



on				
AKi	GTi	RK /RKA	AKi-R	AL
Page 18 -19	Page 20 -21	Page 22 - 23	Page 22 - 23	Page 24 - 25
				
150 x 300 x 132	320 x 220 x 179	94 x 65 x 57	300 x 150 x 132	50 x 45 x 30
300 x 600 x 209	440 x 640 x 179	300 x 600 x 132	300 x 600 x 132	330 x 230 x 111
PC	PC	PS (PC on request)	PC	AL
IP 65	IP 65	IP 66 / IP 65 / IP 54	IP 65 / IP 54	IP 66
IK 08	IK 08	IK 07	IK 08	IK 09
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Content	
Theme	Page
Company	04 - 07
Customizing / Engineering	08 - 12
TK empty enclosures	13 - 15
TG empty enclosures	16 - 17
AKL/AKi empty enclosures	18 - 19
GTi Iso switchgear	20 - 21
RK Terminal block housings	22 - 23
AKi-R Terminal block housings	22 - 23
AL / TK AL empty enclosures	24 - 25
Abox GT /Abox-i junction boxes	26 - 27
AKi distribution boards	28 - 29
STV / STG socket distribution boxes	30 - 33
Technical Details	34 - 37
Accessories www.spelsberg.de	38
Productfinder, Services	39

PS = polystyrene **PC** = polycarbonate **ABS** = acrylnitril-butadien-styrol **AL** = aluminium

*protected outdoor installation



Headquarter Schalksmühle

Buttstädt factory

Spelsberg. Traditional brand quality for the industry.

Spelsberg is a market-leading company which operates in the electrical industry with experience in electrical installation and enclosure techniques for more than 110 years. The product range consists of over 5.000 standard products which can give the customer the option of customized products. These include junction boxes, small distribution boards, terminal blocks, meter and industrial enclosures as well as highly sophisticated electrotechnical solutions for the industry.

Additionally Spelsberg supplies high quality products and solutions for special growth sectors and markets such as intelligent energy distribution, renewable energies and fire protected installations with functional guarantee. The special developed products fulfill today's and future requirements according to the national and international standards and regulations.

The DIN EN ISO 9001 certification and our inhouse VDE- and UL-certified test laboratories provide a high and regular quality standard of all products and services. The DIN EN ISO 14001 certification confirms our commitment to dealing with the environment and its' valuable resources. Spelsberg has subsidiaries in England, Spain, Czechia, Denmark and the Netherlands as well as more than 50 partners in various countries all over the world.



The project development specialists

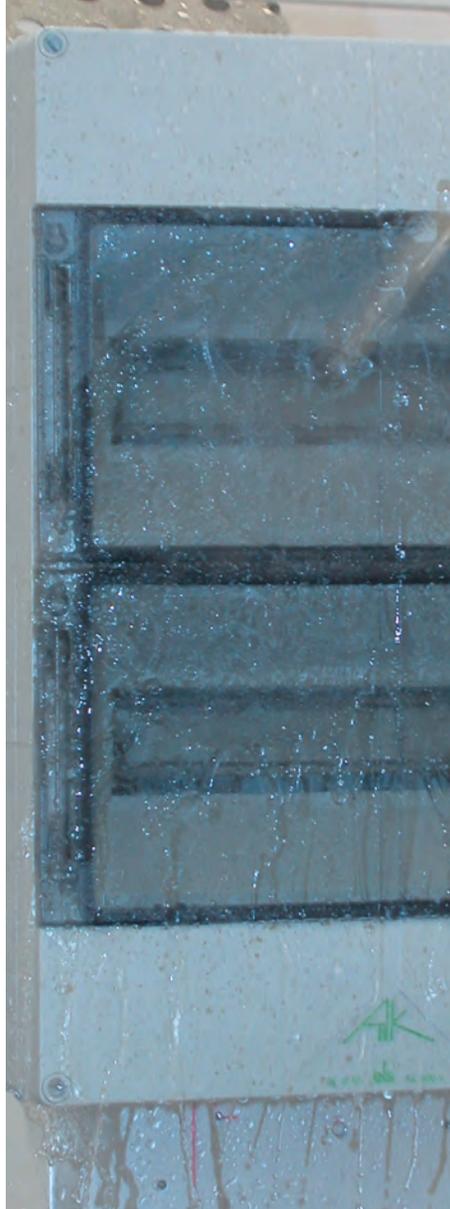
Custom-processed housings or complete assemblies – Spelsberg is the committed development partner when it comes to the implementation of customer requirements. Customised and unique solutions for industry are the daily result of our specialisation in project development.

With a complete, end-to-end process chain established at our Schalksmühle location, uniting project management, development, design, prototyping, tooling and production at a single site, we can ensure rapid and high-quality project implementation. Our in-house test lab performs tests and certifications according to VDE and UL.





Glow-wire testing VDE



IP Protection rating water



IP Protection rating dust

Trust is good – verification is better.

Certifications guarantee quality. Our customers know that they can rely on Spelsberg products because they meet national and international standards such as ISO 9001 and ISO 14001 and pass UL and VDE tests. But not only our enclosures and systems are carefully scrutinised with different test methods in our own and other facilities. Sophisticated quality management throughout the company ensures that everything runs smoothly, sources of error are minimised, and absolute traceability is ensured from the finished products down to the individual components, materials and suppliers.

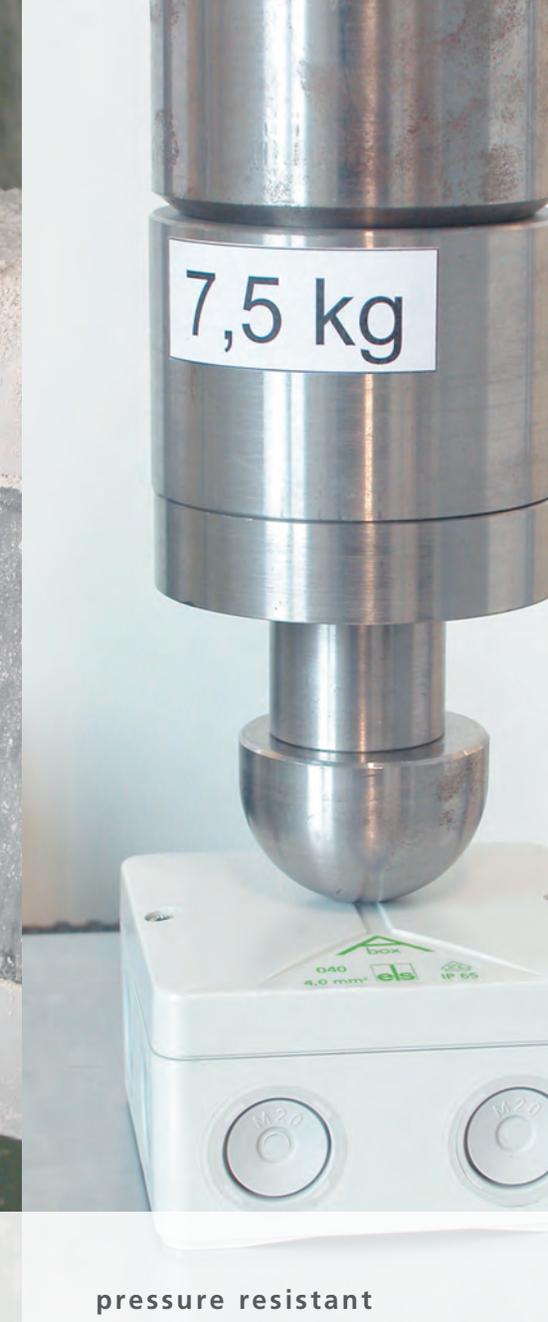


waterproof



cold and heat resistant

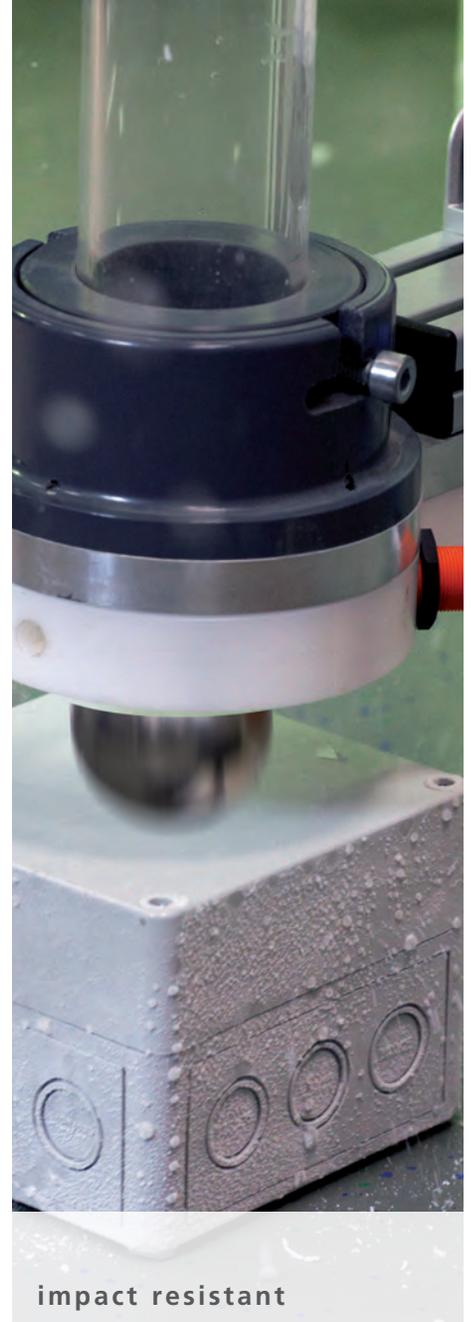
Quality management



pressure resistant



UL94 - 5 inch flame test



impact resistant

Occupational safety, environmental management and health protection are other areas in which we set high standards for ourselves so our customers can be sure they are getting premium quality – made in Germany.

Developed by expert professionals, manufactured from the finest materials using the most modern procedures under good working conditions and in compliance with all applicable standards and regulations.



UV-resistant





Custom solutions in industrial quality.

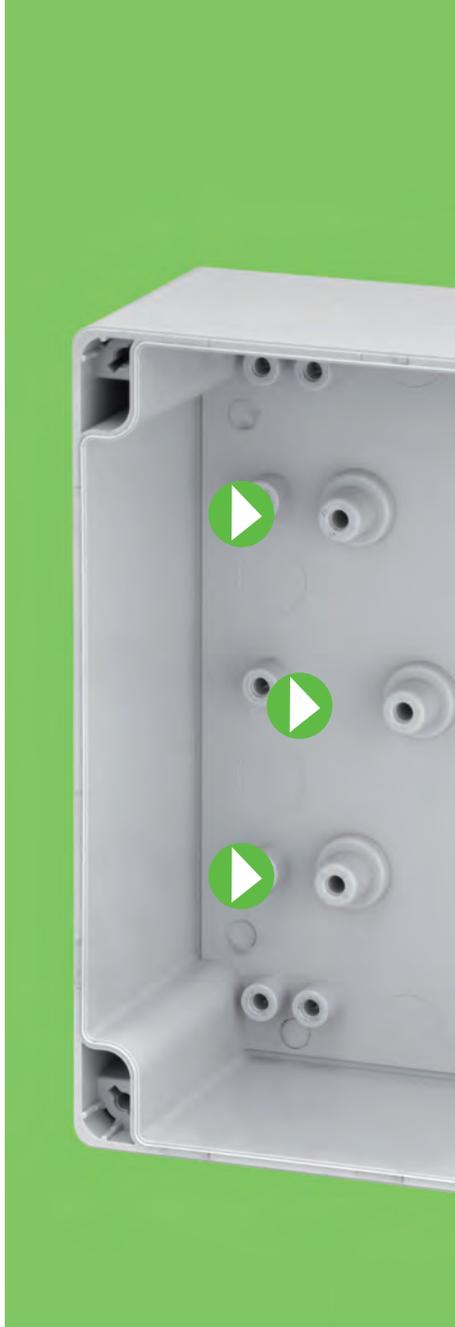
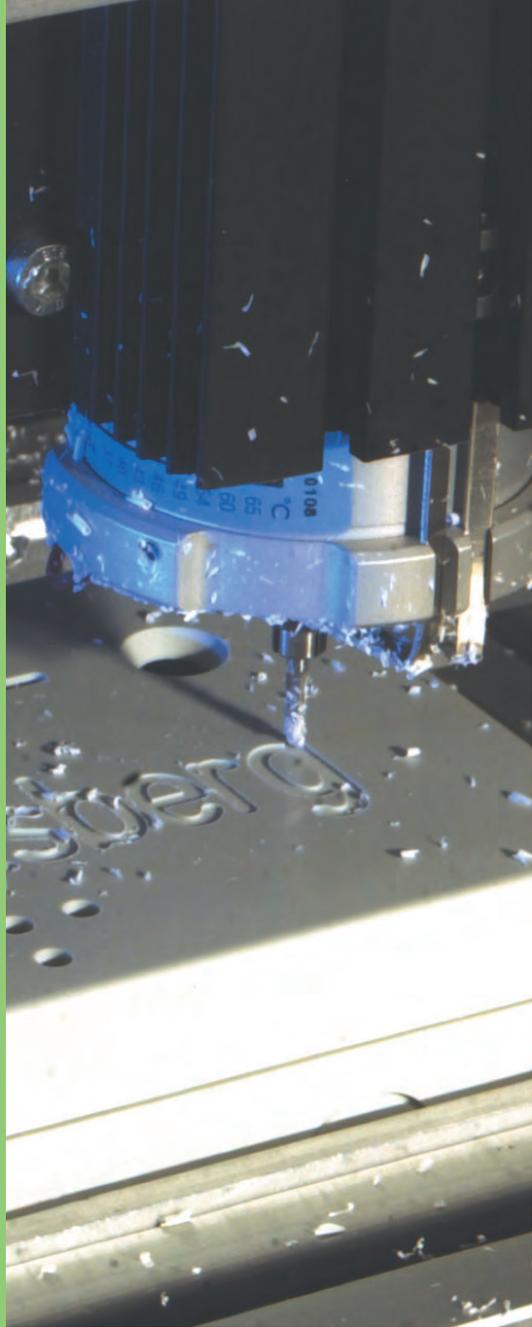
Ruggedness, reliability and flexibility – these are the things that Spelsberg’s industrial products stand for. The company has marked its specially developed housings, distributors and junction boxes with its iQ seal for industrial quality. This seal guarantees the best material characteristics, certified safety and optimum functionality and durability under extreme conditions.

Fibreglass-reinforced polycarbonate ensures that the industrial products are even tougher than Spelsberg’s popular standard products. Neither heat nor cold nor moisture can harm them, and they also resist UV radiation, oils, greases and mechanical stress.

With these characteristics, they reliably protect the electrical installation in machinery and industrial facilities from lubricants, shocks and impacts.



Custom solutions



Individual service

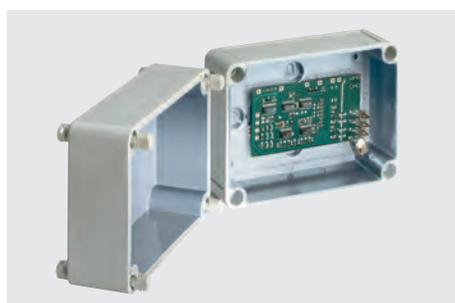
- Clearance holes
- Thread
- Engravings



CNC controlled mill center

Individual service

- Individual fixing points
(ultrasonic welding)
- EMV coating



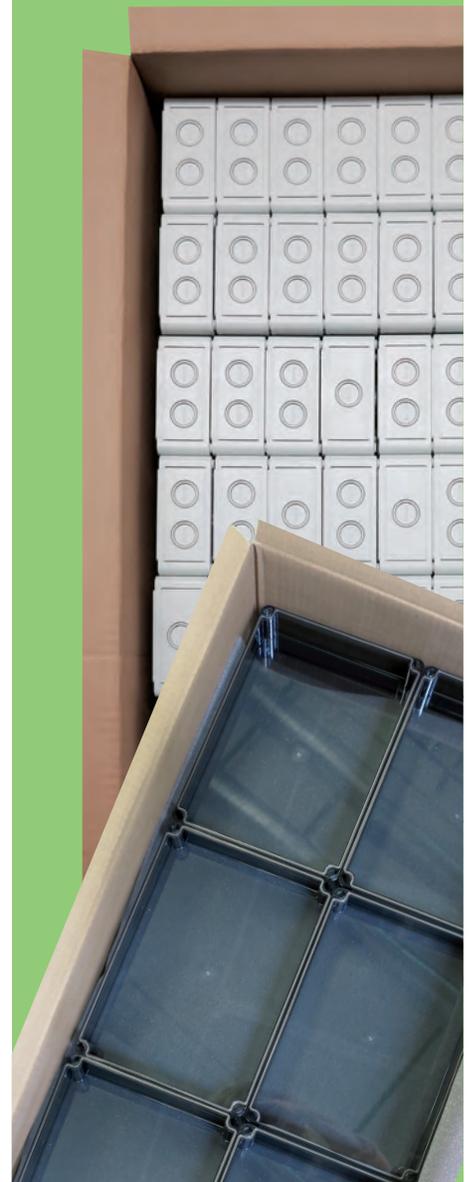
EMV coating

The modular tool concept

- clearance holes
- Pre-embossed knock-out openings
- Fixing points
- Embossing



Customized solution



Print Service

- Design foils
- Membrane keyboards
- Screen printing, Pad printing, Digital printing and Laser printing

Assembly Service

- Pick-and-place (PCB's)
- Wiring
- Checking

Packaging Service

- Production-oriented
- loose and separated articles
- Ready for despatch
- assembled articles, shrink-wrapped and labeled individually



Customizing



Special Accessories

- Clamp holder
- Pole-clamp
- Snap fit
- Printed circuit board (PCB) holder

Special Colors

- Handling:
Pigmented or coated
- RAL, HKS and Pantone colors
are possible

Materials

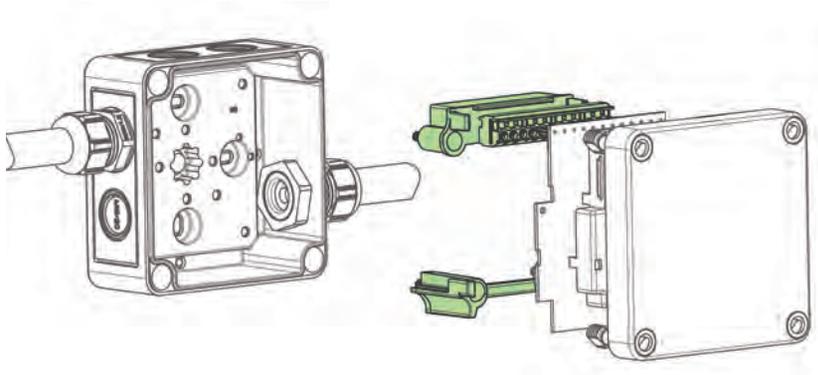
- Same enclosure sizes are available in different qualities / materials
- Always matching the requirements on site

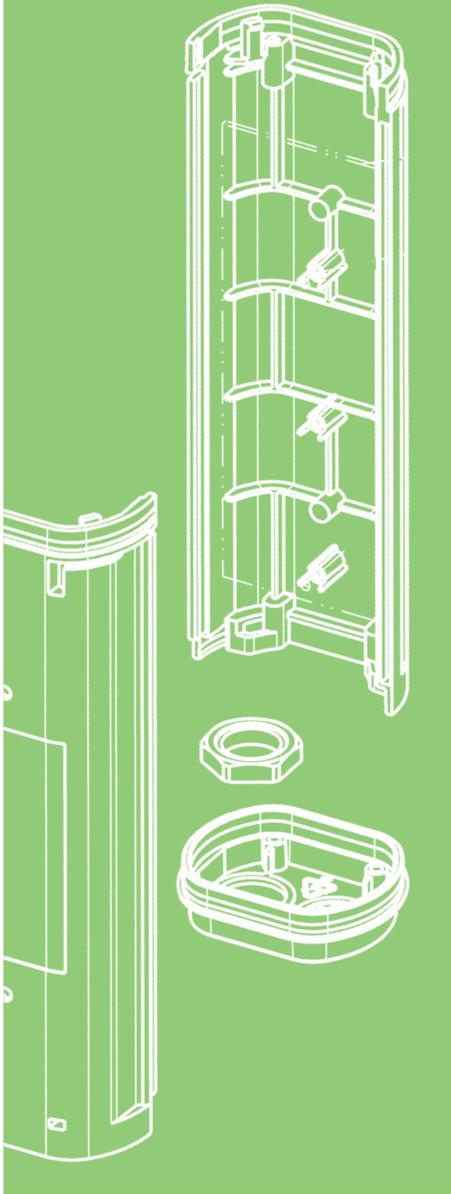
Standard-quality:

- 1) **polystyrene**, plastic
- 2) **ABS resin**, plastic

Industrial quality:

- For highest material requisition
- 3) **Polycarbonate**, glas-fibre reinforced, UL certified (for American and Canadian market)
 - 4) **Aluminium** (on request with American and Canadian certification)



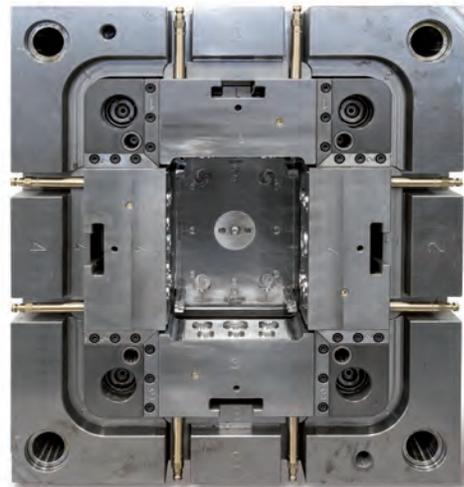


Engineering

Even for completely new devices - Spelsberg is the committed development partner, when the implementation of customer requirements is needed.

Individual solutions result from our close cooperation with the purchasing and the R&D department and enable significant cost savings for the customers, such as by modular tools with which plastic enclosures can be optimized to customer needs.

- 3D product development
- 3D prototyping construction (Plotter)
- Prototype
- Safety inspections / Certification tests
- Standard mould
- Serial-production





TK PS empty enclosure



Individual choice of fixation



Mounting rail/Mounting plate



TK AL Aluminium enclosure

NEW!



External hinge

TK PS / TK PC

- 14 basic enclosures with up to three different cover heights
- Color: grey, similar RAL 7035
- Cover grey or transparent
- Plastic: choice of polystyrene (TK PS) or glass-fibre-reinforced polycarbonate (TK PC)

- Side walls smooth or with metric knockouts
- Modular tools:
Economical customisation
- TK-PC enclosure, serially with cULus approval
- Extensive accessories

TK AL Aluminium enclosures

NEW!

- 8 Aluminium enclosures
- With powder coating to prevent corrosion
- Colour: silver grey, similar to RAL 7001
- Material: Aluminium AL SI 12
- Effective protection against electromagnetic interference (EMI) and electrostatic discharges (ESD)
- Inside dimensions equal TK PS / TK PC, mounting plate and mounting rail also compatible

Cover grau		Cover transparent		Cover grau		Cover transparent	
Type	Order No.	Type	Order No.	Type	Order No.	Type	Order No.
TK PS 77-6-m	105 401 01	TK PS 77-6-tm	106 001 01	TK PS 77-6-o	110 401 01	TK PS 77-6-to	111 001 01
TK PS 77-8-m	105 901 01	TK PS 77-8-tm	106 501 01	TK PS 77-8-o	110 901 01	TK PS 77-8-to	111 501 01
TK PS 97-6-m	105 402 01	TK PS 97-6-tm	106 002 01	TK PS 97-6-o	110 402 01	TK PS 97-6-to	111 002 01
TK PS 97-8-m	105 902 01	TK PS 97-8-tm	106 502 01	TK PS 97-8-o	110 902 01	TK PS 97-8-to	111 502 01
TK PS 99-6-m	105 403 01	TK PS 99-6-tm	106 003 01	TK PS 99-6-o	110 403 01	TK PS 99-6-to	111 003 01
TK PS 99-8-m	105 903 01	TK PS 99-8-tm	106 503 01	TK PS 99-8-o	110 903 01	TK PS 99-8-to	111 503 01
TK PS 1111-7-m	105 404 01	TK PS 1111-7-tm	106 004 01	TK PS 1111-7-o	110 404 01	TK PS 1111-7-to	111 004 01
TK PS 1111-9-m	105 904 01	TK PS 1111-9-tm	106 504 01	TK PS 1111-9-o	110 904 01	TK PS 1111-9-to	111 504 01
TK PS 1309-6-m	105 409 01	TK PS 1309-6-tm	106 009 01	TK PS 1309-6-o	110 409 01	TK PS 1309-6-to	111 009 01
TK PS 1309-8-m	105 909 01	TK PS 1309-8-tm	106 509 01	TK PS 1309-8-o	110 909 01	TK PS 1309-8-to	111 509 01
TK PS 1313-7-m	105 405 01	TK PS 1313-7-tm	106 005 01	TK PS 1313-7-o	110 405 01	TK PS 1313-7-to	111 005 01
TK PS 1313-10-m	105 905 01	TK PS 1313-10-tm	106 505 01	TK PS 1313-10-o	110 905 01	TK PS 1313-10-to	111 505 01
TK PS 1809-6-m	105 410 01	TK PS 1809-6-tm	106 010 01	TK PS 1809-6-o	110 410 01	TK PS 1809-6-to	111 010 01
TK PS 1809-8-m	105 910 01	TK PS 1809-8-tm	106 510 01	TK PS 1809-8-o	110 910 01	TK PS 1809-8-to	111 510 01
TK PS 1811-6f-m	105 414 01	TK PS 1811-6f-tm	106 014 01	TK PS 1811-6f-o	110 414 01	TK PS 1811-6f-to	111 014 01
TK PS 1811-8f-m	105 914 01	TK PS 1811-8f-tm	106 514 01	TK PS 1811-8f-o	110 914 01	TK PS 1811-8f-to	111 514 01
TK PS 1811-9-m	105 406 01	TK PS 1811-9-tm	106 006 01	TK PS 1811-9-o	110 406 01	TK PS 1811-9-to	111 006 01
TK PS 1811-11-m	105 906 01	TK PS 1811-11-tm	106 506 01	TK PS 1811-11-o	110 906 01	TK PS 1811-11-to	111 506 01
TK PS 1811-13f-m	104 414 01	TK PS 1811-13f-tm	107 014 01	TK PS 1811-13f-o	109 414 01	TK PS 1811-13f-to	112 014 01
TK PS 1811-16-m	104 406 01	TK PS 1811-16-tm	107 006 01	TK PS 1811-16-o	109 406 01	TK PS 1811-16-to	112 006 01
TK PS 1813-6f-m	105 415 01	TK PS 1813-6f-tm	106 015 01	TK PS 1813-6f-o	110 415 01	TK PS 1813-6f-to	111 015 01
TK PS 1813-8f-m	105 915 01	TK PS 1813-8f-tm	106 515 01	TK PS 1813-8f-o	110 915 01	TK PS 1813-8f-to	111 515 01
TK PS 1813-9-m	105 416 01	TK PS 1813-9-tm	106 016 01	TK PS 1813-9-o	110 416 01	TK PS 1813-9-to	111 016 01
TK PS 1813-11-m	105 916 01	TK PS 1813-11-tm	106 516 01	TK PS 1813-11-o	110 916 01	TK PS 1813-11-to	111 516 01
TK PS 1813-13f-m	104 415 01	TK PS 1813-13f-tm	107 015 01	TK PS 1813-13f-o	109 415 01	TK PS 1813-13f-to	112 015 01
TK PS 1813-16-m	104 416 01	TK PS 1813-16-tm	107 016 01	TK PS 1813-16-o	109 416 01	TK PS 1813-16-to	112 016 01
TK PS 1818-6f-m	105 413 01	TK PS 1818-6f-tm	106 013 01	TK PS 1818-6f-o	110 413 01	TK PS 1818-6f-to	111 013 01
TK PS 1818-8f-m	105 913 01	TK PS 1818-8f-tm	106 513 01	TK PS 1818-8f-o	110 913 01	TK PS 1818-8f-to	111 513 01
TK PS 1818-9-m	105 407 01	TK PS 1818-9-tm	106 007 01	TK PS 1818-9-o	110 407 01	TK PS 1818-9-to	111 007 01
TK PS 1818-11-m	105 907 01	TK PS 1818-11-tm	106 507 01	TK PS 1818-11-o	110 907 01	TK PS 1818-11-to	111 507 01
TK PS 1818-13f-m	104 413 01	TK PS 1818-13f-tm	107 013 01	TK PS 1818-13f-o	109 413 01	TK PS 1818-13f-to	112 013 01
TK PS 1818-16-m	104 407 01	TK PS 1818-16-tm	107 007 01	TK PS 1818-16-o	109 407 01	TK PS 1818-16-to	112 007 01
TK PS 2518-6f-m	105 411 01	TK PS 2518-6f-tm	106 011 01	TK PS 2518-6f-o	110 411 01	TK PS 2518-6f-to	111 011 01
TK PS 2518-8f-m	105 911 01	TK PS 2518-8f-tm	106 511 01	TK PS 2518-8f-o	110 911 01	TK PS 2518-8f-to	111 511 01
TK PS 2518-9-m	105 408 01	TK PS 2518-9-tm	106 008 01	TK PS 2518-9-o	110 408 01	TK PS 2518-9-to	111 008 01
TK PS 2518-11-m	105 908 01	TK PS 2518-11-tm	106 508 01	TK PS 2518-11-o	110 908 01	TK PS 2518-11-to	111 508 01
TK PS 2518-13f-m	104 411 01	TK PS 2518-13f-tm	107 011 01	TK PS 2518-13f-o	109 411 01	TK PS 2518-13f-to	112 011 01
TK PS 2518-16-m	104 408 01	TK PS 2518-16-tm	107 008 01	TK PS 2518-16-o	109 408 01	TK PS 2518-16-to	112 008 01
TK PS 3625-11-m	105 412 01	TK PS 3625-11-tm	106 012 01	TK PS 3625-11-o	110 412 01	TK PS 3625-11-to	111 012 01
TK PS 3625-16-m	105 912 01	TK PS 3625-16-tm	106 512 01	TK PS 3625-16-o	110 912 01	TK PS 3625-16-to	111 512 01

With metric knock-outs

Without metric knock-outs

With metric knock-outs

 You can find technical information, product details and CAD data at www.spelsberg.com/product-finder



TK PS | TK PC | TK AL empty enclosures

**NEW!
TK AL**

Cover grau		Cover transparent		
Type	Order No.	Type	Order No.	Dimensions (mm)
TK PC 55-4-m	127 455 01	TK PC 55-4-tm	137 455 01	52 x 50 x 35
TK PC 75-4-m	127 475 01	TK PC 75-4-tm	137 475 01	65 x 50 x 35
TK PC 75-4-2v	128 475 01	TK PC 75-4-2tv	138 475 01	65 x 50 x 35
TK PC 77-6-m	127 401 01	TK PC 77-6-tm	137 001 01	65 x 65 x 57
TK PC 77-8-m	127 901 01	TK PC 77-8-tm	137 501 01	65 x 65 x 81
TK PC 97-6-m	127 402 01	TK PC 97-6-tm	137 002 01	94 x 65 x 57
TK PC 97-8-m	127 902 01	TK PC 97-8-tm	137 502 01	94 x 65 x 81
TK PC 99-6-m	127 403 01	TK PC 99-6-tm	137 003 01	94 x 94 x 57
TK PC 99-8-m	127 903 01	TK PC 99-8-tm	137 503 01	94 x 94 x 81
TK PC 1111-7-m	127 404 01	TK PC 1111-7-tm	137 004 01	110 x 110 x 66
TK PC 1111-9-m	127 904 01	TK PC 1111-9-tm	137 504 01	110 x 110 x 90
TK PC 1309-6-m	127 409 01	TK PC 1309-6-tm	137 009 01	130 x 94 x 57
TK PC 1309-8-m	127 909 01	TK PC 1309-8-tm	137 509 01	130 x 94 x 81
TK PC 1313-7-m	127 405 01	TK PC 1313-7-tm	137 005 01	130 x 130 x 75
TK PC 1313-10-m	127 905 01	TK PC 1313-10-tm	137 505 01	130 x 130 x 99
TK PC 1809-6-m	127 410 01	TK PC 1809-6-tm	137 010 01	180 x 94 x 57
TK PC 1809-8-m	127 910 01	TK PC 1809-8-tm	137 510 01	180 x 94 x 81
TK PC 1811-6f-m	127 414 01	TK PC 1811-6f-tm	137 014 01	180 x 110 x 63
TK PC 1811-8f-m	127 914 01	TK PC 1811-8f-tm	137 514 01	180 x 110 x 84
TK PC 1811-9-m	127 406 01	TK PC 1811-9-tm	137 006 01	180 x 110 x 90
TK PC 1811-11-m	127 906 01	TK PC 1811-11-tm	137 506 01	180 x 110 x 111
TK PC 1811-13f-m	128 414 01	TK PC 1811-13f-tm	138 014 01	180 x 110 x 137
TK PC 1811-16-m	128 406 01	TK PC 1811-16-tm	138 006 01	180 x 110 x 165
TK PC 1813-6f-m	127 415 01	TK PC 1813-6f-tm	137 015 01	180 x 130 x 63
TK PC 1813-8f-m	127 915 01	TK PC 1813-8f-tm	137 515 01	180 x 130 x 84
TK PC 1813-9-m	127 416 01	TK PC 1813-9-tm	137 016 01	180 x 130 x 90
TK PC 1813-11-m	127 916 01	TK PC 1813-11-tm	137 516 01	180 x 130 x 111
TK PC 1813-13f-m	128 415 01	TK PC 1813-13f-tm	138 015 01	180 x 130 x 137
TK PC 1813-16-m	128 416 01	TK PC 1813-16-tm	138 016 01	180 x 130 x 165
TK PC 1818-6f-m	127 413 01	TK PC 1818-6f-tm	137 013 01	182 x 180 x 63
TK PC 1818-8f-m	127 913 01	TK PC 1818-8f-tm	137 513 01	182 x 180 x 84
TK PC 1818-9-m	127 407 01	TK PC 1818-9-tm	137 007 01	182 x 180 x 90
TK PC 1818-11-m	127 907 01	TK PC 1818-11-tm	137 507 01	182 x 180 x 111
TK PC 1818-13f-m	128 413 01	TK PC 1818-13f-tm	138 013 01	182 x 180 x 137
TK PC 1818-16-m	128 407 01	TK PC 1818-16-tm	138 007 01	182 x 180 x 165
TK PC 2518-6f-m	127 411 01	TK PC 2518-6f-tm	137 011 01	254 x 180 x 63
TK PC 2518-8f-m	127 911 01	TK PC 2518-8f-tm	137 511 01	254 x 180 x 84
TK PC 2518-9-m	127 408 01	TK PC 2518-9-tm	137 008 01	254 x 180 x 90
TK PC 2518-11-m	127 908 01	TK PC 2518-11-tm	137 508 01	254 x 180 x 111
TK PC 2518-13f-m	128 411 01	TK PC 2518-13f-tm	138 011 01	254 x 180 x 137
TK PC 2518-16-m	128 408 01	TK PC 2518-16-tm	138 008 01	254 x 180 x 165
TK PC 3625-11-m	127 412 01	TK PC 3625-11-tm	137 012 01	361 x 254 x 111
TK PC 3625-16-m	127 912 01	TK PC 3625-16-tm	137 512 01	361 x 254 x 165

Without metric knock-outs

Aluminium enclosure		
Type	Order No.	Dimensions (mm)
TK AL 77-6*	151 001 01	89 x 89 x 64
TK AL 99-6*	151 003 01	119 x 119 x 64
TK AL 1111-7*	151 004 01	139 x 139 x 73
TK AL 1313-7	151 005 01	154 x 154 x 81
TK AL 1811-9	151 006 01	199 x 114 x 95
TK AL 1818-9	151 007 01	199 x 199 x 95
TK AL 2518-9	151 008 01	273 x 205 x 95
TK AL 3625-11*	151 012 01	388 x 270 x 117

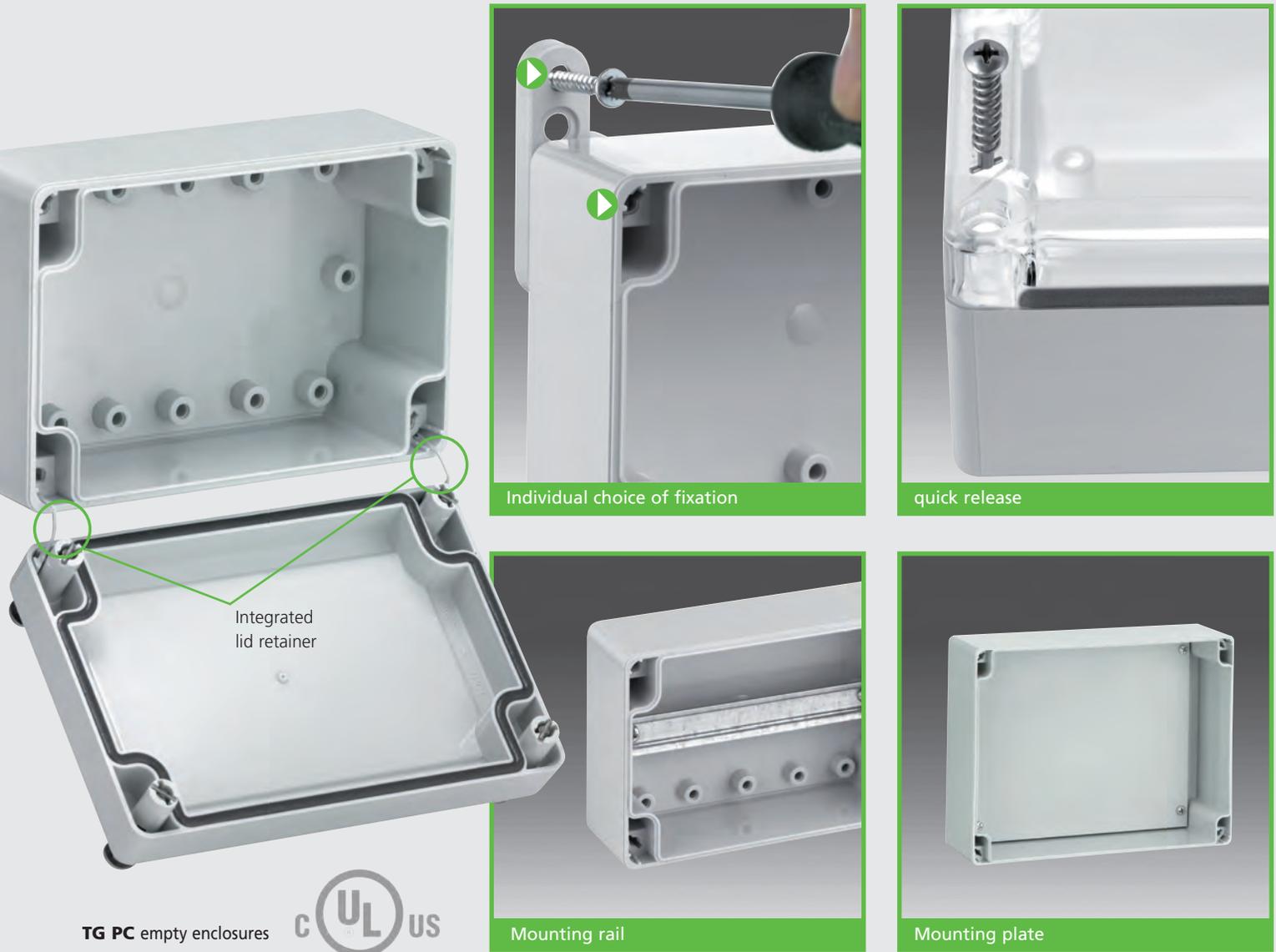
* Available from the 4th quarter of 2014

With metric knock-outs



TK PS	IP66	IK07		690V AC	1000V DC	
TK PC	IP66	IK08		690V AC	1000V DC	
TK AL	IP66	IK09				





TG PC empty enclosures



TG ABS / TG PC

- 9 basic enclosures of various heights
- High-quality design with a stylish high-gloss appearance
- Colour grey, similar to RAL 7035
- Cover grey or transparent
- Material: optionally ABS (TG ABS) or polycarbonate (TG PC)
- With time-saving fast closure

- Recess in the cover facilitates the placement of design foils or membrane keyboards
- Smooth side walls for added flexibility
- Modular tools
- Integrated cover retainer
- Attachment notches in the usual positions
- TG-PC enclosure serially with cULus approval

Extensive range of accessories:

- Mounting plate (insulating material or steel)
- Mounting rail
- Padlock kit etc.



TG ABS | TG PC empty enclosures

TG ABS smooth side walls, Cover grey		TG ABS smooth side walls, Cover transparent		TG PC smooth side walls, Cover grey		TG PC smooth side walls, Cover transparent		Dimensions (mm)
Type	Order No.	Type	Order No.	Type	Order No.	Type	Order No.	
TG ABS 88-6-o	100 403 01	TG ABS 88-6-to	101 003 01	TG PC 88-6-o	200 403 01	TG PC 88-6-to	201 003 01	
TG ABS 88-9-o	100 903 01	TG ABS 88-9-to	101 503 01	TG PC 88-9-o	200 903 01	TG PC 88-9-to	201 503 01	84 x 82 x 85
TG ABS 1208-6-o	100 404 01	TG ABS 1208-6-to	101 004 01	TG PC 1208-6-o	200 404 01	TG PC 1208-6-to	201 004 01	122 x 82 x 55
TG ABS 1208-9-o	100 904 01	TG ABS 1208-9-to	101 504 01	TG PC 1208-9-o	200 904 01	TG PC 1208-9-to	201 504 01	122 x 82 x 85
TG ABS 1212-6-o	100 405 01	TG ABS 1212-6-to	101 005 01	TG PC 1212-6-o	200 405 01	TG PC 1212-6-to	201 005 01	124 x 122 x 55
TG ABS 1212-9-o	100 905 01	TG ABS 1212-9-to	101 505 01	TG PC 1212-9-o	200 905 01	TG PC 1212-9-to	201 505 01	124 x 122 x 85
TG ABS 1608-6-o	100 406 01	TG ABS 1608-6-to	101 006 01	TG PC 1608-6-o	200 406 01	TG PC 1608-6-to	201 006 01	162 x 82 x 55
TG ABS 1608-9-o	100 906 01	TG ABS 1608-9-to	101 506 01	TG PC 1608-9-o	200 906 01	TG PC 1608-9-to	201 506 01	162 x 82 x 85
TG ABS 1612-9-o	100 407 01	TG ABS 1612-9-to	101 007 01	TG PC 1612-9-o	200 407 01	TG PC 1612-9-to	201 007 01	162 x 122 x 90
TG ABS 2012-8-o	100 408 01	TG ABS 2012-8-to	101 008 01	TG PC 2012-8-o	200 408 01	TG PC 2012-8-to	201 008 01	202 x 122 x 75
TG ABS 2012-9-o	100 908 01	TG ABS 2012-9-to	101 508 01	TG PC 2012-9-o	200 908 01	TG PC 2012-9-to	201 508 01	202 x 122 x 90
TG ABS 2015-9-o	100 409 01	TG ABS 2015-9-to	101 009 01	TG PC 2015-9-o	200 409 01	TG PC 2015-9-to	201 009 01	202 x 152 x 90
TG ABS 2516-9-o	100 412 01	TG ABS 2516-9-to	101 012 01	TG PC 2516-9-o	200 412 01	TG PC 2516-9-to	201 012 01	252 x 162 x 90
TG ABS 2516-12-o	100 912 01	TG ABS 2516-12-to	101 512 01	TG PC 2516-12-o	200 912 01	TG PC 2516-12-to	201 512 01	252 x 162 x 120
TG ABS 3023-9-o	100 413 01	TG ABS 3023-9-to	101 013 01	TG PC 3023-9-o	200 413 01	TG PC 3023-9-to	201 013 01	302 x 232 x 90
TG ABS 3023-11-o	100 913 01	TG ABS 3023-11-to	101 513 01	TG PC 3023-11-o	200 913 01	TG PC 3023-11-to	201 513 01	302 x 232 x 110



You can find technical information, product details
and CAD data at

www.spelsberg.com/product-finder

TG ABS



TG PC





Mounting rail, mounting plate, partition wall



External hinge



Combinable



External fixing clamp

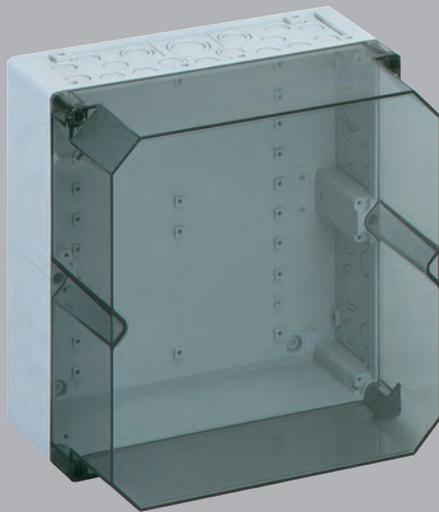
- 4 basic enclosures up to 600 x 300 mm and two different cover heights
- Colour: grey, similar to RAL 7035
- Cover: grey or transparent
- Material: optionally polystyrene (AKL) or glass-fibre-reinforced polycarbonate (AKi-L)

- Side walls with pre-embossed metric knock-out openings
- Combinable up to protection class IP 65
- Extensive range of accessories



AKL | AKi empty enclosures

AKL Cover <u>grey</u>		AKL Cover <u>transparent</u>		AKi Cover <u>grey</u>		AKi Cover <u>transparent</u>		Dimensions (mm)
Type	Order No.	Type	Order No.	Type	Order No.	Type	Order No.	
AKL 1-g	740 401 01	AKL 1-t	744 001 01	AKi 1-g	741 401 01	AKi 1-t	745 001 01	150 x 300 x 132
AKL 2-g	740 402 01	AKL 2-t	744 002 01	AKi 2-g	741 402 01	AKi 2-t	745 002 01	300 x 300 x 132
AKL 2-gh	742 902 01	AKL 2-th	746 902 01	AKi 2-gh	743 902 01	AKi 2-th	747 902 01	300 x 300 x 209
AKL 3-g	740 403 01	AKL 3-t	744 003 01	AKi 3-g	741 403 01	AKi 3-t	745 003 01	450 x 300 x 132
AKL 3-gh	742 903 01	AKL 3-th	746 903 01	AKi 3-gh	743 903 01	AKi 3-th	747 903 01	450 x 300 x 209
AKL 4-g	740 404 01	AKL 4-t	744 004 01	AKi 4-g	741 404 01	AKi 4-t	745 004 01	600 x 300 x 132
AKL 4-gh	742 904 01	AKL 4-th	746 904 01	AKi 4-gh	743 904 01	AKi 4-th	747 904 01	600 x 300 x 209



AKi accessories					
Mounting plate insulating material		Mounting plate stainless steel		External fixing lugs	
AK MPI 1	795 001 01	AK MPS 2	795 012 01	AK ABL-ES	793 004 01
AK MPI 2	795 002 01	AK MPS 3	795 013 01		
AK MPI 3	795 003 01	AK MPS 4	795 014 01		
AK MPI 4	795 004 01				
Mounting rail 35 x 7,5 mm		Support NS (Set = 10 pieces)		Carrier NS fixing screws	
Length	Order No.	Height	Order No.	Type	Order No.
216 mm	795 030 01	20 mm	795 020 01	SR NS35 (30 Stck.)	795 413 01
250 mm	562 735 01	64 mm	795 064 01		
406 mm	795 045 01	91 mm	795 091 01		
556 mm	795 060 01				

 You can find technical information, product details and CAD data at

www.spelsberg.com/product-finder

AKL



AKi





Quick installation without any tools



No knock-out of side-walls



Example of use

Empty enclosures		Distrib
GTi 1-g 320 x 220 x 179 mm Cover grey	010 401 01	GTA 114-t 320 x 220 x 179 mm 14 TE
GTi 1-t 320 x 220 x 179 mm Cover transparent	010 001 01	GTA 228-t 320 x 320 x 179 mm 28 TE
GTi 2-g 320 x 320 x 179 mm Cover grey	010 402 01	GTA 228-KT-t 320 x 320 x 179 mm 28 TE, hinged door
GTi 2-t 320 x 320 x 179 mm Cover transparent	010 002 01	GTA 340-t 440 x 320 x 179 mm 40 TE
GTi 3-g 440 x 320 x 179 mm Cover grey	010 403 01	GTA 342-t 320 x 440 x 179 mm 42 TE
GTi 3-t 440 x 320 x 179 mm Cover transparent	010 003 01	GTA 342-KT-t 320 x 440 x 179 mm 42 TE, hinged door
GTi 4-g 640 x 320 x 179 mm Cover grey	010 404 01	GTA 456-H-t 320 x 640 x 179 mm 56 TE
GTi 4-t 640 x 320 x 179 mm Cover transparent	010 004 01	GTA 456-Q-t 640 x 320 x 179 mm 56 TE
GTi 5-g 640 x 440 x 179 mm Cover grey	010 405 01	GTA 580-t 440 x 640 x 179 mm 80 TE
GTi 5-t 640 x 440 x 179 mm Cover transparent	010 005 01	

- 5 basic enclosure sizes
- Height can be extended by mounting frame
- Open enclosures
- Integrated gasket
- Standard with sealable lid
- Sealable protection plate against contact

- UV resistant
- Weather resistant
- Chemical resistance
- Halogen-free and silicone-free
- No knock-out of sidewalls
- No additional sealing material needed
- Quick assembly without tools



GTi Iso switchgear

Distribution board		Socket housing		NH fuse enclosure		Switch disconnecter enclosure	
x 179 mm	015 114 01	GTV 470 320 x 220 x 179 mm 8x SCHUKO	010 470 01	GTT 101 320 x 220 x 179mm 1x NH00, max. 125A	026 101 01	GTE 106 320 x 220 x 179 mm 63A, 3 poles	032 106 01
x 179 mm	015 228 01	GTV 480 320 x 220 x 179 mm 2x 16A CEE 5 poles	010 480 01	GTT 201 320 x 320 x 179 mm 1x NH00, max. 125A	026 201 01	GTE 108 320 x 220 x 179 mm 80A, 3 poles	032 108 01
T-t x 179 mm ed door	016 228 01	GTV 481 320 x 220 x 179 mm 2x 16A CEE 5 poles	010 481 01	GTT 202 320 x 320 x 179 mm 2x NH00, max. 100A	026 202 01	GTE 210 320 x 320 x 179 mm 100A, 3 poles	032 210 01
x 179 mm	015 340 01	GTV 482 320 x 220 x 179 mm 1x 16A +1x 32A CEE 5 poles	010 482 01	GTT 411 320 x 640 x 179 mm 1x NH1, max 224A	026 411 01	GTE 216 320 x 320 x 179 mm 160A, 3 poles	032 216 01
x 179 mm	015 342 01	GTV 487 320 x 220 x 179 mm 1x 63 A CEE 5 poles	010 487 01			GTE 425 320 x 640 x 179 mm 250A, 3 poles	032 425 01
T-t x 179 mm ed door	016 342 01	GTV 488 320 x 220 x 179 mm 2x 63 A CEE 5 poles	010 488 01			GTE 440 320 x 640 x 179mm 400A, 3 poles	032 440 01
t x 179 mm	015 456 01	GTV 489 320 x 220 x 179 mm 1x 125 A CEE 5 poles	010 489 01			GTE 463 320 x 640 x 179mm 630A, 3 poles	032 463 01
t x 179 mm	014 456 01						
x 179 mm	015 580 01						



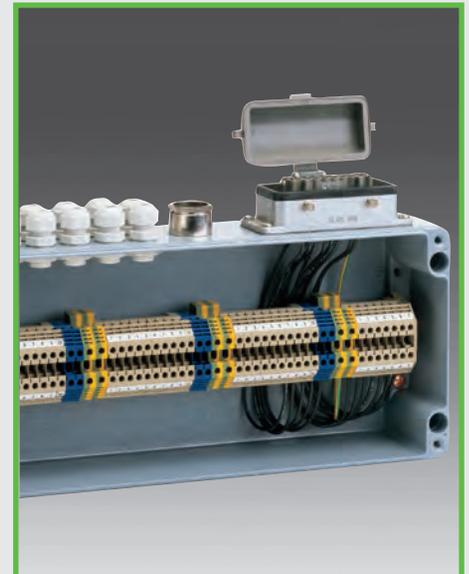
You can find technical information,
product details and CAD data at
www.spelsberg.com/product-finder

Flange							
Type	Housing side	embossing	Order No.	Type	Housing side	Entries	Order No.
GFL 211-m	220 mm	3x M32/25, 2x M20	072 211 01	GFL 390	320 mm	42x DMS M16	072 390 01
GFL 221-m	220 mm	1x M50/40, 4x M25/20	072 221 01	GFL 391	320 mm	27x DMS M20	072 391 01
GFL 231-m	220 mm	2x M50	072 231 01	GFL 392	320 mm	23x DMS M25	072 392 01
GFL 321-m	320 mm	3x M50/40, 4x M16	072 321 01	GFL 393	320 mm	12x DMS M32	072 393 01
GFL 331-m	320 mm	17x M20/16	072 331 01	GFL 394	320 mm	30x KVR M16	072 394 01
GFL 341-m	320 mm	1x M50/40, 2x M32/25 4x M25/20	072 341 01	cable entry			
GFL 351-m	320 mm	12x M25/20	072 351 01	GKE 32	320 mm	2x 75mm Ø	073 032 01
GFL 361-m	320 mm	4x M40/32, 3x M20	072 361 01	GKE 43	440 mm	3x 75mm Ø	073 043 01
GFL 371-m	320 mm	5x M40/32/25	072 374 01	cable strain relief			
GFL 381-m	320 mm	5x M63/50/40	072 384 01	GZE 3	320 mm	for 1x 75mm Ø cable	073 003 01
GFL 411-m	420 mm	1x M40/32, 16x M25/20	072 411 01	GZE 4	440 mm	for 1x 75mm Ø cable	073 004 01
GFL 421-m	420 mm	1x M50/40, 2x M40/32, 8x M25/20	072 421 01	GZS 75		Auxiliary clamp for 1x 75mm Ø cable	073 075 01
GFL 20	220 mm	smooth side walls	072 200 01				
GFL 30	320 mm	smooth side walls	072 300 01				
GFL 40	420 mm	smooth side walls	072 400 01				





RKA



ALR equipped



AKi-R



RKA without clamps

- Empty or assembled
- Compact design or with plenty of space with up to 136 terminals
- RK terminal block housings offer plenty of room for multiple solutions

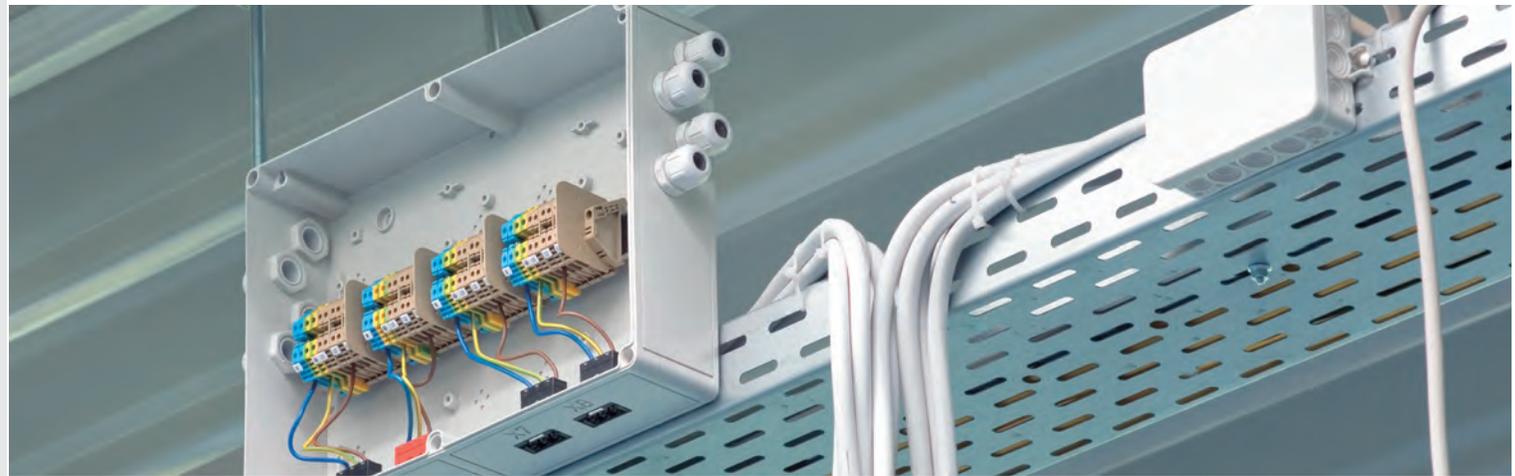
- With metric knockouts
- Supplied with metric entry spouts
- Supplied also in aluminium with mounting rail and terminal blocks



RK | AKi-R Terminal block housings

Empty enclosures with mounting rail

RK			RKA AKi-R		
Type	Order No.	Dimensions (mm)	Type	Order No.	Dimensions (mm)
RK 4/07-L	619 907 01	110 x 110 x 90	RKA 4/34-L	629 901 01	150 x 300 x 132
RK 4/18 K-L	615 912 01	110 x 180 x 90	AKi-R 4/34-L	741 901 01	150 x 300 x 132
RK 4/12-L	613 906 01	130 x 130 x 75	RKA 4/68-L	629 902 01	300 x 300 x 132
RK 4/18-L	616 912 01	180 x 182 x 90	AKi-R 4/68-L	741 902 01	300 x 300 x 132
RK 4/25-L	625 916 01	180 x 254 x 90	RKA 4/102-L	629 903 01	450 x 300 x 132
RK 4/34-L	625 917 01	180 x 254 x 90	AKi-R 4/102-L	741 903 01	450 x 300 x 132
RK 4/100-L	626 922 01	254 x 360 x 111	RKA 4/136-L	629 904 01	600 x 300 x 132
RK 4/50-L	616 950 01	254 x 360 x 111	AKi-R 4/136-L	741 904 01	600 x 300 x 132



Enclosure types with mounted terminal block

as well as technical information, product details and CAD data you can find at

www.spelsberg.com/product-finder

RK

IP66
IP54

IK07



400V
AC



AKi-R

IP65
IP54

IK08





Example of use



Example of use



External fixing clamp



External hinge

- 16 standard enclosure sizes up to 330 x 230 mm
- With powder coating to prevent corrosion
- Colour: silver grey, similar to RAL 7001
- Material: aluminium AL SI 12

- Effective protection against electromagnetic interference (EMI) and electrostatic discharges (ESD)
- An even higher level of protection can be achieved by using conductive sealings (available on request) between the components of the enclosure

- On request: enclosures with cULus Underwriters Laboratory certificate
- High level of chemical resistance



AL empty enclosures, aluminium

AL aluminium empty enclosures Smooth sidewalls

Type	Order No.	Dimensions (mm)
AL 55-3	150 001 01	50 x 45 x 30
AL 66-3	150 002 01	64 x 58 x 34
AL 1006-3	150 003 01	98 x 64 x 34
AL 1506-3	150 004 01	150 x 64 x 34
AL 88-6	150 005 01	80 x 75 x 57
AL 1308-6	150 006 01	125 x 80 x 57
AL 1808-6	150 007 01	175 x 80 x 57
AL 1010-8	150 008 01	100 x 100 x 57
AL 1212-8	150 009 01	120 x 120 x 80
AL 2212-8	150 010 01	220 x 120 x 80
AL 1616-9	150 011 01	160 x 160 x 80
AL 2616-9	150 012 01	260 x 160 x 90
AL 3616-9	150 013 01	360 x 160 x 90
AL 2320-11	150 014 01	230 x 200 x 110
AL 2823-11	150 015 01	280 x 230 x 110
AL 3323-11	150 016 01	330 x 230 x 110

 You can find technical information, product details and CAD data at www.spelsberg.com/product-finder

NEW!
TK AL

TK AL aluminium enclosures (without knock-outs)

Type	Order No.	Dimensions (mm)
TK AL 77-6*	151 001 01	89 x 89 x 64
TK AL 99-6*	151 003 01	119 x 119 x 64
TK AL 1111-7*	151 004 01	139 x 139 x 73
TK AL 1313-7	151 005 01	154 x 154 x 81
TK AL 1811-9	151 006 01	199 x 114 x 95
TK AL 1818-9	151 007 01	199 x 199 x 95
TK AL 2518-9	151 008 01	273 x 205 x 95
TK AL 3625-11*	151 012 01	388 x 270 x 117

* Available from the 4th quarter 2014

AL

IP66

IK09







Abox-i with raised terminals



Abox-i with red cover



Abox-i ...for extreme conditions



Abox GT with cast resin technology

- Shockproof
- Ample room for connection
- Simple test method
- Raised terminals for quick and orderly wiring (from Abox 060)
- Quick installation with self-sealing membrane entries (on Abox 025 and 040)

- Impact-resistant and shatterproof (e.g. in sports halls)
- With red cover for identifying circuits for safety lighting
- Also suitable for use under extreme conditions



Abox GT | Abox-*i* junction boxes

Abox GT IP68

Type	Order No.	Dimensions (mm)
Abox GT 025-2,5 ²	492 402 01	80 x 80 x 52
Abox GT 040-4 ²	492 404 01	93 x 93 x 55
Abox GT 060-6 ²	492 406 01	110 x 110 x 67
Abox GT 100-10 ²	492 410 01	140 x 140 x 79



IP68

Abox-i junction boxes

Type	Order No.	Type	Order No.	Type	Order No.	Type	Order No.	Type	Order No.	Dimensions (mm)
Abox-i 025-L	490 902 01	Abox-i 025-2,5 ²	490 402 01	Abox-i 025 SB-L	490 702 01	Abox-i 025-L/sw	491 902 01	Abox-i 025-2,5 ² /sw	491 402 01	80 x 80 x 52
Abox-i 040-L	490 904 01	Abox-i 040-4 ²	490 404 01	Abox-i 040 SB-L	490 704 01	Abox-i 040-L/sw	491 904 01	Abox-i 040-4 ² /sw	491 404 01	93 x 93 x 55
Abox-i 060-L	490 906 01	Abox-i 060-6 ²	490 406 01			Abox-i 060-L/sw	491 906 01	Abox-i 060-6 ² /sw	491 406 01	110 x 110 x 67
Abox-i 100-L	490 910 01	Abox-i 100-10 ²	490 410 01			Abox-i 100-L/sw	491 910 01	Abox-i 100-10 ² /sw	491 410 01	140 x 140 x 79
Abox-i 160-L	490 916 01	Abox-i 160-16 ²	490 416 01			Abox-i 160-L/sw	491 916 01	Abox-i 160-16 ² /sw	491 416 01	180 x 180 x 91
Abox-i 250-L	490 925 01	Abox-i 250-25 ²	490 425 01							250 x 200 x 115
Abox-i 350-L	490 935 01	Abox-i 350-35 ²	490 435 01			Abox-i 350-L/sw	491 935 01	Abox-i 350-35 ² /sw	491 435 01	250 x 250 x 115

AB: External fixing lugs **- L:** without terminal **w:** color white **SB:** with red cover **sw:** color black



You can find more junction boxes and accessories in the **general catalogue**.



You can find technical information, product details and CAD data at

www.spelsberg.com/product-finder

Abox GT

IP68 10² IK08 690V AC

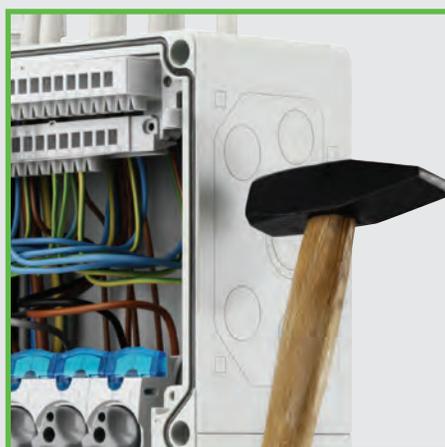
Abox-*i*

IP65 240² IK08 690V AC





Horizontal and vertical combinable, protection up to IP65



Easy knocking out of the sidewalls



AKi Plus

- 3 to 70 modules
- weather-resistant
- Easy knocking out of pre-embossed side walls
- Can be combined horizontally and vertically up to protection class IP 65

- Combination connectors included with purchased part package
- With the lock bolt set, several switch rows can be locked securely with just one lock
- Wide range of accessories as standard



AKi distribution boards



AKi distribution boards

Type	Order No.	Modules	Dimensions (mm)
AKi 03	736 403 01	3 TE	100 x 150 x 96
AKi 05	736 405 01	5 TE	125 x 200 x 122
AKi 09	736 409 01	9 TE	200 x 200 x 122
AKi 12	736 412 01	12 TE	250 x 200 x 122
AKi 24	736 424 01	24 TE	250 x 370 x 122
AKi 14	736 414 01	14 TE	300 x 300 x 142
AKi 28	736 428 01	28 TE	300 x 450 x 142
AKi 42	736 442 01	42 TE	300 x 600 x 142
AKi 56	736 456 01	56 TE	300 x 750 x 142
AKi 70	736 470 01	70 TE	300 x 900 x 142
AKi 14 Plus	738 414 01	14 TE	300 x 450 x 142
AKi 28 Plus	738 428 01	28 TE	300 x 600 x 142
AKi 42 Plus	738 442 01	42 TE	300 x 750 x 142
AKi 56 Plus	738 456 01	56 TE	300 x 900 x 142



You can find more distribution boards and accessories in the **general catalogue**.



You can find technical information, product details and CAD data at

www.spelsberg.com/product-finder

AKi





combinable



Application example



Lockable



Application example

STV-L - Empty, without fittings but with PE/N terminal

STV-S - With integrated CEE and Schuko® sockets, pre-wired, including PE/N terminal

STV-K - Connection-ready, with integrated CEE and Schuko® sockets, equipped for example with RCDs und MCBs, fully pre-wired

STG - Connection-ready, with integrated CEE and Schuko® sockets, connection-ready, pre-wired

- **High mechanical strength**
- **Insensitive to temperature**
- **Compact dimensions**
- **Uses quality sockets**
- **Can be combined**

▶ The housing can also be combined horizontally with AKi Kompakt small distributors.

▶ The special knockout contour allows other components to be installed, such as switch disconnectors.



Socket distribution boxes and enclosures STV | STG

STG socket housings							
	Connection-ready	Connection-ready	Connection-ready	Connection-ready			
	SCHUKO® Socket 16 A	SCHUKO® Socket 16 A CEE Socket 16 A	SCHUKO® Socket 16 A	SCHUKO® Socket 16 A CEE Socket 16 A			
	Fitting	4	2	1		4	2
	Type	STG 004	STG 012	STG 008		STG 024	
Order no.	732 204 01	732 212 01	732 208 01	732 224 01			
Dimensions (mm)	125 x 200 x 122	125 x 200 x 122	250 x 200 x 122	250 x 200 x 122			

STV socket distribution boxes									
	Empty enclosure 4 TE	vorverdrahtet	Connection-ready*	Empty enclosure 5 TE	Pre-wired	Connection-ready			
		SCHUKO® Socket 16 A	SCHUKO® Socket 16 A LS-Switch B 16 A, 1p FI-Switch 25 A, 2p, 0,03 A		SCHUKO® Socket 16 A CEE Socket 16 A	SCHUKO® Socket 16 A CEE Socket 16 A LS-Switch B 16 A, 1p LS-Switch C 16 A, 3p			
	Fitting	2	2	2	1	2	1	2	1
	Type	STV 502-L	STV 502-S	STV 502-K	STV 512-L	STV 512-S	STV 512-K		
Order no.	728 902 01	728 302 01	728 402 01	728 912 01	728 312 01	728 412 01			
Dimensions (mm)	125 x 200 x 122	125 x 200 x 122	125 x 200 x 122	125 x 400 x 122	125 x 400 x 122	125 x 400 x 122			

STV socket distribution boxes				<p>STV and STG enclosures can also be combined with AKi small distributors!</p>  <p>STV KS-IP 65 791 002 01</p> <p>For easy combination with AKi small distributors</p>			
	Empty enclosure 8 TE	Pre-wired	Connection-ready*		5 Distribution units	9 Distribution units	
		SCHUKO® Socket 16 A	SCHUKO® Socket 16 A LS-Switch B 16 A, 1p FI-Switch 40 A, 4p, 0,03 A			AKi 05	AKi 09
	Fitting	4	4		1	736 405 01	736 409 01
	Type	STV 904-L	STV 904-S		STV 904-K	125 x 200 x 122	200 x 200 x 122
Order no.	729 904 01	729 304 01	729 404 01				
Dimensions (mm)	200 x 200 x 122	200 x 200 x 122	200 x 200 x 122				

STV socket distribution boxes									
	Empty enclosure 9 TE	Pre-wired	Connection-ready*				Connection-ready	Pre-wired	
		SCHUKO® Socket 16 A CEE Socket 16 A	SCHUKO® Socket 16 A CEE Socket 16 A	LS-switch B 16 A, 1p	LS-switch C 16 A, 3p	FI-switch 40 A, 4p, 0,03 A	SCHUKO® Socket 16 A CEE Socket 16 A Neozed D 01, 1p Neozed D 01, 3p	SCHUKO® Socket 16 A CEE Socket 32 A	SCHUKO® Socket 16 A CEE Socket 32 A
	Fitting	2 1	2 1	1 1	1	2 1 2 1	2 1	2 1	2 1
	Type	STV 912-L	STV 912-S	STV 912-K			STV 912-KN 16	STV 912-S32	
	Order no.	729 912 01	729 312 01	729 412 01			729 512 01	729 313 01	
Dimensions (mm)	200 x 400 x 122	200 x 400 x 122	200 x 400 x 122			200 x 400 x 122	200 x 400 x 122		

STV socket distribution boxes										
	Empty enclosure 9 TE	Pre-wired	Connection-ready					Empty enclosure 12 TE	Pre-wired	
		SCHUKO® Socket 16 A CEE Socket 16 A CEE Socket 32 A	SCHUKO® Socket 16 A CEE Socket 16 A CEE Socket 32 A	LS-switch B 16 A, 1p	LS-switch C 32 A, 3p	LS-switch C 16 A, 3p		SCHUKO® Socket 16 A CEE Socket 16 A	SCHUKO® Socket 16 A CEE Socket 16 A	
	Fitting	3 1 1	3 1 1	2 1	1 1		2 2	2 2		
	Type	STV 923-L	STV 923-S	STV 923-K			STV 1222-L	STV 1222-S16		
	Order no.	729 923 01	729 323 01	729 423 01			731 922 01	731 222 01		
Dimensions (mm)	200 x 400 x 122	200 x 400 x 122	200 x 400 x 122			250 x 400 x 122	250 x 400 x 122			

STV socket distribution boxes										
	Empty enclosure 12 TE	Pre-wired	Connection-ready*			Empty enclosure 12 TE	Pre-wired	Connection-ready*		
		SCHUKO® Socket 16 A	SCHUKO® Socket 16 A	LS-switch B 16 A, 1p	FI-switch 40 A, 4p, 0,03 A		SCHUKO® Socket 16 A CEE Socket 16 A CEE Socket 32 A	SCHUKO® Socket 16 A CEE Socket 16 A CEE Socket 32 A	LS-switch B 16 A, 1p	LS-switch C 16 A, 3p
	Fitting	8	8 8 1	8	1		4 1 1	4 1 1	2 1	1
	Type	STV 1208-L	STV 1208-S	STV 1208-K		STV 1224-L	STV 1224-S		STV 1224-K	
	Order no.	731 908 01	731 308 01	731 408 01		731 924 01	731 324 01		731 424 01	
Dimensions (mm)	250 x 400 x 122	250 x 400 x 122	250 x 400 x 122		250 x 400 x 122	250 x 400 x 122		250 x 400 x 122		

Socket distribution boxes and enclosures STV | STG

	Connection-ready			Empty enclosure 9 TE			Pre-wired			Connection-ready				
Socket 32 A	Neozed D 01, 1p	Neozed D 02, 3p				SCHUKO® Socket 16 A	CEE Socket 16 A	CEE Socket 32 A	SCHUKO® Socket 16 A	CEE Socket 16 A	CEE Socket 32 A	LS-switch B 16 A, 1p	LS-switch C 32 A, 3p	LS-switch C 16 A, 3p
	1	1				2	1	1	2	1	1	2	1	1
STV 912-KN32			STV 922-L			STV 922-S			STV 922-K					
729 612 01			729 922 01			729 322 01			729 422 01					
200 x 400 x 122			200 x 400 x 122			200 x 400 x 122			200 x 400 x 122					

	Connection-ready			Pre-wired			Connection-ready				Connection-ready*							
Socket 16 A	Neozed D 01, 1p	Neozed D 01, 3p	SCHUKO® Socket 16 A	CEE Socket 16 A	CEE Socket 32 A	SCHUKO® Socket 16 A	CEE Socket 16 A	CEE Socket 32 A	Neozed D 01, 1p	Neozed D 02, 3p	Neozed D 01, 3p	SCHUKO® Socket 16 A	CEE Socket 16 A	CEE Socket 32 A	LS-switch B 16 A, 1p	LS-switch C 16 A, 3p	LS-switch C 32 A, 3p	FI-switch 40 A, 4p, 0,03 A
	2	2	2	1	1	2	1	1	2	1	1	2	1	1	1	1	1	1
STV 1222-KN16			STV 1222-S			STV 1222-KN						STV 1222-K						
731 522 01			731 322 01			731 622 01						731 422 01						
250 x 400 x 122			250 x 400 x 122			250 x 400 x 122						250 x 400 x 122						

	Pre-wired			Connection-ready*					Pre-wired			Connection-ready*				
C 16 A, 3p	LS-switch C 32 A, 3p	FI-switch 40 A, 4p, 0,03 A	SCHUKO® Socket 16 A	CEE Socket 16 A	SCHUKO® Socket 16 A	CEE Socket 16 A	LS-switch B 16 A, 1p	LS-switch C 16 A, 3p	FI-switch 40 A, 4p, 0,03 A	SCHUKO® Socket 16 A	CEE Socket 32 A	SCHUKO® Socket 16 A	CEE Socket 32 A	LS-switch B 16 A, 1p	LS-switch C 32 A, 3p	FI-switch 40 A, 4p, 0,03 A
	1	1	4	2	4	2	2	2	1	4	2	4	2	2	2	1
STV 1224-S16			STV 1224-K16						STV 1224-S32		STV 1224-K32					
731 224 01			731 624 01						731 124 01		731 824 01					
250 x 400 x 122			250 x 400 x 122						250 x 400 x 122		250 x 400 x 122					

	Empty enclosures			Enclosures with fittings			Maximum relative humidity at 40°C	Maximum relative humidity at 25°C (short-term)	Protection rating according to 60529 / VDE 0470-1 ¹	Shock-proof as per DIN EN 50102 / DE 0470 Part 100
	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average value over 24 h	Ambient temperature Minimum value	Ambient temperature Maximum value	Ambient temperature Average value over 24 h				
Red range / HP	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	95%	IP55	IK07
Junction boxes Abox	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	95%	IP65	IK07
Junction boxes Abox-i	-35°C	80°C	60°C	-25°C	35°C	25°C	50%	95%	IP65	IK08
Junction boxes S-Box	-25°C	80°C	60°C	-25°C	35°C	25°C	50%	95%	IP67	IK09
Junction boxes WK	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	95%	IP54	IK05
Junction boxes WKE 2-5	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	95%	IP65	IK05
Junction boxes WKE 200-400	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	95%	IP66	IK08
Junction boxes WKE 54	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	95%	IP67	IK07
Junction boxes WKE AK	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	95%	IP54	IK10
Terminal block housing RK / RKA	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	95%	IP65	IK07
AL / ALR Aluminium housings	-35°C	75°C	60°C	-25°C	40°C	35°C	50%	95%	IP66	IK09
IBT / IBTronic Concrete installation system	-25°C	40°C	35°C	-25°C	35°C	25°C	50%	k.A.	IP30	k.A.
AK Housing system	-25°C	40°C	35°C	-25°C	40°C	35°C	50%	95%	IP65	IK07
AKi Housing system	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP44 ²⁾	IK08
STV / STG Socket combinations	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP65	IK08
GTi Housing system	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP65	IK08
TK-PS (polystyrene) Housing system	-25°C	40°C	35°C	-25°C	40°C	35°C	50%	95%	IP66	IK07
TK-PC (polycarbonate) ³⁾ Housing system	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP66	IK08
TG ABS Housing system	-25°C	40°C	35°C	-25°C	40°C	35°C	50%	95%	IP66/ IP67	IK07
TG-PC (polycarbonate) ³⁾ Housing system	-35°C	80°C	60°C	-25°C	40°C	35°C	50%	95%	IP66/ IP67	IK08
HW Cavity wall installation system	-25°C	40°C	35°C	-25°C	40°C	35°C	50%	k.A.	IP30	k.A.
KD Channel installation system	-25°C	40°C	35°C	-25°C	40°C	35°C	50%	k.A.	IP20	k.A.

Additional note: The specified temperatures may be limited by the installed devices.

Overview of the ambient temperatures and mechanical properties of els products

¹⁾ For use with suitable connectors or cable glands

²⁾ With closed socket covers

³⁾ As a V-2 material has passed the flame test as per UL 746C.

Material		Use in the products	Weak acids	Strong acids	Weak bases	Strong bases	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia	Vegetable fats	Animal fats	Free of halogens, heavy metals, PVC and silicone	Flammability acc. to DIN EN 60695 (VDE 0471) / UL94
Polystyrene, shock-proof	AK system, Abox, RK / RKA, TK-PS		O	Ø	O	O	O	X	X	O	X	O	O	X	yes	650°C / HB
ABS (Acrylonitrile-Butadiene-Styrene)	TG-ABS		O	Ø	O	O	O	X	X	O	O	X	Ø	Ø	yes	650°C / HB
Polycarbonate, glass fibre-reinforced	Abox-i, STV/STG, GTI system, AKi, TK-PC		O	X	X	X	O	Ø	X	O	Ø	X	O	Ø	yes	960°C / V-2 (5VA*)
Polycarbonate	TG-PC		O	X	X	X	O	Ø	X	O	Ø	X	O	Ø	yes	960°C / V-2 (5VA*)
Polycarbonate, transparent	Hinged lid AK II small-scale distributor and STV, lid AKL, AKi, GTi, TK-PC		O	X	X	X	Ø	Ø	X	O	Ø	X	O	O	yes	850°C / V-2
Polyethylene	Attachment bushes, twist nipple, Red Range (bottom section)		O	O	O	O	O	Ø	X	O	X	O	O	O	yes	650°C / HB
Polypropylene	HW series, KD channel sockets, HP		O	O	O	O	O	Ø	Ø	O	X	O	O	O	no	960°C / V-2
Polypropylene copolymer	IBT / IBTronic Red Range (lid)		O	O	O	O	O	Ø	Ø	Ø	Ø	O	O	O	yes	650°C / HB
Polyurethane	All types with foamed lid seal		Ø	Ø	Ø	Ø	Ø	Ø	Ø	X	Ø	Ø	O	O	yes	650°C / ---
Aluminium	AL, ALR		O	Ø	O	O	O	O	O	O	O	O	O	O	yes	---
Duroplastic	WK junction boxes WKE fireproof junction boxes S-Box junction boxes		Ø	Ø	Ø	Ø	O	O	O	O	O	O	O	O	yes	960°C / V-0
Duroplastic	WK series integrated terminal block except for 4 mm ²		X	X	Ø	X	O	O	O	O	O	O	O	O	yes	960°C / V-0
Polyamide 6, glass fibre-reinforced	Screw fittings to IP 68		X	X	O	O	O	O	Ø	O	O	Ø	O	O	yes	750°C / HB/V-2
Thermoplastic elastomer	Double-membrane glands, inlet membranes (Abox 025 / 040, 2K-12)		O	Ø	O	Ø	O	Ø	Ø	Ø	Ø	Ø	O	O	yes	750°C / HB

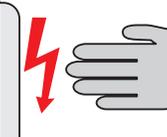
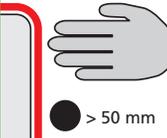
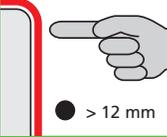
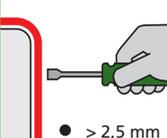
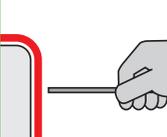
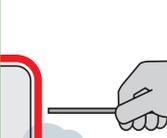
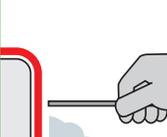
O = resistant Ø = partially resistant X = not resistant

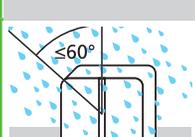
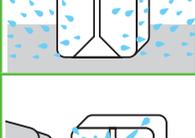
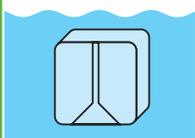
Overview of the **properties of materials** used in the **els installation systems**

* Enclosures (TK-PC, TG-PC) has passed the flame test as per UL 94 / UL 746C - 5VA.

The materials used by **Spelsberg** were subjected to a weathering test according to DIN 53 387 (replaced by DIN EN ISO 4892-2), a 1000 hour test at the „State Examination Office“ in Dortmund. The materials used in the IQ products demonstrate optimum results here. The material also passed a test for UV resistance according to UL 746 C, without any limitations.

When selecting the installation location, the climatic conditions and the occurrence of chemical influences should generally be examined in addition to the protection rating. Details of material properties and chemical resistance of the materials used can be referenced in the tables, though these are simply guide values.

	IP	Protection level	Definition
	0x	No contact protection, no protection against solid foreign bodies	
	1x	Protection against large area contact (with the hand), protection against foreign bodies > 50 mm Ø	The object probe, a sphere 50 mm in diameter, must not fully penetrate
	2x	Protection against contact with the fingers, protection against foreign bodies > 12 mm Ø	The object probe, a sphere 12.5 mm in diameter, must not fully penetrate
	3x	Protection against contact with tools, wires etc. > 2.5 mm Ø, protection against foreign bodies > 2.5 mm Ø	The object probe, a sphere 2.5 mm in diameter, must not penetrate at all
	4x	Protection against contact with tools, wires etc. > 1 mm Ø, protection against foreign bodies > 1 mm Ø	The object probe, a sphere 1.0 mm in diameter, must not penetrate at all
	5x	Contact protection, protection against dust deposits on the inside	The ingress of dust is not totally prevented, but dust must not penetrate in a quantity to interfere with satisfactory operation of the devices
	6x	Full contact protection, protection against ingress of dust	No penetration of dust

	IP	Protection level	
	x0	no protection	
	x1	Protection against vertically falling dripping water	
	x2	Protection against vertically falling water drops when the enclosure is tilted up to 15°	
	x3	Protection against falling spray water if angled up to 60° from the vertical	
	x4	Protection against splash water from all directions	
	x5	Protection against jet water from all directions	
	x6	Protection against heavy jet water	
	x7	Protection against temporary immersion in water	
	x8	Protection against effects of long-term immersion in water	
Protection against strong jets of water under high pressure, sp			
	9K	Protection against the ingress of water in case of high pressure / steam-jet cleaning, specifically for road vehicles	

Assembly and installation notes

Definition

Protection types according to EN 60529 (VDE 0470-1)

The appropriate degree of protection is demonstrated in our in-house test laboratory. The tests are performed according to DIN EN 60670-1, DIN EN 61439-1 and DIN EN 62208 (depending on type).

The first digit of the IP Code stands for the level of protection against contact with dangerous parts and the ingress of solid bodies.

Vertically falling drops shall have no harmful effects

Vertically falling drops must not have any harmful effects when the enclosure is tilted up to 15° on either side of the vertical

Water sprayed at an angle of up to 60° on either side of the vertical shall have no harmful effects

Water splashed on the enclosure from any direction shall have no harmful effects

Water directed at the enclosure from any direction in a jet shall have no harmful effects

Water directed at the enclosure from any direction in a jet shall have no harmful effects

Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed in water

Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water

, specifically for road vehicles

Water directed at the enclosure from any direction in a jet under increased pressure shall have no harmful effects

Overview of cable entries and the associated sealing ranges.

Gland size					
	Cable gland IP68	Torque	Double-membrane seal IP66	Stepped nipple IP55	Attachment bush IP54
	Sealing range [mm]	[Nm]	Sealing range [mm]	Sealing range [mm]	Sealing range [mm]
M12	2 – 6,5	2	---	---	---
M16	4 – 10	2,5	5 – 9	---	6 – 10
M20	6 – 12	4	7 – 12	5 – 16	8 – 13,5
M20	7 – 14	4	---	---	---
M25	9 – 16	6	9 – 16	5 – 21	9 – 18,5
M32	11 – 21	7	14 – 21	13 – 26,5	13 – 23
M40	16 – 28	7,5	---	13 – 24	17 – 30
M50	21 – 34,5	8	---	---	---
M63	32 – 44,5	9	---	---	---

Protection against mechanical stress, IK code, **IK-code**

IK-Code	stress energy [J]
IK00	---
IK01	0,15
IK02	0,2
IK03	0,35
IK04	0,5
IK05	0,7
IK06	1
IK07	2
IK08	5
IK09	10
IK10	20

According to DIN EN 50102 (VDE 0470-100) «Protection types from enclosures for electrical operating media (equipment) against external mechanical damage (IK code)», the degree of protection provided by an enclosure against mechanical damage is indicated by an IK code.

The IK codes allocated to the individual stress energy values are given in the adjacent table.

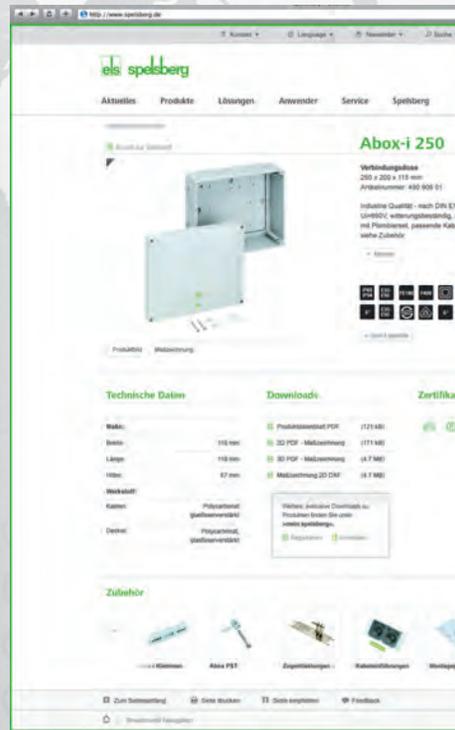
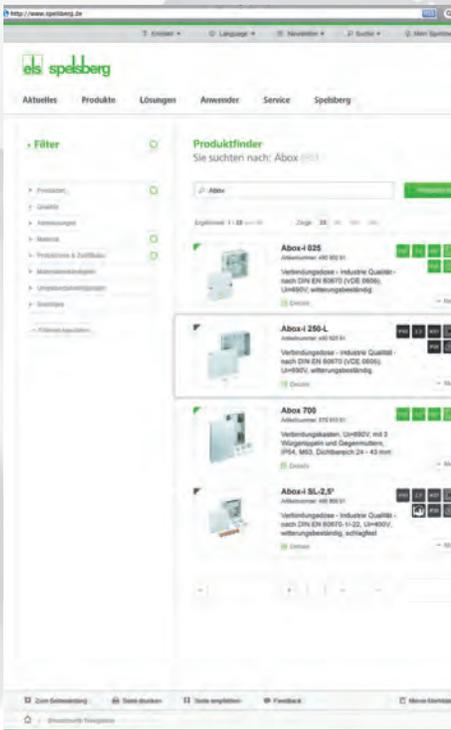


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