

The product advantages



Uniform enclosures are compatible with standardised control panel cut-outs acc. to DIN IEC 61554. The thin-walled but simultaneously sturdy enclosure body is made of fibre glass reinforced plastic and provides maximum mounting space for PCBs.



Three solutions are available in different price categories for mounting purposes in the control panel, from the standardised retaining clasp acc. to DIN 43835 to a screw clamp to the spring snap-lock element.



The enclosure's rear panel is fixed by means of screws in the enclosure, so it can be removed for easy mounting and diagnosis. PCBs can be fitted in the enclosure by means of horizontal or vertical guide grooves.



Optional seals are available to seal the enclosure front and the seal between the enclosure and the control panel. If flexible transparent PVC hoods are used, push-buttons and switches can be operated through the hood and are protected up to IP65.



Front panels are available in various materials, with cover frames and, if required, even a crystal-clear hinged lid. The enclosure front can be adapted to the application in many ways. Unauthorised access can be prevented by means of an optional cylinder lock.



Quick-Finder:
www.bopla.de/17

Examples of use





BOPLA

A Phoenix Mecano Company

Uninorm



Colour:

● Black, similar to RAL 9005

Special colours on request

Protection class:

Depending on the structure

IP40 / DIN EN 60529 or

IP65 / DIN EN 60529

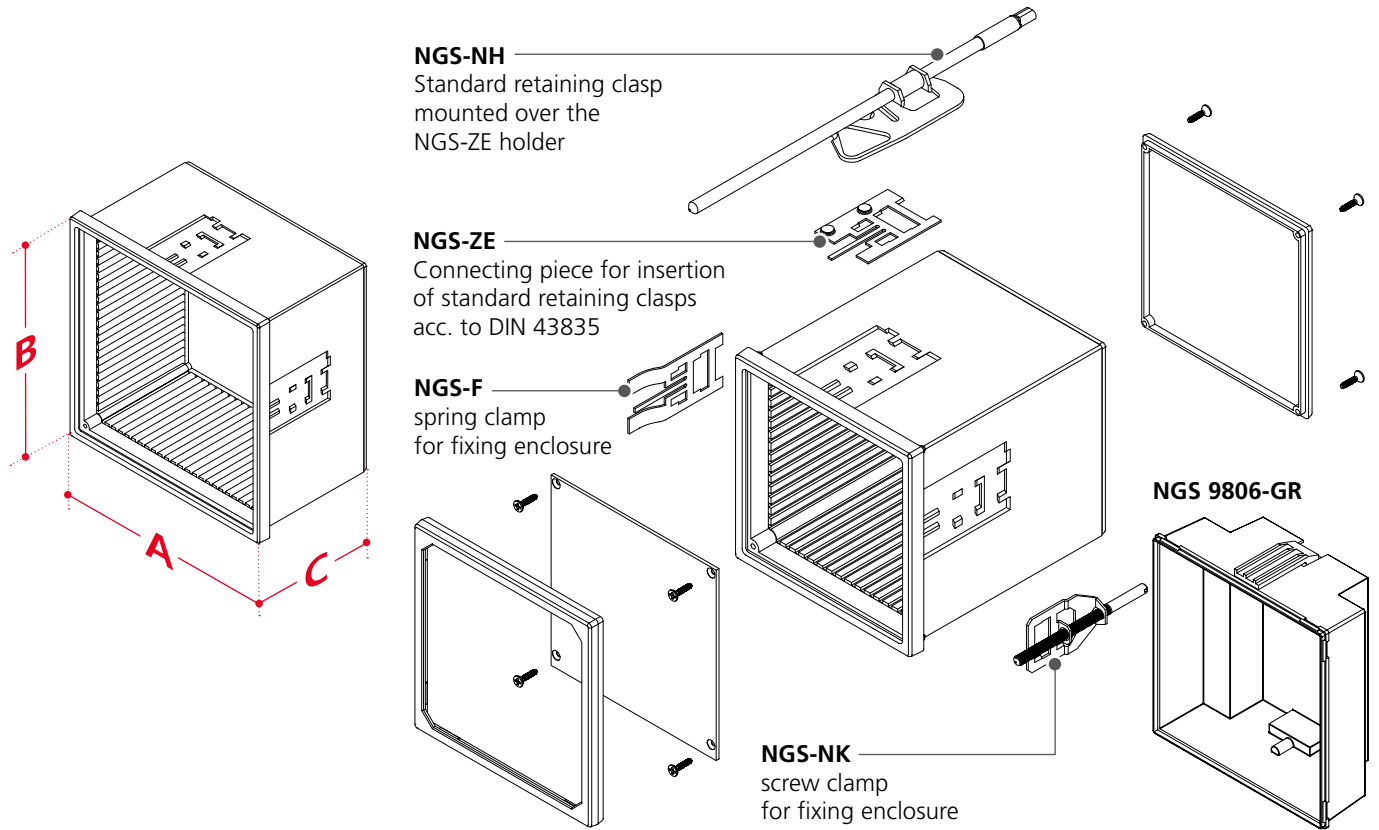
Material:

Enclosure: modified PPE+PS (SE1 GFN1)

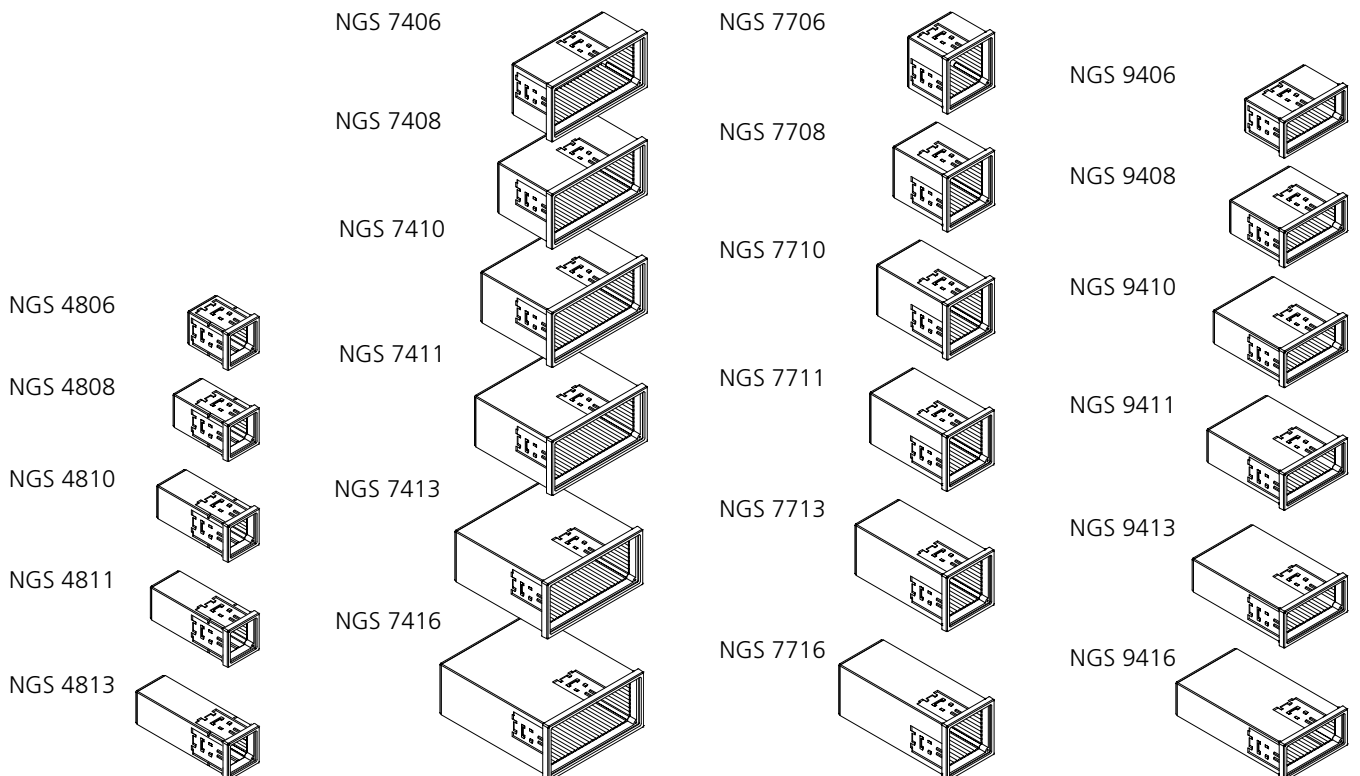
For details see technical information.



Design example



Enclosure sizes





BOPLA

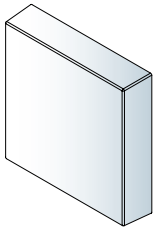
A Phoenix Mecano Company

Uninorm

Lid variants

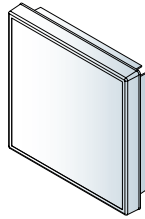
NGS... AH

Crystal-clear hood, snap-on



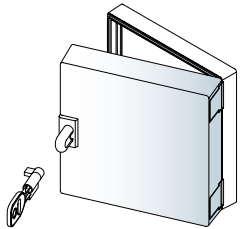
NGS... GHN

Clear hood cover, flexible



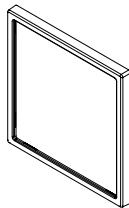
NGS... TK

Crystal-clear front door, snap-on, with knob

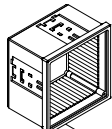


NGS... F

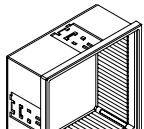
Front lid with membrane keypad, snap-on



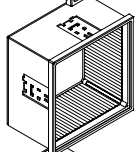
NGS 9606



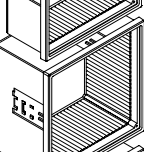
NGS 9806



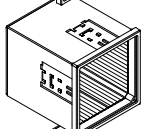
NGS 9608



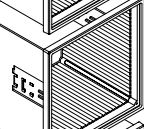
NGS 9808



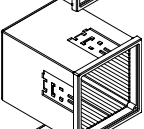
NGS 9610



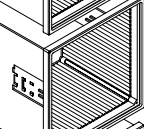
NGS 9810



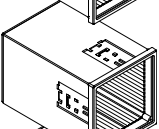
NGS 9611



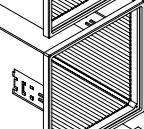
NGS 9811



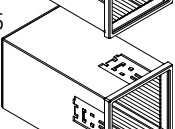
NGS 9613



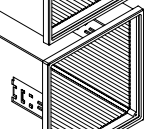
NGS 9813



NGS 9616



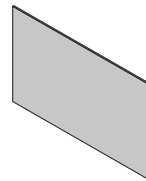
NGS 9816



Dimensions

Model	A	B	C
NGS 4806	48	48	63
NGS 4808	48	48	85
NGS 4810	48	48	109.5
NGS 4811	48	48	119
NGS 4813	48	48	141
NGS 7406	144	72	64
NGS 7408	144	72	86
NGS 7410	144	72	110.5
NGS 7411	144	72	120
NGS 7413	144	72	142
NGS 7416	144	72	166.5
NGS 7706	72	72	63
NGS 7708	72	72	85
NGS 7710	72	72	109.5
NGS 7711	72	72	119
NGS 7713	72	72	141
NGS 7716	72	72	165.5
NGS 9406	96	48	63
NGS 9408	96	48	85
NGS 9410	96	48	109.5
NGS 9411	96	48	119
NGS 9413	96	48	141
NGS 9416	96	48	165.5
NGS 9606	96	96	63
NGS 9608	96	96	85
NGS 9610	96	96	109.5
NGS 9611	96	96	119
NGS 9613	96	96	141
NGS 9616	96	96	165.5
NGS 9806	144	144	64
NGS 9808	144	144	85
NGS 9810	144	144	110.5
NGS 9811	144	144	120
NGS 9813	144	144	142
NGS 9816	144	144	166.5
NGS 9806-GR	144	144	66

Accessories



Front panels, anodised aluminium



Crystal-clear hoods



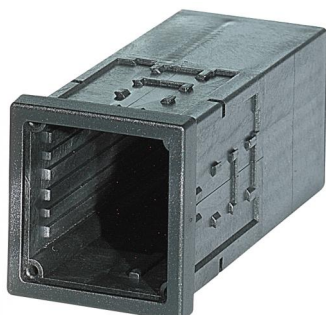
Plastic front panels, translucent



Cylinder lock

Uninorm

Enclosure



Control panel mounting enclosure

Model	Order no.	A	B	C	a1	b1	c1	Note
NGS 4806	17480601	48	48	63	38.8	38.8	56.5	
NGS 4808	17480801*	48	48	85	38.8	38.8	78.5	
NGS 4810	17481001	48	48	109.5	38.8	38.8	103	
NGS 4811	17481101*	48	48	119	38.8	38.8	112.5	
NGS 4813	17481301*	48	48	141	38.8	38.8	134.5	
NGS 7406	17740601	144	72	64	131.5	61.5	56	
NGS 7408	17740801	144	72	86	131.5	61.5	78.5	
NGS 7410	17741001	144	72	110.5	131.5	61.5	103	
NGS 7411	17741101	144	72	120	131.5	61.5	112.5	
NGS 7413	17741301	144	72	142	131.5	61.5	134.5	
NGS 7416	17741601	144	72	166.5	131.5	61.5	159	
NGS 7706	17770601	72	72	63	61.5	61.5	56.5	
NGS 7708	17770801*	72	72	85	61.5	61.5	78.5	
NGS 7710	17771001	72	72	109.5	61.5	61.5	103	
NGS 7711	17771101*	72	72	119	61.5	61.5	112.5	
NGS 7713	17771301*	72	72	141	61.5	61.5	134.5	
NGS 7716	17771601*	72	72	165.5	61.5	61.5	159	
NGS 9406	17940601	96	48	63	86.2	38.8	56.5	
NGS 9408	17940801	96	48	85	86.2	38.8	78.5	
NGS 9410	17941001	96	48	109.5	86.2	38.8	103	
NGS 9411	17941101	96	48	119	86.2	38.8	112.5	
NGS 9413	17941301	96	48	141	86.2	38.8	134.5	
NGS 9416	17941601	96	48	165.5	86.2	38.8	159	
NGS 9606	17960601	96	96	63	86.2	86.2	56.5	
NGS 9608	17960801	96	96	85	86.2	86.2	78.5	
NGS 9610	17961001	96	96	109.5	86.2	86.2	103	
NGS 9611	17961101	96	96	119	86.2	86.2	112.5	
NGS 9613	17961301	96	96	141	86.2	86.2	134.5	
NGS 9616	17961601	96	96	165.5	86.2	86.2	159	
NGS 9806	17980601	144	144	64	131.5	131.5	56.5	
NGS 9808	17980801	144	144	85	131.5	131.5	78.5	
NGS 9810	17981001	144	144	110.5	131.5	131.5	103	
NGS 9811	17981101	144	144	120	131.5	131.5	112.5	
NGS 9813	17981301	144	144	142	131.5	131.5	134.5	
NGS 9816	17981601	144	144	166.5	131.5	131.5	159	
NGS 9806 GR	17980605*	144	144	66	134.6	134.6	60.7	With stepped rear panel

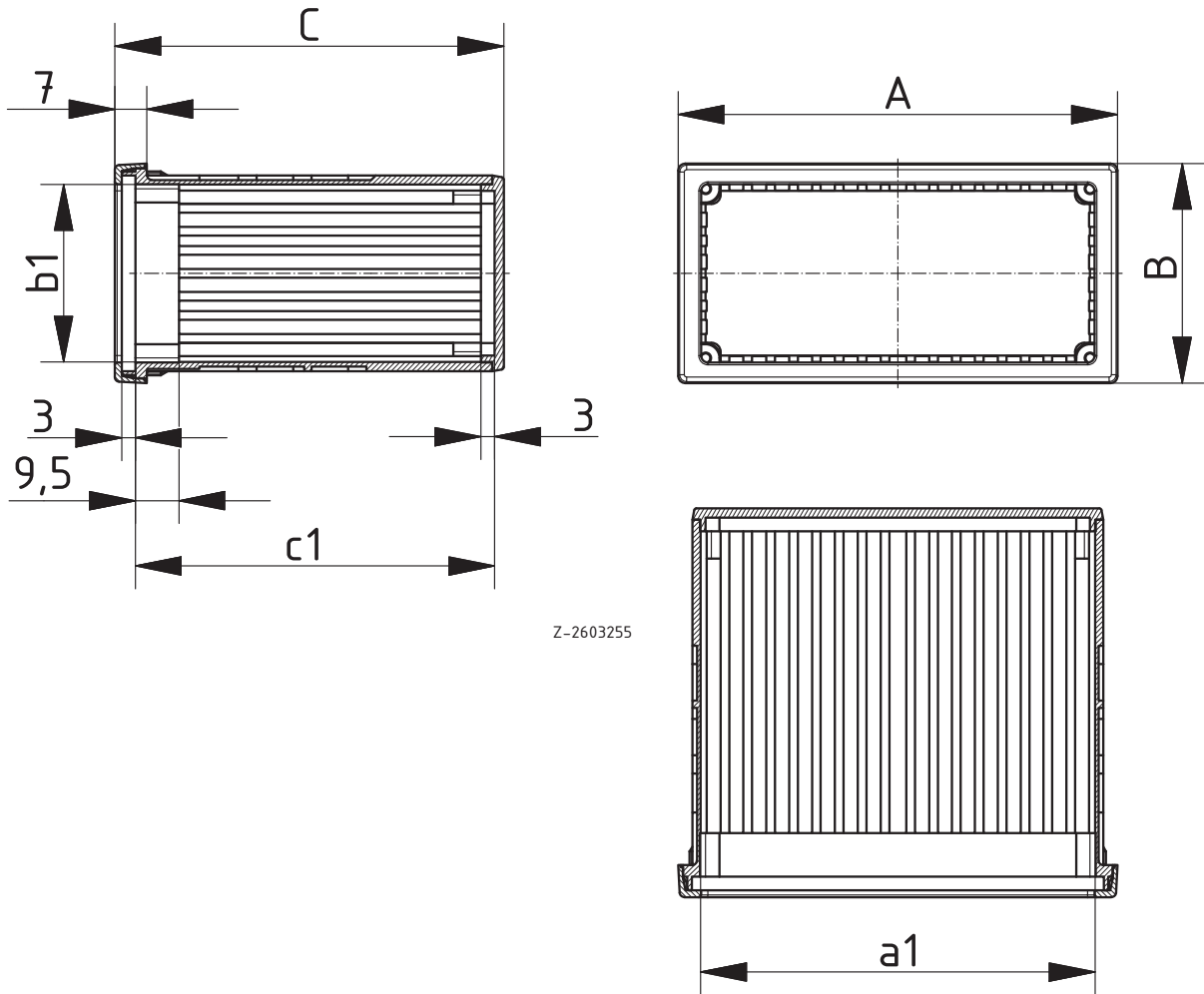
Scope Of Delivery: NGS...: Enclosure, standard front frame, rear lid, screws
NGS 9806-GR: Enclosure, standard front frame, 2 clamps

Notes: NGS-9806-GR design with stepped rear panel.



BOPLA

A Phoenix Mecano Company



Z-2603255

Uninorm

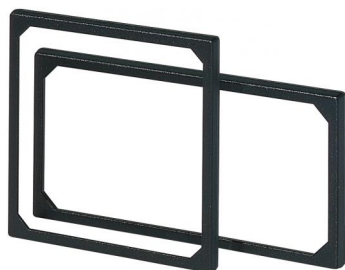
Fronts



Front lid with continuous membrane keypad, snaps firmly on

Model	Order no.	Note
NGS 48 F	37948500*	For NGS 48..
NGS 74 F	37974500*	For NGS 74..
NGS 77 F	37977500*	For NGS 77..
NGS 94 F	37994500	For NGS 94..
NGS 96 F	37996500*	For NGS 96..
NGS 98 F	37998500*	For NGS 98.., for NGS 9806-GR

Scope Of Delivery: 1 membrane front



Front frame with screw covers, snaps firmly on

Model	Order no.	Note
NGS 48 SA	37948600*	For NGS 48..
NGS 74 SA	37974600	For NGS 74..
NGS 77 SA	37977600	For NGS 77..
NGS 94 SA	37994600	For NGS 94..
NGS 96 SA	37996600	For NGS 96..
NGS 98 SA	37998600	For NGS 98.., for NGS 9806-GR

Scope Of Delivery: 1 front frame



Crystal-clear hood, snap-on, polycarbonate

Model	Order no.	Note
NGS 48 AH	37948700*	For NGS 48..
NGS 74 AH	37974700*	For NGS 74..
NGS 77 AH	37977700*	For NGS 77..
NGS 94 AH	37994700*	For NGS 94..
NGS 96 AH	37996700*	For NGS 96..
NGS 98 AH	37998700*	For NGS 98.., for NGS 9806-GR

Scope Of Delivery: 1 hood

Notes: Can be used only in connection with membrane front NGS...F and front frame NGS...SA.



Clear hood cover, flexible, up to IP 65 possible

Model	Order no.	Note
NGS 48 GHN	37004800	For NGS 48..
NGS 74 GHN	37007400	For NGS 74..
NGS 77 GHN	37007700	For NGS 77..
NGS 94 GHN	37009400	For NGS 94..
NGS 96 GHN	37009600	For NGS 96..
NGS 98 GHN	37009800	For NGS 98.., for NGS 9806-GR

Scope Of Delivery: 1 transparent PVC hood

Notes: Buttons or rocker switches can be operated through the hood. Protection class up to IP 65, depending on assembly.

Uninorm

Fronts

Crystal-clear front door, snap-on, with knob, polycarbonate

Model	Order no.	Note
NGS 74 TK	17740000*	For NGS 74..
NGS 96 TK	17960000	For NGS 96..
NGS 98 TK	17980000	For NGS 98.., for NGS 9806-GR
NGS 98 TK2	17980002	For NGS 98.., for NGS 9806-GR



Scope Of Delivery: 1 front door

Notes: IP protection class is only guaranteed when the front door is closed.

Cylinder lock for front door NGS...TK

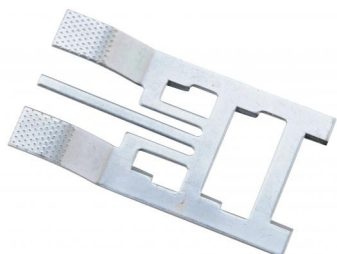
Model	Order no.	Note
SHLO-302	21008310	Cylinder lock

Scope Of Delivery: 1 lock, 2 keys



Uninorm

Clamps

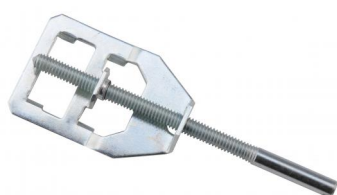


Spring clamp for fixing enclosure

Model	Order no.
NGS-NF	37005000

Scope Of Delivery: 2 pieces

Notes: The spring clamp is snapped onto the external wall of the enclosure and then, with the enclosure, clamped into the control panel cut-out.

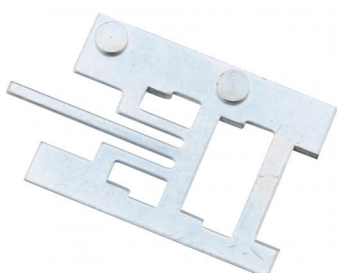


Screw clamp for screw-fitting enclosure

Model	Order no.
NGS-NK	37003000

Scope Of Delivery: 2 pieces

Notes: The screw clamp is placed on the enclosure from the rear of the control panel. After this, the enclosure is pressed firmly onto the wall of the control panel by means of the integrated screw.



Connecting piece for insertion of standard retaining clasps acc. to DIN 43835

Model	Order no.
NGS-ZE	37004000

Scope Of Delivery: 2 pieces



Standard retaining clasp in accordance with DIN 43835 form B (only for use with NGS-ZE)

Model	Order no.
NGS-NH	37001000

Scope Of Delivery: 2 pieces

Uninorm

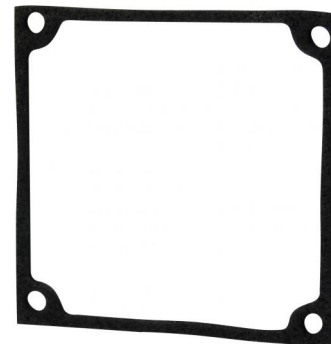
Seals

Front panel seal (non-definable protection class)

Model	Order no.	Note
NGS 48 DI	37048010	For NGS 48..
NGS 74 DI	37074010	For NGS 74..
NGS 77 DI	37077010	For NGS 77..
NGS 94 DI	37094010	For NGS 94..
NGS 96 DI	37096010	For NGS 96..
NGS 98 DI	37098010	For NGS 98.., for NGS 9806-GR

Scope Of Delivery: 5 pieces

Notes: The 1.5 mm thick neoprene foam rubber seal can be used to seal the NGS...FAE front panels towards the interior of the enclosure. Take panel bending into account.

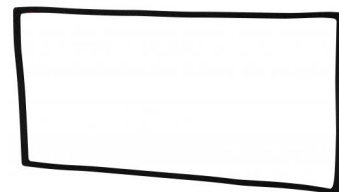


External control panel seal (non-definable protection class)

Model	Order no.	Note
NGS 48 DA	37048000	For NGS 48..
NGS 74 DA	37074000	For NGS 74..
NGS 77 DA	37077000	For NGS 77..
NGS 94 DA	37094000	For NGS 94..
NGS 96 DA	37096000	For NGS 96..
NGS 98 DA	37098000	For NGS 98..

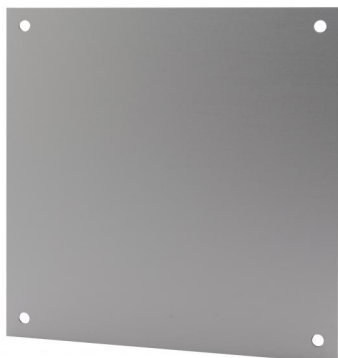
Scope Of Delivery: 5 pieces

Notes: The 1.5 mm thick neoprene foam rubber seal can be used to seal the enclosures towards the wall of the control panel. Take possible panel bending into account. If necessary, 4 fixing elements can be used to achieve a higher level of sealing.



Uninorm

Front panel



Front panels, 1,5 mm, natural-coloured anodised aluminium

Model	Order no.	Note
NGS 48 FAE	37000050	For NGS 48..
NGS 74 FAE	37000200	For NGS 74..
NGS 77 FAE	37000100	For NGS 77..
NGS 94 FAE	37000300	For NGS 94..
NGS 96 FAE	37000400	For NGS 96..
NGS 98 FAE	37000500	For NGS 98..
NGS 98 FAE	37000510*	For NGS 9806-GR

Scope Of Delivery: 1 front panel

Notes: The 1.5 mm thick aluminium front panel can be sealed towards the enclosure by means of the NGS...DI seal. Take panel bending into account.



Plastic front panel, red translucent, 3 mm

Model	Order no.	Note
NGS 48 FKT	37000610	For NGS 48..
NGS 74 FKT	37000700	For NGS 74..
NGS 77 FKT	37000600	For NGS 77..
NGS 94 FKT	37000800	For NGS 94..
NGS 96 FKT	37000900	For NGS 96..
NGS 98 FKT	37000950	For NGS 98.., for NGS 9806-GR

Scope Of Delivery: 1 front panel

Notes: The 3 mm thick plexiglass screen is especially suitable for use with LEDs. Sealing with NGS...DI is not possible.



BOPLA

A Phoenix Mecano Company