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KRONENBERG

Konformitätserklärung
EC-Declaration of Conformity

Im Sinne der EG-Aufzugsrichtlinie 95/16/EG
According to the EC-Lift Directive 95/16/EG

Hiermit erklären wir, daß die nachfolgend aufgeführten Sicherheitsbauteile aufgrund der Konzipierung und Bauart der oben genannten Richtlinie entsprechen.
We hereby declare, that the following products conform to the above mentioned Directive.

Bezeichnung der Sicherheitsbauteile : *Name of the safety components :*	DLF 1 (ATV 13/5) ; DLF 2 (ATV 14/5) DL 1 (ATV 15/4) ; DL 2 (ATV 16/4) ELF 1 (ATV 479/1) ; EL 1 (ATV 480/1) DLF 1-IP 67 (ATV 489) ; DL 1-IP 67 (ATV 490) DLF 1-Ex (ATV 415) ; DL 1-Ex (ATV 416)
Beschreibung der Sicherheitsbauteile : *Description of the safety components :*	Verriegelungseinrichtung für Fahrschachttüren *Locking device for landing doors*
Einschlägige EG-Richtlinien : *Relevant EC-directives :*	95 / 16 / EG (Aufzugsrichtlinie) *95 / 16 / EG (EC-Lift Directive)*
Angewandte harmonisierte Normen : *Harmonized standards :*	DIN EN 81 –1 / 2 : 1999 - 02 *EN 81 –1 / 2 : 1998*
Angewandte nationale Normen : *National standards :*	DIN EN 60947-5-1 : 1999 - 01 DIN VDE 0110 – 1 : 1997 - 04
Baujahr : *Year of construction :*	siehe Typenschild *look at the label*
Anbringung der CE-Kennzeichnung : *Application of the CE-marking :*	CE 0635
Ort und Datum der Ausstellung : *Place and date of Issue :*	Bergisch-Gladbach 13.5.99
Rechtsverbindliche Unterschrift : *Legality :*	Dipl.-Ing. Horst Loose Technischer Leiter *Technical Manager*

Mit der Zertifizierungsstelle für Aufzüge und Sicherheitsbauteile TÜV Bau und Betrieb wurde eine Vereinbarung getroffen zur stichprobenartigen Prüfung gemäß Anhang XI der Richtlinie 95/16/EG (Modul C)

It has been agreed with the certified body for lifts and safety components TÜV Bau und Betrieb to carry out spot checks according to annexe XI of the directive 95/16/EC (Module C)

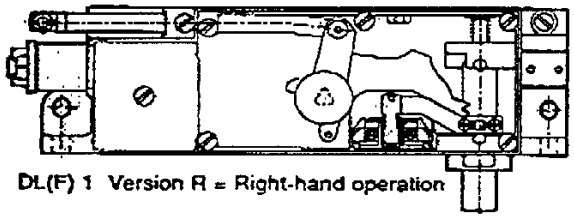
The drawings according to EEC type-test certificate are parts of the mounting instruction. They comprise the following information:

Size
Fixing dimensions
Modes of operation
Emergency release
Variations and options
Customary position
Penetration depth of the latch bolt
Function of the faulty closure device
Technical data

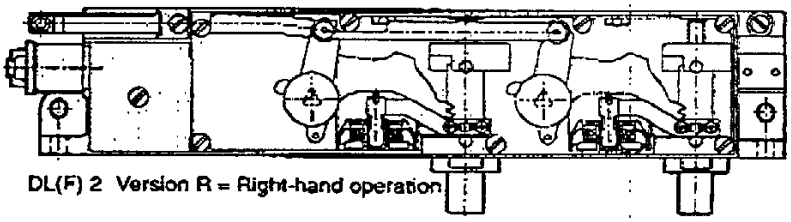
The door interlocks meet all requirements of the EN 81 part 1, 2 and 3 and the requirements of the IEC EN 60947-5-1.
That also includes the necessary clearances.

With the attachment of the test identification sign we confirm the compliance of the device with the type-tested model checked by the TÜV. A subsequent conversion into another version must not be carried out by a third party. But a rearrangement of the lateral annexed roller lever, substitution of the roller lever or of the rubber roller bolt with the rubber roller, is permitted.

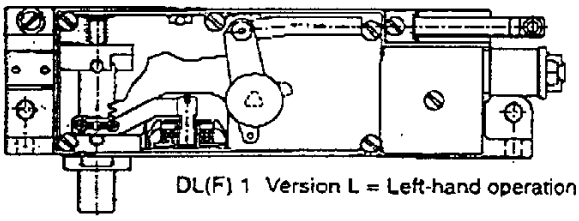
Version right- or left hand operation (when viewed from the front of the lock)



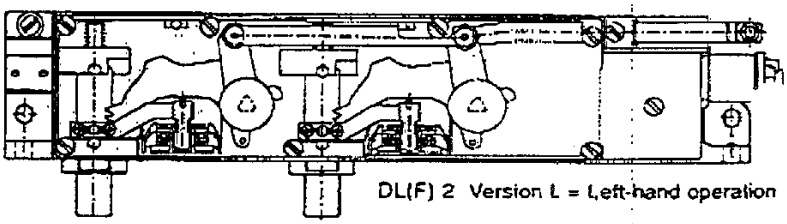
DL(F) 1 Version R = Right-hand operation



DL(F) 2 Version R = Right-hand operation

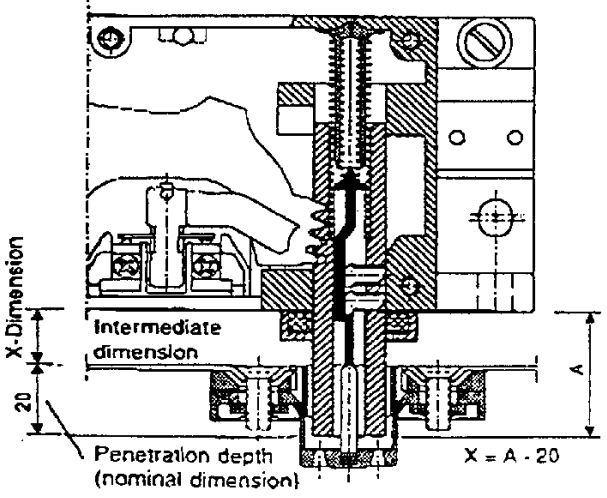


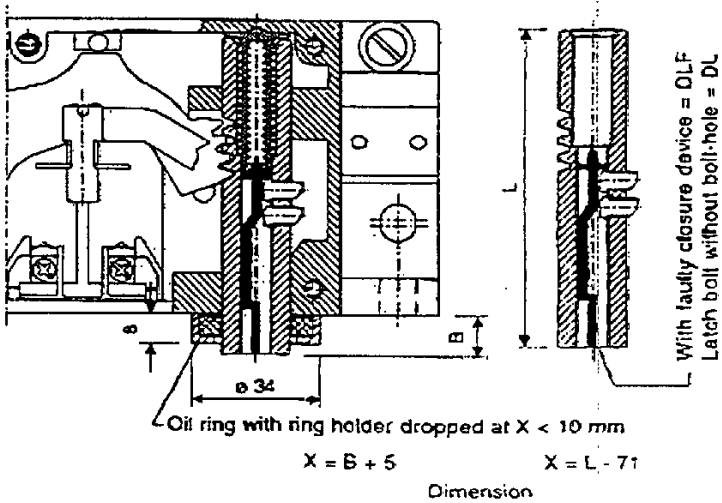
DL(F) 1 Version L = Left-hand operation



DL(F) 2 Version L = Left-hand operation

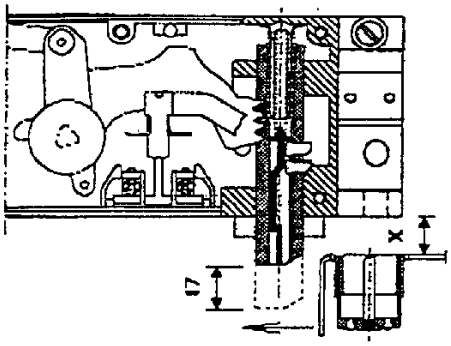
X - Dimension (Dimension between door interlock and door edge)



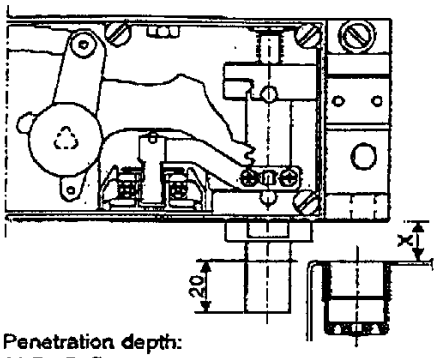


Dimension

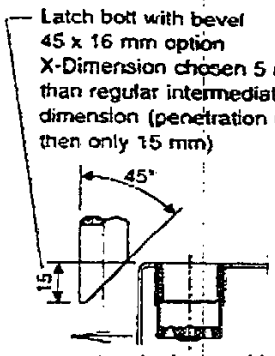
Closing of the door (with the latch bolt down)



Closing of the door at DLF / ELF made incorrect, the faulty closure device keeps the latch bolt open about 17 mm before the final position, this not making the door locked contact.



Penetration depth:
DLF / ELF = 17,5 to 21 mm
DL / EL = 8 to 21 mm

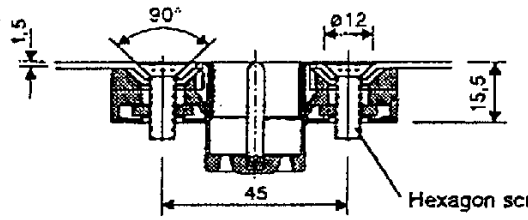


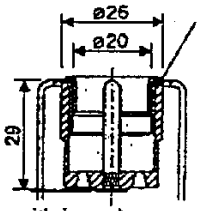
Latch bolt with bevel 45 x 16 mm option
X-Dimension chosen 5 mm less than regular intermediate dimension (penetration depth then only 15 mm)

Latch sleeve without pin option available

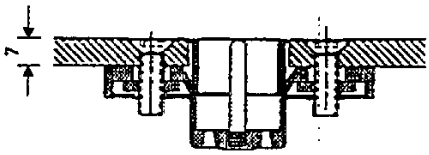
The latch bolt on DL and EL standard version has no bevel. As an option the latch bolt will be beveled by 45° x 16 mm.
The closing of the door is made only, if the door is beveled or the X-Dimension is chosen 5 mm smaller than regular intermediate dimension. The penetration depth is then 15 mm, which is sufficient (permitted is 8 to 21 mm).

Latch sleeve for DLF and ELF



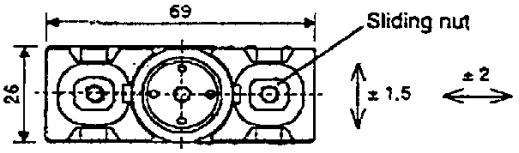


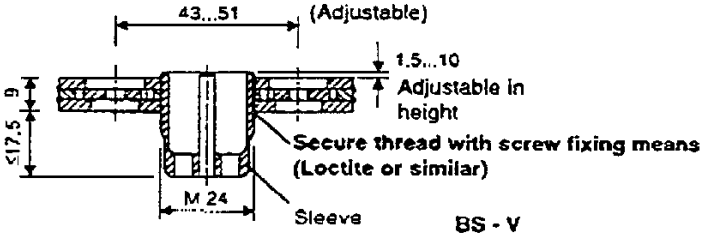
Remove fitting ring after assembly



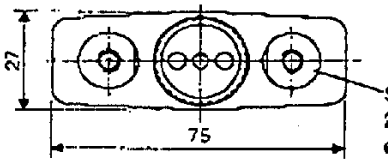
Hexagon screw with inner hexagon M 6 x 20 DIN 7991 (not in the additional package)

B latch sleeve (in additional package at DLF resp. ELF)



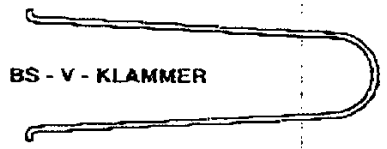


BS - V
Latch sleeve with height adjustment

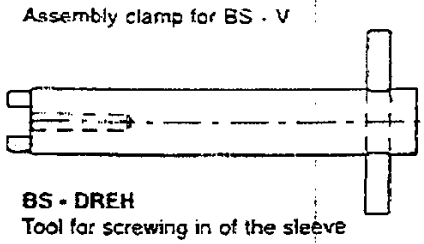


B7 latch sleeve for wall thickness of 7 mm
B7 is available as an option, but the remains of plastic of the standard latch sleeve can also be removed by a knife.

For further information about latch sleeves refer to data sheets 06-20-01 and 06-20-02 (subsequent installation at conversion)

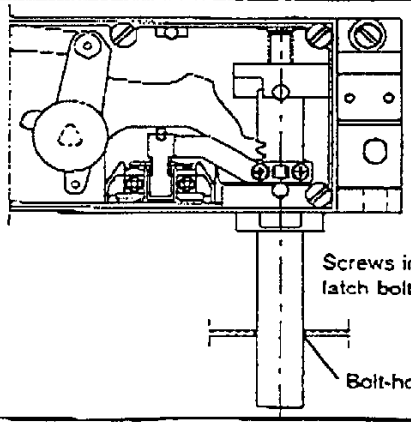


BS - V - KLAMMER
Assembly clamp for BS - V



BS - DREH
Tool for screwing in of the sleeve

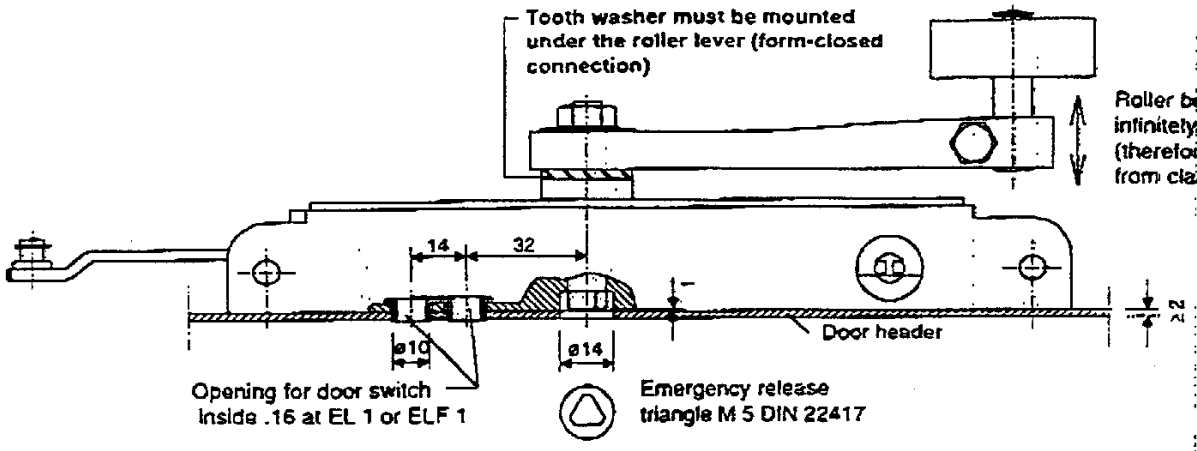
Support of the latch bolt and fire protection



If the X-Dimension is 75 mm or more the latch bolt has to be supported additionally. Normally this will be made by an appropriate small hole in the door header.

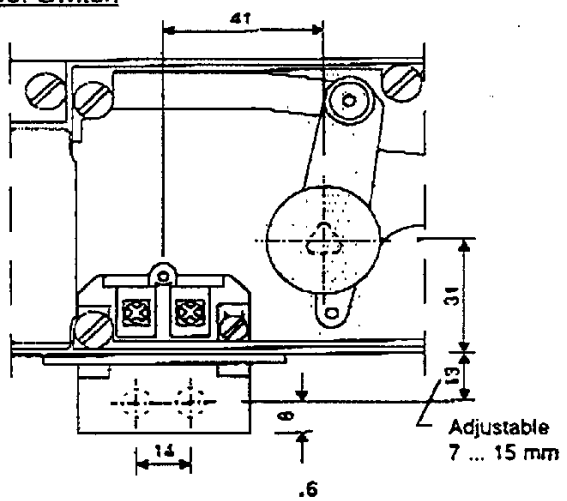
The hole in the door header must keep the latch bolt open in case of fire. The screws that are diagonally placed in the latch bolt shall retain the bolt there.
In case of fire the closing of the door has to be maintained. The door interlock may be destroyed in the process.
All plastic parts near-by of the contact are self-extinguishing, so the door interlock can not become the cause of a fire.

Emergency Release and Roller Lever

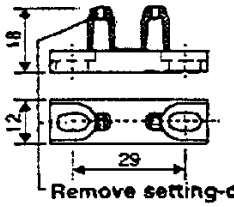


The European Norm EN 81 requires, that the triangle for the emergency release is placed minimal 3 mm back related to the front edge.
The door interlock has to be set on spacers, if the sheet metal thickness of the door header is less than 2 mm.

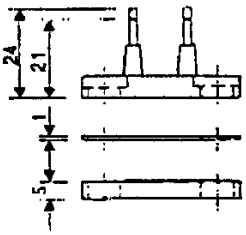
Door Switch



.6
Door switch actuation from the base side
PZ 18
Will be delivered at .6 or .7 and at .60 or .70



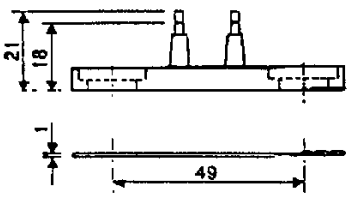
Remove setting-device after adjustment



PZ 21 21 mm high
PZ 24 24 mm high

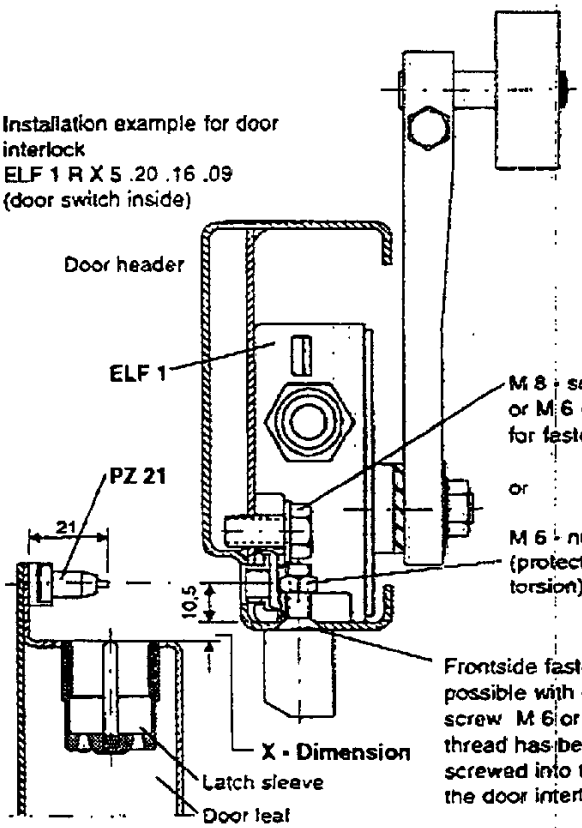
PZ-U 1 pad 1mm

PZ-U 5 pad 5 mm



DZ 18 18 mm high
DZ 21 21 mm high

DZ-U 1 pad 1mm

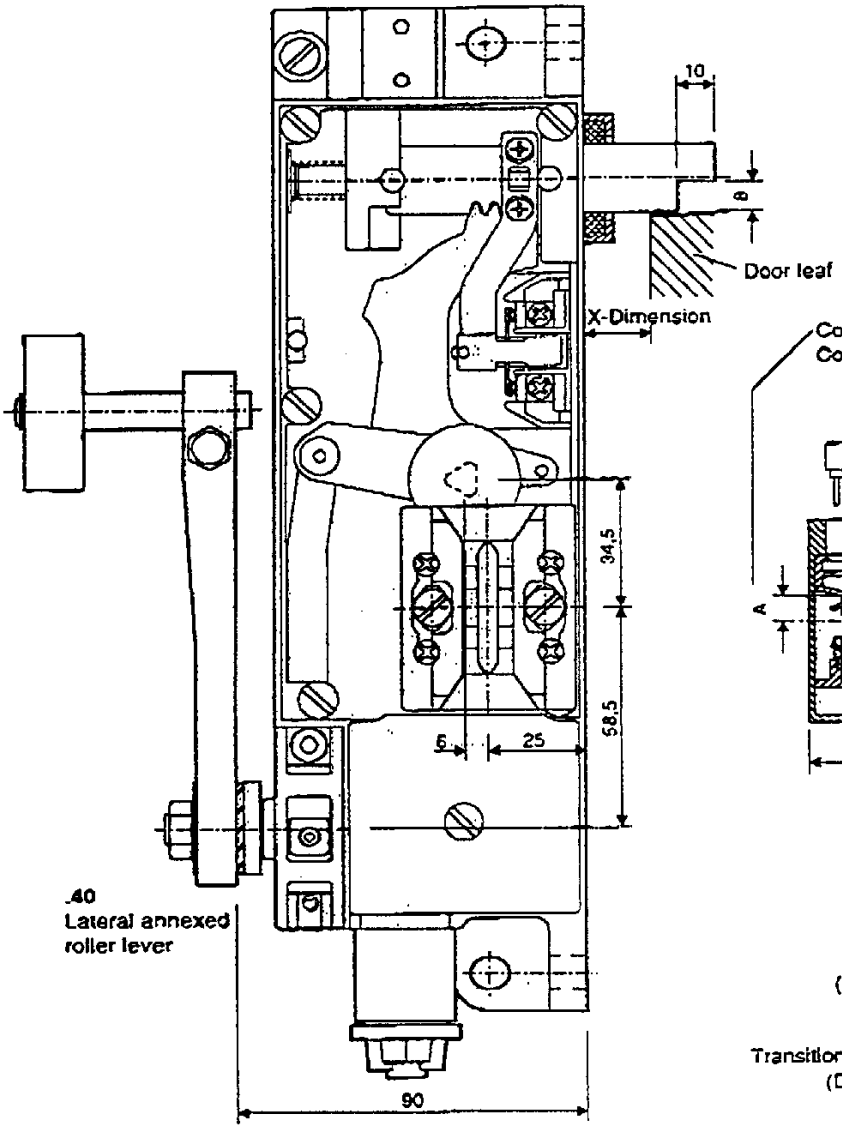


On the water- and explosion-proof version the installation of a door closed contact is not possible, because herewith the required level of protection can not be reached.
A separate door contact has to be mounted.
WZK 10, WZ-B, WZ-D at IP 54
WZA; WZA 10 at IP 67
WZF 2-B-EX; WZF 2-D-EX, explosion-protected

Auxiliary Switches

Auxiliary switches can be installed on request. The version .9/01 reports here the retracted latch bolt (open position). The versions IP 67 and Ex have this indication contact as standard, but then the latch bolt has not completely released the door yet.

Service lift with door switch .8



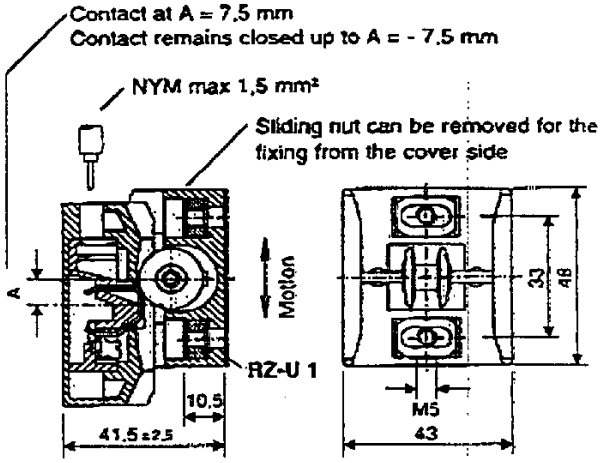
DL 1.40 or DL 1.50

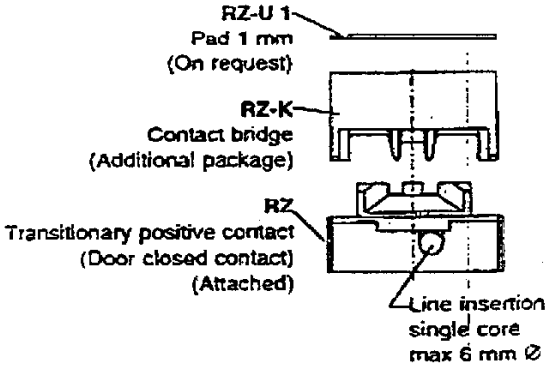
Operating position only possible as shown (latch bolt horizontal above)

Order Information:

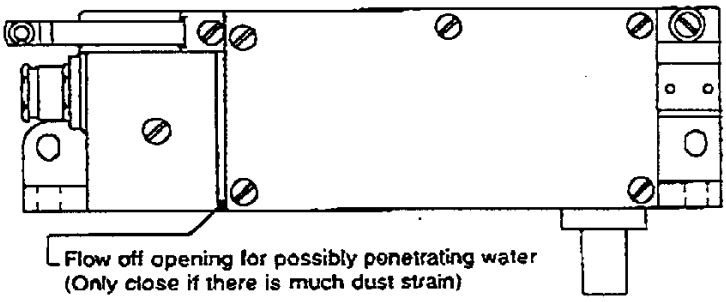
.8 transitionary positive contact

ANS-ST latch bolt with step stay-put feature





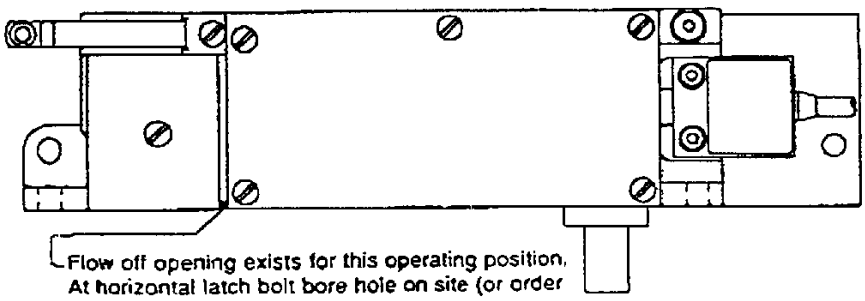
Water-protected version



DL 1; DLF 1; DL 2; DLF 2 version "W"

IP 54 is only valid for opposite operating position (IP 51 at horizontal latch bolts)

Special versions available:
a) Latch bolt made of stainless steel
b) Steel parts made of stainless steel (except of some parts)
c) Aluminium parts technically anodized
d) Enhanced bearing tolerance for low temperatures of -30 °C
e) Slip off ring at latch bolt for dust strain

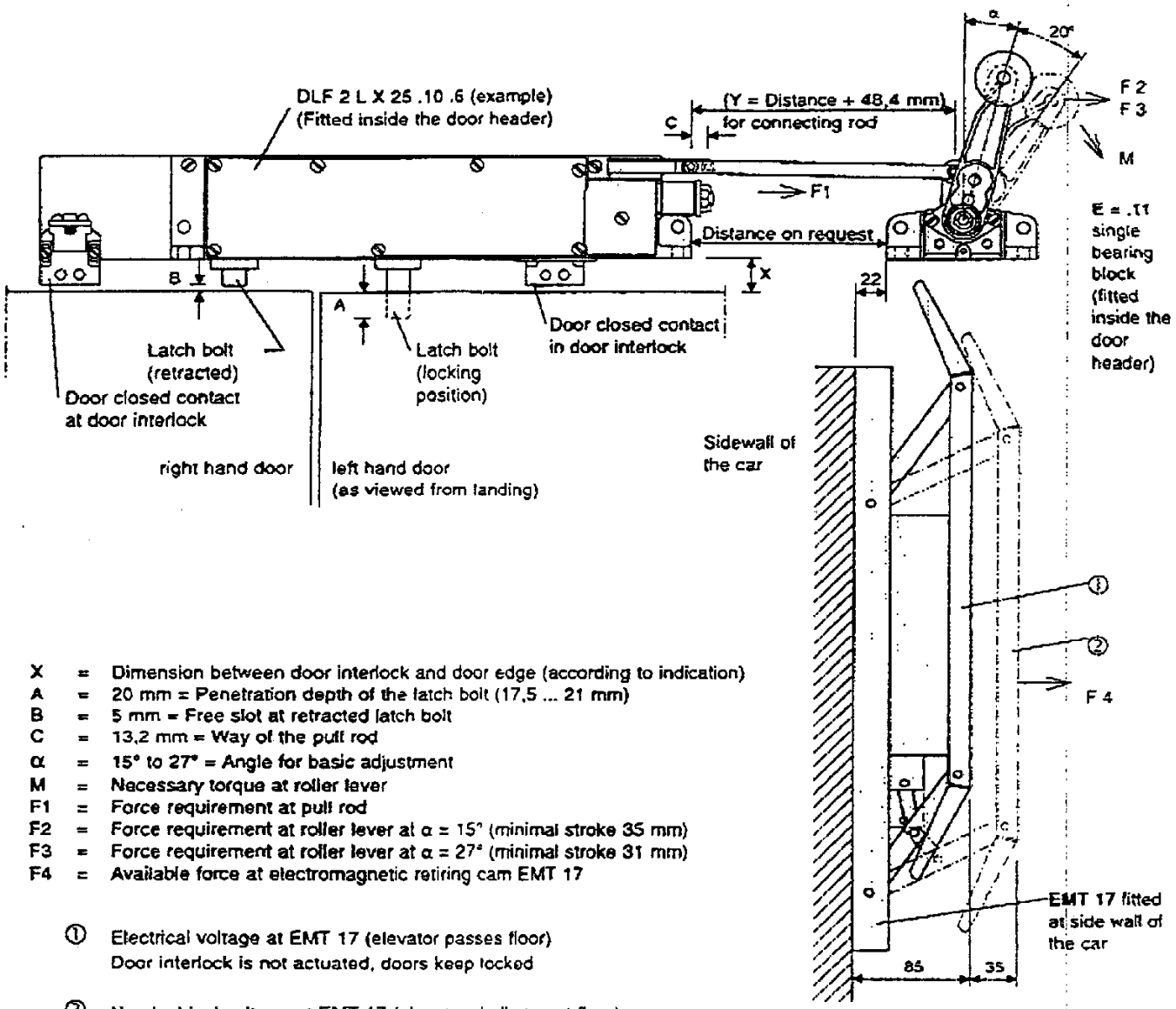


DL 1-IP 67; DLF 1-IP 67
DL 1-Ex; DLF 1-Ex

IP 67 is also valid at horizontal latch bolts

Order addition "W" is not necessary.
In this case the latch bolt is hard chrome plate and the cover made of metal.
Flow off opening at deepest position especially important, because "W" is only suited for IP 54 and at IP 67 water can penetrate but must not collect inside enclosure.

Actuation forces



X = Dimension between door interlock and door edge (according to indication)
A = 20 mm = Penetration depth of the latch bolt (17,5 ... 21 mm)
B = 5 mm = Free slot at retracted latch bolt
C = 13,2 mm = Way of the pull rod
α = 15° to 27° = Angle for basic adjustment
M = Necessary torque at roller lever
F1 = Force requirement at pull rod
F2 = Force requirement at roller lever at α = 15° (minimal stroke 35 mm)
F3 = Force requirement at roller lever at α = 27° (minimal stroke 31 mm)
F4 = Available force at electromagnetic retiring cam EMT 17

① Electrical voltage at EMT 17 (elevator passes floor)
Door interlock is not actuated, doors keep locked

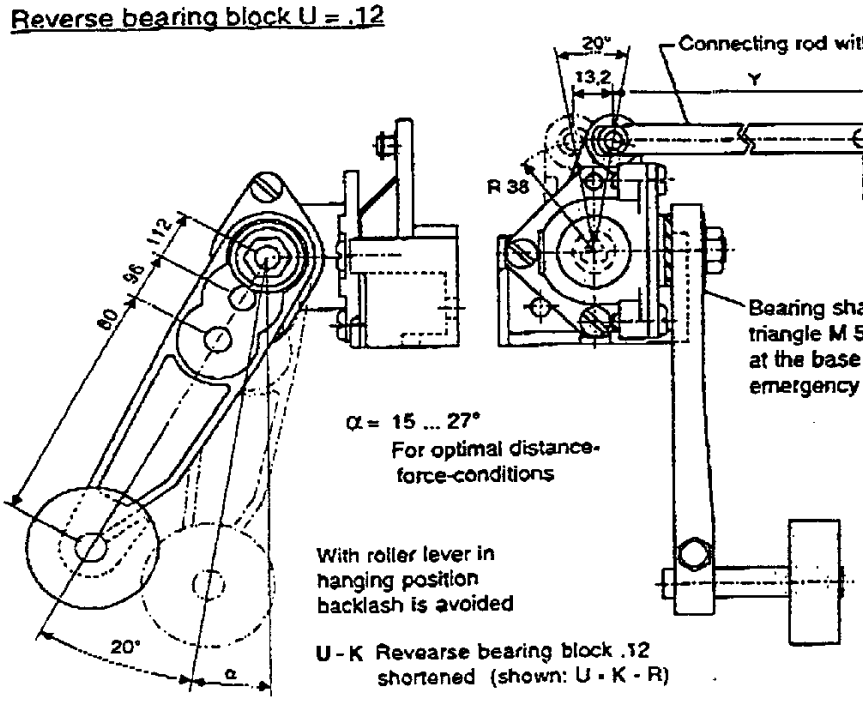
② No electrical voltage at EMT 17 (elevator shall stop at floor)
Door interlock is actuated, doors can be opened

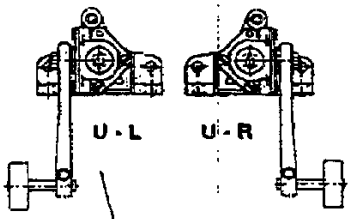
α At an angle α = 15° ... 27° for the basic adjustment of the roller lever the full actuation distance is reached at the optimal exploitation of the available force of the electromagnetic retiring cam (stroke 35 mm)

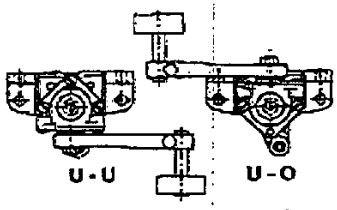
Forces		(F0) force at pull rod (only springs)	F1 force demand at pull rod	M torque at roller lever	F2 force demand at roller lever	F3 force demand at roller lever	F4 available force at EMT 17
DLF 1	initial force	(23 N)	53 N	201 Ncm	18,6 N	20,2 N	65 N
	final force	(30 N)	60 N	228 Ncm	24,9 N	30,0 N	60 N
OLF 2	initial force	(30 N)	71 N	270 Ncm	25,0 N	27,0 N	65 N
	final force	(41 N)	80 N	304 Ncm	33,0 N	40,0 N	0

F 1 = F 0 + friction forces within the door interlock and at bearing block.

Reverse bearing block U = .12

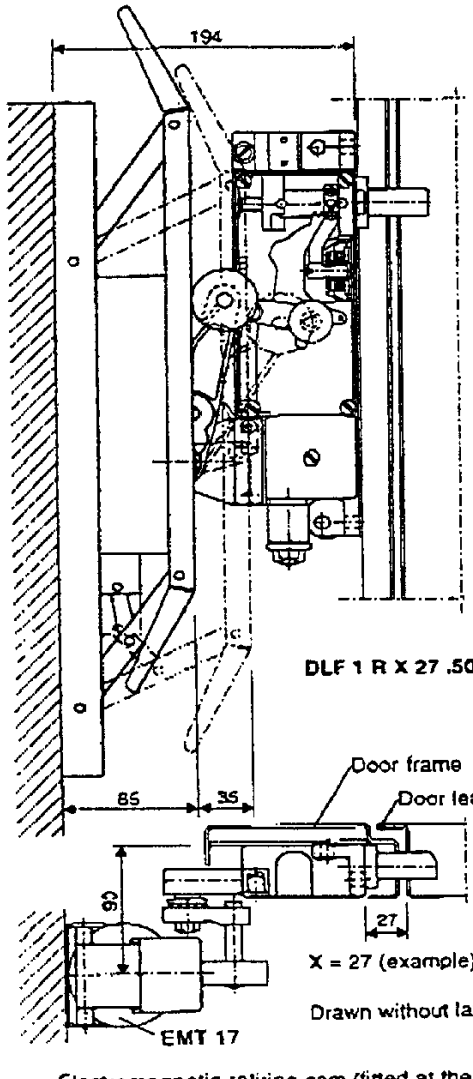




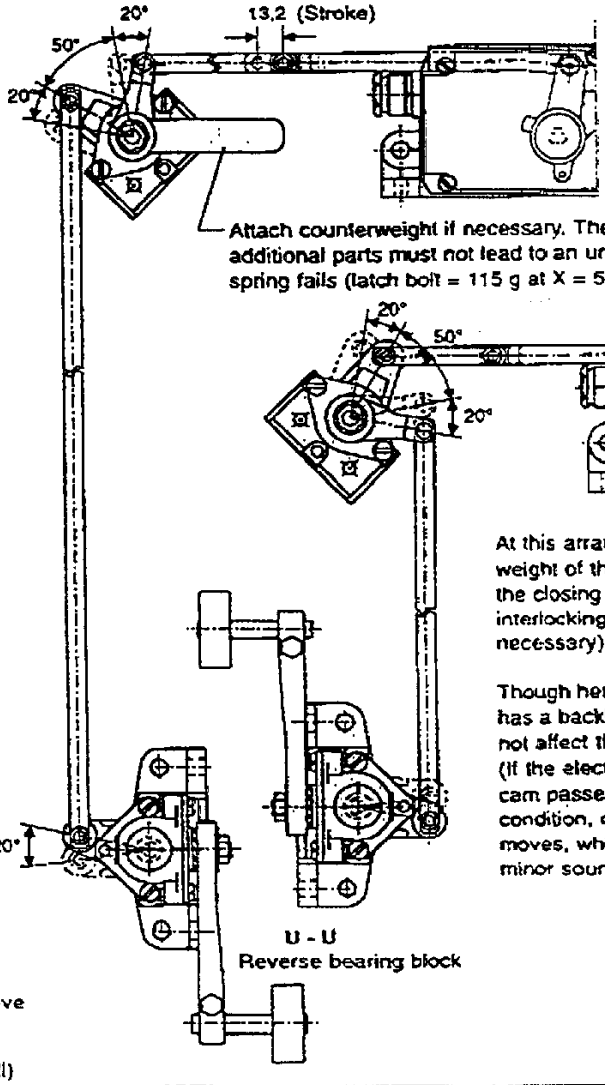


If the roller lever is relocated to 96 mm the distance is minimized by appr. 14,3% and the force requirement is accordingly higher. Relocated to 80 mm the difference is about 28,6%.

Lateral annexed roller lever.50

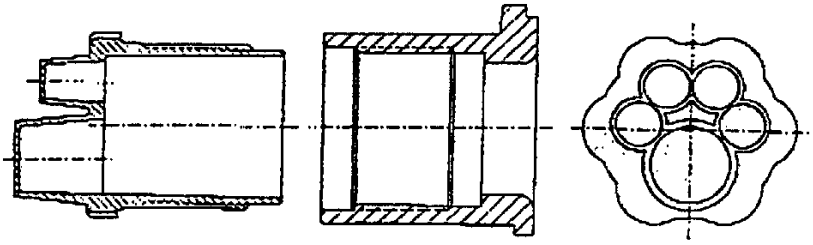


Reverse pull rod E-ZU



Electrical Connection

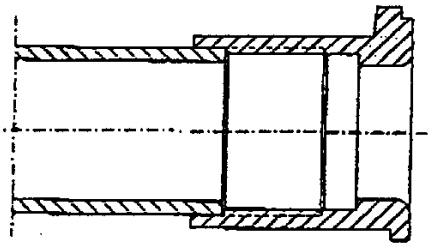
Can be pulled out from the housing of the door interlock (for easier assembly)



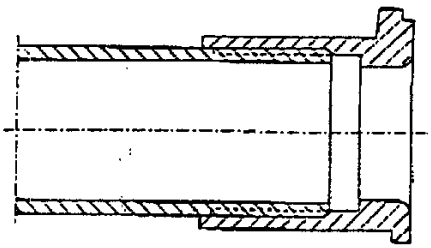
Open lead-in nozzles on request.
Safety cables have to be jacketed, e.g. NYM 1,5 qmm
Four single-core cables and one multi-core cable can be inserted separately. The jacket of the cable also has to be inserted into the nozzle.

Special cable screwing

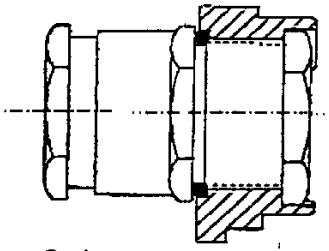
Tube insertion piece with inner thread Pg 16



Insulation tube 22.5 mm outside or plug-in tube 16 DIN 49020

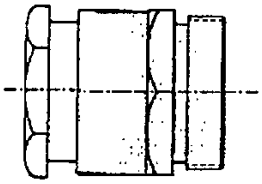


Steel jacket tube Pg 16 DIN 49020

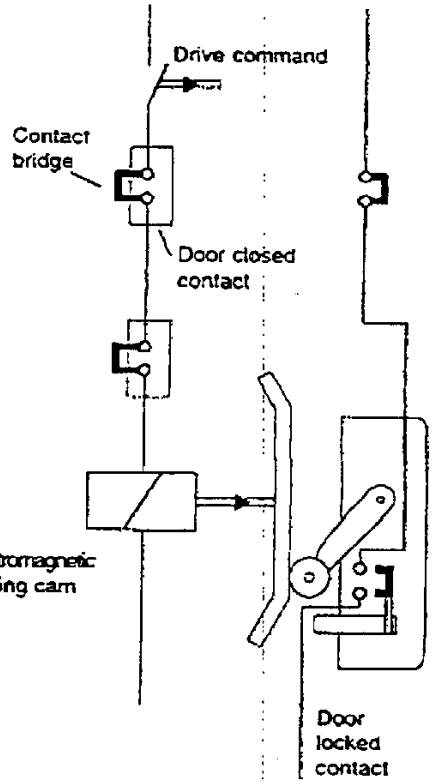


Tube insertion flange

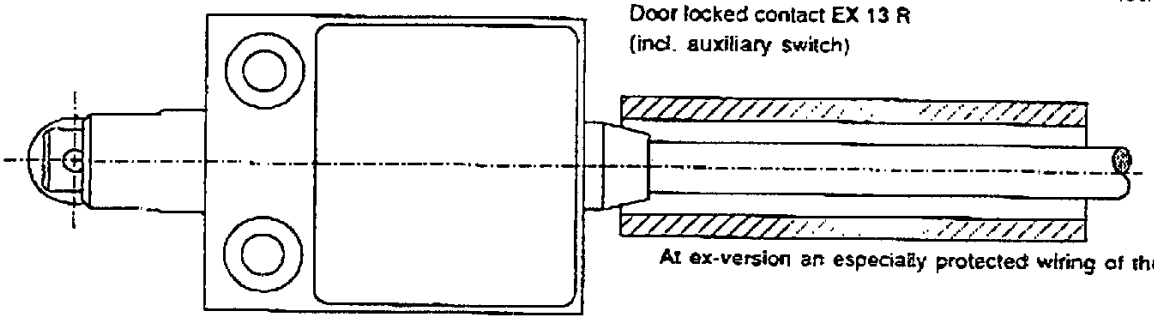
Cable screwing Pg 13,5 (with long thread) at water-protected version at DLF and DL



Cable screwing Pg 13,5 (with short thread) at ELF and EL



Release of travel, if all doors are closed and locked



Door locked contact EX 13 R (incl. auxiliary switch)

Lead wire 4 x 0,75 qmm 2 meter or your stated option

At ex-version an especially protected wiring of the cable is necessary.

Maintenance

Normally there is no maintenance necessary, because all parts are life-lubricated.

In extreme operating conditions we suggest in regular inspection periods:

1) The removal of rough contamination
2) To check fastening screws that they are tightly fastened.
3) To check the screw at the roller lever if it is tightly fastened.
4) To retighten terminals for electrical cables
5) To check cable lead-ins.
6) To lubricate again, if the lubricants have become uneffective.