

# Vizor Connect Vizor Air/3X Connect



Fronius International, Product Management Accessories  
Information Class: Confidential

# Our Vision | Our Goal

## Our Vision

was to develop a welding helmet that can be controlled directly by a Fronius power source via Bluetooth® connection.



## Our Goal

is to further develop this technology, to allow the welder a new world of comfort. The welding helmet will do more in the future than just provide protection. The Vizor Connect is only the first step.

## The Result

a technological innovation. Thanks to the fully integrated Bluetooth® Low Energy solution, the welding helmet is dimmed by the welding machine before the arc is ignited.



# Let's get „CONNECT“ed

## „connect“

Complete protection against arc eye with innovative Bluetooth® technology (pre-darkening)

## Panorama field of view

The nose-cut-technology offers a free view of the workpiece

## Autopilot

Detection of the arc brightness and fully automated shade level adjustment from 5 to 12

## Grind mode

Grind-Button = Bluetooth® Search



## True colour view

A specially developed UV/IR filter allows the realistic colour perception

## Power technology

Lithium-polymer battery can be charged via USB-C cable, supported by solar cells

## Shade level 2.5

Shade level 2.5 in passive mode

# Vizor Connect | in Detail

## 0.00 sec switching time

Thanks to the Bluetooth® technology the welding helmet gets dimmed before the arc is ignited. The auto darkening filter (ADF) remains reliably dark even at a very low current and in predicament situations.

## Advantages of the technology:

- No annoying flash of light at the moment of arc ignition
- No unintentional darkening or opening of the ADF due to difficult ambient light conditions such as hall lighting, sunlight, light reflections
- Reliable darkening in every welding position (predicaments)



# Vizor Connect | in Detail

## „Connect“ or „not connect“ – it's your choice

With inactive Bluetooth® function, the welding helmet works with 5 light sensors (sensor mode)

## „Connect“ Bluetooth® technology

- Grind-Mode button as On/Off switch for the connect-mode
- In the off-position the welding helmet works conventional (no LED flashing)
- In the on-position, the welding helmet works via wireless control over a power source (after successful pairing LED lights blue)

## „Connect“ is compatible with (Bluetooth® function only available in certified countries)

- TPS 320i C / TPS 320i / TPS 400i / TPS 500i / TPS 600i  
from serial number 29200502 and 4,067,101 NFC/BLE/WIFI24 Inside (Firmware Version 2.0.1)
- MW 230i / TT 230i from the beginning (Firmware Version 1.5.0)



# Vizor Connect – in Detail



# Vizor Connect Pairing

## 1.) Start



Turn on the Bluetooth® mode by pressing the side button **START** (blue LED flashes)

## 2.) Select



Menu item presettings:  
▶ Network ▶ Bluetooth®  
▶ Configure devices

### SELECT

The Vizor Connect now appears in the list of available Bluetooth® devices

## 3.) Confirm



Then select the Vizor Connect and you will be asked to pair your device confirm with **YES**

Compare the MAC address on the label inside the helmet with the MAC address on the welding machine.

## 4.) Paired



Now the Vizor Connect is **PAIRED** with the power source (blue LED shines continuously)



# Brighter Shade Level



Display of a standard welding helmet with **protection level 4.0** passive mode



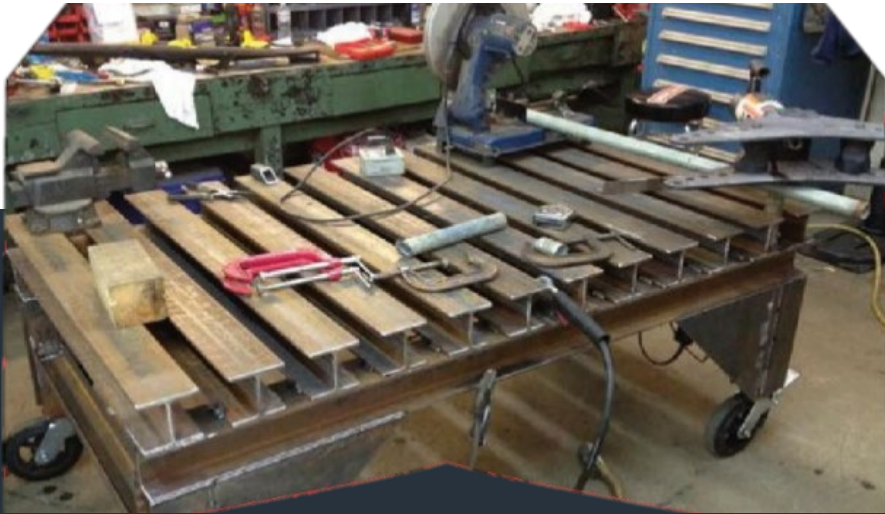
Display of the Vizor Connect with **protection level 2.5** passive mode

- More safety
- More comfort
- More efficiency



# Bigger Field of View

Panorama field view



Industrial standard cartridge  
(100x50mm)



Panorama field of view of the Vizor Connects

- Thanks to the nose cut, depending on the headband setting 2.3 up to 6.3 times more viewing area than a 100x50 mm standard industrial cartridge.

Field view of a standard welding helmet and a  
industrial standard cartridge (100 mm x 50 mm)

# Technical Data

	Vizor Connect			
Field of view	Thanks to the nose cut, depending on the headband setting 2.3 up to 6.3 times more viewing area than a 100x50 mm standard industrial cartridge			
Shade level	Autopilot: 2.5 (passive mode) 5 < 12 (active mode) Autopilot inactive: 2.5 (passive mode) 7 – 12 (active mode)			
Eye protection	Ultraviolet-/infrared-protection: maximum at any shade setting			
Switching time - light to dark	Bluetooth® Mode activated: The auto darkening filter (ADF) gets dimmed before the arc is ignited		Sensor mode (Bluetooth® turned off): 0.090 ms (23°C / 73°F) 0.070 ms (55°C / 131°F)	
Switching time - dark to light	0.1 – 2.0 s (twilight function)			
Classification (EN379)	Optical: 1	Scattered light: 1	Homogeneity: 1	Angular dependence: 2
Power Supply	Lithium polymer battery chargeable via USB-C cable, supported by solar cells			
Charging time	approx. 3 hours			
Operating time in Bluetooth® mode	approx. 40 hours			
Weight	0.55 kg / 1.21 lb			
Standards	CE, AS/NZS, ANSI, complies with CSA			

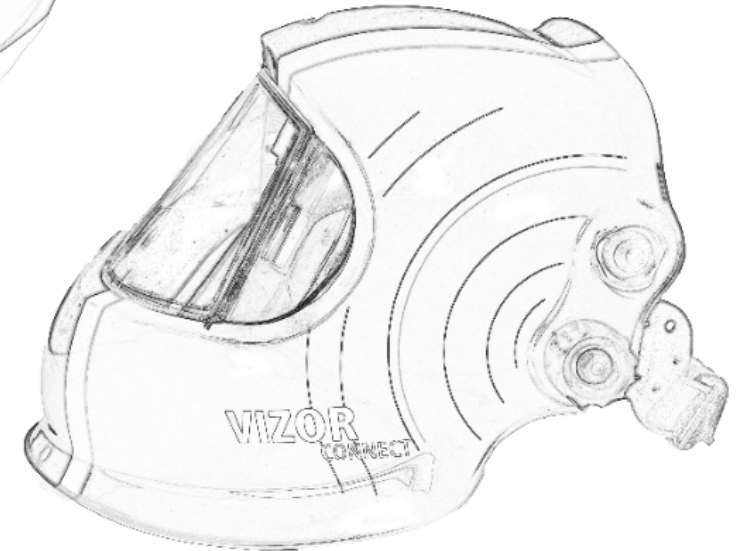
# Vizor Connect Portfolio

	Vizor Connect	Vizor 4000 Professional	Vizor 4000 Plus
Classification (EN379)	1/1/1/2	1/1/1/1	1/1/1/2
Passive mode	2.5	4	2.5
Shade levels	5-12 (auto) or 7-12 (man.)	Two steps: 5-9 and 9-13	8-12
Field of view	Panorama 58x125mm	50x100mm	50x100mm
Weight	550g	500g	482g
Bluetooth® Low Energy Technology	x		
Sensor mode	x	x	x
Solar cells	x	x	x
Exchangeable batteries		x	x
Rechargeable power bank	x		
Auto pilot (automated shade level adjustment)	x	x	
True colour LCD	x	x	x
Sensor slider		x	x
Delay-function (delay the ADF from opening)	x	x	x
Adjustable sensitivity	x	x	x
Grind mode	x	x	x



# Application Range

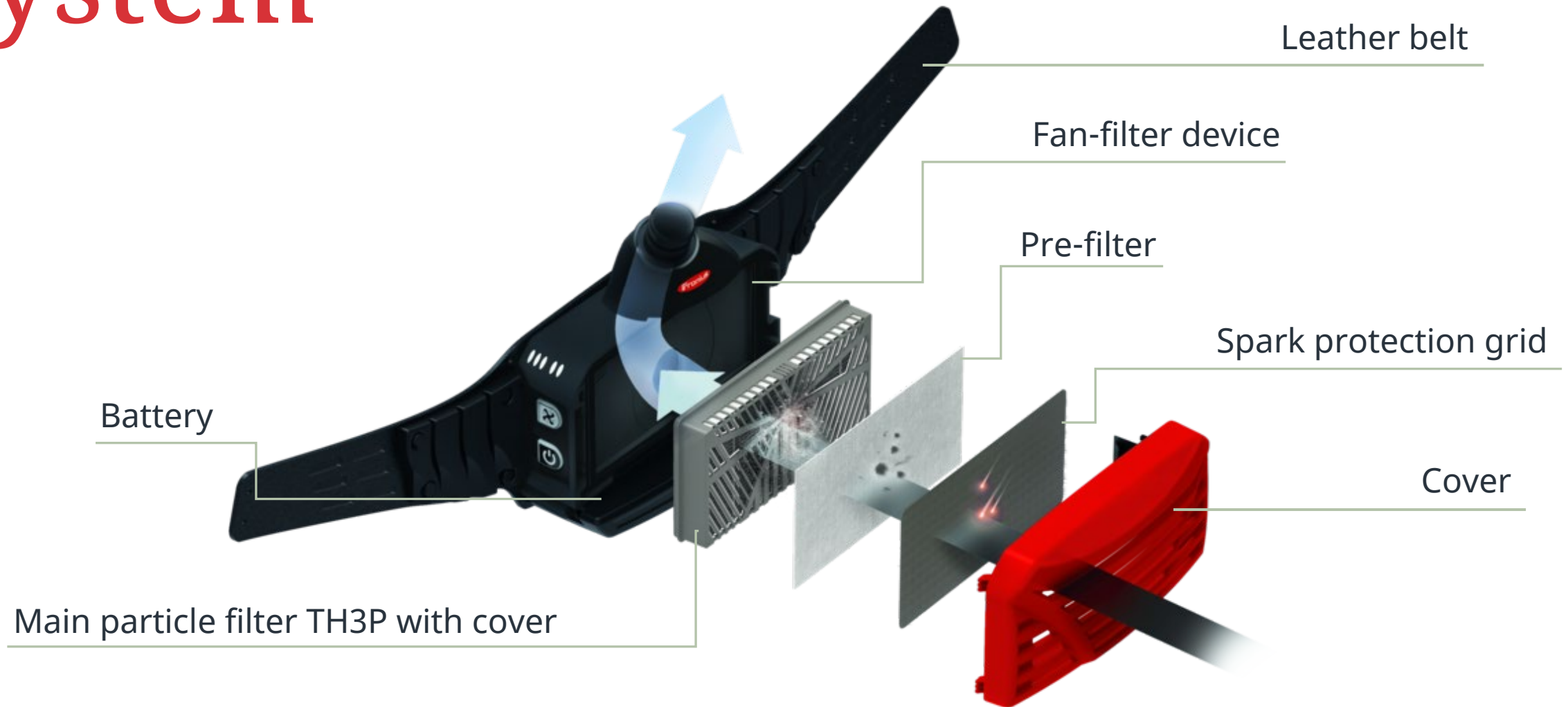
- MMA electrode welding
- MIG/MAG/TIG
- GMAW high melting rate process
- Flux cored welding
- Plasma (cutting/welding)
- Micro plasma arc welding
- Oxy-gas welding
- Grinding in grind mode
- **Prohibited for laser welding**



# Vizor Air/3 X Connect



# Airflow through the Air/3X System





# Highlights



## TH3 certified

The complete system is certified in TH3 (EN12941)



## Operating time

Powerful lithium-ion technology



## Filter status

The Vizor Air/3 system detects, if the particle filter is missing or clogging



## Three airflow levels

170 nl/min  
210 nl/min  
240 nl/min

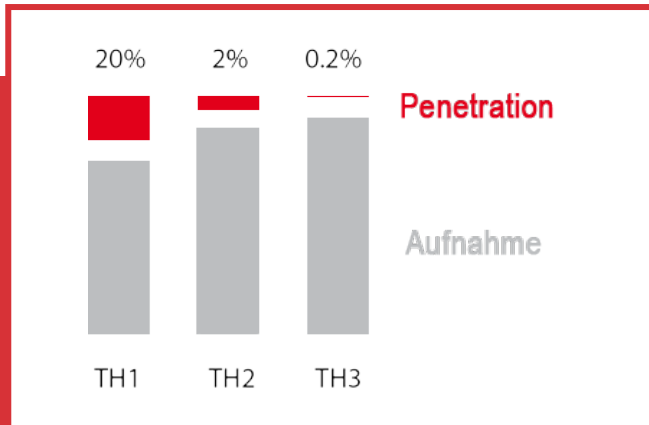


## Optional „Ergo“ harness

4-point shoulder carrying system to ensure even weight distribution

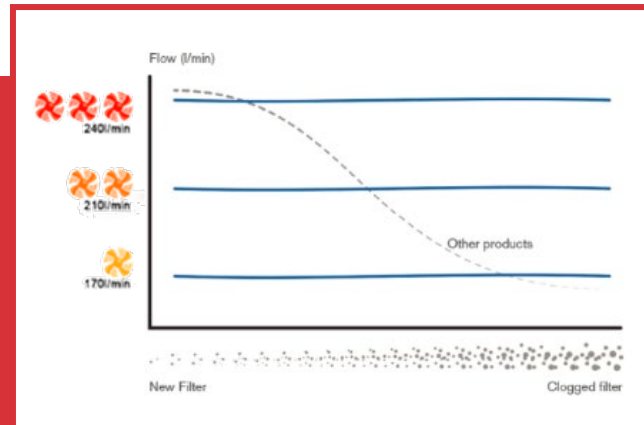
# Vizor Air/3X Powered Air Purifying Respirator

## Highest filter quality TH3P



More than 99.8% of particles are filtered out.

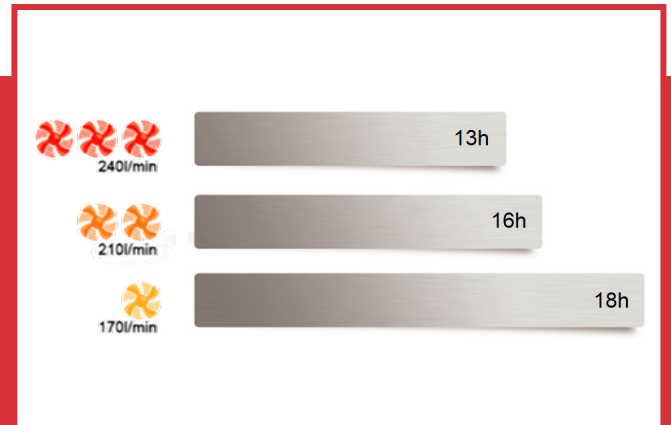
## Constant air flow



Thanks to a built-in sensor, the set air volume always remains constant.

When the filter is saturated, a controlled change to the next lower blower level takes place.

## Battery operating time



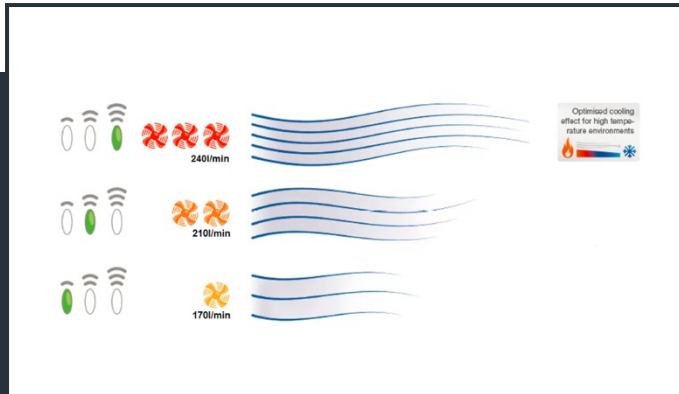
High-performance lithium-ion battery with long operating time reduces battery replacement.

Operating time up to 18h\*

(\* min. Operating time stage 1, new filter, at room temperature)

# Vizor Air/3X Powered Air Purifying Respirator

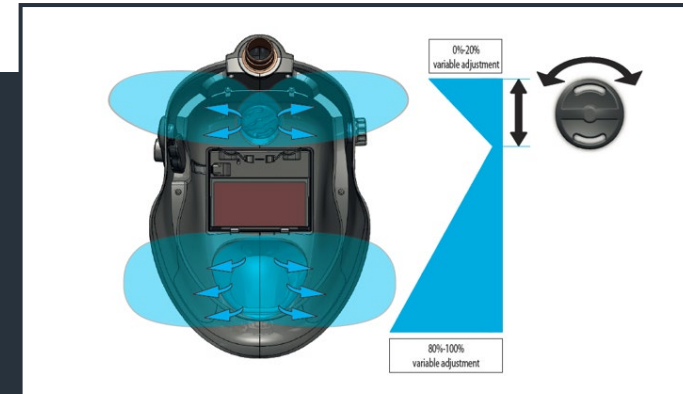
## High performance airflow



Easy selection of three different air flows from 170l/min to 240l/min:

- Best cooling effect through air flow selection up to 240l/min
- Individuelle Einstellbarkeit erhöht den Komfort

## Air distribution in the helmet



- The unique air distribution inside the welding helmet creates a comfortable working environment.
- This system also provides pleasant cooling for the welder.



# Technical Details & Portfolio

	Vizor Air/3X
<b>Flow rates</b>	
Level 1:	min. 170 nl/min
Level 2:	min. 210 nl/min
Level 3:	min. 240 nl/min
Filter	TH3P R SL Filter for TH3P System (EU)
<b>Battery</b>	
– Voltage / capacity	14.8 V / 3.25 Ah
– Charging cycles	> 500
– Charging time	approx. 8h
<b>Noise level</b>	max. 70 dB(A)
<b>Total weight</b>	1575 g (without helmet)
<b>Standard</b>	EN 12941:1998 TH3
<b>Certification</b>	CE

Part number	Part Description
42,0510,0350	Vizor Air/3X fan-filter unit in the hard-top case
42,0510,0351	Vizor Air/3X Connect
42,0510,0352	Vizor Air/3X Ergo Connect
42,0510,0353	Vizor 4000 Air/3X Professional
42,0510,0354	Vizor 4000 Air/3X Ergo Professional
42,0510,0355	Vizor 4000 Air/3X Plus
42,0510,0356	Vizor 4000 Air/3X Ergo Plus
42,0510,0357	GrindMask Air/3X
42,0510,0358	GrindMask Air/3X Ergo
<b>Consumables</b>	
42,0510,0185	Vizor Air/3 TH3P Particle filter with prefilter
42,0510,0188	Vizor Air/3 Prefilter (50 pcs. Ina set)
<b>Accessories</b>	
42,0510,0362	Vizor Air/3X odor filter kit incl. push-on frame
42,0510,0363	Vizor Air/3X odor filter



# Product Overview



**Vizor Connect**

42,0510,0312



**Vizor Air/3X Connect**

42,0510,0351



**Vizor Air/3 Fresh-Air  
Helmet Connect**

42,0510,0344



**Vizor Air/3X Ergo  
Connect**

42,0510,0352

# Product Portfolio

Part number	Part description	Info
42,0510,0312	Vizor Connect	Helmet
42,0510,0344	Vizor Air/3 fresh-air helmet Connect	Air/3 helmet
42,0510,0351	Vizor Air/3X Connect	Air/3X system
42,0510,0352	Vizor Air/3X Ergo Connect	Air/3X system incl. shoulder strap
42,0510,0317	Front cover lens Vizor Connect (5 pcs. per set)	Spare part
42,0510,0315	Inside cover lens Vizor Connect (5 pcs. per set)	Spare part
42,0510,0322	Inside cover lens Vizor Connect 1.00 Diopter	Optional accessories
42,0510,0323	Inside cover lens Vizor Connect 1.50 Diopter	Optional accessories
42,0510,0324	Inside cover lens Vizor Connect 2.00 Diopter	Optional accessories
42,0510,0325	Inside cover lens Vizor Connect 2.50 Diopter	Optional accessories
42,0510,0336	Inside cover lens Vizor Connect; shade level 1.0 (5 pcs. per set)	Optional accessories
42,0510,0345	Inside cover lens Vizor Connect; shade level 2.0 (5 pcs. per set)	Optional accessories
42,0510,0326	Head band complete Vizor Connect	Spare part
42,0510,0018	Head band Vizor / Fazor (2 pcs. per set)	Spare part
42,0510,0200	Comfort band (2 pcs. per set)	Spare part
42,0510,0321	Vizor Air/3 Connect face seal	Spare part
42,0510,0327	USB-C cable Vizor Connect	Spare part
42,0510,0329	USB-C cover Vizor Connect (2 pcs. per set)	Spare part
42,0510,0328	Nose guard pad Vizor Connect (2 pcs. per set)	Optional accessories



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