

**Electrical Products** 



**Low Voltage** 

## **EASY-PROTECT**

Gel box for easy, fast and safe moisture protection of WAGO COMPACT Splicing Connectors and Inline Splicing Connectors with lever series 221

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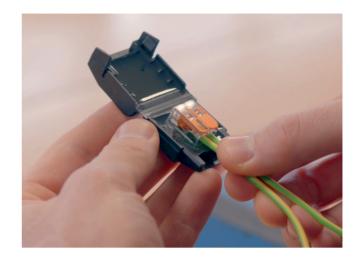


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## **EASY-PROTECT – a leakproof connection**

The EASY-PROTECT IPX8 gel boxes provide the proven 221 series WAGO COMPACT Splicing Connectors with ideal protection against moisture and water ingress. The EASY-PROTECT gel box, which was developed in cooperation with WAGO, is the ideal all-round system solution for protecting the splicing connector in demanding installation applications.

This combination integrates the market leader's expertise in electrical interconnections with reliable gels from BBC Cellpack to deliver a unique system. EASY-PROTECT is a system solution tested according to EN 60998-2 for demanding installation applications that does not limit the function of each individual connector.



The unique ribbed design of the EASY-PROTECT housing provides rugged protection for insulated electrical connections. The compact housing design enables reliable use in environments with limited space.

BBC Cellpack is continuing its success story with its gel product portfolio and has extended it to include EASY-PROTECT, a new tye of silicone-free gel that can be deployed across all industries.

### Overview of housing dimensions EASY-PROTECT



## Overview of housing dimensions EASY-PROTECT Inline





# SAFE TO USE Safe application

- Protects the splicing connector against moisture and water ingress according to IPX8
- VDE type-tested system according to EN 60998-2 for approval in conjunction with WAGO COMPACT Splicing Connectors and Inline Splicing Connectors with lever Series 221
- Rigid, label-free and silicone-free gel
- UV-resistant housing
- Safe conductor handling due to actuating insertion
- · Housing offers good mechanical resistance

The rugged housing design and the insulating BBC Cellpack Gel protects the splicing connector from external influences. The housing's unique design securely holds the connector in position at all times. The conductor entry point also ensures that the connector cannot be pulled out of the gel box.



# **EASY TO USE Easy application**

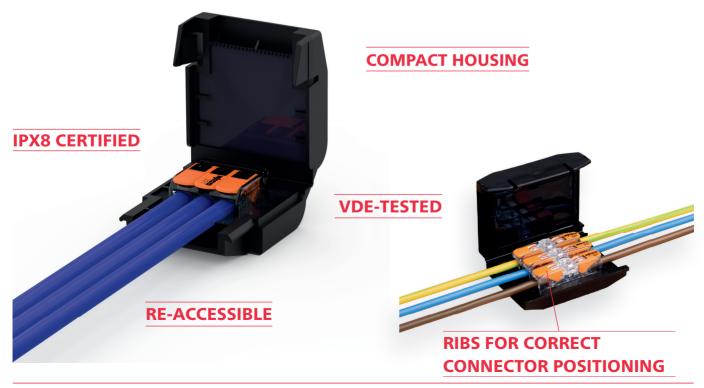
- Easy application thanks to the re-accessible housing
- Space-saving handling thanks to compact housing design
- Housing variants also allow configuration of a gel box with several connectors

#### **ATTENTION: not reusable**

The box is easy to install without tools. It is all-time possible to open the box again to check the cable connections. The compact housing allows an easy use in all areas with limited space. Thanks to the different housing sizes it is possible to install several clamps in a box, which enabels additional space in the branch box.

**UNLIMITED SHELF LIFE** 

### **SILICONE- AND HAZARDOUS-FREE GEL**





# **READY TO USE**Fast application

- Fast application and direct commissioning
- Ready to use and immediately operational
- Saves time, since gel mass does not require mixing or processing
- Gel-filled box can be stored indefinitely
- Matching WAGO COMPACT Splicing Connectors and Inline Splicing connectors with lever Series 221 included in delivery for immediate use
- · Easy assembly

The pre-filled gel box is ready for immediate use and can be operated right away after the easy assembly. The correct number of splicing connectors suitable for the housing size is already included in the delivery, which facilitates product assembly as well as correct and quick application.

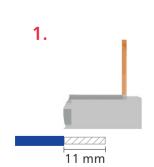


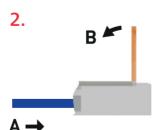
# FLEXIBLE TO USE Flexible application

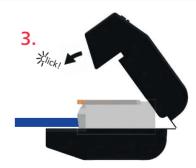
- Can be used in all industrial sectors due to silicone free gel
- Indoor and Outdoor use
- Can be used in the extra low-voltage range without an additional housing
- Can be used in the low-voltage range with additional housing (double insulation / observe protection class II)

Connections with up to five conductors per phase can be implemented thanks to different housing sizes and the flexible combination with WAGO COMPACT Splicing Connectors and Inline Splicing Connectors with lever Series 221. EASY-PROTECT offers flexibility and can be used in a wide range of areas, e.g. in the automotive sector and outdoor applications.

NOTE: The splicing connectors are used with the gel boxes in connection boxes to ensure the double insulation of the installation, in low-voltage applications. EASY-PROTECT can also be deployed for low-voltage tasks, such as SELV applications without an additional connection box.







- 1 Strip the wires according to the specified dimension of the corresponding splicing connector and Inline Splicing connectors with lever series 221.
- 2 Insert each conductor to be connected into the designated connector openings and simply press the clamping lever to close it
- 3 Place the connector in the box and press it together until the latches engage.

# A wide range of applications and fast assembly

EASY-PROTECT provides moisture protection for splicing connectors and Inline splicing connectors with lever Series 221 and makes it possible to install electrical connections in a wide range of applications.

### **Applications**

- Building equipment lighting
- Building services applications
- Cabling systems
- Indoors and outdoors
- Protected and unprotected outdoor areas
- Rooms and facilities with high humidity
- Temporary applications and retrofit installations
- Large-scale electrical installations (branch boxes and switch cabinets, etc.)
- Overhead and ceiling applications
- In the low-voltage range without additional housing
- In the low-voltage range with additional housing (double insulation / observe protection class II)

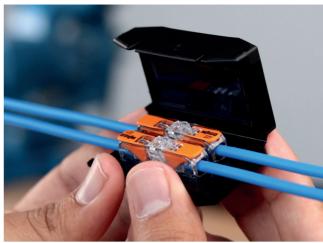


Image: EASY-PROTECT Inline

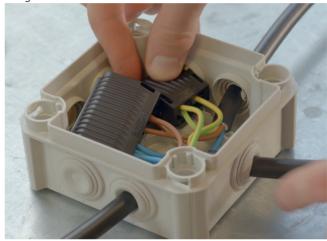


Image: EASY-PROTECT

Technical Data	Value	Test standards	
Physical properties			
IP protection class	IPX8	EN 60529	
Storage period	Indefinite storage capacity	-	
Housing colour	Black	-	
Housing material	Polypropylene -		
Closure type	Latching -		
Wiring direction	One-sided	-	
UV-resistance	Yes -		
Gel colour	Translucent amber -		
Gel material	Polyurethan	-	

Thermodynamic properties		
Continuous service temperature	105 °C	EN 60998-2
Ambient temperature (operation)	85°C according to T85 marking	EN 60998-2
Working temperature / Storage temperature	0 - 40 °C	
Flammability class housing	V2	UL 94

Electrical properties**		
Voltage range	450 V	EN 60998-2
Rated surge voltage	4 kV	EN 60998-2
Rated current	32 A respectively 41 A	EN 60998-2
Resistance to electrical breakdown gel	≥ 15 kV / mm	EN 60243-1

<sup>\*</sup> Approximately comparable to the glow wire test according to EN 60695

<sup>\*\*</sup> Double insulation / observe protection class II for low voltage



### **EASY-PROTECT**

Gel-filled housing for moisture protection of WAGO $^\circ$  splicing connectors of series 221 (0,14 f / 0,2 - 4 mm $^2$  | 0,5 - 6 mm $^2$ )

## Housing overview 4 mm<sup>2</sup>

## Housing overview 6 mm<sup>2</sup>



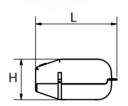














Assignment with WAGO	COMPACT Splicing	Connectors of series 221
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Designation	L mm	B mm	H mm	221-412	221-413	221-415	221-612	221-613	221-615
Housing size 1	33,6	32,0	17,8	1	1	-	-	-	-
Housing size 2	33,6	45,9	17,8	2	-	1	-	-	-
Housing size 3	33,6	52,7	17,8	3	2	-	-	-	-
Housing size 4	40,1	38,0	21,3	-	-	-	1	1	-
Housing size 5	40,1	49,4	21,3	-	-	-	2	-	1
Housing size 6	40,1	66,4	21,3	-	-		3	2	-



Type*	6	Housing size	Type WAGO COMPACT Splicing Connectors	Nominal cross section mm²	Number of gel boxes	Art. No.
	112	1	1 x 221-412		1x	407858
	113	1	1 x 221-413		1x	407859
	222	2	2 x 221-412	0.14 f / 0.2 / 2 mm²	1x	407860
	215	2	1 x 221-415	0,14 f / 0,2 - 4 mm <sup>2</sup>	1x	407861
	332	3	3 x 221-412		1x	407862
FACY PROTECT*	323	3	2 x 221-413		1x	407863
EASY-PROTECT*	412	4	1 x 221-612	0,5 - 6 mm²	1x	410356
	413	4	1 x 221-613		1x	410357
	522	5	2 x 221-612		1x	410358
	515	5	1 x 221-615		1x	410359
	632	6	3 x 221-612		1x	410360
	623	6	2 x 221-613		1x	410361
	113	1	12 x 221-413		12x	451511
EASY-PROTECT Bulk**	332	3	48 x 221-412	0,14 f / 0,2 - 4 mm <sup>2</sup>	16x	451512
	323	3	24 x 221-413		12x	451513

<sup>\*</sup> Organic-plastic blister pack with practical hanging loop
\*\* Bulk packaging without organic-plastic blister packaging available for types 113, 332 and 323.

## **EASY-PROTECT Inline**

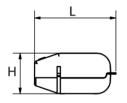
Gel-filled housing for moisture protection of WAGO® Inline splicing connectors with lever Series 221 (0,2 - 4 mm²)

## **Housing overview**











Assignment with WAGO COMPA	CT Inline Splicing (	Connectors with le	ever of series 221

Designation	L mm	B mm	H mm	
				221-2411
Housing size 2/4	32,7	56,9	17,8	2
Housing size 3/4	41,7	56,9	17,8	3
Housing size 5/4	60,7	56,9	17,8	5



Type		Housing size	Type WAGO COMPACT Inline splicing connector with lever	Nominal cross section mm²	Number of gel boxes	Art. No.
EASY-PROTECT Inline	2/4	2	2 x 221 - 2411	0,2 - 4 0,2 - 2,5*	1	449749
	3/4	3	3 x 221 - 2411		1	449750
	5/4**	5	5 x 221 - 2411		1	449751
EASY-PROTECT Inline Bulk	2/4	2	24 x 221 - 2411	0,2 - 4 0,2 - 2,5*	12	457772
	3/4	3	36 x 221 - 2411		12	457773
	5/4**	5	60 x 221 - 2411	J,_ 2,5	12	457774





<sup>\*</sup> with stranded conductors
\*\* Announced by the end of 2023





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