

+ SWISS MADE



castelberg  
DESIGN

# smartglass M3 IPL

aktive Schutzbrille

active safety glasses

ARBEITEN IN FARBE



## INSTRUCTION MANUAL TECHNICAL SPECIFICATIONS SAFETY INSTRUCTIONS

### Warning!

This active safety glasses **smartglass M3 IPL** are exclusively designed to protect IPL-trained personnel. Only to be used for IPL treatments.

Please read the instruction manual before first use.

This personal protective equipment (PPE) is complies with EU regulation 2016/425, with effect from April 21, 2018.

### Characteristics

CE certified according EN166, EN170, EN172, EN379, ISO 12609-1

Maximum eye protection with minimum weight

Combining comfort with safety

Optics: full color recognition, natural view

### Application

The active safety glasses **smartglass M3 IPL** were specifically developed for people working with IPL-pulses. The active safety glasses **smartglass M3 IPL** reliably protect 100 % against harmful IPL-pulses while working comfortably.

The active safety glasses **smartglass M3 IPL** are fully operational out of the box. There is no on/off switch. The active safety glasses **smartglass M3 IPL** will automatically control shade level.

### Technology

The active safety glasses **smartglass M3 IPL** light state's shade level is < 3. Upon the firing of an IPL-pulse, the active safety glasses **smartglass M3 IPL** reliably switches from the light state to a dark state of shade level 8 within less than a millisecond. The electronics were designed to only start darkening once an uncomfortable illuminance threshold is reached.

The active safety glasses **smartglass M3 IPL** protects in the wavelength range of 200 – 3000 nm. The light state of the **realcolor** optics is clear and color neutral. This allows the user to accurately perceive skin properties as well as signal colors.

### Technical specifications

Frame material:	Polycarbonate (PC), skin-friendly
Functional insert material:	Glass/Plastics, skin-friendly
Total weight:	42 g
Dimensions:	170 x 150 x 50 mm
Standards:	CE: EN166, EN170, EN172, EN379, ISO 12609-1
Warranty:	5 years
Lifetime:	min. 6 years including battery lifetime

### Marking CE

3 / 3 < 8 GEO 1 / 1 / 1 / 2 / 379 CE

Light State	Dark Stages	Manufacturer	Optical Class	Diffusion of light Class	Homogeneity Class	Angle dependence	CE Standard
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An original **smartglass M3 IPL** must have this marking!

Manufacturer:	castelberg design gmbh Räffelstrasse 29 8045 Zurich Switzerland
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Notified body: ECS GmbH  
Hüttfeldstrasse 50  
73430 Aalen  
Germany

The declaration of conformity can be found on our website:  
[castelberg-design.com](http://castelberg-design.com)

### Maintenance, lifetime and warranty

The active safety glasses **smartglass M3 IPL** requires no maintenance. It should be cleaned with a microfibre towel or any other towel designed to clean glasses. For disinfection use a standard disinfectant with a towel. Do not pour liquids directly on to the glasses.

Power is provided by an integrated lithium ion battery. The battery lifetime is 6 years at minimum and it can be replaced by the manufacturer.

Please dispose the product at the end of its lifetime in an appropriate manner for electronics.

The active safety glasses **smartglass M3 IPL** should be stored at temperatures from -10°C to 40°C+ and at a relative humidity below 80 %. Avoid moisture and sunlight. Storage in conjunction with acids, alkalis, oils and organic solvents is dangerous.[LG1]  
The operating temperature is between -10°C and +55°C.  
Prolonged use outside of ideal temperatures can lead to damages that are not covered by the warranty.

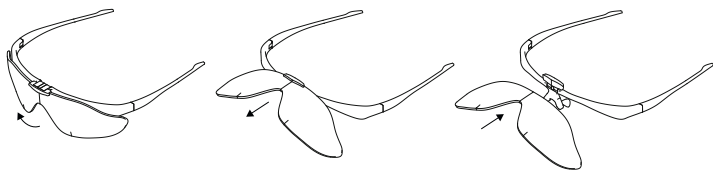
The warranty for material and manufacturing mistakes is 5 years. Damages that result from physical abuse of the product are not covered by the warranty.

The warranty only applies for the intended use case and only to unmodified products. Besides legit warranty claims, no other damages are covered.

### Changing of cover lens and functional insert

#### Cover lens

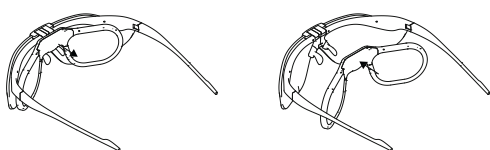
Flip the cover lens upward. Pull the cover lens out of its holder. Insert a new cover lens and let it snap into place.



#### Functional insert

Push a coin or a similar flat solid object between the frame and the functional insert. Twisting the coin will remove the insert.

Align the cam of the functional insert with the corresponding hole on the frame. Gently push the functional insert into the hole of the frame until it snaps into place.



### Security advice

The active safety glasses **smartglass M3 IPL** may not be used for other purposes besides protection from IPL-pulses.

In rare cases allergic reactions to the glasses are possible. If the

glasses cause skin irritation, the active safety glasses **smartglass M3 IPL** should not be used further and medical advice is recommended.

The active safety glasses **smartglass M3 IPL** is certified as the combination frame, cover lens and functional insert. The functional insert should not be used without the cover lens.

If the active safety glasses **smartglass M3 IPL** do not operate normally or are clearly damaged they may not be used anymore.

Wearing the active safety glasses **smartglass M3 IPL** on top of other glasses can transmit shocks of high-speed projectiles and can therefore be dangerous to the wearer.

Any application of the **smartglass M3 IPL** outside of the specified conditions, especially extreme temperatures and exposure to high speed particles, is forbidden.

### Accessories and spare parts

Frame, cover lens and functional insert are easily exchangeable. They can be ordered individually.

Frame castelberg white complete with cover lens clear blue  
Item no.: 20.051

Cover lens clear blue  
Item no.: 10.810

Functional insert M3 IPL  
Item no.: 20.055

### Distribution

Distribution is taken care of by the qualified retailers. We gladly recommend you a suited distribution partner.

Please visit our website [castelberg-design.com](http://castelberg-design.com) where you can find further information.

If you have any questions, please do not hesitate to contact us. We will gladly help you.

### Distributor: