



Security in agriculture

**DLG-certified products from Spelsberg |
Protection for people and animals**



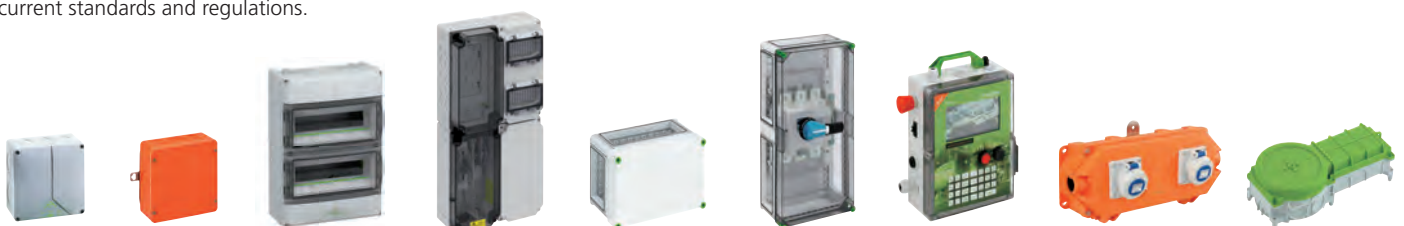
Till Fastabend (Managing Partner)
Holger Spelsberg (Managing Partner)

Dear customers and friends of Spelsberg

With its well-known selection of branded products, Günther Spelsberg GmbH + Co. KG has been a strong and reliable presence in the electrical installation sector for 113 years. Building on our experience and clearly defined core competence in the fields of damp-proof electrical installation and enclosure technology for trade and industry, we are constantly launching new products, whose innovative functions and features meet the ever increasing demands of our customers and satisfy the current standards and regulations.

In the past it was new products such as the fire-resistant WKE junction boxes with preserved functionality or the red line of halogen-free junction boxes with which Spelsberg forged new paths as an innovative pioneer, driving the development of installation technology one step further into the future. Today, Spelsberg offers a range of state-of-the-art, complete and high-quality products.

Production locations Schalksmühle Δ and Buttstädt ∇



Innovation meets tradition | 113 Years of Spelsberg



Installations in agriculture

Electrical installations and electrical systems in agriculture are exposed to considerable stress due to the heavy mechanical and thermal influences that prevail in the working environment. Dust and moisture as well as exposure to ammonia necessitate the use of suitable materials. 95% of all ammonia emissions are produced by the agricultural industry, with the largest proportion of ammonia coming from livestock farming. That some 95% of ammonia emissions are generated in animal stables and in the production and storage of slurry, liquid manure and solid manure highlights the growing importance of special **industrial enclosures** and **electrical installation products** for the agricultural industry.

Increased risk thanks to:

- **Moisture, dust, vapours, acids and salts**
- **Storage of highly flammable crop harvests**

Applicable directives and provisions must be adhered to, particularly in the setup and maintenance of electrical systems, in order that people, animals and property are adequately protected. As such, our products satisfy special directives including DLG certification. Users in the agricultural industry should always take care to use safe installations and products of industrial quality.

Applications in the agricultural industry

- **Ventilation technology**
- **Fan technology**
- **Feeding technology**
- **Irrigation technology**
- **Lighting**
- **Climate control**
- **Monitoring technology**
- **and more**



The enclosure has been tested under these conditions for 1500 hours in a DLG test:

- Ammonia concentration of 750 ppm
- Air temperature of 70°C
- Air humidity of 70%

The DLG - the basis for innovation and progress

The DLG e.V. (Deutsche Landwirtschafts-Gesellschaft) was founded in 1885 by engineer and author Max Eyth. It now has over 25,500 members and is the central organisation for the agri-food sector. The DLG is a politically independent, professional organisation open to everyone.

Round table exchange of experience

As an open forum, the DLG exists for exchange of knowledge and opinion making. Around 200 full-time employees and over 3,000 voluntary experts work together to develop solutions for today's problems. More than 80 committees, working groups and commissions are the foundation for expertise and continuity in the trade.

International orientation

The DLG has a fully international outlook. It carries out a global exchange of knowledge with leading international practitioners and other trade organisations.

Committed to progress

The DLG's basis and identity is focused on the advancement of scientific and technical progress. Through its projects and activities, the DLG sets benchmarks and inspires progress.

Fields of work

- Imparting knowledge
- Trade exhibitions
- Technology and equipment testing
- Food testing



VDE 0100-705

Requirements for special installations or locations - Agricultural and horticultural premises

The requirements of standard DIN VDE 0100-705 (VDE 0100-705) apply to fixed electrical system installations both indoors and outdoors on agricultural and horticultural premises. A number of the requirements of this standard also apply to electrical systems in corresponding residences and other premises on agricultural and horticultural premises.

VdS 2057

Electrical systems in agricultural businesses and intensive livestock farming

Electrical equipment that is used on agricultural and horticultural premises for normal use must satisfy degree of protection IP44 as a minimum. Electrical equipment must not be accessible to livestock.

VdS 2067

Electrical systems in agriculture

Agricultural premises is considered to mean all rooms, locations or areas in which livestock are kept and in which feed and fertiliser, plant or animal products are stored, prepared or processed. This includes residential buildings that are connected to the agricultural premises by means of metal components (e.g. structural components, pipes).



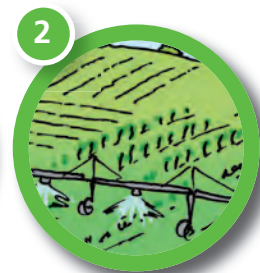
Junction box
Abox-i 6² to 35²

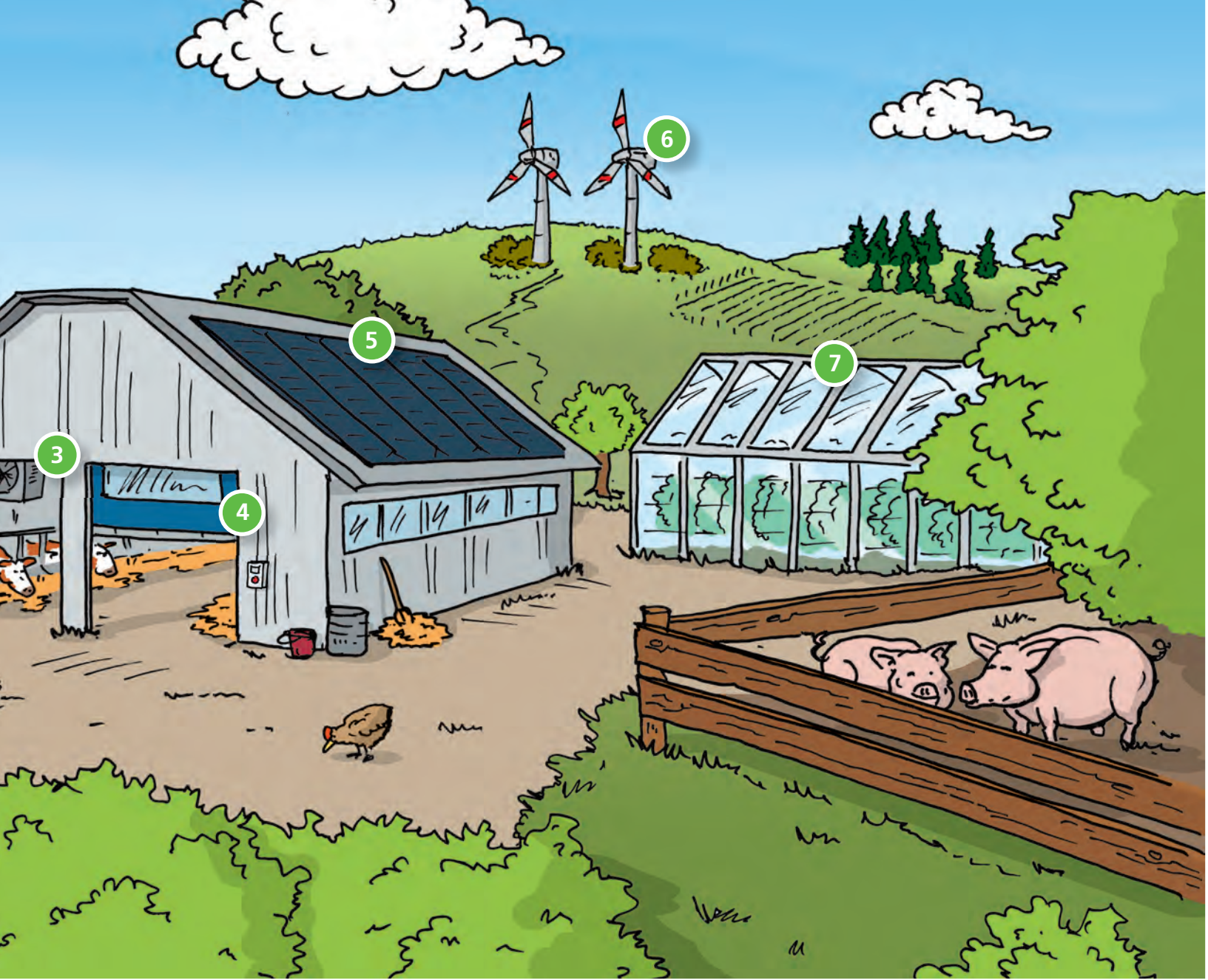
Our weather-resistant junction boxes offer ample installation space and are well suited to use in extreme environments. They offer rapid, clearly-arranged wiring.



AK Air small distribution boards

High-value distribution boards with an increased protection level and further special, technical features such as the integrated ventilation elements for harsh and challenging environments.





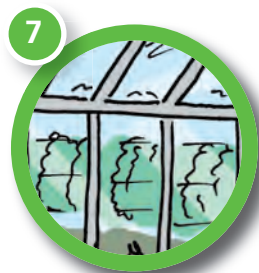
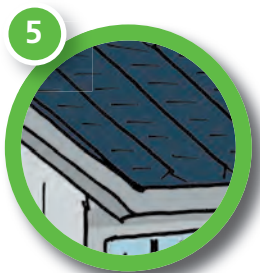
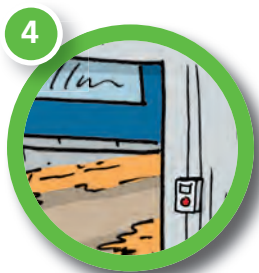
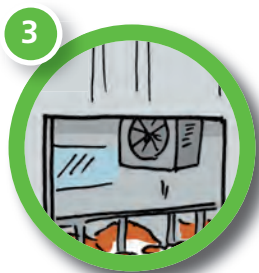
TK PC blank enclosures

Blank enclosures from Spelsberg come in a range of sizes and materials and can be tailored to customer-specific requirements.



TG PC blank enclosures

TG series blank enclosures are also suitable for installation in challenging conditions. A recess in the cover is provided for applying design films and membrane keyboards.



Possible applications in the agricultural industry



Weather resistant with and without terminals from 6² to 35 mm²

- Impact resistant
- Large connection area
- Easy testing
- Raised terminals for rapid and clearly-arranged wiring (from Abox-i 060)
- Impact/break resistant
- With red cover for easy identification of safety lighting circuits
- Use possible in extreme conditions (e.g. cow/pig sheds).
- DLG-certified



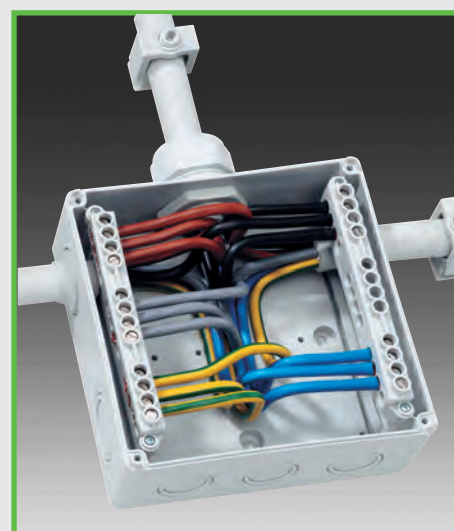
Junction box | Abox-i 060 to 350

Enclosure type	Order no.	Dimensions (mm)
Abox-i 060-6 ²	490 406 01	110 x 110 x 67
Abox-i 060-6 ² /sw	491 406 01	110 x 110 x 67
Abox-i 060-L	490 906 01	110 x 110 x 67
Abox-i 060-L/sw	491 906 01	110 x 110 x 67
Abox-i 100-10 ²	490 410 01	140 x 140 x 79
Abox-i 100-10 ² /sw	491 410 01	140 x 140 x 79
Abox-i 100-L	490 910 01	140 x 140 x 79
Abox-i 100-L/sw	491 910 01	140 x 140 x 79
Abox-i 160-16 ²	490 416 01	180 x 180 x 91
Abox-i 160-16 ² /sw	491 416 01	180 x 180 x 91
Abox-i 160-L	490 916 01	180 x 180 x 91
Abox-i 160-L/sw	491 916 01	180 x 180 x 91
Abox-i 250 25 ²	490 425 01	250 x 200 x 115
Abox-i 250-L	490 925 01	250 x 200 x 115
Abox-i 350-35 ²	490 435 01	250 x 250 x 115
Abox-i 350-35 ² /sw	491 435 01	250 x 250 x 115
Abox-i 350-L	490 935 01	250 x 250 x 115
Abox-i 350-L/sw	491 935 01	250 x 250 x 115

6² = with terminal
L = without terminal
sw = black
DK = with series terminal



Outdoor installation



Abox-i wired

Please consult the main catalogue and www.spelsberg.com for accessories



G. SPELSBERG
JUNCTION BOX SERIES ABOX-I
WITH ACCESSORIES

✓ Resistance to Ammonia
DLG Test Report 6398



- One distribution board for every application
- With integrated Air ventilation elements for prevention of condensate water
- Suitable for use indoors and outdoors
- 14 modules per row
- High air exchange rate

- 100% pressure compensation
- 100% foreign object protection
- Maintenance-free
- 1 to 5 rows
- UL EU-certified
- VDE-certified



Small distribution boards | AK Air

1 = acc. DIN EN 60670-24 2 = acc. DIN EN 61439-2



Metric knock-outs



Optimised hinged window




Mounting outside the seal area

AK / AK Plus		Modules	Dimensions (mm)
Enclosure type	Order no.		
AK 14	733 414 01	14 TE	300 x 315 x 155
AK 28	733 428 01	28 TE	450 x 315 x 155
AK 42	733 442 01	42 TE	600 x 315 x 155
AK 56	733 456 01	56 TE	750 x 315 x 155
AK 70	733 470 01	70 TE	1050 x 315 x 155
AK 14 Plus	733 614 01	14 TE	450 x 315 x 155
AK 28 Plus	733 628 01	28 TE	600 x 315 x 155
AK 42 Plus	733 642 01	42 TE	750 x 315 x 155

AK-F/AK-F Plus (flange variant)		Modules	Dimensions (mm)
Enclosure type	Order no.		
AK-F 14	733 514 01	14 TE	300 x 315 x 155
AK-F 28	733 528 01	18 TE	450 x 315 x 155
AK-F 42	733 542 01	42 TE	600 x 315 x 155
AK-F 56	733 556 01	56 TE	750 x 315 x 155
AK-F 14 Plus	733 714 01	14 TE	450 x 315 x 155
AK-F 28 Plus	733 728 01	28 TE	600 x 315 x 155
AK-F 42 Plus	733 742 01	42 TE	750 x 315 x 155

Mounting flange including flange connector for sealing the face of AK-F enclosures

Enclosure type	Order no.	
AK3 FL00 without knock-outs	733 820 01	
AK3 FL01 with knock-outs: 1 x M50/M40, 2 x M40/32, 2 x M20	733 821 01	
AK3 FL02 with knock-outs: 5 x M25/M20, 6 x M20	733 822 01	
AK3 FL13 with knock-out 1x M40/M32 and opening for FL13 acc. SEN 28 09 01	733 828 01	

Combination flange including flange connector for face connecting to AK-F enclosures

Enclosure type	Order no.	
AK3 KFL	733 829 01	

Consult the main catalogue and www.spelsberg.com for more accessories



Example application:
"Schurr" cow brush

Example application:
TK enclosure



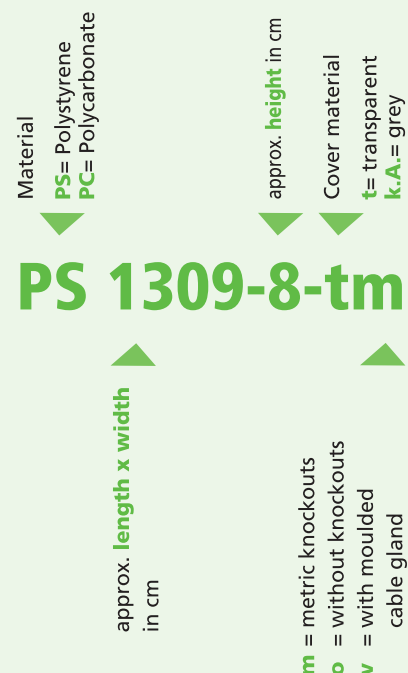
- 15 basic enclosures with up to 3 different cover heights
- Grey or transparent cover
- Plastic, fibre-glass polycarbonate (TK PC)
- With embossed metric breakout openings
- Modular tools: cost-effective adaptation to customer requirements
- DLG-certified

Consult the main catalogue and www.spelsberg.com for more access



G. SPELSBERG
EMPTY ENCLOSURE SERIES TK PC
WITH ACCESSORIES
✓ Resistance to Ammonia
DLG Test Report 6399

Example of TK designation scheme



Blank enclosures | TK PC

Grey cover		Transparent cover		Dimensions (mm)
Enclosure type	Order no.	Enclosure type	Order no.	
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 1005-4-m	127 480 01	TK PC 1005-4-tm	137 480 01	100 x 52 x 37
TK PC 1005-4-o	120 480 01	TK PC 1005-4-to	130 780 01	100 x 52 x 37
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



- 9 basic enclosures in different heights
- High-quality design with fine, high-gloss finish
- Grey or transparent cover
- Polycarbonate (TG PC)
- Flexibility with smooth side walls
- Mounting cams in standard positions
- Time saving thanks to stainless steel quick connection
- Standard cover screws on request
- Recess in cover for applying design films and membrane keyboards
- DLG-certified
- Treatment possible



Consult the main catalogue and www.spelsberg.com for more accessories

Blank enclosures | TG PC



TG PC blank enclosure



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

Overview of enclosure types | TG PC

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