

## 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

### INSTALLATIONS

- Wall
- Poles

### KEY FEATURES AND BENEFITS

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

## 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



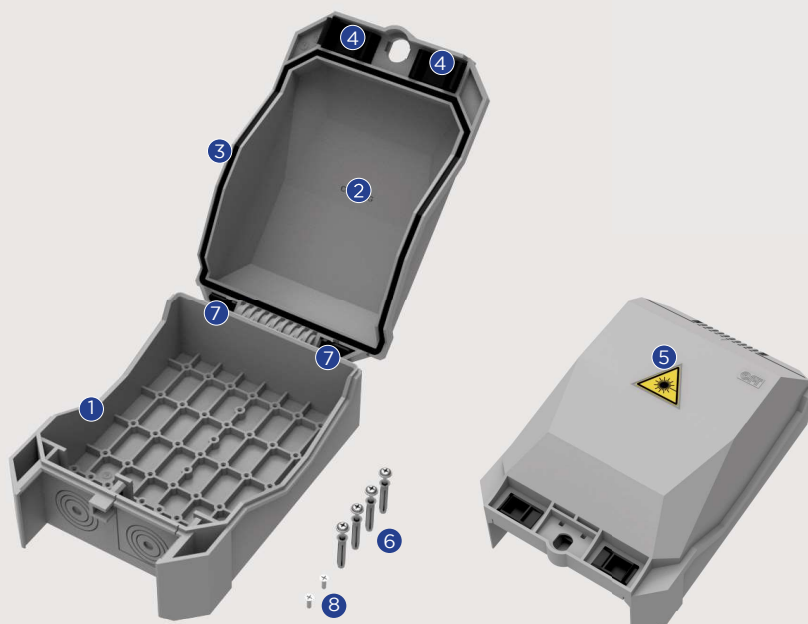
### COMPONENTS

#### 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

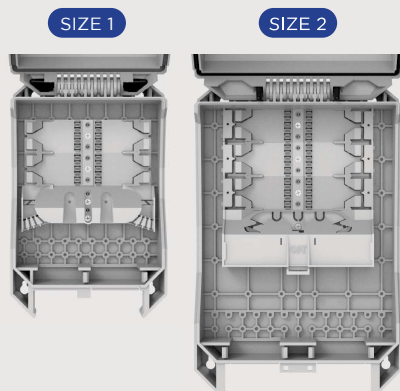
#### ON REQUEST

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

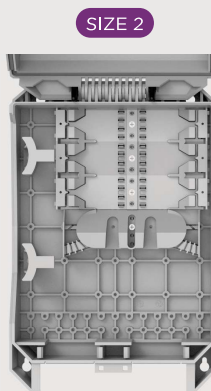


### CONFIGURATIONS

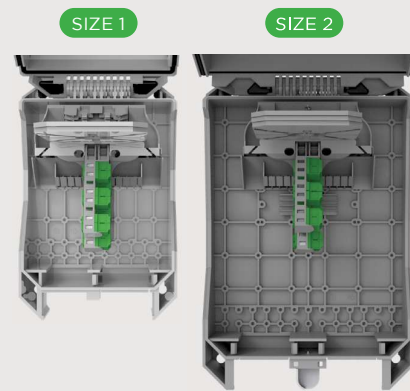
#### S SPLICE ONLY



#### SL SPLICE LOOP



#### PS PATCH SPLICE



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SIZE 1

FIBER SPLICE PROTECTION

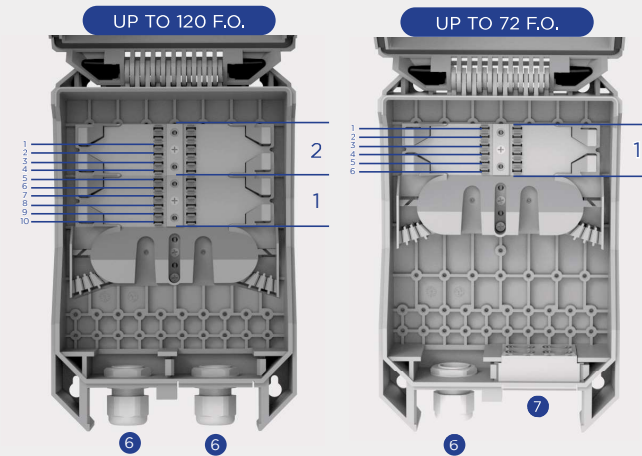
1 Mechanical Crimp (12 per HD tray)	UP TO 120 F.O.	UP TO 72 F.O.
2 Heat-Shrinkable (12 per HD tray)	UP TO 120 F.O.	UP TO 72 F.O.

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

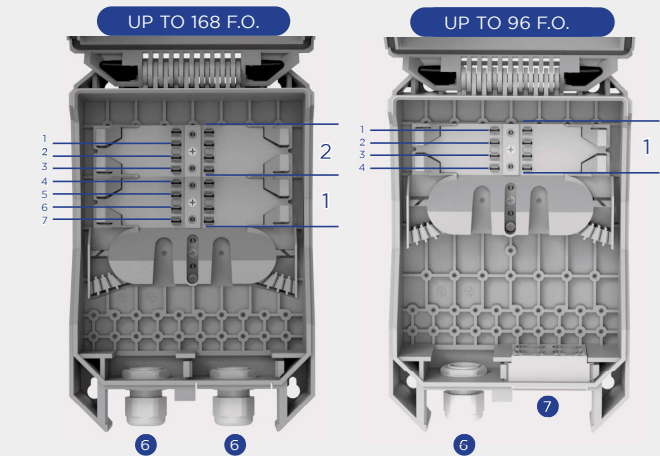
Mechanical Crimp (12+12 per HD)	NO	NO
3 Heat-Shrinkable (12+12 per HD tray)	UP TO 168 F.O.	UP TO 96 F.O.

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

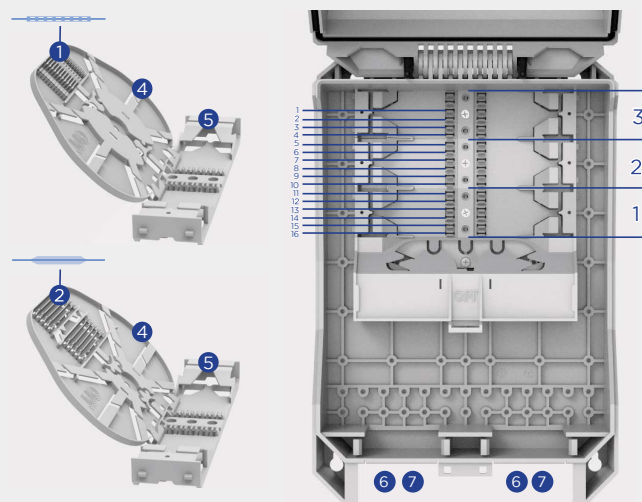
1 Mechanical Crimp (12 per HD tray)	UP TO 192 FIBRES
2 Heat-Shrinkable (12 per HD tray)	UP TO 192 FIBRES

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

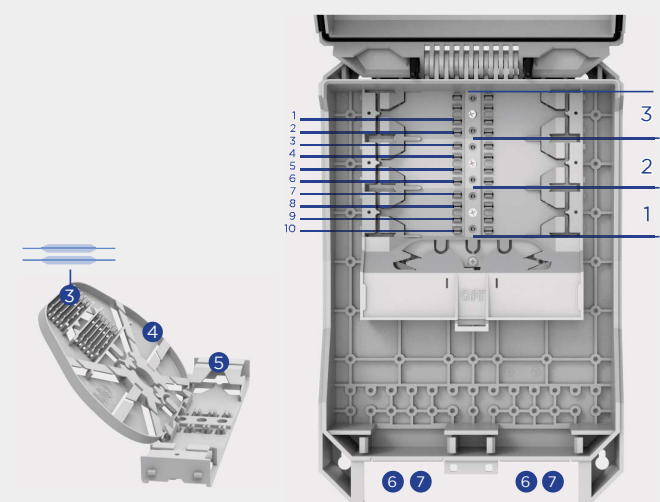
Mechanical Crimp (12+12 per HD)	NO
3 Heat-Shrinkable (12+12 per HD tray)	UP TO 240 FIBRES

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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SIZE 2

FIBER SPLICE PROTECTION

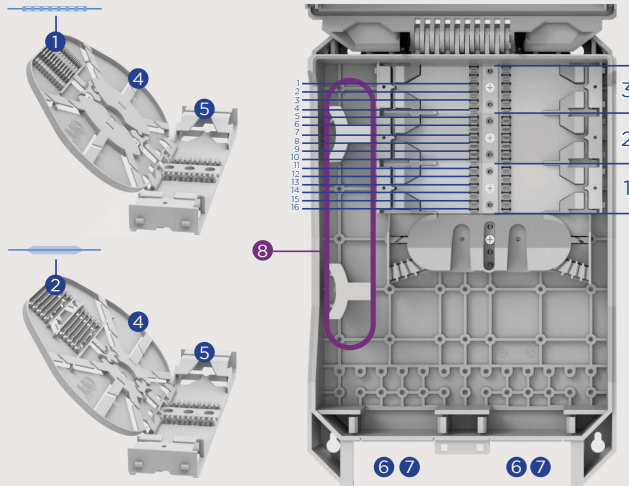
1	Mechanical Crimp (12 per HD tray)	UP TO 192 FIBRES
2	Heat-Shrinkable (12 per HD tray)	UP TO 192 FIBRES

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

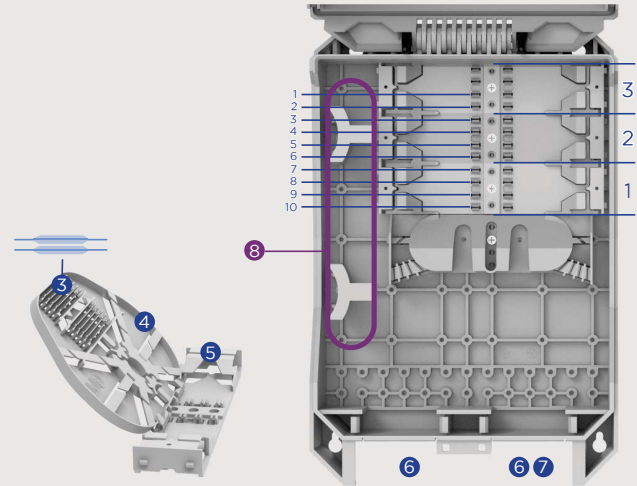
	Mechanical Crimp (12+12 per HD)	NO
3	Heat-Shrinkable (12+12 per HD tray)	UP TO 240 FIBRES

SPLICE MODULE SAMX HD4

4	HD tray	UP TO 10 PCS.
5	WAPX base for 4 HD tray	UP TO 3 PCS

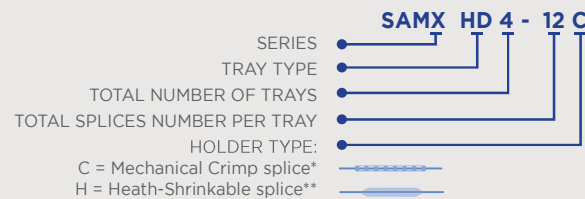
CABLES SEALING

6	NGBKIT PG	OUT
7	NGBKIT MCS	IN/OUT
8	LOOP SPACE	YES

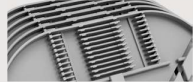


GUIDE TO SPLICE

TO UNDERSTAND OPTOTEC'S MODULES CONCEPT

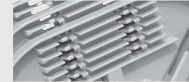


\*HOLDER TYPE C



HOLDER type C is used with Mechanical Splice protection.

\*\*HOLDER TYPE H



HOLDER type H is used with heat-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	splices per tray arranged on 2 LAYERS (6+6) = total. 12H	48
HD4-24H	4	splices per tray arranged on 2 LAYERS (12+12) = total. 24H	96

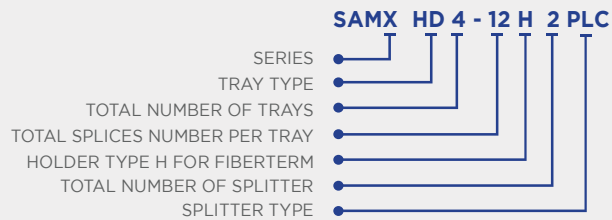
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## GUIDE TO SPLICE WITH PLC SPLITTER

### TO UNDERSTAND OPTOTEC'S MODULES CONCEPT



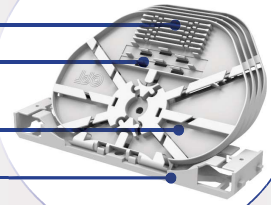
#### MODULE SAMX HD4-12H-2PLC

HOLDER H

PLC HOLDER

SINGLE TRAY HD TYPE

WAPX

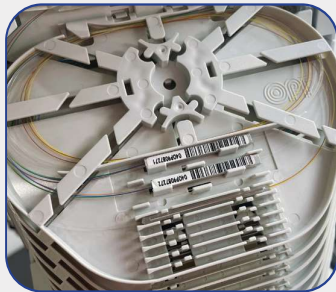


### HEAT-SHRINKABLE SPLICE AND PLC SPLITTER

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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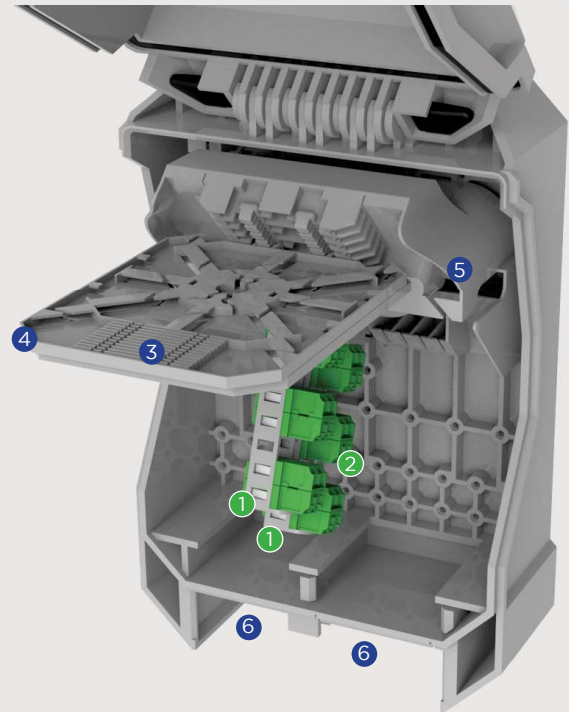
**SIZE 1**

**PATCH SIDE**

<b>FINGER</b> (PP8SC)	UP TO 2	①
<b>ADAPTERS</b>		②
SC and E2000	UP TO 16	
LC	UP TO 24	

**SPLICE SIDE**

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



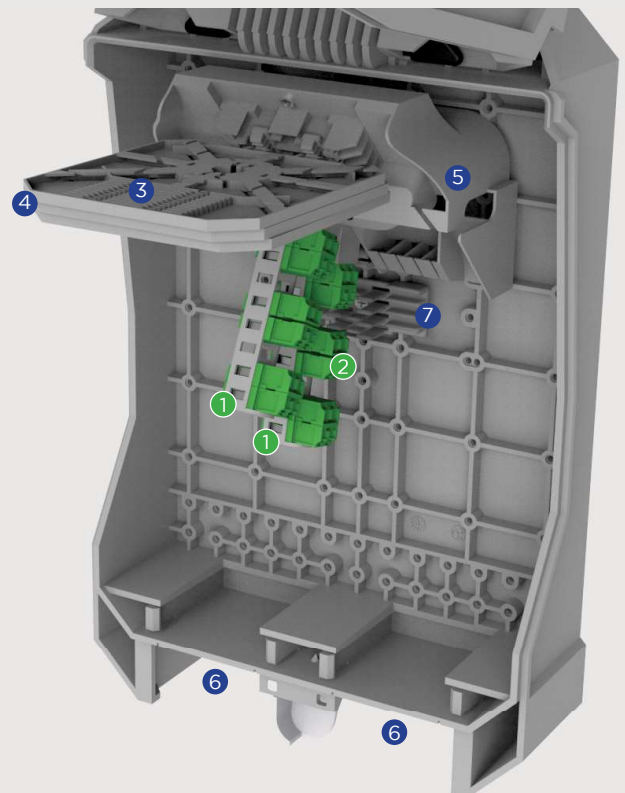
**SIZE 2**

**PATCH SIDE**

<b>FINGER</b> (PP8SC)	UP TO 3 WITHOUT SPLITTER SLOT	①
<b>ADAPTERS</b>		②
SC and E2000	UP TO 24	
LC	UP TO 36	

**SPLICE SIDE**

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



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## GUIDE TO PATCH AND SPLICE

### ADAPTERS



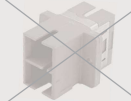

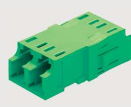


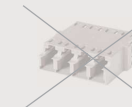
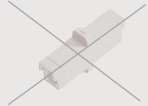


#### The importance to be small

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.

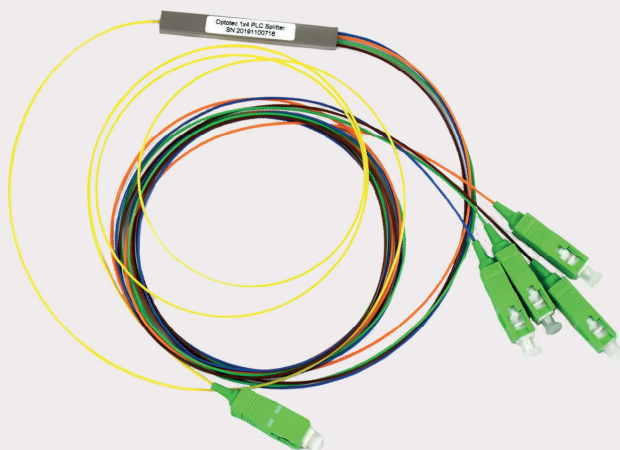
<b>SC family</b> IEC 61754-4	<b>SIMPLEX</b>	<b>DUPLEX horizontal</b>	<b>DUPLEX vertical</b>		
					
<b>LC family</b> IEC 61754-19	<b>SIMPLEX</b>	<b>DUPLEX sc-footprint</b>	<b>DUPLEX slim-line</b>	<b>DUPLEX low-profile</b>	<b>QUAD</b>
					
<b>E-2000™ family</b> IEC 61754-15	<b>SIMPLEX</b>	<b>SIMPLEX sc-mounting</b>	<b>DUPLEX</b>		
					

### 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

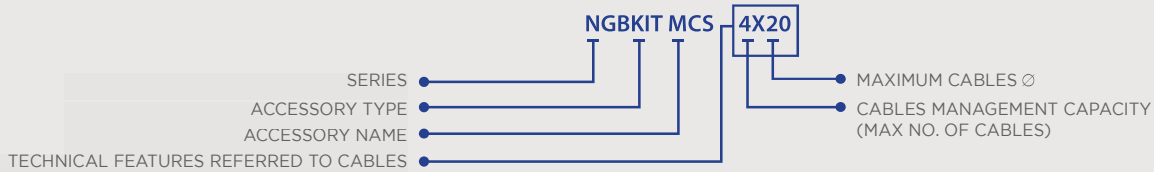
# NGBKIT TO MULTIPLE SEAL FOR MANY CABLES

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 Ø 4 mm

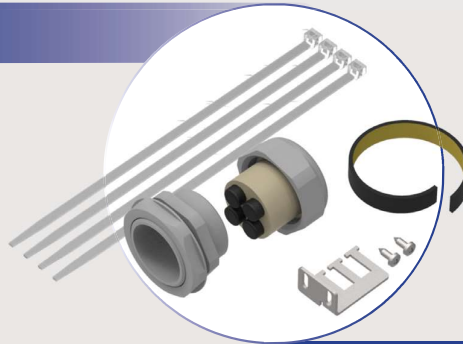
CABLES BRACKET,  
SCREWS, SELF-ADHESIVE FOAM  
AND TIE-WRAP (INCLUDED)



#### NGBKIT-PG29-4X9

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

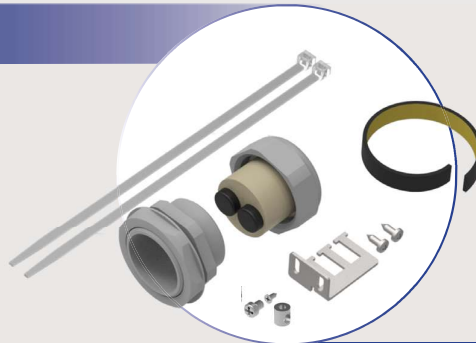
CABLES BRACKET, SCREWS,  
SELF-ADHESIVE FOAM  
AND TIE-WRAP (INCLUDED)



#### NGBKIT-PG29-2X12

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

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



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## GUIDE SEAL

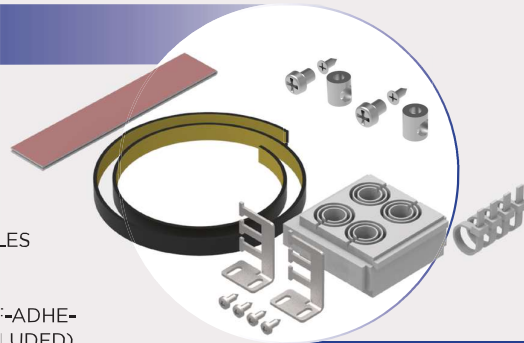
# NGBKIT DEVICES FOR MICROCABLES AND PATCHCORDS COLD SEALING

### NGBKIT-MCS-4X20

#### KIT FOR UNCUT CABLE

KIT FOR NGB 1 AND 2 BOXES  
MULTIPLE CABLE SEAL GASKET  
MADE OF SILICONE RUBBER  
FOR 4 CABLES OR 2 UN CUT CABLES  
Ø 20 mm

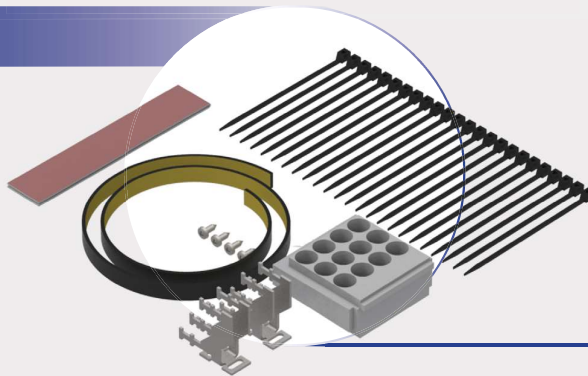
CABLES BRACKET, SCREWS, SELF-ADHESIVE FOAM AND TIE-WRAP (INCLUDED)



### NGBKIT-MCS-12X10

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

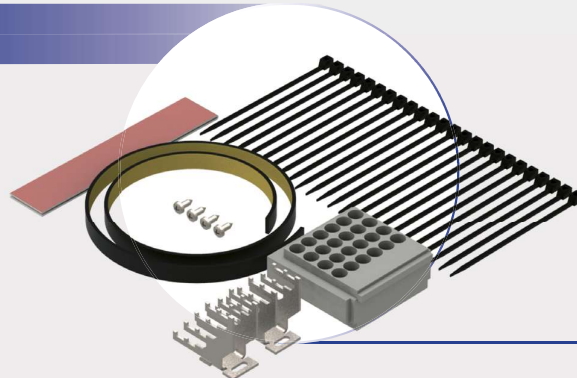
CABLES BRACKET, SCREWS,  
SELF-ADHESIVE FOAM  
AND TIE-WRAP (INCLUDED)



### NGBKIT-MCS-24X6

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

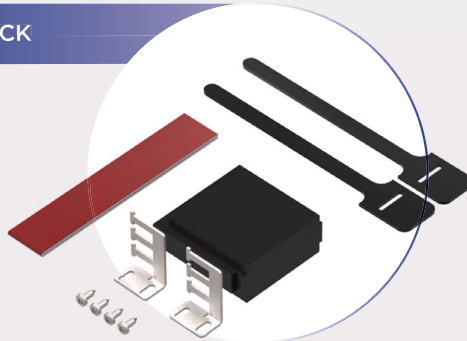
CABLES BRACKET, SCREWS,  
SELF-ADHESIVE FOAM  
AND TIE-WRAP (INCLUDED)



### 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-WRAP (INCLUDED)



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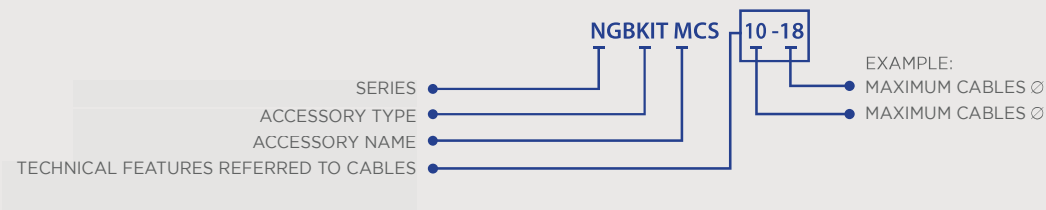
## GUIDE SEAL

# 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.

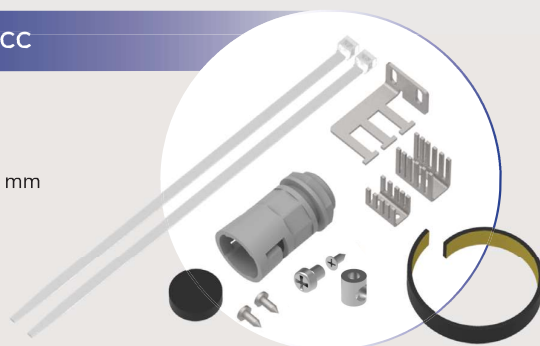
### TO UNDERSTAND NGBKIT TO SINGLE SEAL



#### NGBKIT-CABLE CLAMP-20CC

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

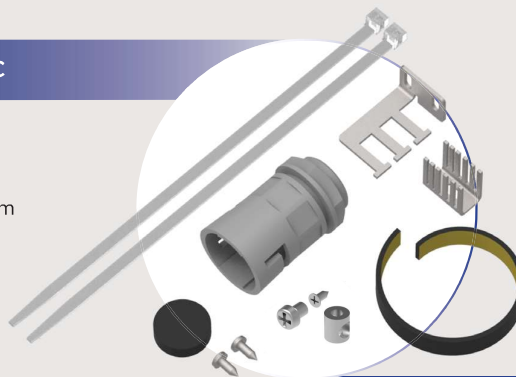
HOLDER, CABLE CLAMP,  
CABLES BRACKET, SCREWS,  
SELF-ADHESIVE FOAM  
AND TIE-WRAPPS (INCLUDED)



#### NGBKIT-CABLE CLAMP-25CC

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

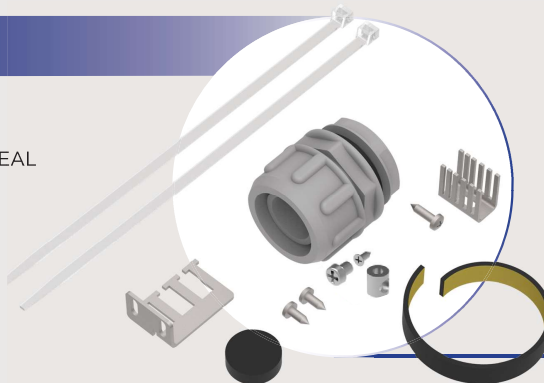
HOLDER, CABLE CLAMP,  
CABLES BRACKET, SCREWS,  
SELF-ADHESIVE FOAM  
AND TIE-WRAPPS (INCLUDED)



#### NGBKIT-PG21-25 TUBE

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

HOLDER, CABLE CLAMP,  
CABLES BRACKET, SCREWS,  
SELF-ADHESIVE FOAM  
AND TIE-WRAPPS (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 Ø 5-10 mm

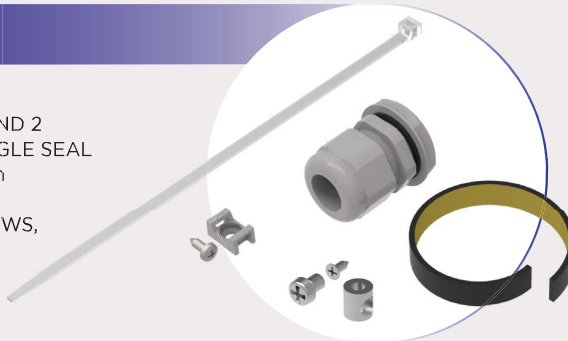
CABLES BRACKET, SCREWS, SELF-ADHESIVE FOAM AND TIE-WRAPS (INCLUDED)



### NGBKIT-PG16-10-14

KIT FOR NGB BOXES 1 AND 2  
CABLE GLAND PG16 SINGLE SEAL  
FOR 1 CABLE Ø 10-14 mm

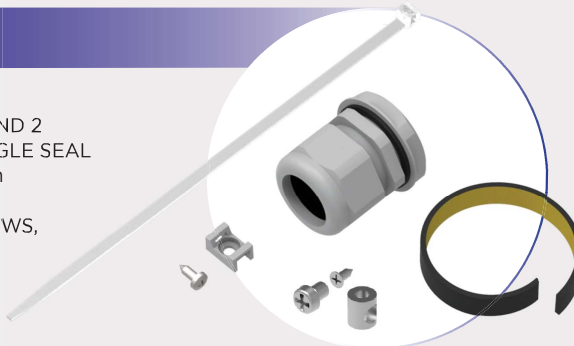
CABLES BRACKET, SCREWS,  
SELF-ADHESIVE FOAM  
AND TIE-WRAPS  
(INCLUDED)



### NGBKIT-PG21-13-18

KIT FOR NGB BOXES 1 AND 2  
CABLE GLAND PG21 SINGLE SEAL  
FOR 1 CABLE Ø 13-18 mm

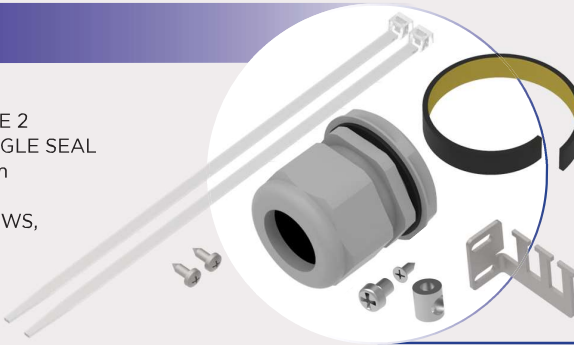
CABLES BRACKET, SCREWS,  
SELF-ADHESIVE FOAM  
AND TIE-WRAPS  
(INCLUDED)



### NGBKIT-PG29-18-25

KIT FOR NGB BOXES SIZE 2  
CABLE GLAND PG29 SINGLE SEAL  
FOR 1 CABLE Ø 18-25 mm

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



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