ISI 2040® The Elevator

SCHMITT+SOHN ELEVATORS



ISI 2040® THE ELEVATOR DESIGN THE FUTURE SPARK INSPIRATION

CONTENTS

Welcome Key performance indicators The elevator Quality Materials-Colours-Surfaces Doors Accessories Responsibility The planning The service Contact Imprint

4

| 6 | |
|---------|--|
| 8 - 9 | |
| 10 – 53 | |
| 14 | |
| 26 | |
| 34 | |
| 38 | |
| 52 | |
| 54 - 63 | |
| 64 - 69 | |
| 70 | |
| /0 | |
| 72 | |



WELCOME

appreciate.

Welcome to Schmitt + Sohn.

Maximilian Schmitt Managing partner

It gives us great pleasure, and not a little pride, to present to you our product brochure ISI 2040[®]. An internationally award-winning product, borne from the passion of 1,900 dedicated employees. For customers who place the highest demands on quality, and are looking for longlasting partnerships. A product that stands out from planning to service, and that has set international standards for its impressive technology and excellent design. A product with experience which you will

We are a family company, and we have been planning, building and servicing elevators for over 100 years. From the conviction of first-class and sustainable products. Like the ISI 2040[®].

We develop outstanding products by concentrating on the essentials, such as functionality and design quality. The economy of the ISI 2040® is based not only on the outstanding concept of simplified planning and personal project management.

The high-quality materials and the ingenious design of ambitious details solutions ensure the maintenance of value, making it unique in its price class. Combined with the excellent service, it stands for the high availability of every Schmitt + Sohn elevator.

We and all of our employees stand for these values, which grow from the commitment of a family-managed company with centuries of experience and a sense of responsibility for our workforce, customers and partners. Look, read and discover.



OUR KEY PERFORMANCE **INDICATORS**

Schmitt + Sohn at a glance - the key performance indicators of a successful company

1861

Foundation of the company. A long tradition in elevator construction and service begins.

The company family remains a constant.

6

2,100

systems produced annually. Production in our own plants.

24

-hour on-call readiness 365 days per year. Always there for you.

100,000 elevator systems built. Our reference customers are distributed throughout Europe.

50,000

systems to be serviced annually. Competence you can rely on.

Our Values

Ongoing learning: That is what our 1,900 passionate employees, who contribute their expertise and abilities every day, stand for.

Quality: Continuous development and improvement We provide you access to a service manager to of our processes and products, for example in prosupport you for the entire time your elevators are in duction. Each year, 2,100 new systems leave our service. This is a big responsibility, as we service over 50,000 systems each year. Thanks to a decencompany with a consistently high level of quality. tralized network, we are always nearby to ensure you Corporate reliability: The foundation of long-lasting receive the support you need. relationships to our customers and our employees. Reliability is our top priority: our services are availa-This is a value we have been focused on for over 160 ble to you 24 hours a day, 365 days a year - with no

waiting time, for successful, long-term partnership. years.

Key performance indicators

18

generations of experience. domestic and foreign companies. Decentralised, and always close by.

1,900

employees. Success has many faces. 118 apprentices are included in this number.

million euros in turnover.

Convincing results.

180

Our products

We develop outstanding products that meet high technical and aesthetic requirements. They are created through a dialog between architecture, design, and technology. This is part of our selfconviction as a company. A systematic approach, functionality, and the quality of painstaking workmanship down to the last detail are part of our commitment to meaningful development and design. Human mobility is our mission.

Our service

4

countries in Europe. We maintain locations in: Germany, Portugal, Austria, and the Czech Republic.

9001

standard quality. Improving. Developing. Looking ahead.

()

bank liabilities. Independence for strong partnerships.

ISI 2040® THE ELEVATOR

ISI 2040[®] The elevator



ISI 2040® THE ELEVATOR

AN INTERNATIONALLY AWARD-WINNING SERIES PRODUCT, FOR SOPHISTICATED ARCHITECTURE.

ISI 2040[®] The elevator values.

The ISI 2040[®] fulfills the highest standards. Thanks to its high-quality series equipment and carefully coordinated accessories, it is uniquely suited for use in all areas.

ISI 2040[®] Design

We consider a passenger elevator to be not only a means of transport, but of communication as well: ISI 2040[®] is the result of an intensive development dialog between architecture, design, and technology. It offers an attractive design reduced to the essential elements through a focus on function, a clear stylistic idiom and discreet elegance.

Simple. Impressive. Pioneering.

The features in the elevator cab stand out for their carefully selected materials, elegant colors and functional surfaces. The quality equipment also includes ergonomic operating panels, stainless steel handrail systems and LED lighting systems with glare-free light. All of these make this proven elevator a future-proof investment.

benefits of a series product. support.

ISI 2040[®] Availability

Our development process focuses on safety, ergonomics, and riding comfort. Users, operators, and service personnel enjoy the effective protection of a comprehensive safety concept, developed in accordance with European standards and always type-tested. Our employees are gualified in-house in development, sales, production, installation, and service, ensuring the highest level of guality and availability. Since we only use our own production, personnel, and ensure replacement parts availability, we guarantee service is always available for all Schmitt + Sohn elevators.

Developed from our commitment to good construction and timeless

ISI 2040[®] Cost effectiveness

Because the drive technology requires no machine room, the ISI 2040[®] is an extremely space-saving option. The low energy and operating costs, high-quality materials and careful implementation of ambitious detailed solutions ensure it can retain its value for the long-term. In addition to its unique drive advantages, the ISI 2040[®] has the key

Simple planning. Quick production. Reliable installation. Easy service. We guarantee the project will run smoothly through our personal project

Combined with excellent service, the ISI 2040[®] stands for the high availability you expect from Schmitt + Sohn elevators.

ISI 2040[®] QUALITY PERFECT TO THE LAST DETAIL







Lighting LD7 Wallwasher

| Dimensions: | HWD 12 x 132 x 1,260 mm* |
|----------------|--|
| Trim: | Metal, painted brilliant white |
| Filter panel: | Acrylic glass, white, semi-transparent |
| Light frame: | Acrylic glass, white, satin finish |
| Light sources: | LED neutral white |

* Example dimensions for car size, width 1,100 mm x depth 1,400 mm



Vertical section of ceiling with integral LED light and fitted filter panel, light frame and trim. Lighting scheme, wallwasher and light frame.



Operating panel BT-I-TFT-LED

| Dimensions: | HWD 1,205 x 150 x 15 mm |
|--------------------|--|
| Operating panel: | Stainless steel, satin finish |
| Light frame: | Acrylic glass, white, satin finish, |
| | LED white |
| Information panel: | Acrylic glass, white |
| Display: | High-resolution TFT |
| Buttons: | Stainless steel, satin finish, inset flush |
| Call acceptance: | Blue LED |
| Symbols: | Plastic, light grey |



Handrail HL / Mirror S2

Handrail: Mirror S2:

Stainless steel, satin finish, ø 33.7 mm Handrail holder: Stainless steel, satin finish, solid. Handrail ends: Stainless steel, satin finish, welded Rear wall, centre, cab height, bright, inset flush, mirror edges ground and polished



Horizontal section of rear wall / side wall. Mirror inset flush into rear wall.



Floor / skirting rail / mirror S2

DC plastic, DC 2 stripes* Floor: Skirting rail: Stainless steel, satin finish

* Free from PVC, chlorine and plasticizes, heavy-duty and hard-wear-ing, low maintenance, and environmentally friendly.

Vertical section of rear wall / floor. Skirting rail fitted. Concealed, generously dimensioned cab ventilation under the skirting rail.





Quality

| Detail | Description | s Accessories |
|------------------------|--|---------------|
| | | |
| Walls | Plastic-coated, single colour | • |
| | Stainless steel, satin finish, stainless steel, linen | 0 |
| Ceiling | white. Concealed, generously dimensioned cab ventilation at cabin depth in both side walls | |
| lighting | LD7 LED wallwasher, indirect and glare-free illumination. LED neutral white. Shade, varnished metal, brilliant white. Filter disk and illuminated frame made of white acrylic glass, semi-transparent. | |
| | LD7 LED RGB wallwasher. LED neutral white, LED RGB with colour and light control ¹⁾ | 0 |
| | LD8 LED illuminated ceiling, direct and glare-free illumination. LED neutral white. Aluminium frame, brilliant white, light surface made of white plastic, semi-transparent ¹³⁾ | 0 |
| | LD8-LED-RGB illuminated ceiling. LED-RGB with color and light control ¹³⁾ | |
| loor | DC plastic, DC 2 stripes ²⁾ | |
| | Linoleum, rubber nubs, EL plastic ²⁾ , granite | 0 |
| | Lowered cab floor for installed floor covering ³⁾ | 0 |
| kirting rail | Stainless steel, satin finish. Concealed, generously dimensioned cab ventilation | |
| rotection rails | Luggage protection rails, Stainless steel, satin finish, 100 x 20 mm | 0 |
| Airror | Mirror S2, glass with splinter protection film, rear wall, centre, cab height, bright, inset flush, mirror edges ground and polished ⁴⁾ | |
| | Mirror S5, glass with splinter protection film, rear wall, cab width, half-height, bright, surface-mounted, edge protection of stainless steel, satin finish, mirror edges ground and polished ⁴⁾ | 0 |
| landrail | Stainless steel, satin finish, suitable for the handicapped to DIN EN 81-70 ⁵⁾ , side wall ø 33.7 mm, cab depth. Handrail holder stainless steel, solid. Handrail ends: Stainless steel, welded | |
| | Second handrail opposite, next to operating panel | 0 |
| Dperating panel Cab | Stainless steel, satin finish, positioned suitable for the handicapped to DIN EN 81-70 ⁵⁾ , concealed attachment. Information panel acrylic glass, white, light frame acrylic glass, white, satin finish, LED. Display neutral white high-resolution TFT. Short-travel buttons, flush, round, button surface stain- less steel, call acceptance blue LED, symbols plastic, light grey | |
| | Stainless steel, satin finish, suitable for the handicapped to DIN EN 81-70 Appendix B, horizontal, concealed attachment. Separate information panel. Large, raised buttons, round, button surface stainless steel, call acceptance blue LED, symbols raised, tactile, plastic, light grey ⁶⁾ | 0 |
| | Nameplates in control panel NS2 14) | 0 |
| lameplate banel | Stainless steel, satin finish, concealed attachment. Nameplates made of white acrylic glass, engraved in dark grey, exchangeable. Illuminated frame made of white acrylic glass, satin-finished, LED neutral white. | 0 |
| ab portal | Stainless steel, satin finish | |
| | Stainless steel, linen | 0 |
| ab door | Stainless steel, satin finish, two-piece, one-sided opening, door height 2,000 mm | |
| | Door height 2,100 mm ⁷ | 0 |
| | Stainless steel, linen | 0 |
| oor drive | Energy-saving regulated drive with intelligent travel measurement | |



Brilliant white

Light grey

| Detail | Description | Series | Accessories |
|-------------------------------|--|--------|-------------|
| Door monitoring | 2-D safety light grid over full door height | • | |
| | 3-D safety light grid with vestibule monitoring | | 0 |
| Shaft doors | Primed, two-piece, one-sided opening, height as for cab door | • | |
| | Stainless steel, satin finish, stainless steel, linen ⁸⁾ | | 0 |
| | Wall bezel settings M1, primed, stainless steel, satin finish, stainless steel, linen | | 0 |
| Operating panel Shaft door | Stainless steel, satin finish, mounted in door frame, concealed attachment. Short-travel buttons, inset flush, button surface stainless steel, call acceptance blue LED, symbols plastic, light grey | ٠ | • |
| | Positioned in the masonry, easier accessibility to DIN EN 81-70, cover plate screw-fitted | | 0 |
| | Large buttons, suitable for the handicapped to DIN EN 81-70 Appendix B, panel width 80 mm | | 0 |
| Controls | Collective single-button control using the latest bus technology. Fast orien- tation and avoidance of selection mistakes for short waiting times and high carriage capacity. Service panel at the top stopping point, primed ⁹⁾ . Over- load control. Frequency regulation for load-independent travel curves and accurate stopping. Battery-buffered, load-dependent emergency escape at the next stopping point. | • | |
| | Emergency power and evacuation functions. Access control systems. Penthouse control. Priority carriage with key switch. Floor announcement. Travel direction displays and acoustic signals to DIN EN 81-70. Interfaces to building control systems | | 0 |
| | Service panel stainless steel, satin finish, Stainless steel, linen | | 0 |
| | Service access point frame at any stop or service panel in neighbouring rooms. $^{9)} \ \ $ | | 0 |
| | Collective two-button control, collective group control | | 0 |



Lime green

| | | | 10 |
|--------------|------------|-------------|----|
| • | | P | - |
| | | | |
| | | | l |
| | | 2 | |
| Light orange | Azure blue | Pearl white | S |

| Detail | Description | Series | Accessories | Deta |
|-----------------------|---|--------|-------------|-----------------|
| Emergency call system | Digital emergency call and diagnosis system to EN 81-28 for emergency call transmission to the continually-manned Schmitt + Sohn Service Centre. Electronic misuse suppression ¹⁰⁾ | ٠ | • | Energ |
| | Video misuse identification for the digital emergency call and diagnosis system ¹⁰⁾ | | 0 | Stand |
| | Remote monitoring of elevator attendant functions, transmission of diagnosis data, GSM module ¹⁰⁾ | | 0 | Enerç |
| Shaft | Acoustic decoupling element for the drive to reduce structure-borne sound transmission that meets the increased requirements of DIN 8989. ¹²⁾ | | 0 | Shaft |
| Drive | Gearless cable drive in the shaft. High efficiency and low power consumption. | | | extra |
| | Load dissipation via the guide rails into the shaft pit. Speed 1.0 m/sec. Travel height up to 45 m | • | | Interr circu |
| Lifting gear | Plastic-sheathed steel cable, quiet running, reduced wear (compared to conventional steel cables), maintenance-free. No electronic monitoring and no lubrication required. | • | | switc |

We will be happy to assist you with your planning.

Please contact us.

Subject to technical amendment.

| Detail | Description | Series | Accessories |
|---|---|--------|-------------|
| Energy-saving mode | Deactivation of cab light, fan and displays in the event of stoppage. On cal entry, the assemblies switch themselves on again automatically. Potential saving of up to 70% of power consumption | • | ٠ |
| Stand-by mode | Staggered shutdown of light curtain, controls and frequency regulation after a long standstill time (night mode) | | 0 |
| Energy calculator | Preparation of energy efficiency forecasts according to VDI 4707 and ISO 25745 | | 0 |
| Shaft smoke extraction | X-Trac: heat loss reduction system via shaft ventilation. Electrically controlled window, rooflight dome or ventilation hood. | | 0 |
| Intermediate circuit collective switching | Reciprocal energy feed in case of opposite movement direction of cabs in one group ¹¹⁾ | | 0 |
| | | | |

- 1) In RGB mode, reduction of the brightness in the cab is possible. 9) Observe possible fire safety requirements in necessary stairwells. 2) Free from PVC, chlorine and plasticizes, heavy-duty and hard-wearing, low maintenance, and environmentally friendly.
 10) Redirection to the Schmitt + Sohn Service Centre and permanent on-call readiness is agreed in a separate service contract. 11) On request.
- 3) Maximum 50 kg/m² and 20 mm thickness. Changes of colour shade possible depending on floor covering.

23



Stainless steel

- shade possible depending on noor covering.
 4) For elevators with two opposing entrances, only the S5 mirror is available.
 5) Agreement required between the customer and Schmitt + Sohn on proper use. Not for 320 kg capacity.
 12) building area required methods in accordance with 2 models of the solution of the sol
- 6) Not for 320 and 450 kg capacity.7) Not available in case of reduced shaft head of 2,600 to 2,800 mm.
- 8) Service access point frame analogous to shaft door.
- 12) Building shell requirements in accordance with DIN 8989 must be









Horizontal section of cab and shaft door with door frame / wall connection T1.

Wall connection T1

| Shaft door: | Two-piece, one-side opening, sliding door, primed steel plate Accessories: Stainless steel, satin finish |
|------------------|---|
| Door frame / | |
| wall connection: | Primed steel plate |
| | Accessories: Stainless steel, |
| | satin finish |
| Operating panel: | Stainless steel, satin finish |
| Buttons: | Stainless steel, satin finish, inset flush |
| Call acceptance: | Blue LED |
| Symbols: | Plastic, light grey |
| | |

Cab and shaft door with wall connection T1 Door sills

Wall connection T1 with service access frame

Shaft door: Two-piece, one-sided opening, sliding door, primed steel plate Accessories: Stainless steel, satin finish Door frame / wall connection: Primed steel plate Accessories: Stainless steel, satin finish

Cab door: Two-piece, one-sided opening, sliding door, stainless steel, satin finish Door sills: Aluminium

Service

access frame: Primed steel plate Accessories: Stainless steel, satin finish

Horizontal section of door opening to one side/service access frame

Cab and shaft door with wall connection T1 Door sills, service access frame

Service

access frame: Primed steel plate Accessories: Stainless steel, satin finish

Operating panel BT-TP-66

Dimensions: Operating panel: Buttons: Call acceptance: Blue LED Symbols:

HWD 305 x 66 x 2 mm Stainless steel, satin finish Stainless steel, satin finish, inset-flush Plastic, light grey

ISI 2040® ACCESSORIES FOR INDIVIDUAL REQUIREMENTS

Nameplates NS2

| Dimensions: | HW 30 x 81 mm |
|-------------|---|
| Nameplates: | Stainless steel, satin finish, individually |
| | replaceable |
| Lettering: | Dark grey engraving |

Name plate panel TNS 2-LED

Dimensions: Name plate:

HWD 763 x 90 x 15 mm Name plate panel: Acrylic glass, white, satin finish Acrylic glass, white Digital printed, process black

Horizontal section of side wall with fitted operating panel and name plate panel. Lighting scheme, light frame.

ISI 2040® LIGHTDESIGN

THE 4TH DIMENSION OF ARCHITECTURAL DESIGN.

LD7 LED RGB wallwasher

Schmitt + Sohn light design make many attractive light designs possible by using intelligent RGB colour controls. Colours, colour changes and colour rhythms can be effectively combined with each other. This is how impressive, inspiring and out-of-the-ordinary atmospheric lighting can be achieved in the elevator car.

The colours change in the illuminated frame of the car. The light coming from the side is optically enhanced in the reflection on the car ceiling.

The excellent basic brightness in the car is generated by the powerful white LED illuminated frame and the LED area in the centre.

Light installations can be programmed in accordance with customer-specific, design or functional requirements.

Applications are, e.g.: Simulation of a natural cycle of daylight. Creating lighting effects, Colour floor visualisation

ISI 2040[®] elevator with LD7 LED RGB wallwasher.

| Dimensions: | HWD 12 x 132 x 1,260 mm* |
|--------------|--------------------------------------|
| Lamps: | power LED |
| Accessories: | LED RGB, colour control |
| Illuminated | |
| frame: | white acrylic glass, satin-finished, |
| | semi-transparent |
| Shade: | varnished metal, brilliant white |
| | |

* Example dimensions for car size, width 1,100 mm x depth 1,400 mm

Vertical section of LD7 LED RGB wallwasher Functional diagram of direct and indirect lighting

ISI 2040[®] elevator with LD8 LED illuminated ceiling.

Dimensions: HWD 38 x 940 x 1,300 mm* Edge distance to side walls 80 mm each, to entry side and to back wall 50 mm each. power LED, neutral white Lighting: Accessories: LED RGB color control aluminium, brilliant white Frame: Light surface: plastic, white translucent, B1 flame-resistant

* Example dimensions for car size, width 1,100 mm x depth 1,400 mm

LD8 LED illuminated ceiling LD8 LED RGB illuminated ceiling

Highest functionality, puristic design and brilliant light technology characterise the totally new LD8 LED illuminated ceiling. The homogenous, neutral white illuminated surface and the very flat design of the LD8 are among its essential features.

The especially developed frame geometry not only achieves a virtually frameless light surface - it also gives the LD8 a very delicate appearance. Slightly rounded decorative profiles on the front give the LD8 a characteristic and distinctive design. The interior of the elevator car appears generously roomy and elegant. Impressive colours and shapes are a feast for your eyes.

Intelligent LED RGB color control facilitates versatile and attractive lighting designs. Colors, color changes and rhythms can be combined with one another effectively. This creates impressive, inspiring, and unusual lighting effects in the elevator cab.

Colors change in the illuminated frame of the cab lighting. The light coming from the side is visually amplified by the reflection on the ceiling of the cab.

The powerful white LED illuminated frame and LED center surface produce a very good base level of brightness in the cab.

Lighting effects can be programmed based on customerspecific, design, or functional requirements. Applications include, for instance: Simulating the natural progression of daylight Creating lighting moods Visualizing different floors in different colors

Vertical section of LD8 LED illuminated ceiling. Functional diagram of direct lighting. LED neutral white.

Vertical section LD8 LED RGB - illuminated ceiling. Functional diagram of direct lighting. LED neutral white, LED RGB lighting control.

Operating panel EN 81-70-B

| Dimensions: | HWD 180 x 500/600 x 99.5 mm |
|------------------|---|
| Operating panel: | Stainless steel, satin finish |
| | EN 81-70, Appendix B |
| Buttons: | Stainless steel, satin finish, large but- |
| | tons, raised. Main access: Plastic ring |
| | green, raised. |
| | Emergency call button: recessed |
| Call acceptance: | Blue LED |
| Symbols: | Plastic, light grey, raised, tactile |
| | |

Vertical section of side wall. Operating panel EN 81-70-B.

Display panel AT-I-TFT-LED

Dimensions: Display panel: Light frame:

Display:

HWD 490 x 150 x 15 mm Stainless steel, satin finish Acrylic glass, white, satin finish, LED neutral white g, Information panel: Acrylic glass, white high-resolution TFT

Horizontal section of side wall with operating panel DIN EN 81-70, Appendix B. Surface-mounted display panel. Lighting scheme, light frame.

Luggage protection rails

Dimensions: HW 100 x 20 mm Stainless steel, satin finish Mirror S5

Mirror S5:Rear wall, cab width, semi high, bright,
suitable for the handicapped to
DIN EN 81-70, surface-mounted, mirror
edges ground and polishedMirror palister:Stainless steel, ground and polished,
edge protection

Vertical section of rear wall/floor. Fitted luggage protection rails. Vertical section of rear wall / mirror S5, surface-mounted.

Cab and shaft door with wall connection T1 and wall bezel M1

Wall bezel: Primed steel plate Accessories: Stainless steel, satin finish

Operating panel BT-TP-LED-66-1 Operating panel BT-TP-LED-66-2 Collective two-button and group control

| Dimensions: | HWD 305 x 66 x 2 mm |
|------------------|--|
| Operating panel: | Stainless steel, satin finish, concealed |
| | attachment |
| Display: | Blue LED |
| Buttons: | Stainless steel, satin finish, flush- |
| | mounted, positioning to DIN EN 81-70 |
| Call acceptance: | Blue LED |
| Symbols: | Plastic, light grey |
| | |

Responsibility

"One customer – one responsible project manager. The expectations we place on ourselves are exacting. For the customer, this means they always have a competent partner to handle all of their needs from the first planning meeting to acceptance by the building owner, throughout Europe."

Florian Hemsen, New system sales

ISI 2040® THE PLANNING

Door height (TH)

Snatt head (SK) Cab height (KH)

Doors one-sided opening

Please give us a call.

| Capacity in kg | g and persons | C | Cab dimensions in mr | n | Door dimensions | in mm | Shaft dimensions in mm | | | | |
|----------------|---------------|------------|----------------------|---------------------------|-----------------|---------------------------|--------------------------|-----------------------------|-----------------------|------------------------------|-------------------------------|
| kg | Persons | Width (KB) | Depth (KT) | Height (KH) ³⁾ | Width (TB) | Height (TH) ⁵⁾ | Width (SB) ⁴⁾ | Depth (ST) | | | |
| | | | | | | | | Door one side ⁶⁾ | Opposite entrances 7) | Shaft pit (SG) ²⁾ | Shaft head (SK) ³⁾ |
| 320 | 4 | 900 | 1,000 | 2,200 | 800 | 2,000 | 1,400 | 1,350 | 1,540 | 1,050 | 3,500 |
| 450 | 6 | 1,000 | 1,250 | 2,200 | 900 | 2,000 | 1,550 | 1,600 | 1,790 | 1,050 | 3,500 |
| 630 | 8 | 1,100 | 1,400 | 2,200 | 900 | 2,000 | 1,550 | 1,750 | 1,940 | 1,050 | 3,500 |
| 675 | 9 | 1,200 | 1,400 | 2,200 | 900 | 2,000 | 1,650 | 1,750 | 1,940 | 1,050 | 3,500 |
| 1,000 | 13 | 1,100 | 2,100 | 2,200 | 900 | 2,000 | 1,550 | 2,450 | 2,640 | 1,050 | 3,500 |

56

1) Customers should note the Energy Saving Directive (EnEV) 2) Reduced shaft pit: \geq 500 mm (with 6 mm floor covering und adhesive).

 \geq 3,000 to < 3,500 mm with alternative measures technically possible.

- \geq 2,800 to < 3,000 mm in consultation and with technical clarification with
- \geq 2,600 to < 2,800 mm, CH 2,100 mm, DH 2,000 mm in consultation and with technical clarification with alternative measures possible.
- Note: there are different approvals for reduced shaft heads and shaft pits in in dividual countries. In some cases a reduction is not permitted. A clarification with the authorities responsible may be necessary. We will be happy to sup-
- 5) Door height 2,100 mm optional (not available for SK < 2,800 mm).
- 6) Shaft depth reduced by 120 mm is possible with arrangement of the

7) Shaft depth reduced by 240 mm is possible with arrangement of the

We will be happy to assist you with the planning and tender.

ISI 2040® Type-approved elevator system to EN 81

The drive:

- Convenient: Superior, frequency-regulated drives
- Energy-saving: Energy efficiency class A in usage category 2⁸⁾
- Quiet: Noise pressure level below the requirements of the standard $^{9)\mbox{--}11)}$
- Safe: Stopping accuracy better than the standard ¹⁴⁾

The controls:

- Passenger comfort: Float up and down with the ISI 2040° $^{15)}$
- · Energy-saving mode: Automatic switching off of cab lights and displays after longer standstill. Potential saving of up to 70% of power consumption⁸⁾
- Stand-by mode: Staged running-down of controls and frequency regulation after longer standstill (night mode)⁸⁾
- LED technology: In operating and display panels ⁸⁾
- Bus technology: Easy installation and maintenance

The cab:

- Large: Maximum shaft utilisation in new and existing shafts ^{2) -7)}
- User-friendly: Fast orientation and easy operation
- Bright: Cab lighting with wallwasher, indirect, glare-free $^{\rm 12),\,13)}$
- Airy: Generous ventilation in the skirting and ceiling area ¹⁶⁾
- Friendly: Materials, colours and surfaces
- Smooth: Horizontal and vertical acceleration with top values ¹⁵⁾

The elevator shaft:

- Maximum cab size: In new and existing systems ²⁾⁻⁷⁾
- Adaptable: Optional reduction of shaft pits and heads $^{\rm 2),\,3)}$
- · Elevator shaft smoke extraction: heat loss reduction system via shaft ventilation, optionally with electrically controlled window, rooflight dome or ventilation hood ¹⁾

The doors:

- Convenient: Adjustable operating settings¹⁵⁾
- Safe: Light grid over the full door height
- · Stand-by mode: Running-down of light grid after longer standstill (night mode)⁸⁾
- EN 81-58: Fire resistance
- Flexible: Left- or right-opening. One-sided or opposite

Subject to technical amendment.

| Capacity | Energy | Noise pressure level in dB (A) | | | | | | | |
|----------|-----------------------------------|--------------------------------|---------------------------|--------------------|---------------------------|-------------------|---------------------------|--|--|
| in kg | efficiency class ⁸⁾ | In front of | shaft doors | In the | e cab | In the shaft | | | |
| | | DIN ⁹⁾ | ISI 2040 ^{® 10)} | DIN ¹¹⁾ | ISI 2040 ^{® 10)} | DIN ⁹⁾ | ISI 2040 ^{® 10)} | | |
| | | | | | | | | | |
| 320 | A | 65 | 40 | No specification | 50 | 75 | 51 | | |
| 450 | А | 65 | 40 | No specification | 50 | 75 | 51 | | |
| 630/675 | А | 65 | 40 | No specification | 50 | 75 | 51 | | |
| 1,000 | А | 65 | 40 | No specification | 50 | 75 | 51 | | |

| Capacity | Brightne | ess in Lux | Stopping accuracy in mm | | | | |
|----------|------------------------|---------------------------|-------------------------|-----------|----------------------|-----------|--|
| in kg | 1 m above cab floor | | Stopping accuracy | | Adjustment accuracy | | |
| | EN 81 ¹²⁾ | ISI 2040 ^{® 13)} | EN 81 ¹⁴⁾ | ISI 2040® | EN 81 ¹⁴⁾ | ISI 2040® | |
| 320 | min. 100 | min. 200 | +/- 10 | +/- 3 | +/- 20 | +/- 8 | |
| 450 | min. 100 | min. 200 | +/- 10 | +/- 3 | +/- 20 | +/- 8 | |
| 630/675 | min. 100 | min. 200 | +/- 10 | +/- 3 | +/- 20 | +/- 8 | |
| 1,000 | min. 100 | min. 200 | +/- 10 | +/- 3 | +/- 20 | +/- 8 | |

| Capacity in kg | Smoothness | in milli-G ¹⁵⁾ | Air volume determina terms of a rate in in n | e tion in ir exchange n³/h |
|-------------------|------------|---------------------------|---|-------------------------------------|
| | horizontal | vertical | DIN ¹⁶⁾ | ISI 2040® |
| 320 | 8.5 +/- 1 | 13.5 +/- 1 | 10 | 36 |
| 450 | 8.5 +/- 1 | 13.5 +/- 1 | 14 | 39 |
| 630/675 | 8.5 +/- 1 | 13.5 +/- 1 | 17 | 53 |
| 1,000 | 8.5 +/- 1 | 13.5 +/- 1 | 25 | 66 |

- 8) The basis for calculation is usage category 2 in accordance with 12) N 81-20, safety rules for the construction and the installation of VDI 4707 for an ISI 2040[®] with 1000 kg capacity, 25 m travel elevators. Requirement: minimum illumination level 1 m above the height and 1.0 m/sec. speed as well as energetic recovery syselevator car and on the control devices: 100 lux. tem. 13) Further maximum values up to 350 Lux are possible, depending
- 9) DIN 8989, Acoustical design in buildings Elevators. Compliance on the selected lighting and equipment. with DIN 4109 on the basis of DIN 8989 must be ensured by 14) EN 81-20 structural sound protection.
- Constructional noise protection measures must be taken into account in the planning. Consultation on noise requirements is recommended.
- 10) The specified noise pressure levels refer to an ISI 2040[®] elevator in a concrete shaft with a mass per unit area in accordance with 16) DIN 1946 Part 1 and 2: Cab volume x 5. DIN 8989.
- 11) DIN 8989 specifies no reference value here. The noise pressure levels specify only the degree of comfort for the user.

Adjustment accuracy: At level differences \geq 20 mm when loading and unloading, the elevator is adjusted and must regain the prescribed stopping accuracy.

- 15) ISO 18738, Elevators Measurement of passenger comfort of elevators, describes the measurement procedure.

630/8

630 kg Capacity 8 Persons

1000/13

1,000 kg Capacity 13 Persons

ENERGY EFFICIENCY THE ISI 2040[®] COMPLIES WITH THE HIGHEST ENERGY EFFICIENCY CLASS A¹

High consumption

The energy consumption of all buildings in Germany is approx. 40% of the total energy consumption.²⁾ Elevators take up to 3 to 5% of this, which in the whole of Europe makes 18 TWh annually.³⁾

The energy consumption of an elevator is determined by many factors. The main factors are:

- the movement consumption
- the consumption when stopped
- the energy loss due to heat escaping via the shaft ventilation

The weighting of the factors depends heavily on the use of the relevant elevator. The stopped consumption of elevators in residential buildings alone makes up about 70% of the total energy consumption of the elevators.

The power consumption is determined primarily by the system components and their energy efficiency.

For elevators which are mostly in standby operation, the energy consumption can be reduced by modern controls by up to 50%. For cable elevators subject to frequent usage, high-quality drives with a high efficiency level should be used. Intelligent control systems can be used to avoid mistaken trips and optimize call assignment in elevator groups, depending on the level of traffic. Reciprocal energy feed is possible in case of opposite movement direction of cabs in elevator groups. Roll resistance should be optimised by high-quality, maintenancefree ball bearings, round grooves and plastic-sheathed cables and lighter constructions.

A shaft smoke extraction system can reduce the energy loss caused by heat escaping through the shaft. Correct and sustainable elevator maintenance by qualified specialist personnel on the basis of EN 13015 permanently ensures the success of energy-saving measures.

- The basis for calculation is usage category 2 in accordance with VDI 4707 for an ISI 2040[®] with 1000 kg capacity, 25 m travel height and 1.0 m/sec. speed as well as energetic recovery system.
- 2) Source: REGIERUNGonline, Bauen und Wohnen
- 3) Source: VDMA, Energieeffizienz in der Aufzugstechnik
- The calculation basis are shaft dimensions of 1,750 x 1,800 mm surface area, 5 doors 900 x 2,000 mm, one-sided opening, shaft height 16 m

ADVANCED TECHNOLOGY FOR CONSISTENT ENERGY-SAVING.

Energy-saving potential in movement consumption

The power consumption of elevators during movement depends mainly on the drive type. Modern, high-quality drive and control technology reduce the energy consumption significantly. This is shown by the comparison of the movement consumption of an ISI 2040[®] with common drive types:

Energy-saving in standstill consumption

The power consumption of elevators during standstill depends mainly on its active consumption sources. The standstill consumption can comprise up to 82% of the total energy consumption of a elevator. The greatest energy-saving potential lies in the switching off of unneeded consumers.

This is shown by the technical solutions of the ISI 2040[®]:

Energy-saving potential in the shaft

Heat can escape unhindered to the outside through the required smoke extraction openings in the shaft head. Here the greatest energy-saving potential lies in closing the smoke extraction openings electrically operated dome lights or louvers. The dome lights or louvers open on smoke detection (automatically) or deliberate ventilation (manually).

Three steps to the energy-efficient elevator

The planning of serviceable and capable elevator systems should at an early stage take into account the building type, the planned use, and the applicable legal standards and regulations.

The energy assessment of an ISI 2040[®] in three steps:

- 20% Energy-saving in comparison to a comparable cable elevator with gearbox and frequency regulation.
- 50% Energy-saving in comparison to a comparable cable elevator with gearbox, pole-changing with 2 speeds.
- 80% Energy-saving in comparison to a comparable hydraulic elevator.
- 33% Energy-saving potential through the use of efficient lighting and switching off the cab lighting when the elevator is at a standstill.
- $5\,\%$ Energy-saving potential through the switching off of the door drive and light grid.
- 1 % Energy-saving potential through the switching off of the cab stopping and direction displays.
- 10% Ene
- Energy-saving potential through the switching off of the frequency converter in off-peak times.

10.400

kWh Energy-saving is possible throughout the year if the escape of heat through the smoke extraction openings in the shaft head is prevented. ⁴⁾

- Determination of the usage category
- Production of the energy-efficiency forecast
- Determination of heat energy loss through the smoke extraction openings in the shaft head

We will be happy to assist you with your planning. Please give us a call.

PERSONAL, COMPETENT, AND ALWAYS AVAILABLE.

One customer - one responsible service manager. An experts partner for all matters relating to service.

50.000

Schmitt + Sohn maintains elevator systems annually, both own and other makes.

24/365/0

Our on-call service: 24 hours per day, 365 days per year with 0 waiting time.

638

+1

Qualified service technicians. Always on the move. Specialist maintenance, repair and assessment of elevator systems.

Service managers are responsible for the customer, the service technicians and the elevator systems.

13015

DIN standard quality. The standard for qualified servicing of elevator systems.

657

employees in Technology, Development, Production and Administration. Fully up-to-date and service-orientated. Always on the job. Immediate reaction in case of emergency.

The central spare parts warehouse near Nürnberg, which stocks all spare parts, most of which are original parts from our own production.

33

Branches and sales offices throughout Europe. Closeness to our customers. For all types of service required for your elevator.

Service vehicles as mobile spare parts stores, carrying over 300 of the most important wear parts. Direct on site. Quick reaction times. High availability.

10.000 A Schmitt + Sohn elevator consists of over 10,000 parts, almost all of which we produce ourselves in our own works. Genuine original parts to consistently high quality. 20 years spare parts guarantee. For orders placed before 16:00, we deliver any of these 10,000 parts overnight.

3

SYSTEM MAINTENANCE

FULL MAINTENANCE

may be incurred in connection with the operation of an elevator system: Maintenance work and repair measures, including all spare parts deliveries and fault rectification, and performance of regular, officially required tests.

C 2000

clock.

Performance-based service contracts. For a long-lasting partnership.

The service contract for system maintenance covers the checking and servicing of all safety devices, setting and adjustment work to DIN 31051.

The service contract for full maintenance covers all costs which

The service contract C 2000 consists of modular services: Emergency call and video misuse detection, elevator attendant and building control technology module, online care all round the

NEXSD® NEXT SERVICE DIMENSION

NEXSD® is the result of many years of research and development, as well as our experience of 160 years of building elevators. Independent of manufacturer, and compatible with over 100 different controllers, NEXSD[®] offers the best service, predictive analysis and the highest availability with full transparency thanks to intelligent algorithms.

Every ISI 2040[®] elevator comes already equipped with an NEXSD[®] Box, meaning it can offer all the advantages of NEXSD®.

NEXSD CUSTOMER COCKPIT[®]

operating data for your elevators in real time. Because it is manufacturer-independent and can be retrofitted at any time, NEXSD[®] is unique on the market.

NEXSD AWM®

The fourth generation of the elevator attendant fulfills all statutory requirements and is seamlessly connected to the controller. Elevator systems are tested fully and on an ongoing basis to detect problems promptly.

NEXSD CARE®

NEXSD INSPECT®

The NEXSD CARE[®] system automatically records operating and fault data. Predictive analyses make it possible to detect and correct wear promptly.

NEXSD INSPECT[®] is used to collect and analyze relevant data from systems subject to frequent faults. This makes it easier to determine the status of the system on a preventative basis, and identify necessary measures.

More information is available at: https://www.schmitt-elevators.com/nexsd. For a video on NEXSD[®], please scan this QR code with your smartphone.

The NEXSD CUSTOMER COCKPIT® provides access to all key

Electronic elevator attendant

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72

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