



Enclosure Accessories

Carefully selected accessories and tools complement the Altech/Spelsberg Enclosure family. A full line, including connectors for wire, cable, or conduit; ground/neutral busbars, mounting plates and hardware, locks, hinge kits, DIN rails, terminal block assemblies, drilling tools and more are available to enhance the overall design capabilities.

Altech/Spelsberg has the right accessories to make your job easier.

- Liquid Tight Strain Relief connectors and connector assemblies
- Mounting plates
- DIN rail support racks
- DIN rails
- Enclosure mounting screws
- Key locksets
- Hinge kits
- Cover plates
- Combination kits, flange type
- Ground/neutral busbars



Combination Kits

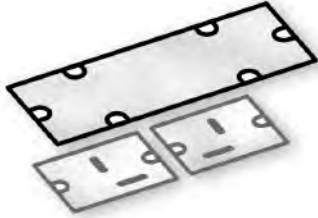
Used to combine series specific enclosures to make larger units. Connect horizontally or vertically.

Fitting Type Combination Kit

Threaded with locknut seal for connecting sidewalls.

Fits standard Pg knockouts.

Drilling template included to ensure enclosure ingress integrity.



Pin Type Combination Set

For combining AK and AKL Series Enclosures for 150mm and 300mm sides.

| Type / Size | Wall Thickness up to | Cat. No. | Std. Pack |
|-------------|----------------------|----------|-----------|
| CK/M20 | 2x3 mm | 192-020 | 1 |
| CK/M25 | 2x3 mm | 192-025 | 1 |
| CK/M32 | 2x3.5 mm | 192-032 | 1 |

| | | | |
|---------|---------|---------|---|
| CK/AKII | AK, AKL | 791-001 | 1 |
|---------|---------|---------|---|

Din Rails

DIN rails allow for mounting DIN Terminal Blocks and other control components. All required hardware included.



TS15x5 mm

TS35x7.5 mm

TS35x7.5 mm / Special Variants

TS35x7.5 mm / for AL Series

| Type | For Series | Cat. No. | Std. Pack |
|------------|------------------------------|----------|-----------|
| TS15/49.5 | TK77, 97 | 197-049 | 1 |
| TS15/80 | TK97, 99 | 197-080 | 1 |
| TS15/92 | TK1111 | 197-092 | 1 |
| TS15/111 | TK1309, 1313 | 197-111 | 1 |
| TS15/154 | TK1809 | 197-154 | 1 |
| TS35/81 | TK1111, Abox060 | 198-081 | 1 |
| TS35/106 | TK1309, 1313, Abox100, HP150 | 198-106 | 1 |
| TS35/144 | TK1809, 1811, 1818, HP190 | 198-144 | 1 |
| TS35/144 | Abox160 | 894-016 | 1 |
| TS35/216 | TK2518 | 198-216 | 1 |
| TS35/216 | Abox350 | 894-035 | 1 |
| TS35/336 | TK3625 | 198-336 | 1 |
| CITS35/250 | AKII, AKL | 562-735 | 1 |
| SMTS35/216 | AKII, AKL, EK12, 24 | 562-035 | 1 |
| TS35/110 | AL1212 | 162-009 | 1 |
| TS35/208 | AL2212 | 162-010 | 1 |
| TS35/145 | AL1616 | 162-011 | 1 |
| TS35/245 | AL2616 | 162-012 | 1 |
| TS35/345 | AL3616 | 162-013 | 1 |
| TS35/186 | AL2023 | 162-014 | 1 |
| TS35/266 | AL2823 | 162-015 | 1 |
| TS35/316 | AL3323 | 162-016 | 1 |

Enclosure Mounting Screws

For mounting enclosures through corner holes.



Wood Screws

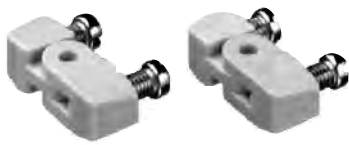
Machine Screws

Component Mounting Screws

For mounting DIN rails, mounting plates, etc. into molded base holes.

- Select appropriate length
- Self tapping

| Type | For Series | Cat. No. | Std. Pack |
|--------------|-------------|----------|-----------|
| WS/4x35 | TK, EK | 194-035 | 100 |
| MS/4x12 | TK, EK | 194-412 | 100 |
| MS/4x25 | TK, EK | 194-425 | 100 |
| ST/3.9x9 mm | For | D-409 | 100 |
| ST/3.9x13 mm | All Plastic | D-413 | 100 |
| ST/3.9x17 mm | Series | D-417 | 100 |
| ST/3.9x28 mm | | D-428 | 100 |



Hinge Kits

Attach the enclosure cover and base together for easy opening and closing of the enclosure. All required hardware and instructions are included.

Small Plastic
Large Plastic
Metal - Outer



Enclosure Lid Screws

Replacements for existing screws.

Short-Gray
Long-Gray
Short-Black
Long-Black



Thumb Screw Caps

Locksets

Locksets prevent the unauthorized opening of enclosure lids or doors.

KL Locksets with two keys easily install into hinged transparent doors.

Enclosure Padlock and Hinge set with all mounting accessories.



Mounting Plates

TK Series

Complete with screws.
Hole patterns match mounting provisions in enclosure base.
Plastic laminate 2.5 mm (.10 in) thick.
Color: Gray

Abox Series

Plastic laminate
Color: Gray

| Type | For Series | Cat. No. | Std. Pack |
|-------|-------------------------------------|----------|-----------|
| HK1 | TK77 - 1809, EK002 | 190-002 | 1 |
| HK2 | TK1811 - 3625, EK004 - 024, AK, AKL | 190-005 | 1 |
| HK-AL | AL1212 - AL3323 | 154-210 | 1 |

| Type | For Series | Cat. No. | Std. Pack |
|---------|------------------------------|----------|-----------|
| TKLS-SG | TK - low cover, gray | 190-010 | 1 |
| TKLS-LG | TK - high cover, gray | 190-011 | 1 |
| TKLS-SB | TK - low cover, transparent | 190-012 | 1 |
| TKLS-LB | TK - high cover, transparent | 190-013 | 1 |
| TS | TK, EK, AK, AKL | 190-001 | 1 |

| Type | For Series | Cat. No. | Std. Pack |
|------|----------------------|----------|-----------|
| KL | EK | 548-102 | 1 |
| KL2 | AK | 706-102 | 1 |
| PL | AK, AKL, TK1811 & up | 190-100 | 1 |

| Type | Enclosure Series | Size mm (in.) | Cat. No. | Std. Pack |
|--------|------------------|----------------------|----------|-----------|
| MP55 | TK55 | 46x44 (1.81x1.73) | 195-055 | 1 |
| MP75 | TK75 | 59x44 (2.32x1.73) | 195-075 | 1 |
| MP77 | TK77 | 45x45 (1.77x1.77) | 195-001 | 1 |
| MP97 | TK97 | 74x45 (2.91x1.77) | 195-002 | 1 |
| MP99 | TK99 | 74x74 (2.91x2.91) | 195-003 | 1 |
| MP1111 | TK1111 | 90x90 (3.54x3.54) | 195-004 | 1 |
| MP1309 | TK1309 | 110x74 (4.33x2.91) | 195-009 | 1 |
| MP1313 | TK1313 | 110x110 (4.33x4.33) | 195-005 | 1 |
| MP1809 | TK1809 | 160x74 (6.30x2.91) | 195-010 | 1 |
| MP1811 | TK1811 | 150x90 (5.91x3.54) | 195-006 | 1 |
| MP1818 | TK1818 | 150x150 (5.91x5.91) | 195-007 | 1 |
| MP2518 | TK2518 | 220x150 (8.66x5.91) | 195-008 | 1 |
| MP3625 | TK3625 | 331x220 (13.03x8.66) | 195-012 | 1 |
| MP060 | Abox060 | 83x83 (3.27x3.27) | 895-006 | 1 |
| MP100 | Abox100 | 109x109 (4.29x4.29) | 895-010 | 1 |
| MP160 | Abox160 | 149x149 (5.87x5.87) | 895-016 | 1 |
| MP350 | Abox350 | 217x217 (8.54x8.54) | 895-035 | 1 |

Mounting Plates

Aluminum Series

Steel plates for the mounting and installation of large / heavy devices and components.
- For AL Series only



AK Series

Plastic laminate 4 mm (.16 in) thick
Color: Gray

| Type | Enclosure Series | Size mm (in.) | Cat. No. | Std. Pack |
|--------|------------------|----------------------|----------|-----------|
| MP88 | AL88 | 68.8x64 (2.71x2.52) | 155-005 | 1 |
| MP1308 | AL1308 | 114x68.8 (4.49x2.71) | 155-006 | 1 |
| MP1808 | AL1808 | 164x68.8 (6.46x2.71) | 155-007 | 1 |
| MP1010 | AL1010 | 88x88 (3.46x3.46) | 155-008 | 1 |
| MP1212 | AL1212 | 109x107 (4.29x4.21) | 155-009 | 1 |
| MP2212 | AL2212 | 207x107 (8.15x4.21) | 155-010 | 1 |
| MP1616 | AL1616 | 145x143 (5.71x5.63) | 155-011 | 1 |
| MP2616 | AL2616 | 245x143 (9.65x5.63) | 155-012 | 1 |
| MP3616 | AL3616 | 345x143 (13.6x5.63) | 155-013 | 1 |
| MP2023 | AL2023 | 214x184 (8.43x7.24) | 155-014 | 1 |
| MP2823 | AL2823 | 264x214 (10.4x8.43) | 155-015 | 1 |
| MP3323 | AL3323 | 314x214 (12.4x8.43) | 155-016 | 1 |

| | | | | |
|------|---------|----------------------|---------|---|
| MPI1 | AK, AKL | 240x112 (9.45x4.41) | 795-001 | 1 |
| MPI2 | AK, AKL | 240x240 (9.45x9.45) | 795-002 | 1 |
| MPI3 | AK, AKL | 240x390 (9.45x15.35) | 795-003 | 1 |
| MPI4 | AK, AKL | 240x540 (9.45x21.26) | 795-004 | 1 |

Mounting Tabs

Enables enclosure to be surface mounted.
1 set = 4 mounting tabs



Plastic
Metal

| Type | For Series | Cat. No. | Std. Pack |
|--------|-----------------------|----------|-----------|
| MT1 | TK, EK | 194-001 | 1 |
| MT2 | AK, AKL | 793-004 | 1 |
| MT-AL1 | AL66-3 to AL1010-8 | 154-004 | 1 |
| MT-AL2 | AL1212-8 to AL3323-11 | 154-006 | 1 |

Snap In and Threaded Entry Spouts



Snap In Double Membrane Entry Seals

- Fits and seals removed Pg knockouts
- IP66
- Features two integral sealing membranes

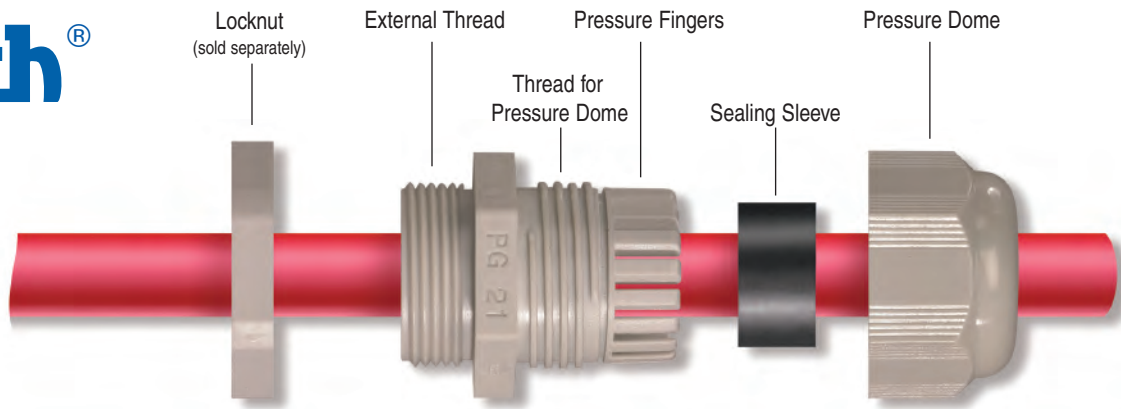
Universal Snap In Entry Seal

- IP55
- Polyethylene
- Cut steps to fit desired cable size

Snap In Air Vents

- Allows moisture to escape from the enclosure
- Labyrinth seal to prevent water formation

| Mounting Hole Type | Cable Dia. mm (in.) | Cat. No. | Std. Pack |
|--------------------|------------------------|----------|-----------|
| M16 | 5 - 9 (.20 - .35) | 260-416 | 50 |
| M20 | 7 - 12 (.28 - .47) | 260-420 | 50 |
| M25 | 9 - 16 (.35 - .63) | 260-425 | 50 |
| M32 | 14 - 21 (.55 - .83) | 260-432 | 25 |
| M20 | 5 - 16 (.20 - .63) | 216-420 | 100 |
| M25 | 5 - 21 (.20 - .83) | 216-425 | 50 |
| M32 | 13 - 26.5 (.51 - 1.04) | 216-432 | 25 |
| M20 | N/A | 262-420 | 100 |



- **Increased Cable Range** - The specially designed pressure fingers allow for up to 60% wider cable range.
- **IP68 achieved without seal rings** - The redesigned integral sealing ridge obtains an IP68 protection rating without the use of seal rings.

Material:

- Body: Polyamide 6
- Seal: Neoprene

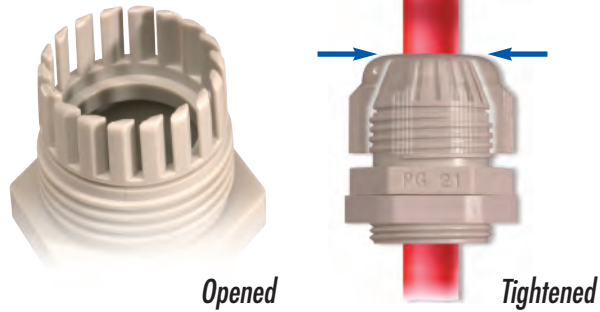
Technical properties:

- Maximum strain relief through clamping range
- IP68 achieved without seal rings (PG and metric only)

- Trapezoidal thread with high torque guarantees tight and permanent fit of the dome nut
- Gas- and watertight

Applications:

- Machines and devices



Cable Gland, Polyamide, Metric Thread

| Thread | Cable Range mm | Cat. No. Light grey | Cat. No. Black | Std. Pk. |
|---------------|----------------|---------------------|----------------|----------|
| M 12 x 1.5 | 1.5-5 | 5309612 | 5309712 | 100 |
| M 12 x 1.5 | 2.5-6.5 | 5308950 | 5308940 | 100 |
| M 16 x 1.5/9 | 1.5-6 | 5309615 | 5309715 | 50 |
| M 16 x 1.5/11 | 2-7 | 5309616 | 5309716 | 50 |
| M 16 x 1.5/9 | 2.5-8 | 5308958 | 5308948 | 50 |
| M 16 x 1.5/11 | 3.5-10 | 5308951 | 5308941 | 50 |
| M 20 x 1.5/13 | 3-9 | 5309619 | 5309719 | 50 |
| M 20 x 1.5/16 | 5-12 | 5309620 | 5309720 | 50 |
| M 20 x 1.5/13 | 5-12 | 5308959 | 5308949 | 50 |
| M 20 x 1.5/16 | 7-14 | 5308952 | 5308942 | 50 |
| M 25 x 1.5/16 | 5-12 | 5309624 | 5309724 | 50 |
| M 25 x 1.5/21 | 7-16 | 5309625 | 5309725 | 25 |
| M 25 x 1.5/16 | 7-14 | 5308960 | 5308962 | 50 |
| M 25 x 1.5/21 | 9-18 | 5308953 | 5308943 | 25 |
| M 32 x 1.5 | 11-21 | 5309632 | 5309732 | 20 |
| M 32 x 1.5 | 14-25 | 5308954 | 5308944 | 20 |
| M 40 x 1.5 | 13-26 | 5309640 | 5309740 | 10 |
| M 40 x 1.5 | 18-32 | 5308955 | 5308945 | 10 |
| M 50 x 1.5 | 17-31 | 5309650 | 5309750 | 5 |
| M 50 x 1.5 | 24-38.5 | 5308956 | 5308946 | 5 |
| M 63 x 1.5 | 26-39 | 5309663 | 5309763 | 5 |
| M 63 x 1.5 | 35-48 | 5308957 | 5308947 | 5 |

| Temperature Range | |
|--------------------------------|--------------------------------|
| PA6 | Neoprene |
| -25 to 100°C (-13 to 212°F) | -25 to 100°C (-13 to 212°F) |

Body
PA 6

| Thread Size | H mm | E mm | L mm | ØC mm | ØP mm | ØThread mm |
|-------------|------|------|------|-------|-------|------------|
| M12x1.5 | 15 | 8 | 32 | 6.7 | 6.8 | 12.0 |
| M16x1.5/9 | 19 | 10 | 37 | 8.5 | 8.5 | 16.0 |
| M16x1.5/11 | 22 | 10 | 39 | 10.5 | 10.5 | 16.0 |
| M20x1.5/13 | 24 | 10 | 40 | 12.5 | 12.5 | 20.0 |
| M20x1.5/16 | 27 | 10 | 43 | 14.5 | 14.5 | 20.0 |
| M25x1.5/16 | 27 | 10 | 45 | 14.5 | 14.5 | 25.0 |
| M25x1.5/21 | 33 | 10 | 49 | 18.5 | 18.5 | 25.0 |
| M32x1.5 | 42 | 10 | 52 | 25.5 | 25.5 | 32.0 |
| M40x1.5 | 53 | 10 | 62 | 32.5 | 32.5 | 40.0 |
| M50x1.5 | 60 | 12 | 67 | 39.0 | 39.0 | 50.0 |
| M63x1.5 | 70 | 12 | 68 | 48.5 | 48.5 | 63.0 |

Lock Nuts, Polyamide, Metric Thread

Material:

- Polyamide 6
- 25 % Glass fiber Reinforced

| Thread | Thickness (E) mm | SW mm | Cat. No. Light grey | Cat. No. Black | Std. Pk. |
|---------------|------------------|-------|---------------------|----------------|----------|
| Metric | | | | | |
| M 12 x 1.5 | 5 | 19 | 7211979 | 7211974 | 50 |
| M 16 x 1.5 | 5 | 22 | 7211980 | 7211975 | 50 |
| M 20 x 1.5 | 5 | 24 | 7211981 | 7211976 | 50 |
| M 25 x 1.5 | 6 | 30 | 7211982 | 7211977 | 50 |
| M 32 x 1.5 | 7.5 | 38 | 7211983 | 7211978 | 50 |
| M 40 x 1.5 | 8 | 50 | 7211984 | 7211990 | 20 |
| M 50 x 1.5* | 9 | 60 | 7211985 | 7211991 | 10 |
| M 63 x 1.5* | 10 | 75 | 7211986 | 7211992 | 5 |

| Temperature Range PA | |
|----------------------|----------------|
| -30 to 120°C | (-22 to 248°F) |

