30°)
Gewicht / weight	1000 - 1700 g (je nach Ausführung / according to version)

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