CUSTOMIZABLE

optotec NGB Boxes

Splice Only and Patch&Splice

NGB line, designed with simple and innovative design, meets both PON FTTH needs.
Reliable and able to match the highest international quality standard (IEC 61753) in order to operate in C (controlled) – G (outside) – A (aerial) categories.

Suitable both for internal (buildings, technical rooms...) and external application (wall, pole, cabinet, pedestal...), they can be used in dust and water presence.

Thanks to the broad selection of accessories, the NGB boxes can manage different types of cables and fibers (G652 and G657) and they come with two different configuration: Splice and Patch&Splice

With the SAMX modules it is possible to have different splice capacity, for both Mechanical Crimp and Heath-Shrinkable splice protection.

NGB series also is featured by a variety of lock security systems against accidental or unauthorized openings.

APPLICATIONS

- Access network subscriber termination
- Optical distribution premises box
- TLC - FTTH - PON networks

KEY FEATURES AND BENEFITS

- Reliable
- Multifunctional – splice or patch&splice
- Compact – highest performance in minimum space
- Simple installation
- Flexible – various customization

INSTALLATIONS

- Wall
- Poles

DIMENSIONS, COMPONENTS AND CONFIGURATIONS

DIMENSIONS

NGB SIZE 1

Width 156 mm
Height 255 mm
Depth 110 mm

NGB SIZE 2

Width 216 mm
Height 325 mm
Depth 125 mm

SIZE 1

SIZE 2

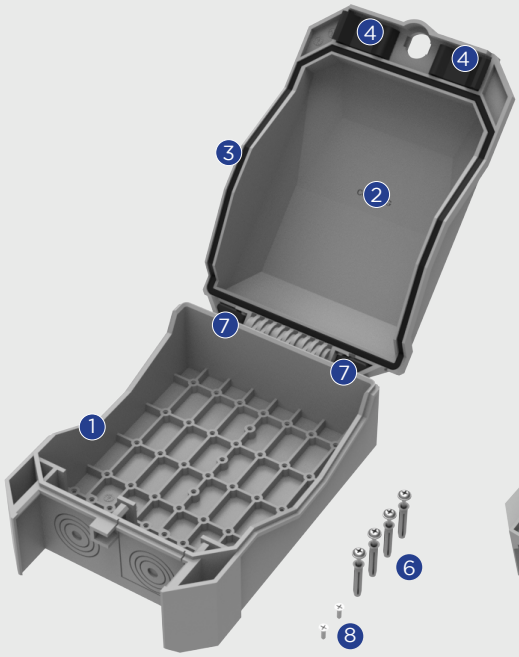
COMPONENTS

NGB BASIC ITEMS

- 1 Base 1
- 1 Cover 2
- 1 Cover gasket 3
- 2 Latch assembly 4
- 1 Laser beam label 25mm 5
- 4 Screw Anchor Fisher 6
- 2 Cover Stopper 7
- 2 Screw 3,5x13 8
  UNI 6955 ISO 7050 INOX

ON REQUEST

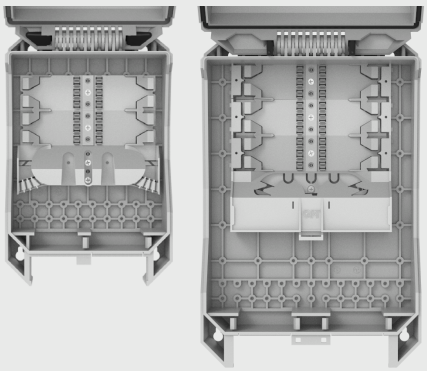
- Lock system
- Anti-burglary system
  (available only for NGB size 2)



CONFIGURATIONS

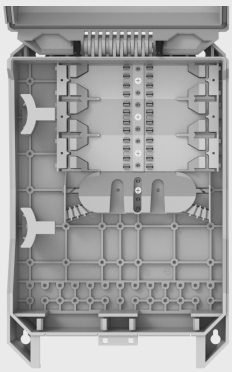
S SPLICE ONLY

SIZE 1 SIZE 2



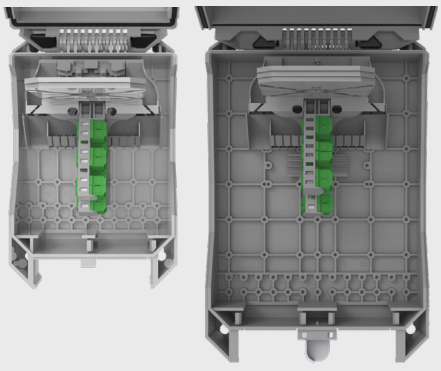
SL SPLICE LOOP

SIZE 2



PS PATCH SPLICE

SIZE 1 SIZE 2



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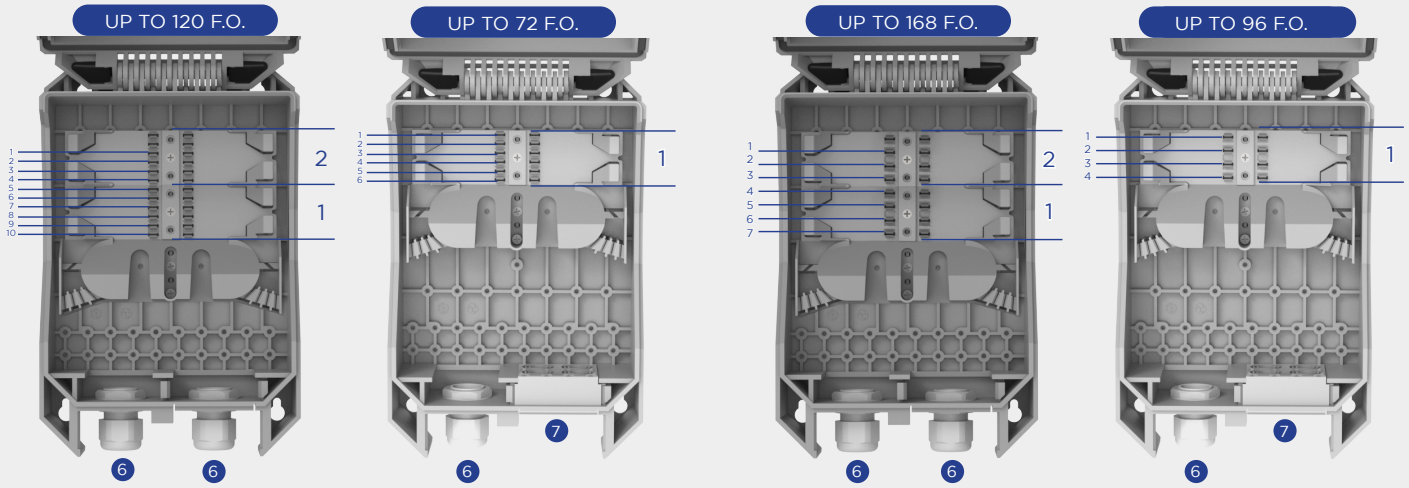
NGB CONFIGURATIONS AND CAPACITIES

S — SPLICE ONLY

SIZE 1

FIBER SPLICE PROTECTION		
1 Mechanical Crimp (12 per HD tray)	UP TO 120 F.O.	UP TO 72 F.O.
2 Heat-Shrinkable (12 per HD tray)	UP TO 120 F.O.	UP TO 72 F.O.
SPLICE MODULE SAMX HD6		
4 HD tray	UP TO 10 PCS.	UP TO 6 PCS.
5 WAPX base for 6 HD tray	UP TO 2 PCS.	1
CABLES SEALING		
6 NGBKIT PG	IN/OUT	IN
7 NGBKIT MCS	NO	OUT

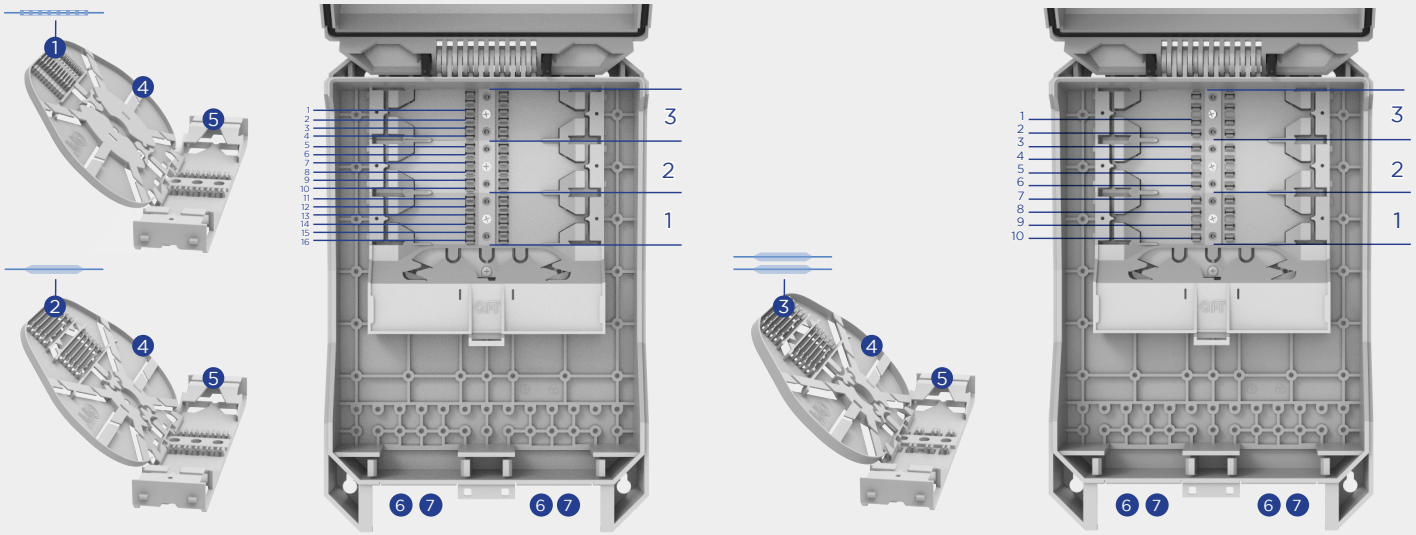
FIBER SPLICE PROTECTION		
~~Mechanical Crimp (12+12 per HD)~~	NO	NO
3 Heat-Shrinkable (12+12 per HD tray)	UP TO 168 F.O.	UP TO 96 F.O.
SPLICE MODULE SAMX HD4		
4 HD tray	UP TO 7 PCS.	UP TO 4 PCS.
5 WAPX base for 4 HD tray	UP TO 2 PCS.	1
CABLES SEALING		
6 NGBKIT PG	IN/OUT	IN
7 NGBKIT MCS	NO	OUT



SIZE 2

FIBER SPLICE PROTECTION	
1 Mechanical Crimp (12 per HD tray)	UP TO 192 FIBRES
2 Heat-Shrinkable (12 per HD tray)	UP TO 192 FIBRES
SPLICE MODULE SAMX HD6	
4 HD tray	UP TO 16 PCS
5 WAPX base for 6 HD tray	UP TO 3 PCS.
CABLES SEALING	
6 NGBKIT PG	IN/OUT
7 NGBKIT MCS	IN/OUT

FIBER SPLICE PROTECTION	
~~Mechanical Crimp (12+12 per HD)~~	NO
3 Heat-Shrinkable (12+12 per HD tray)	UP TO 240 FIBRES
SPLICE MODULE SAMX HD4	
4 HD tray	UP TO 10 PCS
5 WAPX base for 4 HD tray	UP TO 3 PCS.
CABLES SEALING	
6 NGBKIT PG	IN/OUT
7 NGBKIT MCS	IN/OUT



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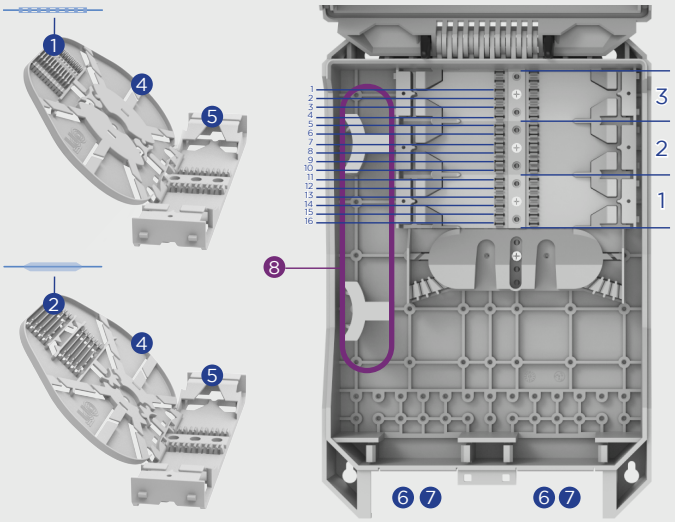
NGB CONFIGURATIONS AND CAPACITIES

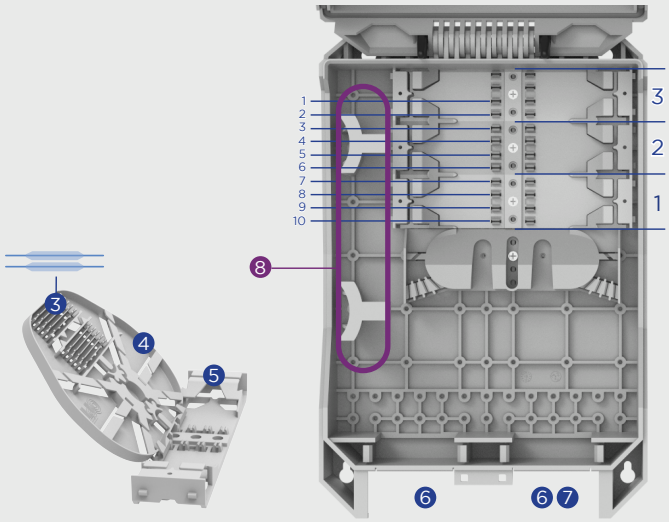
SL SPLICE ONLY PLUS LOOP SPACE

SIZE 2

FIBER SPLICE PROTECTION	
1 Mechanical Crimp (12 per HD tray)	UP TO 192 FIBRES
2 Heat-Shrinkable (12 per HD tray)	UP TO 192 FIBRES
SPLICE MODULE SAMX HD6	
4 HD tray	UP TO 16 PCS.
5 WAPX base for 6 HD tray	UP TO 3 PCS
CABLES SEALING	
6 NGBKIT PG	IN/OUT
7 NGBKIT MCS	IN/OUT
8 LOOP SPACE	YES

FIBER SPLICE PROTECTION	
~~Mechanical Crimp (12+12 per HD)~~	NO
3 Heat-Shrinkable (12+12 per HD tray)	UP TO 240 FIBRES
SPLICE MODULE SAMX HD4	
4 HD tray	UP TO 10 PCS.
5 WAPX base for 4 HD tray	UP TO 3 PCS
CABLES SEALING	
6 NGBKIT PG	OUT
7 NGBKIT MCS	IN/OUT
8 LOOP SPACE	YES





GUIDE TO SPLICE

TO UNDERSTAND OPTOTEC'S MODULES CONCEPT

SAMX HD 4 - 12 C

- SAMX — SERIES
- HD — TRAY TYPE
- 4 — TOTAL NUMBER OF TRAYS
- 12 — TOTAL SPLICES NUMBER PER TRAY
- C — HOLDER TYPE:
  - C = Mechanical Crimp splice*
  - H = Heath-Shrinkable splice**

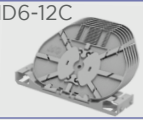
***HOLDER TYPE C**

HOLDER type C is used with Mechanical Splice protection.

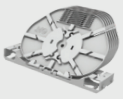
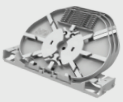
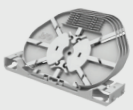
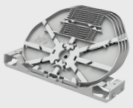
****HOLDER TYPE H**

HOLDER type H is used with heath-shrinkable splice protection. Some HD trays with HOLDER type H can arrange up to 3 splice layers.

MECHANICAL CRIMP SPLICE

MODULE TYPE SAMX	TRAY PER PACK	SPLICES PER TRAY	TOTAL NUM. SPLICES PER MODULE
HD4-12C	4	12C	48
HD6-12C 	6	12C	72

HEAT-SHRINKABLE SPLICE

MODULE TYPE SAMX	TRAY PER PACK	SPLICES PER TRAY	TOTAL No. SPLICES PER MODULE
HD6-8H 	6	8H	48
HD6-12H	6	12H	72
HD3-24H 	3	splices per tray arranged on 3 LAYERS (8+8+8) = total. 24H	72
HD4-12H 	4	splicesper tray arranged on 2 LAYERS (6+6) = total. 12H	48
HD4-24H 	4	splicesper tray arranged on 2 LAYERS (12+12) = total. 24H	96

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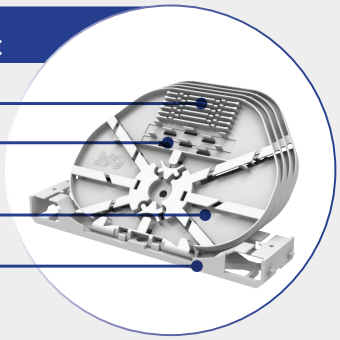
GUIDE TO SPLICE WITH **PLC SPLITTER**

TO UNDERSTAND OPTOTEC'S MODULES CONCEPT

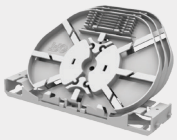
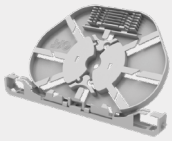
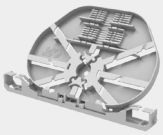
SAMX HD 4 - 12 H 2 PLC

- SERIES
- TRAY TYPE
- TOTAL NUMBER OF TRAYS
- TOTAL SPLICES NUMBER PER TRAY
- HOLDER TYPE H FOR FIBERTERM
- TOTAL NUMBER OF SPLITTER
- SPLITTER TYPE

MODULE
SAMX HD4-12H-2PLC

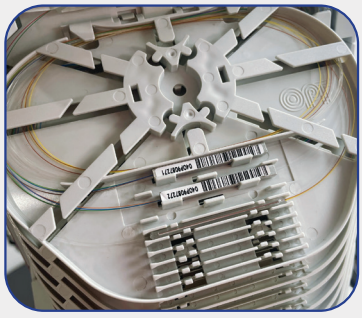


HEAT-SHRINKABLE SPLICE AND PLC SPLITTER

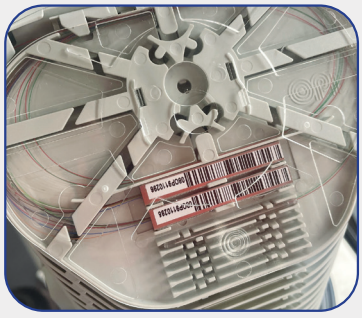
MODULE TYPE SAMX	TRAY PER PACK	SPLICES PER TRAY	TOTAL NUM. PLC PER MODULE	HELD SPLITTER SIZES	TOTAL NUM. SPLICES PER MODULE
HD3-18H-1PLC 	3	3 LAYERS (6+6+6) total 18H	3	4x7x50 mm	54
HD1-18H-1PLC 	1	3 LAYERS (6+6+6) total 18H	1	4x7x50 mm	18
HD4-12H-2PLC	4	2 LAYERS (6+6) total 12H	8	4x7x50 mm and 4x4x40mm	48
HD1-12C-2PLC 	1	1 LAYER (6+6) total 12C	2	4x7x50 mm	12
HD3-12C-2PLC	3	1 LAYER (6+6) total 12C	6	4x7x50 mm	36

COMPATIBLE BARE FIBRE SPLITTER SIZES

4x4x40 mm (typ. n:2, n:4, n:8)



7x4x50 mm (typ. n:16 and n:32)



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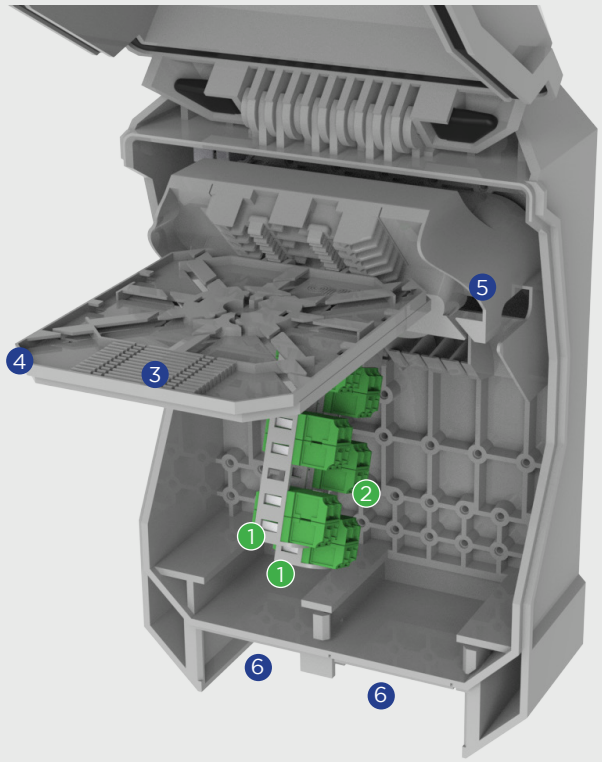
PS — PATCH AND SPLICE

SIZE 1

PATCH SIDE		
FINGER (PP8SC)	UP TO 2	1
ADAPTERS		2
SC and E2000	UP TO 16	
LC	UP TO 24	

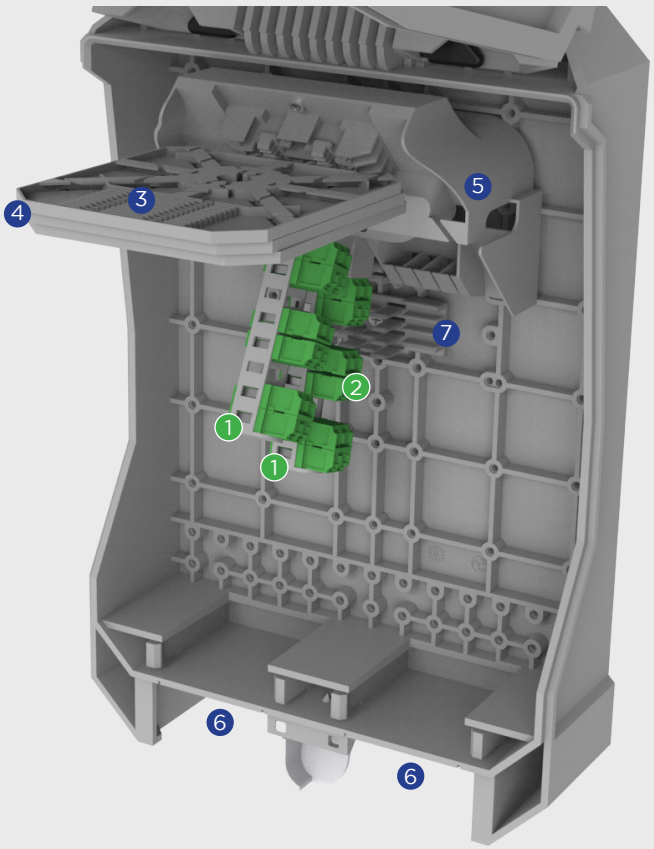
SPLICE SIDE		
FIBER SPLICE PROTECTION		3
Mechanical Crimp (12 per RHD tray)	UP TO 72 FIBRES	
Heat-Shrinkable (12 per RHD tray)	UP TO 72 FIBRES	
SPLICE TRAY		4
RHD single tray type	UP TO 6 PCS.	
MAIN-PLATE	1 PCS.	5
CABLES SEALING		6
NGBKIT PG	IN/OUT	
NGBKIT MCS	IN/OUT	
SPLITTER SLOT	NO	



SIZE 2

PATCH SIDE		
FINGER (PP8SC)	UP TO 3 WITHOUT SPLITTER SLOT	1
ADAPTERS		2
SC and E2000	UP TO 24	
LC	UP TO 36	

SPLICE SIDE		
FIBER SPLICE PROTECTION		3
Mechanical Crimp (12 per RHD tray)	UP TO 72 FIBRES	
Heat-Shrinkable (12 per RHD tray)	UP TO 72 FIBRES	
SPLICE TRAY		4
RHD single tray type	UP TO 6 PCS.	
MAIN-PLATE	1 PCS.	5
CABLES SEALING		6
NGBKIT PG	IN/OUT	
NGBKIT MCS	IN/OUT	
SPLITTER* SLOT *use spliters type 1x4, 1x8 or 1x16	4 UNITS UP TO 36 FIBRES	7



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GUIDE TO PATCH AND SPLICE

ADAPTERS

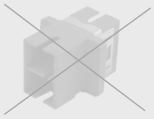
The importance to be small

Optotec propose SC and LC duplex SC - footprint adapters with the the lowest profile height (14.8 mm) in the industry. They include metal spring panel-mount clips that enable more compact stacking and fast installation time. They provide 30% space saving versus previous industry standard versions.

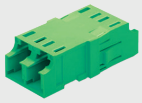
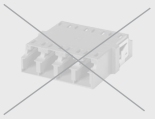
A matter of quality

Optotec adapters design, material and manufacturing process assure long life and high repeatability of optical performances even for different brand connectors mating.
Each style of Optotec adapter can be mounted on patch panels through flange holes by screw fixing of the housing or by retention springs.

SC family
IEC 61754-4

SIMPLEX	DUPLEX horizontal	DUPLEX vertical
		

LC family
IEC 61754-19

SIMPLEX	DUPLEX sc-footprint	DUPLEX slim-line	DUPLEX low-profile	QUAD
				

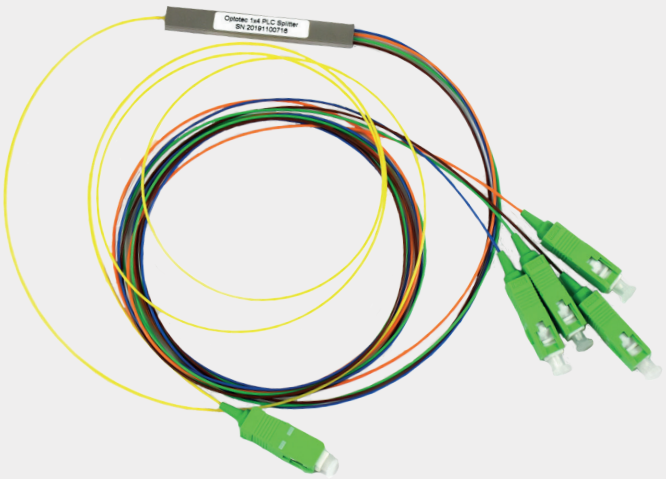
E-2000^{tm} family
IEC 61754-15

SIMPLEX	SIMPLEX sc-mounting	DUPLEX

PLC Splitters

SPLITTER COMPATIBLE WITH NGB 2

PATCH AND SPLICE	
7x4x60 mm	1x4
7x4x60 mm	1x8
4x12x60 mm	1x16



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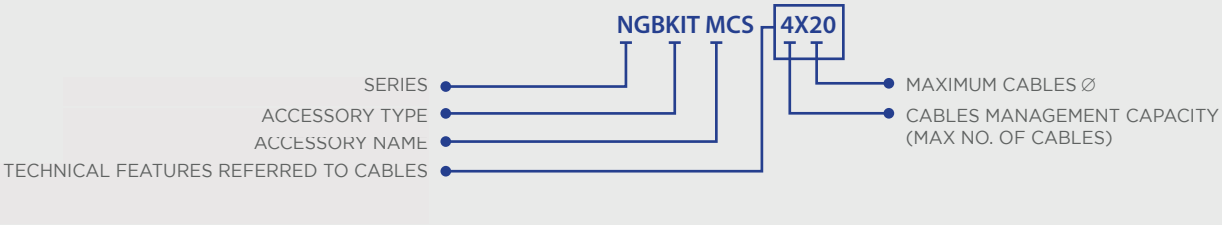
GUIDE SEAL

NGBKIT TO MULTIPLE SEAL FOR MANY CABLES

NGBKIT allows the management of many cables both in entrance and in exit inside the boxes belonging to the FOCUS NGB series.
NGBKIT PG NXN are multiple cable glands, whereas the FOCUS MCS NXN are silicone rubber gaskets designed by Optotec.
Depending on the specific needs, every NGBKIT could be suited to all the boxes.

TO UNDERSTAND NGBKIT TO MULTIPLE SEAL



NGBKIT-PG16-6X4

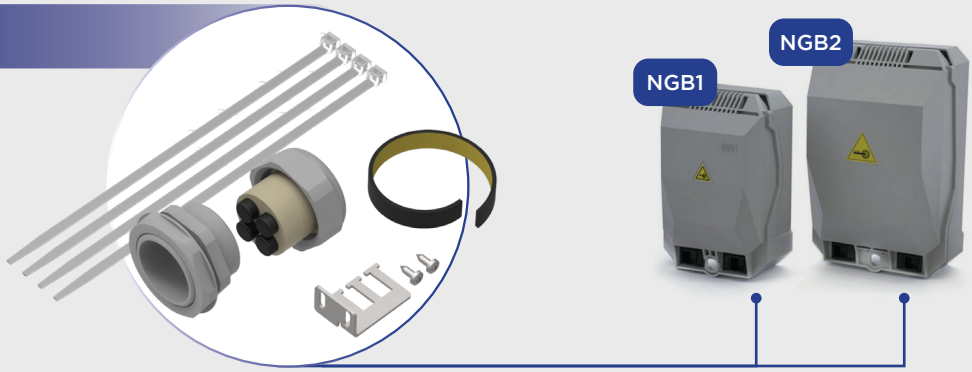
KIT FOR NGB 1 AND 2
CABLE GLAND PG16
FOR 6 CABLES ∅ 4 mm

CABLES BRACKET,
SCREWS, SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)

NGBKIT-PG29-4X9

KIT FOR NGB 1 AND 2
CABLE GLAND PG29
FOR 4 CABLES
FROM ∅ 8.5 mm to ∅ 9.5 mm

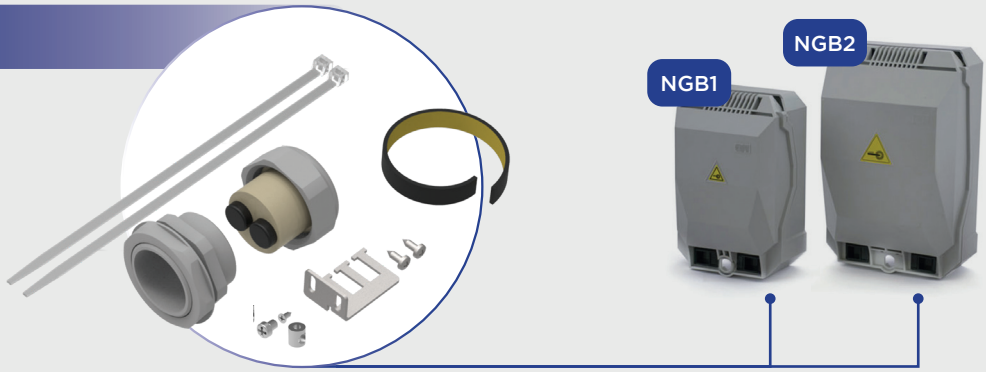
CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)



NGBKIT-PG29-2X12

KIT FOR NGB 1 AND 2
CABLE GLAND PG29
FOR 2 CABLES FROM ∅ 9 mm
TO ∅ 12 mm

CABLES BRACKET,
SCREWS, SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)



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GUIDE SEAL

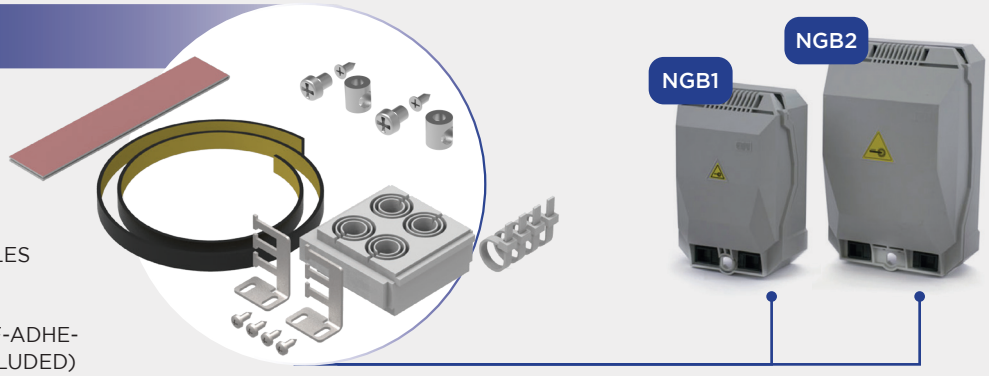
NGBKIT DEVICES FOR MICROCABLES AND PATCHCORDS COLD SEALING

NGBKIT-MCS-4X20

KIT FOR UNCUT CABLE

KIT FOR NGB 1 AND 2 BOXES
MULTIPLE CABLE SEAL GASKET
MADE OF SILICON RUBBER
FOR 4 CABLES OR 2 UNCUT CABLES
∅ 20 mm

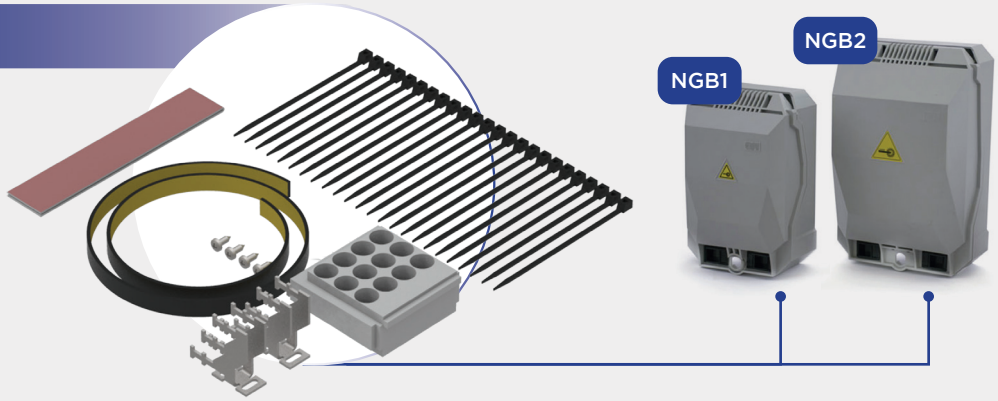
CABLES BRACKET, SCREWS, SELF-ADHESIVE FOAM AND TIE-WRAPS (INCLUDED)



NGBKIT-MCS-12X10

KIT FOR NGB 1 AND 2 BOXES
MULTIPLE CABLE SEAL GASKET
MADE OF SILICONE RUBBER
FOR 12 CABLES ∅ 10 mm

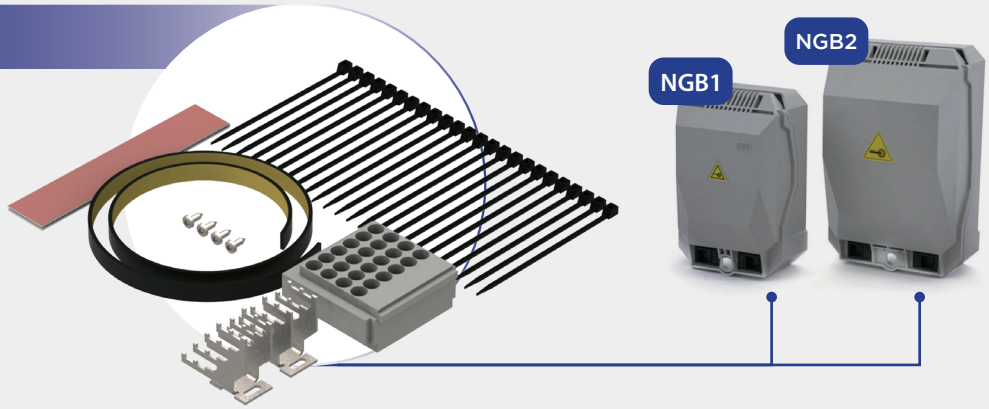
CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)



NGBKIT-MCS-24X6

KIT FOR NGB 1 AND 2 BOXES
MULTIPLE CABLE SEAL GASKET
MADE OF SILICONE RUBBER
FOR 24 CABLES ∅ 6 mm

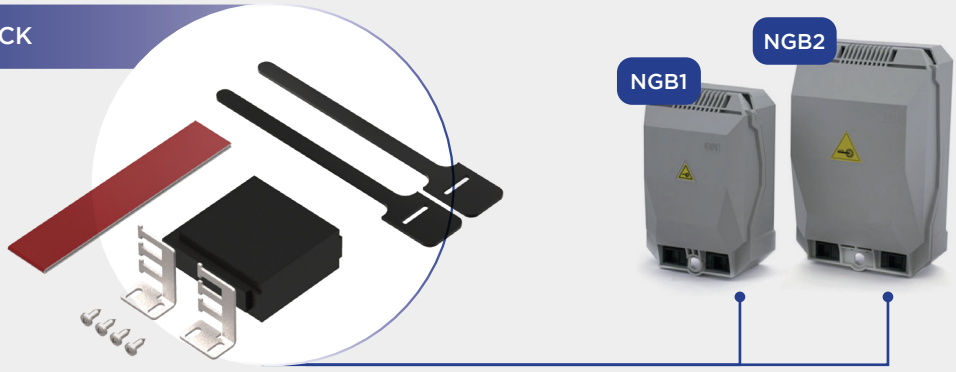
CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)



NGBKIT-MCS-PATCHCORD BLOCK

KIT FOR NGB 1 AND 2
GASKET OF POLYURETHANE FOAM
BLOCK 48 CABLES CAPACITY

CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)



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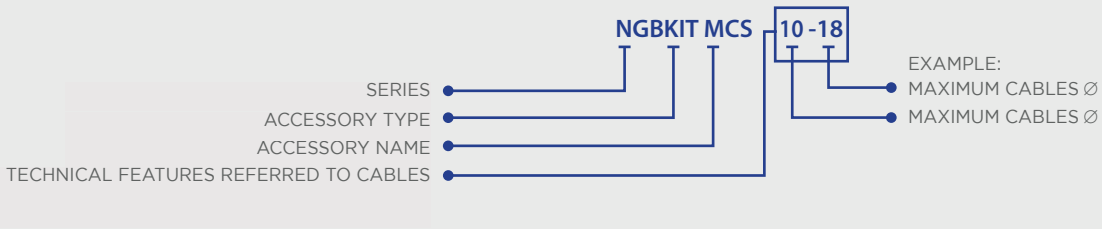
GUIDE SEAL

NGBKIT
TO SINGLE SEAL FOR TUBE

NGBKIT is a single cable glands that Optotec suggests to pair with all boxes of NGB series.
Those KITS allow to manage both the entrance and the exit of the cable and the corrugated tube too.
NGBKIT PG N-N TUBE and NGBKIT CABLE CLAMP are suitable for tube management, whereas NGBKIT PG N-N are designed for cables.
According to specific needs, it's possible to pair the NGBKIT to the NGB box.

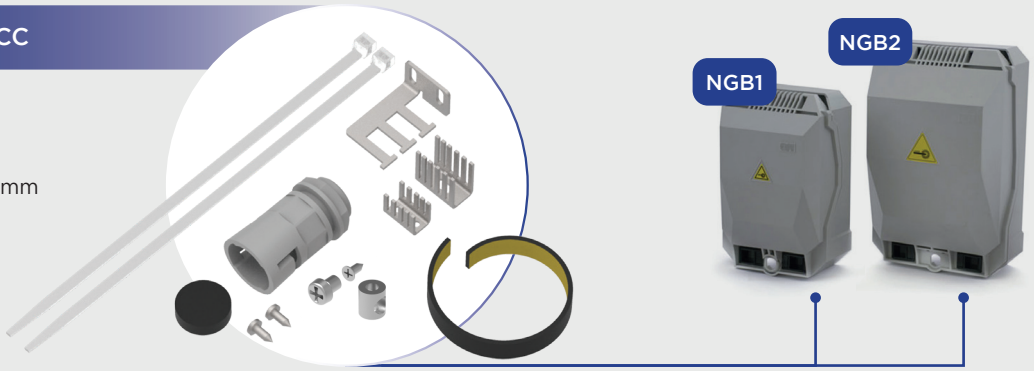
TO UNDERSTAND NGBKIT TO SINGLE SEAL



NGBKIT-CABLE CLAMP-20CC

KIT FOR NGB BOXES 1 AND 2
CABLE GLAND SINGLE SEAL
FOR 1 CORRUGATED TUBE ∅ 20 mm

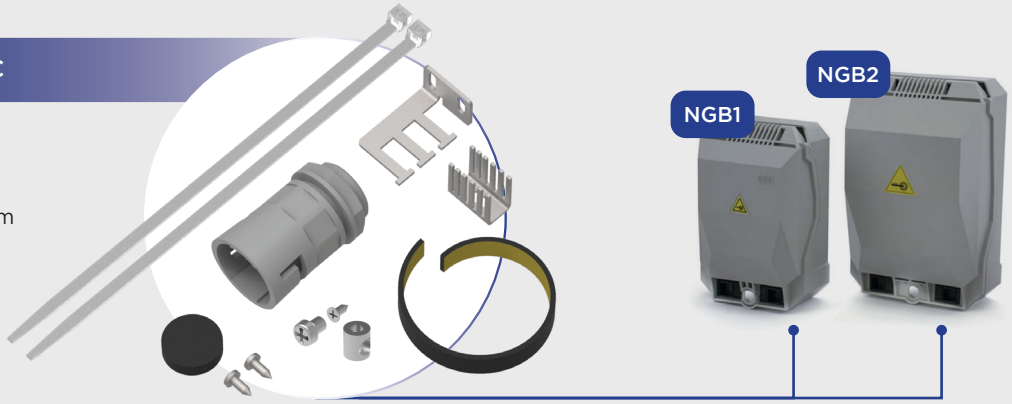
HOLDER, CABLE CLAMP,
CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)



NGBKIT-CABLE CLAMP-25CC

KIT FOR NGB BOXES 1 AND 2
CABLE GLAND SINGLE SEAL
FOR 1 CORRUGATED TUBE ∅ 25 mm

HOLDER, CABLE CLAMP,
CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)



NGBKIT-PG21-25 TUBE

KIT FOR NGB BOXES 1 AND 2
CABLE GLAND PG29 SINGLE SEAL
FOR 1 TUBE ∅ 25 mm

HOLDER, CABLE CLAMP,
CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS (INCLUDED)

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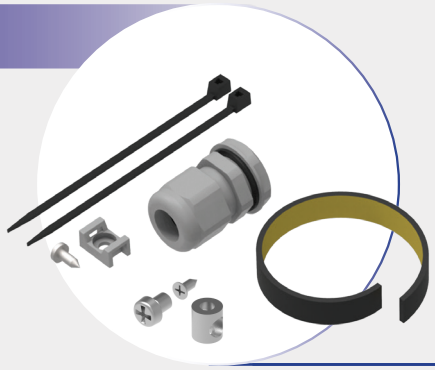
GUIDE SEAL

NGBKIT
TO SINGLE SEAL FOR CABLE

NGBKIT-PG11-05-10

KIT FOR NGB BOXES 1 AND 2
CABLE GLAND PG11 SINGLE SEAL
FOR 1 CABLE ∅ 5~10 MM

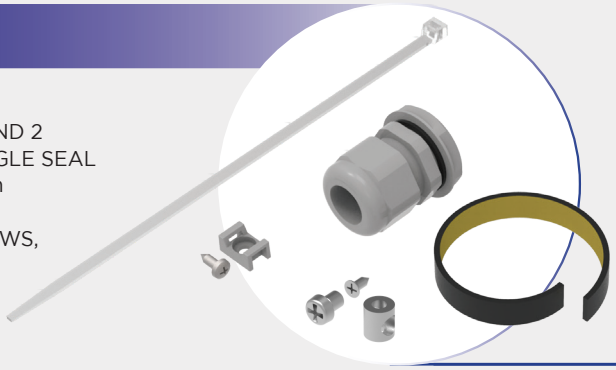
CABLES BRACKET, SCREWS, SELF-ADHESIVE FOAM AND TIE-WRAPS (INCLUDED)



NGBKIT-PG16-10-14

KIT FOR NGB BOXES 1 AND 2
CABLE GLAND PG16 SINGLE SEAL
FOR 1 CABLE ∅ 10~14 mm

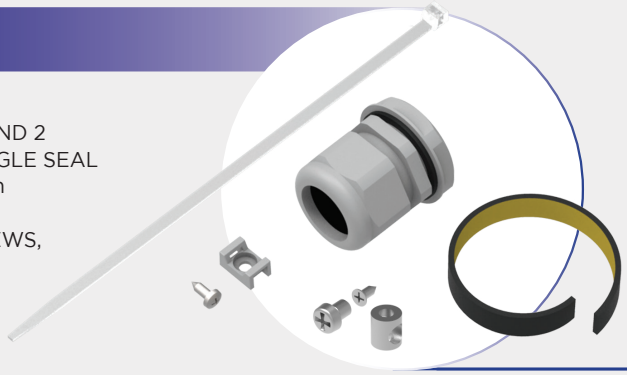
CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS
(INCLUDED)



NGBKIT-PG21-13-18

KIT FOR NGB BOXES 1 AND 2
CABLE GLAND PG21 SINGLE SEAL
FOR 1 CABLE ∅ 13~18 mm

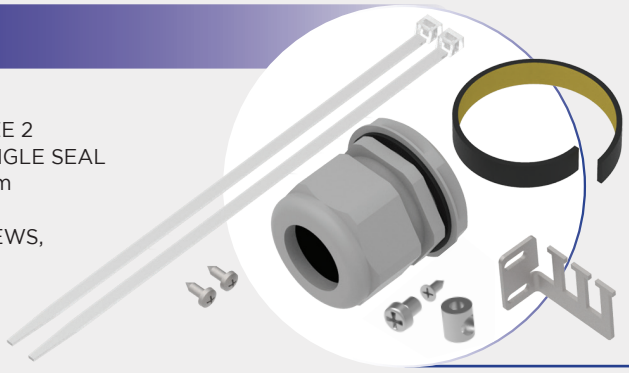
CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS
(INCLUDED)



NGBKIT-PG29-18-25

KIT FOR NGB BOXES SIZE 2
CABLE GLAND PG29 SINGLE SEAL
FOR 1 CABLE ∅ 18~25 mm

CABLES BRACKET, SCREWS,
SELF-ADHESIVE FOAM
AND TIE-WRAPS
(INCLUDED)



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