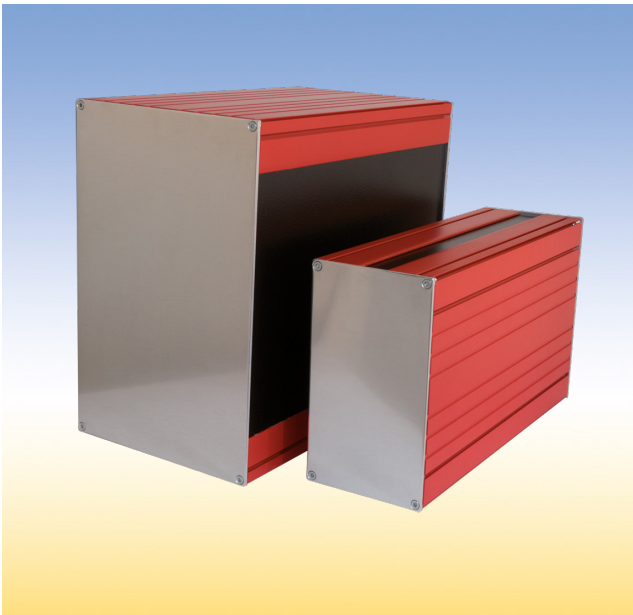# Housing *InterShell IP*

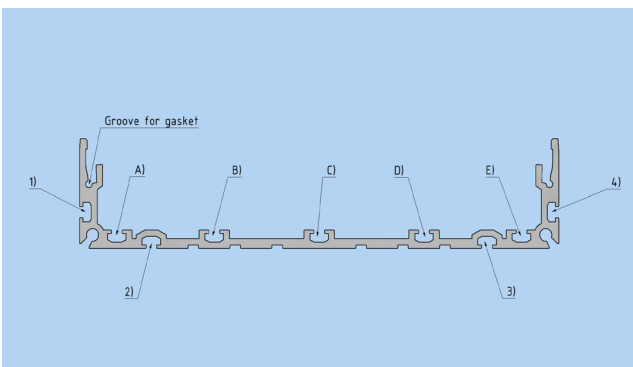*Painting examples of the InterShell IP*

Description

The *InterShell IP* - perfect heavy duty housing.
For euroboard cards and customised electronic applications.
Due to its robustness and tightness up to IP65 it is particularly suitable for mobile applications in the outdoor area as well as desk housing for
for measuring and test equipment. It is also possible to use the interior for subrack 3HE 42TE.

The small housing *InterShell IP* stands out due to its particular constructive features:

√   The notches outside of the profile can be used for threaded strips (pos. 1-4) or for fittings like clip-angle or stock mounting.

√   The notches internal the profile (5x, pos. A-E) are used for threaded strips and for additional parts like card guides.

√   Alternative surface treatments, e.g. colorless passivation or varnishing of all visible surfaces are possible.

√   Front panel and rear panel are made of 3mm metal sheed. On request, cut-outs for connectors as well as individual printing are possible.

√   Sidewall, front and back panel are made of bright sea water resistant aluminum. Surface treatments are also possible.

√   Front and rear panel are each fitted with 4 counter-sunk screws.

√   A sealing (ø2mm) can be inserted between the profile and the plugged-in side panel to protect against extraneous particles and splashed water.

√   The use of high-quality silicone sealings provides an optimal protection against foreign particles and moisture.

√   Optionally, two conductive variants of sealings are available in order to obtain an optimal EMC-shielding

•   Silicone filled with particles of nickel-plated graphite

•   Fluorosilicone filled with conductive particles of silver-plated aluminum

√   Feet-kit is available as an option and can be ordered separately.

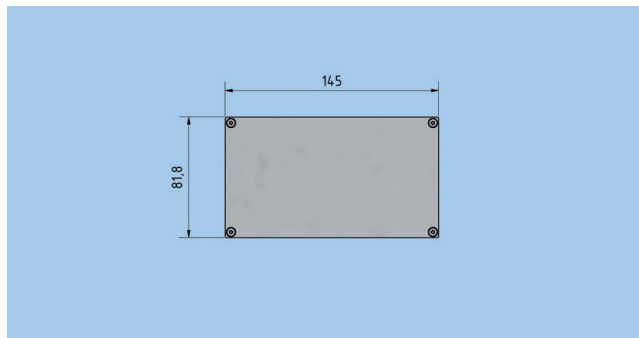*Position of the notches and sealings*

Delivery :
The housings are delivered unassembled as kits. They are packed - depending on quantity - either as kits or same parts packed together.

Upon request, the housings can also be delivered completely assembled and wired according to your requirements.
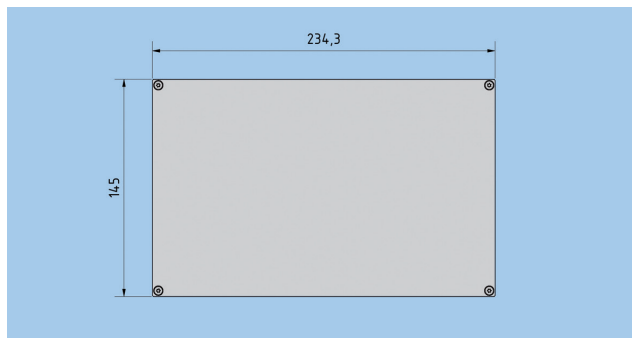
Technical Data

Dimensions	Small housing W 145 mm, H 81,8 mm basic Small housing for subrack 3 U-42 HP, W 234,3 mm, H 145 mm
Usable depth	150, 200, 250 mm (inner dimensions)
Materials	Screws: stainless steel, Assembled and threaded strips: steel or stainless steel profile and side panel: aluminium
Surface	Aluminium parts: blank or colorless passivated Steel parts: galvanized and colourless passivated
Protection class	IP 65 with sealing, otherwise IP43
Temprature range	-35 °C to +80 °C with sealing, otherwise -55 °C to +160 °C
Protective earthing	After assembly all metal parts have an electrically conductive interconnection acc. to VDE 100/12.65, § 6 Nb.

Dimension

Housing InterShell IP basic

Housing InterShell IP for subrack 3 U 42 HP

Version 1
Housing *InterShell IP* basic

Dimension front panel/rear panel
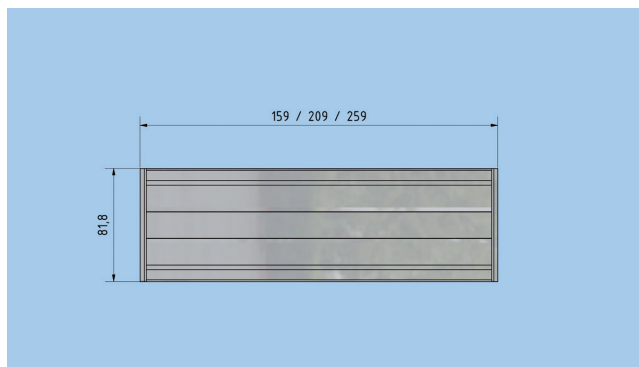Width   145 mm
Height   81,8 mm

Version 2
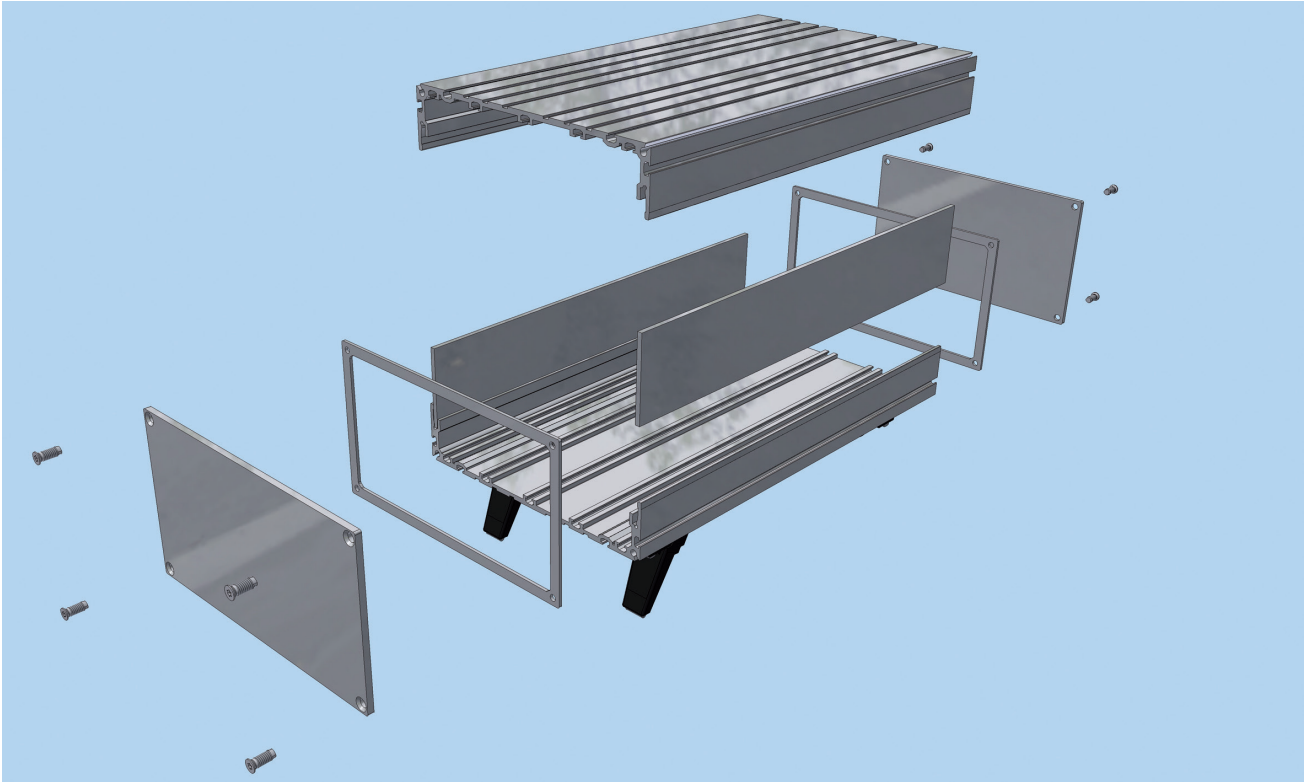**Housing *InterShell IP* for subrack 3 U-42 HP**

Dimension front panel/rear panel
Width   234,3 mm
Height   145 mm

Housing InterShell IP basic

Housing *InterShell IP*

Version 1
Small housing *InterShell IP* basic

Ordering details

	Order-no. 409
Depth dimensions 250 mm	**180910**
Depth dimensions 200 mm	**180965**
Depth dimensions 150 mm	**180967**

Scope of delivery

	pieces per kit 250 mm	pieces per kit 200 mm	pieces per kit 150 mm
Half-shell l = 250 mm	2	-	-
Half-shell l = 200 mm	-	2	-
Half-shell l = 150 mm	-	-	2
Countersunk screw M 4 x 10	8	8	8
Cellular rubber Ø 2 mm	1 m	0,8 m	0,6 m
Side panel l = 250 mm	2	-	-
Side panel l = 200 mm	-	2	
Side panel l = 150 mm	-	-	2
Front panel / back panel	2	2	2
Sealing for housing	2	2	2

This catalog contains stock and standard parts. Other products and sizes on request.

Housings

Version 2
Housing *InterShell IP* subrack 3 HE-42 TE

Ordering details for kits

	Order-no. 409
Depth dimensions 250 mm	180911
Depth dimensions 200 mm	180966
Depth dimensions 150 mm	180968

Scope of delivery

	quantity in kit 250 mm	quantity in kit 200 mm	quantity in kit 150 mm
Half-shell l = 250 mm	2	-	-
Half-shell l = 200 mm	-	2	-
Half-shell l = 150 mm	-	-	2
Countersunk screw M 4 x 10	8	8	8
Cellular rubber Ø 2 mm	1 m	0,8 m	0,6 m
Roof panel/floor panel l = 250 mm	2	-	-
Roof panel/floor panel l = 200 mm	-	2	
Roof panel/floor panel l = 150 mm	-	-	2
Front panel/back panel 3 U 19"	2	2	2
Sealing for housing 3 U 42 HP	2	2	2

The silicon sealings are included in the basic kit.
Sealings made of conductive material must be ordered separately.
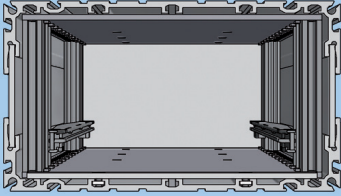
Sealings
Ordering details conductive sealing

	Fluorosilicone filled with conductive particles of silver-plated aluminum. order-no. 409	Silicone filled with particles of nickel-plated graphite. order-no. 409
Version 1 Housing *InterShell IP* basic	180913*	180914*
Version 2 Housing *InterShell IP* subrack 3 HE-42 TE	180918*	180919*

*Remark! Two seals are required per enclosure!

Housing *InterShell IP*
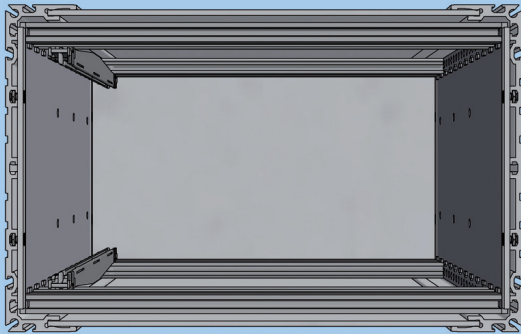# Kit to install 19 inch standard parts

Housing InterShell IP basic

Assembly kit 19 inch standard parts
Housing *InterShell IP*

Scope of delivery

	quantity in kit
side panel 3 U - 220	2
profile rail U 2 13 HP	4
countersunk screw M 4 x 10	8
stop bar	2
threaded strip M 2,5 x 12 HP	4
countersunk screw M 2,5 x 6	4
square nuts M 2,5	4

Housing InterShell IP for subrack 3 U 42 HP

Assembly kit 19 inch standard parts
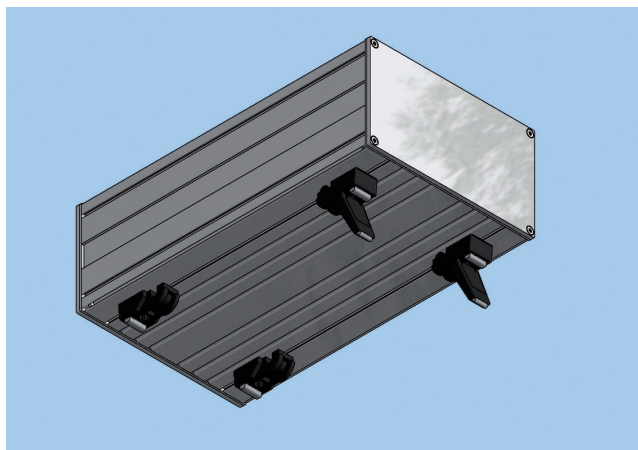## Housing *InterShell IP for* subrack 3 U-42 HP

Scope of delivery

	quantity in kit
side panel 3 U - 220	2
profile rail U 2 13 HP	4
countersunk screw M 4 x 10	8
stop bar	2
threaded strip M 2,5 x 42 HP	4
countersunk screw M 2,5 x 6	4
square nuts M 2,5	4

Ordering details kits

	order-no. 409
Assembly kit 19 inch standard parts basic *InterShell IP*	180978
Assembly kit 19 inch standard parts *InterShell IP for subrack* 3 U-42 HP	180979

Both kits are only suitable for housing depths of 250 mm.

This catalog contains stock and standard parts. Other products and sizes on request.
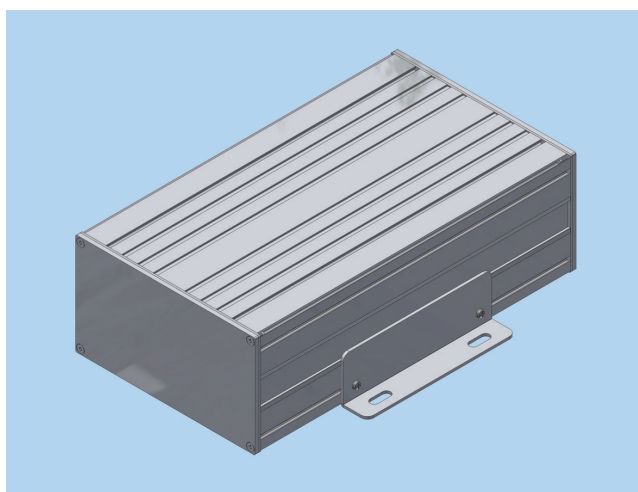
Housing feet

Foot kit
    4 Feet without put-up hinge
    2 put-up hinge with rubber
    4 head screw M 3 x 8
    4 washer A 3,2
    4 square nut M 3

Material: ultramid
Color: black

Ordering details for kit

	order no. 409	Alternative: a kit with 4 adhesive feet is available.
Foot kit	180982	

Ground mounting

Version 1: Kit for basic housing
    2 mounting angle
    4 head screw M 3 x 5
    4 square nuts M 3

Version 2: Kit for 3U-42HP
    1 mounting angle right 3 U
    1 mounting angle left 3 U
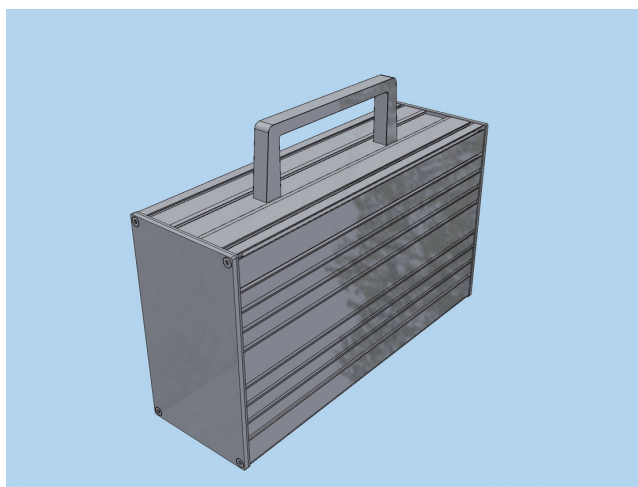   4 head screw M 3 x 5
    4 square nut M 3

Material: aluminium
Surface: blank

Ordering details for kit

	order no. 409
ground mounting	180969
ground mounting 3 U 42 HP	180970

Both kits are suitable for housing depths of 250/200/150 mm

Handle

Scope of delivery
    2 countersunk screw M 4 x 12
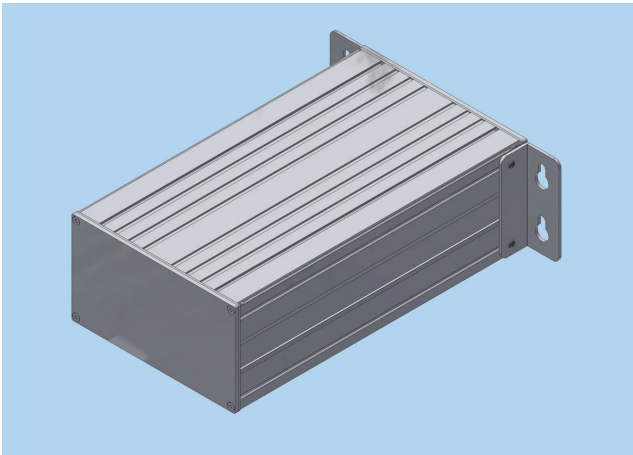   1 handle 3 U

Material: aluminium
Surface: anodized

Ordering details for kit

	order-no. 409
handle kit	180974

Kit only for *InterShell IP* basic version available.
Other handles on request.

Housings

Housing *InterShell IP*
Accessories

Wall mounting

Version 1: Kit for basic housing
    1 mounting angle right
    1 mounting angle left
    4 head screw M 3 x 5
    4 square nut M 3

Version 2: Kit for 3 U-42 HP
    1 mounting angle right 3 U
    1 mounting angle left 3 U
    4 head screw M 3 x 4
    4 square nut M 3

Material: aluminium
Surface: blank

Ordering details for kit

	order no. 409
wall mounting kit	180972
wall mounting kit for 3 U 42 HP	180973

Angle for stacking

Stock mounting and stock mounting heavy version

scope of delivery for kit
    2 mounting plate
    8 head screw M 3 x 5
    8 square nut M 3

scope of delivery for kit heavy version
    2 mounting plate heavy version
    8 head screw M 3 x 5
    8 square nut M 3
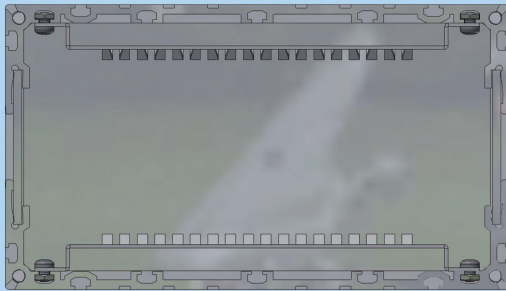
Material: aluminium
Surface: blank

Ordering details for kit

	order no. 409
mounting angle	180975
mounting angle heavy	180976

Both kits are suitable for housing depths of
250/200/150 mm
Both kits are only available for InterShell IP basic
structure.

Angle for stacking - heavy version

This catalog contains stock and standard parts. Other products and sizes on request.

Card guide 2 U vertikal

Scope of delivery - depth 250/200 mm

2 card guide vertikal 2 U für depth 250/200 mm
12 head screw M 3 x 4
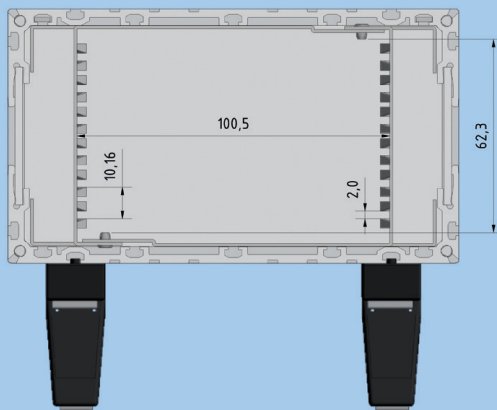12 square nut M 3

Scope of delivery - depth 150 mm

2 card guide vertikal 2 U für depth 150 mm
12 head screw M 3 x 4
12 square nut M 3

Material: steel
Surface :   galvanised

Ordering details for kit

	order no. 409
Kit card guide 2 U 250/200 mm	180971
Kit card guide 2 U 150 mm	180981

card cage (horizontal framing for circuit boards as Euro-card format)

Scope of delivery horizontal

1 card cage komplett
6 head screw M 2,5 x 4
2 threaded strip M 2,5 x 39 TE anreihbar

Material: steel
Surface :   galvanized

Ordering details for kit

	order no. 409
Kit card cage	180977

Kit only suitable for housing depths of 250 mm.
Kit only available for *InterShell IP* basic construction.

Technical changes and errors reserved.