Elevator Technology

synergy

element package.

Fact sheet.

thyssenkrupp

Product benefits.

The element package of the synergy elevator is designed and manufactured to achieve a functional solution in compact dimensions with an appealing design and proven quality.

Perfect solution for basic residential buildings with:

- Up to 11 stops (up to 30 travel height)
- For 6-8 people (450-630 kg) at 1 m/s
- With single and double access (180°)
- Modern and standardised decoration

The synergy elevator system is a future-oriented solution for residential buildings. The synergy passenger elevators represent the international know-how of thyssenkrupp with a pioneering solution for new installation and modernisation.
A corporation-wide development strategy has produced a range of elevators which combine maximum quality, compactness and technology with an attractive design. The element package of the synergy family is the functional product with the best price-performance ratio.

Safety
- The element elevator grants safety for users by fulfilling the most demanding European safety regulations EN 81-20 and EN 81-50, with CE Marking
- Automatic Rescue Device (ARD) in case of power supply failure as standard
- Emergency call system with a call center according to EN 81-28

Performance, innovation and reliability
- Elevator with or without machine room
- High reliability resulting from use of proven components
- High quality materials and construction
- Efficient installation process at worksite
- Seismic conditions certification to EN 81-77, optional for category 1, 2 and 3
- Best price-performance ratio

Comfort and accessibility
- Gentle ride, quality and precise stops
- Low noise level
- Optional EN 81-70 accessibility code compliance

Efficiency
- Gearless machine, high efficiency and lower energy consumption
- Control system with frequency control (VVVF)
- Optional sleep mode for electronic devices
- Energy-saving LED lighting as standard
- A Class certified according to VDI-4707 (optional)

Design
- Contemporary design line in skinplate and timeless stainless steel
- Six preconfigured attractive decorations in skinplate and two in stainless steel
- Stainless steel or white glass finish for operating and indicator panels in cabin and on the landing

Our vision of the future
- Compact passenger elevator with or without machine-room for functional residential buildings with up to 11 landings
- Rigorous modular structure of the system with the most common options for short delivery times

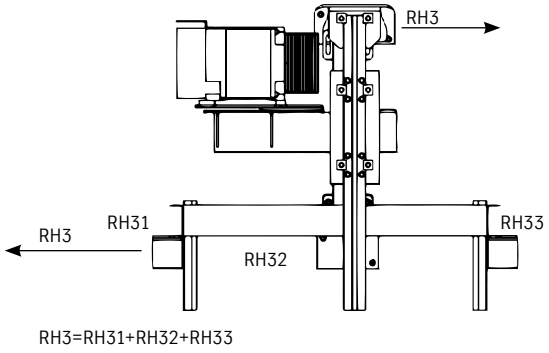
Technical overview.

Technical data EN 81-20/50

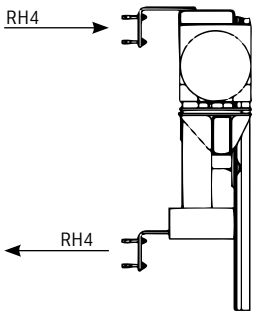
Planning data

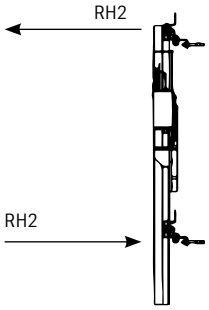
Two-panel telescopic sliding door L2 (M2T)														
Load	Q	kg	450				450				630			
Passengers		n°	6				6				8			
Speed		m/s	1.0				1.0				1.0			
Max. Travel height		m	30				30				30			
Max. N° of landings		n°	11				11				11			
Car width	CW	mm	1000				950				1100			
Car depth	CD	mm	1250				1300				1400			
Car height	CH	mm	2200				2200				2200			
Door height	DH	mm	2000/2100				2000/2100				2000/2100			
Entrance		mm	SE	SE	DE	DE	SE	SE	DE	DE	SE	SE	DE	DE
Door width	DW	mm	800	900	800	900	800	900	800	900	800	900	800	900
Min. Shaft width (door in shaft or recess)	SW	mm	1500	1600	1500	1595	1450	1595	1450	1585	1600	1600	1600	1600
Max. Shaft width (door in shaft or recess)	SW	mm	1740	2035	1740	2115	1690	1985	1690	2065	1840	1840	1840	1840
Min. Shaft width (full front)	SW	mm	1525	1615	1525	1615	1475	1610	1475	1605	1625	1625	1625	1625
Max. Shaft width (full front)	SW	mm	1740	2035	1740	2115	1690	1985	1690	2065	1840	1840	1840	1840
Min. Shaft depth (door in shaft)	SD	mm	1635	1635	1860	1860	1685	1685	1910	1910	1785	1785	2010	2010
Max. Shaft depth (door in shaft)	SD	mm	1990	4000	1860	1860	2040	4000	1910	1910	2140	2140	2010	2010
Min. Shaft depth (door in recess)	SD	mm	1540	1540	1665	1665	1590	1590	1715	1715	1690	1690	1815	1815
Max. Shaft depth (door in recess)	SD	mm	1900	4000	1685	1685	1950	4000	1735	1735	2050	2050	1835	1835
Min. Saft depth (full front)	SD	mm	1540	1540	1665	1665	1590	1590	1715	1715	1690	1690	1815	1815
Max. Saft depth (full front)	SD	mm	1900	4000	1685	1685	1950	4000	1735	1735	2050	2050	1835	1835
Pit depth	P	mm	1000				1000				1000			
Overhead height	O	mm	3400	3800	3400	3800	3400	3800	3400	3800	3400	3400	3400	3400
Two-panel central opening door C2 (M2Z)														
Load	Q	kg	450				450				630			
Passengers		n°	6				6				8			
Speed		m/s	1.0				1.0				1.0			
Max. Travel height		m	30				30				30			
Max. N° of landings		n°	11				11				11			
Car width	CW	mm	1000				950				1100			
Car depth	CD	mm	1250				1300				1400			
Car height	CH	mm	2200				2200				2200			
Door height	DH	mm	2000/2100				2000/2100				2000/2100			
Entrance		mm	SE	SE	DE	DE	SE	SE	DE	DE	SE	SE	DE	DE
Door width	DW	mm	800	900	800	900	800	900	800	900	800	900	800	900
Min. Shaft width (door in shaft or recess)	SW	mm	1785	1985	1785	1985	1785	1985	1785	1985	1800	1985	1800	1985
Max. Shaft width (door in shaft or recess)	SW	mm	2035	2035	2115	2115	1985	1985	2065	2065	1840	2135	1840	2215
Min. Shaft width (full front)	SW	mm	-	-	-	-	-	-	-	-	-	-	-	-
Max. Shaft width (full front)	SW	mm	-	-	-	-	-	-	-	-	-	-	-	-
Min. Shaft depth (door in shaft)	SD	mm	1620	1620	1830	1830	1670	1670	1880	1880	1770	1770	1980	1980
Max. Shaft depth (door in shaft)	SD	mm	4000	4000	1830	1830	4000	4000	1880	1880	2125	4000	1980	1980
Min. Shaft depth (door in recess)	SD	mm	1525	1525	1635	1635	1575	1575	1685	1685	1675	1675	1785	1785
Max. Shaft depth (door in recess)	SD	mm	4000	4000	1655	1655	4000	4000	1705	1705	2035	4000	1805	1805
Min. Saft depth (full front)	SD	mm	-	-	-	-	-	-	-	-	-	-	-	-
Max. Saft depth (full front)	SD	mm	-	-	-	-	-	-	-	-	-	-	-	-
Pit depth	P	mm	1000				1000				1000			
Overhead height	O	mm	3800	3800	3800	3800	3800	3800	3800	3800	3400	3800	3400	3800

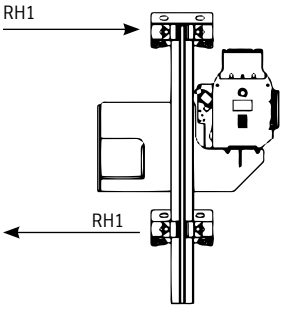
Reactions in walls



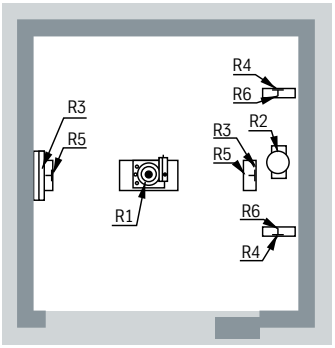
RH3=RH31+RH32+RH33







Reactions in pit



Specified loads in the shaft pit / overhead

Self-supported cabin < 630 Kg			Machine room-less	Machine room
Load points / elevator car guide rails	R1	kN	31.40	31.40
	R2	kN	50.20	50.20
	R3	kN	56.96	56.60
	R4	kN	17.70	17.70
Load points / machine base frame and rope fixing points	RH1	kN	3.00	-
	RH2	kN	0.10	-
	RH3	kN	7.20	-
	RH4	kN	5.50	-

Legend

Q: Load
CW: Car width
CD: Car depth
CH: Car height
DH: Door height
DW: Door width
SW: Shaft width
SD: Shaft depth
O: Overhead

P: Pit
Ent.: Entrance
DO: Door opening
SE: Single entrance
DE: Dual entrance
L2: Two panel side-opening door
C2: Two panel central-opening door

Note: Dimensions for self supporting car at 1 m/s.
Shaft dimensions offered for the minimum overhead.
The values shown correspond to a generic installation.
For specific cases, please use the In-Planner tool or consult your thyssenkrupp Elevator sales representative.

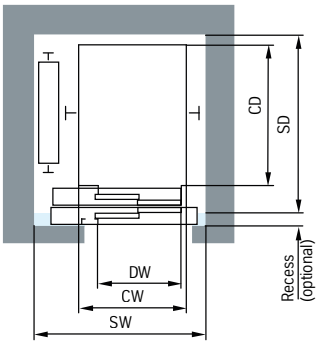
Technical and electrical data

Rated load		450 kg	630 kg
Synchronous gearless machine, type	TKAW	Type A PMC125 S	Type B PMC125 M
Weight of the drive (kg)	kg	127	132
Max. N° of travels per hour	s/h	120	120
Controller		CMC 4+ 20/50 frequency inverter	
Rated output of motor	kW	2.80	3.80
Operating input power[1)]	kVA	3.9	5.3
Nominal operating current [1, 2]	A	7.90	10.20
Starting current [1, 3]	A	15.50	18.80
Landing accuracy	mm	+/- 3 mm	+/- 3 mm
Rope suspension		2 : 1	2 : 1
Diameter of traction pulley	mm	240	240
Suspension ropes	mm	4 ø 6	6 ø 6
Guide rails counterweight	Category 0	T45/5 - T70/9	T45/5 - T70/9
	Category 1, 2 and 3	T70/9	T70/9
Guide rails car elevator		T89/16 - T70/9	T89/16 - T70/9
Max. distance between fastering of rail brackets	Category 0	3000 - 1900	3000 - 1900
	Category 1	2800 - 1900	2800 - 1900
	Category 2 and 3	Consult	Consult

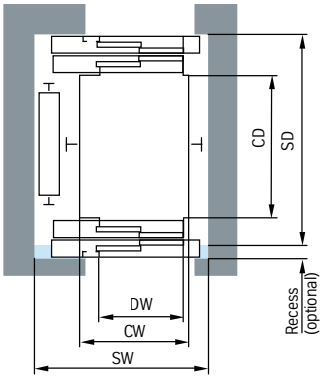
[1)] At 400 Volt / 50 Hz.
[2)] For the elevator control unit 3.5 A (for Q = 450 kg) respectively 4.5 A (for Q = 630 kg) have to be added.
[3)] For the elevator control unit 3.5 A (for Q = 450 kg) respectively 7.7 A (for Q = 630 kg) have to be added.

Shaft layout with side-opening door L2 (M2T)

Single entrance

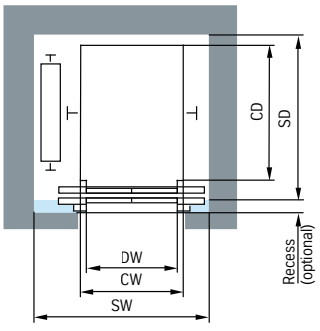


Double entrance

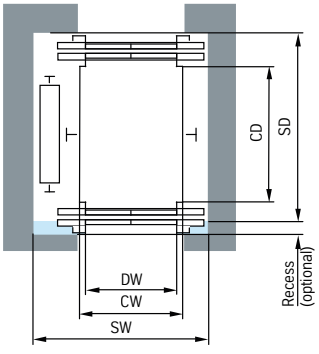


Shaft layout with central opening door C2 (M2Z)

Single entrance



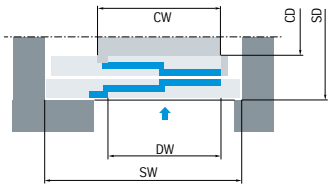
Double entrance



Installation options for the landing doors

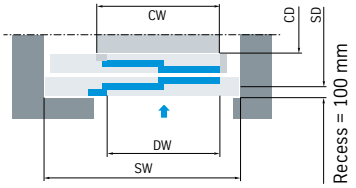
Installation in shaft

The landing doors are fixed to the shaft wall by means of brackets. The brackets are secured to the wall optionally with dowels or with securing bolts on anchor rails (measurement in concrete in line with CEN/TS 1992-4:2009) that are cast into the shaft wall or fixed to a steel structure.



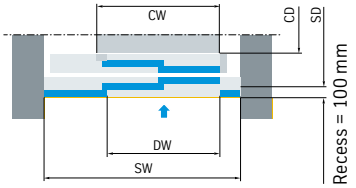
Installation in recess

In the interest of the economical utilization of space, the landing door can be installed in a recess (optional with full front for lateral opening doors).



Installation with full front

Optionally, the landing door L2 (M2T) can be mounted in the landing with a front wall of the elevator shaft.



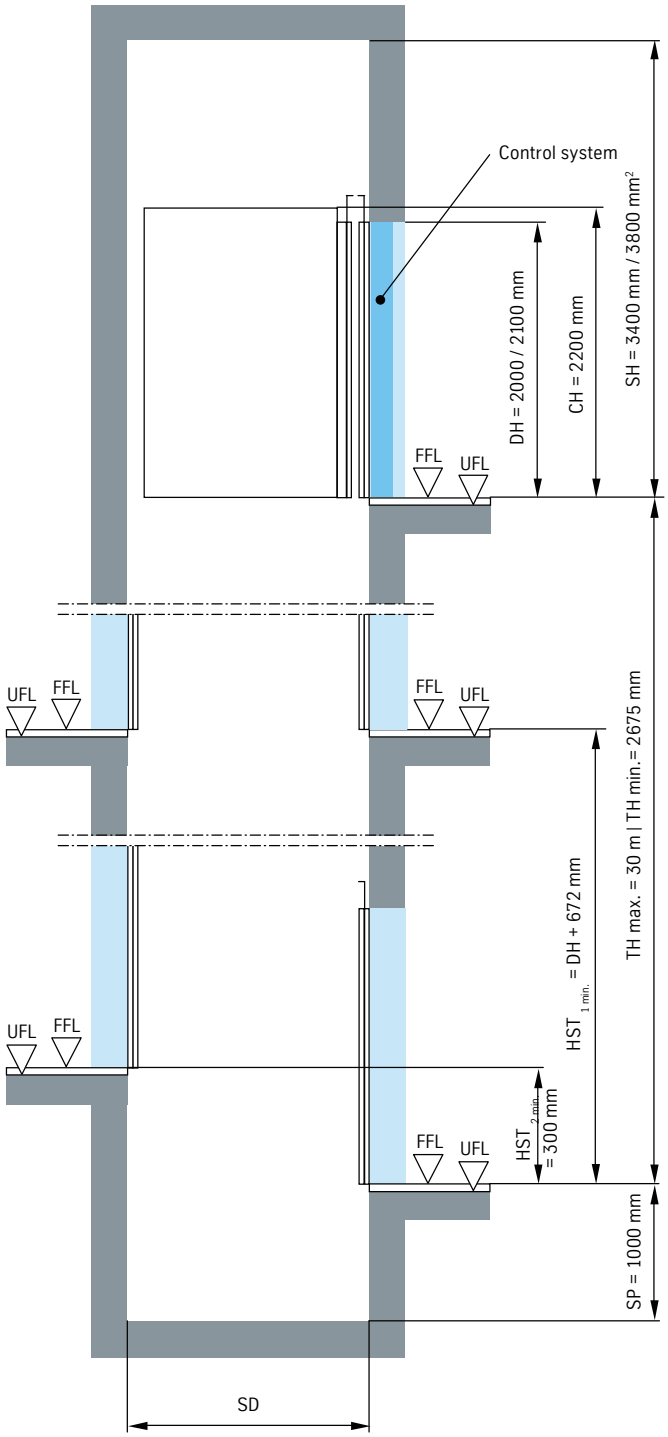
Control system

The control system with the frequency inverter is located beside the frame of the landing door in the top landing and/or optionally in another freely defined place[1].

Control system (H x W x D = 2305[3] x 280 x 150 mm)

[1] To ensure fire protection, the arrangement of the control box must comply with the local building codes, as well as the Model Conduit Systems Directive and the Model High Rise Building Directive.
[2] Overhead of 3400 for 450 kg with L2 (M2T) doors in 800 mm width, 630 kg with L2 (M2T) doors in 800-900 mm width and C2 (M2Z) doors in 800 mm width.
[3] In case that control cabinet is positioned next to the shaft door, the height of the control cabinet is related to the door height DH + 305 mm. If the control cabinet is installed with offset position, the height is always 2305 mm.

Vertical Section



Legend

DH: Door height
DW: Door width
CH: Car height
CW: Car width
CD: Car depth
SW: Shaft width
SD: Shaft depth
TH: Travel height
HST: Floor-to-floor distance
SH: Shaft head height
SP: Pit depth
FFL: Finished floor level
UFL: Unfinished floor level

Decor.

Skinplate (coated steel)

Seed

Citrus

Stone

Aqua

Olive

Silver

Stainless steel

Stainless steel Brushed

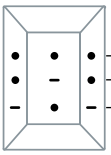
Stainless steel Linen

For double entrance, the rear wall panel finish is placed on the wall opposite to COP.

Decoration options.

Decoration options

Design line	Skinplate						Stainless steel	
Decor	Seed	Citrus	Stone	Aqua	Olive	Silver	Steel Brushed	Steel Linen
Car ceiling								
White painted steel sheet	•	•	•	•	•	•	•	•
4 LED spots	•	•	•	•	•	•	•	•
Stainless steel upper band	•	•	•	•	•	•	•	•
Wall elements								
White Skinplate, closet RAL 9003	• / - / •	• / - / •	• / - / •	• / - / •	• / - / •	- / • / -	-	-
Beige Skinplate, closet RAL 1015	- / • / -	-	-	-	-	-	-	-
Yellow Skinplate, closet RAL 1016	-	- / • / -	-	-	-	-	-	-
Grey Skinplate, closet RAL 7039	-	-	- / • / -	-	-	-	-	-
Blue Skinplate, closet RAL 6034	-	-	-	- / • / -	-	-	-	-
Green Skinplate, closet RAL 6018	-	-	-	-	- / • / -	-	-	-
Steel look Skinplate	-	-	-	-	-	• / - / •	-	-
Stainless steel Gr.220D	-	-	-	-	-	-	• / • / •	-
Stainless steel linen	-	-	-	-	-	-	-	• / • / •
Mirror								
In the rear wall, single entrance	•	•	•	•	•	•	•	•
Opposite to COP wall, double entrance	○	○	○	○	○	○	○	○
Car Operating Panel								
Silver Moon COP, Stainless steel	•	•	•	•	•	•	•	•
White Moon COP, White glass	○	○	○	○	○	○	○	○
Handrail								
Stainless steel Gr.220D round tube (on opposite to COP wall)	•	•	•	•	•	•	•	•
Stainless steel Gr.220D round tube (on rear and opposite to COP wall)	○	○	○	○	○	○	○	○
Stainless steel Gr.220D round tube (on three walls)	○	○	○	○	○	○	○	○
Car door and rear panel								
Stainless steel Gr.220D	•	•	•	•	•	•	•	•
Landing door								
Primed painted RAL 7042	•	•	•	•	•	•	•	•
Stainless steel Gr.220D	○	○	○	○	○	○	○	○
Flooring material								
Nature Black Vinyl	•	•	•	•	•	•	•	•
Concrete Dark Grey Vinyl	○	○	○	○	○	○	○	○
Stone Beige Vinyl	○	○	○	○	○	○	○	○
Prepared for local flooring supply, 20 mm thickness	○	○	○	○	○	○	○	○
Skirting								
Stainless steel Gr.220D	•	•	•	•	•	•	•	•



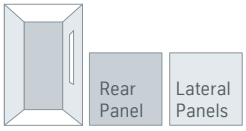
• / • / • Standard finish in all cabin panels
• / - / • Standard finish in COP wall and opposite COP wall
- / • / - Standard finish in rear cabin wall

For double entrance, rear wall panels finishes will be placed on the opposite COP wall

- • As standard
- ○ Optional
- - Not available

Note: Options, colours and specifications, are subject to change. All cabin decor options illustrated in this brochure are representative only. The samples shown may vary from the original in colour and material. Patterned samples not to scale. Consult your thyssenkrupp Elevator sales representative for cabin designer tool and samples.

Decoration details.



Skinplate finish (coated steel)

Seed

Beige, Closet RAL 1015

White, Closet RAL 9003

Citrus

Yellow, Closet RAL 1016

White, Closet RAL 9003

Stone

Grey, Closet RAL 7039

White, Closet RAL 9003

Aqua

Blue, Closet RAL 6034

White, Closet RAL 9003

Olive

Green, Closet RAL 6018

White, Closet RAL 9003

Silver

White, Closet RAL 9003

Steel look

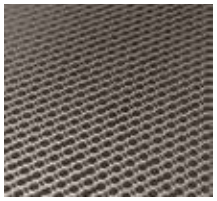
Stainless steel finish

Stainless steel Brushed

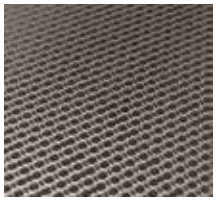
Stainless steel Gr.220D

Stainless steel Gr.220D

Stainless steel Linen



Stainless steel linen



Stainless steel linen

Note: Options, colours and specifications, are subject to change. All cabin decor options illustrated in this brochure are representative only. The samples shown may vary from the original in colour and material. Patterned samples not to scale. Consult your thyssenkrupp Elevator sales representative for cabin designer tool and samples.
Stainless steel Gr.220D = brushed stainless steel = hairline stainless steel (ferritic, type 441). Stainless steel linen (austenitic, type 304).

Ceiling

LED spots

Skirting

Stainless steel Gr.220D

Handrail

Stainless steel satin

Floors

Nature Black Vinyl

Concrete Dark Grey Vinyl

Stone Beige Vinyl

Car ceiling and lighting system
- Standard car ceiling in 2 mm thickness steel sheet, powder coated white RAL 9010 (textured paint)
- 4 LED spots 6W, with black ring. Color temperature 5.700° K
- Emergency lighting (LED spot) for 3h
- Standard fan with automatic switch on / off. Optional key switch / button
- Cabin lighting according EN 81-20/50 (≥ 100 lux at 1 m height)

Panels and columns
- Wall panels / columns with PVC precoated finish (140 gr/m^2 coating thickness both sides), applied to a 1.5 / 2.0 mm steel sheet width
- Low flammable, fire protection class B-s1 d0, in compliance with EN 13501-1
- Optional walls panels / columns in 1.5 / 2.0 mm width in stainless steel Gr.220D and stainless steel linen finish

Mirror
- Standard tempered 5 mm silver glass mirror, with polished edges
  Weight (kg) = 1.6 / 2.2 kg for 450 / 630 rated load
- Dimensions (mm):
  X x Y = 400 / 550 x 1600 mm for 450 / 630 kg rated load
- Safety glass class 1(C)3, according to EN 12600 (glass in buildings)
- Placed 300 mm from floor in accordance with EN 81-70
- Surface mounted on a metal profile support
- Standard location on the rear panel for single entrance and on the opposite COP wall for double entrance

Handrail
- Round satin stainless steel tubes Ø 38 mm with curved ending
- Standard on the COP opposite wall. Available 1, 2, 3 side walls
- Telescopic adjustment for easy installation
- Compliant to EN 81-70

Skirting
- Stainless steel folded sheet 1.5 mm thickness, and 20 x 80 mm width x height
- On side and rear walls, on top and bottom car

Flooring material
- Homogeneous acoustic vinyl, 3 mm width, with easy clean treatment and high resistance properties
- Reaction to fire Cfl-s1
- Slip resistance > 0.3, EN 13893
- Optional, 20 mm recess for locally supplied flooring

Car operating panel.

Car Operating Panel (COP)
Silver Moon standard COP.

- Surface mounted vertical car operating panel, with front plate in stainless steel Gr.220D
- Optional front plate in white tempered safety glass 5 mm thickness, RAL 9003, with digital printing vitrified and round edges
- Black painted RAL 9004 steel rear case
- Dimensions: H x W x D = 1000 x 210 x 33 / 30 mm (glass / steel)
- Hinged opening for easy maintenance
- TFT 3.5” display with positioning and direction scroll indicator, white lettering on black background
- Display visible dimensions: H x W = 53 x 70 mm; letter size 30 mm + direction arrow
- Display resolution 320 x 240 (3.5”)
- Overload indicator
- Optional voice synthesizer
- Standard Dot Button design line in brushed stainless steel face plate
- Buttons for emergency call, door open and door close (optional)
- Max. number of buttons is 18
- Standard execution with emergency call audio. Optional intercom
- Prepared for third party communication devices (e.g. Safeline, SL1, Easy Alarm, etc.)
- Optional ECC-Encoded car calls, restricts car call with an access code, numeric keypad in COP

White Moon COP Silver Moon COP

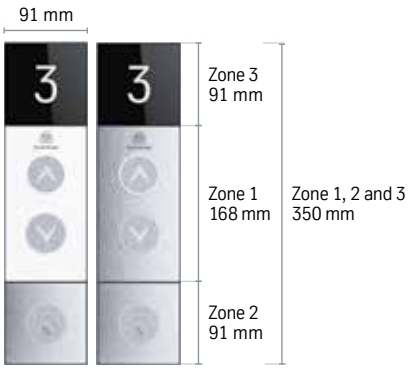
Push-buttons

- Standard Dot Button design line
- Compact round push-button, Ø44 mm touch area
- 15 mm tactile white characters / symbols and Braille lettering
- Silver stainless steel Gr.220D (AISI 441) front plate with translucent polycarbonate mold
- Round white confirmation call LED light
- Text font: TKTypeRegular
- Buttons range includes key switches, alarm, open / close doors, fan, etc.
- Compliant with standards EN 81-70

DB-01, push-button

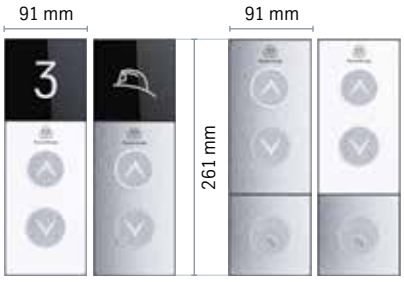
Landing operating and indicator elements.

Landing Operating Panel (LOP)
- Surface mounted landing operating panel
- Installation on the door frame or wall mounted
- Standard black aluminium rear case
- Standard Dot Button design line, with white call light confirmation
- Configurable concept allows a customize design:
  - Zone 1: Push-buttons / key switches zone
    Standard front plate in stainless steel Gr.220D. Optional in white safety glass 4 mm, RAL 9003
    Standard push-button front finish in silver stainless steel
    Available in two configurations, for one or two push-buttons
    Optional key-operated switch with and without return (consult configuration options)
  - Zone 2: Functional key switch zone (optional)
    Key switch for special functions (Access Control, Out of Service, etc.)
    Standard front plate in stainless steel Gr.220D
  - Zone 3: Display zone (optional)
    TFT 3.5" display module with floor and functions information
    Text font: TKTypeRegular



LOP 50
TFT 3.5'' display
2 Push-buttons, silver steel plate
White glass / Stainless steel LOP plate
1 Key switch, Stainless steel plate

Landing Direction Indicator (LID)
- Surface mounted landing direction indicator
- Wall mounted installation. To be placed at 1.80 m to fulfill EN 81-70
- TFT 3.5" display with arrow indicator (40 mm height)
- Dimensions: H x W x D = 101 x 91 x 21 mm
- White arrow centered on a black background display
- Front plate in white safety glass 4 mm, RAL 9003
- Standard black aluminium rear case



LOP 53
TFT 3.5" display
2 Push-buttons, silver steel plate
White glass / Stainless steel LOP plate

LOP 52
2 Push-buttons, silver steel plate
White glass / Stainless steel LOP plate
1 Key switch, Stainless steel plate

Landing Position Indicator (LIP)
- Surface mounted landing position and car direction indicator
- Horizontal installation on the wall
- Composed of two arrow displays and a floor display in between
- TFT 3.5" displays with floor information and arrow direction indication
- Total dimensions H x W x D= 91 x 261 x 21 mm
- White lettering (35 mm) and arrows (40 mm) on a black background
- Text font: TKTypeRegular
- Front plate in black safety glass 4 mm, RAL 9005
- Standard black aluminium rear case
- Lettering compliant to EN 81-70
- Optional in main landing access / all landing accesses

LOP 51
2 Push-buttons, silver steel plate
White glass / Stainless steel LOP plate

LOP 51
1/2 Key switch
Stainless steel LOP plate

LID 50

LIP 50

Technical data

Package	element
Landing door	
Door types	
Two-panel sliding door NECD, side opening	●
Two-panel sliding door NECD side opening, with full front	○
Two-panel sliding door P02C, central opening	○
Door width DW = 700 / 800 / 900 mm	● / ○
Door height DH = 2000 / 2100 mm	● / ○
Installation in shaft	●
Installation in recess	○
Installation in the landing with full front door (only for door type L2-M2T)	○
Fire protection safety standard E120 / EW60 (in accordance with EN 81-58 2)	●
Finish for doors panels and door frame and / or front wall	
Painted traffic grey A (RAL 7042)	●
Ferritic stainless steel Gr.220D (AISI 441)	○
Aluminium door sill	●
Aluminium profile between the door architraves	○
Cabin door	
Door types	
Two-panel sliding door EDO15, side opening	●
Two-panel sliding door OP14, central opening	○
Door width DW = 800 / 900 mm	● / ○
Door height DH = 2000 / 2100 mm	● / ○
Door protection	
Light curtain (mandatory EN 81-20/50)	●
Finish for the doors panels	
Ferritic stainless steel Gr.220D (AISI 441)	●
Aluminium door sill	●
Mechanical car door lock (mandatory EN 81-20/50)	●
Car Operating Panel (COP)	
White Moon COP: vertical white glass front plate	○
Silver Moon COP: vertical stainless steel front plate	●
Dot Button design Line, with white acknowledgment and Braille lettering	●
3.5" TFT display with position and direction indicator, white lettering on black background, overload indicator	●
Button for emergency call	●
Buttons for door open and door close	●
Main floor green round frame EN 81-70	●
Key switches in the control panel (Access / Functions)	○
Speaker + Micro / Speaker + Micro + Emergency call system CC15	● / ○
ECC Function - Encoded Car Calls	○
Landing fixtures	
LOP_50, Landing Operating Panel	
Mounted on the landing door frame[1] / on the wall	● / ○
Zone 1: Upwards / downwards call buttons / key switch special accesses	●
Zone 2: Functions key switches module	○
Zone 3: 3.5" TFT display module. Available for position indication or for position and functions indication	○ / ○
Front finish (Zone 1): Stainless steel Gr.220D or White tempered glass	● / ○
Front finish (Zone 2): Stainless steel Gr.220D	●
Front finish (Zone 3): Black tempered glass with lettering on black background	●
LIP_50, Landing Position Indicator	
TFT display module 3 x 3.5" with direction and position indication	○
Mounted on the wall / on the door lintel[1]	● / ○
Front finish: Black tempered glass with lettering on black background	●
LID_50, Landing Direction Indicator	
3.5" TFT display module with arrow indication	●
Mounted on the wall / on the door jamb[1]	● / ○
Front finish: White tempered glass with white arrow on black background	●

- ● Standard features
- ○ Optional
- \- Not available

[1] For side opening NECD doors L2.
[2] EW60 not available with installation in the landing with front wall of the elevator shaft. Please consult your thyssenkrupp Elevator sales representative for the available options.

Control functions

Package	element
Control box of the control system (H x W x D = 2305* x 280 x 150 mm)	
Painted traffic grey A (RAL 7042)	●
Ferritic stainless steel Gr.220D (no. 1.4509, AISI 441)	○
In top landing / in other freely definable landing[1]	● / ○
Offset position (cable length up to 40 m)	○
Controller operation	
Down collective	●
Full collective control, upwards / downwards	○
Duplex control system (group with 2 elevators)	○
Dual entrance on the same level / offset dual entrance	○
Uneven in duplex (group with different number of stops)	○
Parking level in main landing (fixed)	○
Dual button collective control (direction-sensitive)	○
Fire emergency control	
1 fire landing (stat.), voltage-free contact for customer-fitted fire detectors	○
Fire evacuation (signal by others)	○
EN 81-73 Controller (up to 4 evacuations floors) (fire detectors by customer)	○
Firemen service operation (not in accordance with EN 81-72)[2] (requires independent LOP)	○
Emergency evacuation	
Automatic in next landing in the case of power failure (load-dependent)	●
In any landing with UPS (uninterrupted power supply)	○
By means of customer-fitted emergency power supply	○
Emergency lighting in the elevator cabin (3h)	●
Emergency call system	
EAR: CC15 GSM / CC15 RTC Analogic	● / ●
Teleservice Gen. 7 including modern (preassigned)[3] / Teleservice Gen. 7 including modern and elevator attendant function	○ / ○
Others: SafeLine, Easy Alarm, Amphitec, etc.	○
Two-way intercom (elevator car - control cabinet)	○
Three-way intercom (elevator car - control cabinet - third point eg. lobby)	○
Special access control	
Key switch in the landing for access control (Disabling and enabling external calls)	○
Cancellation of car calls by means of double-click in the control panel	○
Key switch in the COP for special functions (VIP, Preference Service, Out of Service, Firemen, Maintenance, Fan, Car calls inhibition, etc.)	○
Encoded car calls-ECC, numeric keypad in the COP	○
Preference / Independent Service - COP	○
Out of service - LOP	○
Others	
Fan in car ceiling with automatic activation / deactivation and run-on: Operation with button in the elevator car or operation with key switch in the elevator car	● / ●
Overload indicator in the elevator car	●
Automatic cabin light switch off to reduce energy consumption	●
Sleep mode (automatic shutdown of control system, frequency inverter, indicator elements)	○
Voltage-free contact for collective fault signal[4]	
Preparation for BMS, Building Management System (Move, Stop, Breakdown)	○
Extended BMS (Move, Stop, Breakdown, Going up, Going down, Inspection, Out of Order and Fire Service)	○
Supply main switch RCD (Residual Current Device) Type B	●
Safety gear in counterweight (ask for availability)	○
Water pit sensor	○
Halogen-free shaft wiring[5]	○

Regulations and miscellaneous

Barrier-free version in accordance with EN 81-70	
Verbal announcement in elevator car, handrail, mirror on anti-splinter foil, direction indicator elements at all landings, buttons with Braille lettering, main floor green frame button, button to close and reopen the door, acoustic signal, emergency call system	○
EN 81-77 (Seismic conditions)	
Category 0: Design acceleration (m/s2): ad<1. EN 81-1 and EN 81-2 requirements are adequate and therefore no further actions are required	●
Category 1: Design acceleration (m/s2): 1 ≤ ad< 2.5. Minimum corrective actions are required	○
Category 2: Design acceleration (m/s2): 2.5 ≤ ad< 4. Medium corrective actions are required	○
Category 3: Design acceleration (m/s2): ad ≥ 4. Substantial corrective actions are required	○
Compliance EN 81-20/50	●

Note: In case that control cabinet is positioned next to the shaft door, the height of the control cabinet is related to the door height DH + 305 mm. If the control cabinet is installed with offset position, the height is always 2305 mm.

[1] In case of installation on landing, the control cabinet will be always integrated in the front wall of the elevator shaft.

[2] After activation via key switch, all internal and external calls are deleted. Elevator car moves to fire landing (change the travelling direction might be necessary). Only commands from elevator car are accepted.

[3] Preassigned for Germany and included in the standard.

[4] This option is realized via the option "Voltage free contact for Building Management System BMS".

[5] All cables / wirings with exception of motor cable as well as the travelling cable are halogen-free. Please consult your thyssenkrupp Elevator sales representative for the available options.

Elevator Technology

thyssenkrupp Elevator Manufacturing Spain
C/ Federico Cantero Villamil, 4
Parque Tecnológico de Móstoles
28935 Móstoles (Madrid), Spain
T: +34 91 481 77 00
www.thyssenkrupp-elevator.com
csc_madrid@thyssenkrupp.com

thyssenkrupp Aufzugswerke GmbH
Bernhäuser Straße 45
73765 Neuhausen a.d.F., Germany
T: +49 (0) 7158 12-0
www.thyssenkrupp-elevator-eli.com
info.TKAW@thyssenkrupp.com

engineering.tomorrow.together.