

ion VISION, Inc.

All-Glass Optical Lenses



About ion VISion

Since 2003, we have been committed to providing the highest quality, innovative medical devices to our customers and deliver superior product performance, reliability and customer service.

Our products are developed based upon physician driven needs for innovative solutions.

ion VISion knows how committed you are to helping patients manage their health. We share your commitment with a passion for providing lifelong solutions that can assist you in managing patients' medical conditions. We are committed to providing the ophthalmic physician with the most advanced options for treating a broad range of ophthalmic clinical indications. ion VISion's mission is to stay at the forefront of the medical device industry by offering innovative and versatile solutions to today's medical community.

Working closely together with physicians from all over the world, ion VISion's product development team of engineers and product managers identify real clinical needs. This know-how provides the basis for developing high-quality products with increased benefits for patients, physicians, surgeons and O.R. staff.

Note: None of the practitioners mentioned in this catalog have any financial interest in ion VISion, Inc.





Table of Contents

ezView BIO Lenses	4
Steam Sterilizable SurgiView	5
ezView Non-Contact Slit Lamp Lenses	6
OmniView Contact Slit Lamp Lenses	8
DirectView Direct Imaging Lenses	10
DirectView Gonioscopy Lenses	11
SurgiView Surgical Lenses	12
About Our Enhanced AR Coating	13
Cleaning & Care	14
Ordering Information, Warranty & Returns	15



eZView 15D



The high magnification provided by our 15 diopter lens is well suited for detailed observation of the optic nerve head and macula.



eZView 20D

There's a 20D in every physician's pocket. Our improved design delivers superior image clarity throughout the viewing field. Computer optimized lens surfaces eliminate optical aberrations. A true "20 diopter" design. Available in colors: black, blue, purple, red & green.



eZView 22D



An excellent mid-range lens which delivers the critical high definition viewing of a 20 diopter coupled with the wide-field viewing of higher diopter lenses. An excellent "multi-purpose" lens!



eZView 25D

Ideal for use in patients with smaller palpebral fissures. Offers median field of view and magnification.



“Great lenses! The ION BIO lens has excellent optical qualities for viewing the retina, with a wide range of pupil sizes.”

— Gregory G. Kautz, OD
Optometric Physician
Portland, OR

eZView

All ion Vision lenses are composed entirely of precision instrument-grade glass for superior diagnostic and treatment performance.

Our optimized design and exclusive enhanced broadband coating ensures maximum image integrity.

Just one look and you'll recognize the quality advantage that our ezView BIO lenses deliver.

eZView 28D



Designed for small pupil diagnosis and treatment. Excellent wide-field viewing. Complementary lens: 20D or 22D.



eZView 30D



Excellent for use on patients with small pupils. Delivers a wide field of view and stable shorter working distance.



eZView 40D

Specifically designed to deliver the widest field of view of any biomicroscopy lens available. Ultra-wide field viewing. Ideal for pediatric ophthalmoscopy.



Steam Sterilizable | SurgiView 20D & 28D

ion VISION SurgiView lenses are composed entirely of instrument quality glass – there is no plastic to fog, haze or crack during everyday working conditions.

This amazing lens coating is a TRUE steam sterilizable coating which doesn't require complex care instructions or lens maintenance. *Learn more on page 12.*



	15D	20D	20DSS	22D	25D	28D	28DSS	30D	40D
Part Number	P-IOV-006	P-IOV-002	P-IOV-002-SS	P-IOV-014	P-IOV-007	P-IOV-008	P-IOV-008-SS	P-IOV-009	P-IOV-010
Viewing Range	36°-47°	46°-60°	46°-60°	56°-73°	52°-68°	53°-69	53°-69	58°-75°	69°-90°
Image Mag.	4.11x	3.08x	3.08x	2.68x	2.54x	2.27x	2.27x	2.15x	1.67x
Laser Spot Mag.	.24x	.32x	.32x	.37x	.39x	.44x	.44x	.47x	.6x



eZView 95



Achieve the high magnification viewing of a 60 diopter lens with the wide field imaging of a 90 diopter! Superior stereoscopic design.



eZView 115



High-index glass and a superior optical design for diagnostic and treatment capabilities that exceed competitive designs. Use in lieu of the 90 diopter for wider field viewing.



eZView 124SP



Perfect for the difficult to dilate patient. You'll achieve an excellent view of the fundus through pupils as small as 3mm.



eZView 125



An excellent "general use" slit lamp lens. Ideal balance of high magnification viewing and small pupil capability.

“The IonVison eZView 124SP has excellent optical quality for viewing the retina and vitreous, especially in a small pupil. Usually this kind of lens is difficult to use because it can collect moisture easily, but eZView 124SP is very difficult to collect that moisture. This lens is one of the best non-contact fundus lenses through a non-dilated pupil!”

—AKIRA NEGI, M.D.
Professor & Chairman Department of Ophthalmology
Kobe University Graduate School of Medicine

	eZView 95	eZView 115	eZView 125	eZView 124SP
Part Number	P-IOV-012	P-IOV-011	P-IOV-001	P-IOV-013
Viewing Range	98°	116°	124°	124°
Image Mag.	1.0x	.76x	.57x	.45x
Laser Spot Mag.	1.0x	1.3x	1.75x	2.22x



eZView 60D

The high magnification offered by the 60D is ideal for detailed observation of the posterior pole. Superior stereoscopic properties.



eZView 78D

Ideal general diagnostic and treatment lens. Available in colors: black, blue, purple, red & green.



eZView 90D

The standard slit lamp biomicroscopy lens. Our 90D design delivers superior clarity, stereopsis and outstanding small pupil capabilities. Compare it to your 90D and see the difference.
Available in colors: black, blue, purple, red & green.

Enhanced Broadband AR Coating

Our exclusive anti-reflective lens coating is specifically designed to minimize ambient reflection, delivering a pristine retinal image! This unique AR formula is optimized for use with all laser systems.

	eZView 60D	eZView 78D	eZView 90D
Part Number	P-IOV-005	P-IOV-004	P-IOV-003
Viewing Range	81°	97°	89°
Image Mag.	1.15x	.93x	.76x
Laser Spot Mag.	.87x	1.08x	1.32x



OmniView 85



Ultra-high magnification viewing of the posterior pole. Perfect for focal laser treatment of central retinal conditions.



OmniView 135

Designed to deliver the ideal laser spot size for photodynamic therapy procedures. Provides excellent visualization of the choroidal neovascular membrane. Also well suited for focal/grid laser therapy.



“The OmniView 165 delivers a terrific wide field view for PRP and other procedures. The all-glass contacting element doesn’t haze over time like other designs, which means I get a sharp, high contrast view every time I use the lens.”

— Peter K. Kaiser, MD
Director, Retinal Clinical Research Center
Cole Eye Institute
Cleveland, OH

Glass is better...

All imaging components in our contacting lens systems are made entirely from glass – even the contacting element – to ensure maximum image integrity. The glass contact element also allows for non-fluid applications, alcohol and peroxide cleaning, and long term durability. Say goodbye to the cracking, crazing and hazing that are typically associated with plastic optics.

These are the ONLY lenses on the market with this exclusive feature. No other manufacturer offers such a wide array of all-glass lenses. It’s your money, why settle for less?





OmniView 137



Ideal for use on difficult to dilate patients at the slit lamp. This lens delivers an outstanding retinal view through pupils as small as 3mm.



OmniView 145

Ideal for wide field observation and treatment of the retina. Great balance of magnification and field of view.



OmniView 165

Ultra-wide field imaging to the ora serrata. The OmniView provides an incredibly clear view of the retina from the posterior pole to the periphery without the need of shifting or tilting the lens. Perfect for PRP.



	OmniView 165	OmniView 145	OmniView 137
Product Number	P-IOV-016	P-IOV-017	P-IOV-015
Viewing Range	165°	144°	137°
Image Mag.	.5x	.51x	.44x
Laser Spot Mag.	2.0x	1.97x	2.27x

	OmniView 135	OmniView 85
Product Number	P-IOV-018	P-IOV-019
Viewing Range	137°	84°
Image Mag.	.66x	1.06x
Laser Spot Mag.	1.50x	.94x



DirectView Suture Lysis

Designed for laser suture lysis after anterior segment surgery. Large contact surface compresses conjunctival blood vessels and provides a clear view of the sutures as well as enables dynamic rotation of the lens for precise laser placement.

DirectView Suture Lysis TS/TST

This design features a precision compression tip that enables you to cut sutures that inaccessible with prior suture lysis lens designs. Highly stable design with superior magnification.

- TS provides a rounded tip.
- TST provides a tapered tip.



DirectView Fundus 1.0

Designed for superior high magnification viewing and treatment of the optic nerve head and macula.

DirectView Capsulotomy

Promotes precise laser placement on the capsular bag.



DirectView Iridectomy/Iridotomy

Provides an ideal combination of magnification and laser spot magnification for iridectomy and iridotomy procedures. Stable lens design.

No fog. No mess. No kidding.

ion VISion gonioscopy and direct imaging lenses are composed entirely of instrument quality glass – there is no plastic to fog, haze or crack during everyday working conditions. All no flange gonioscopy and direct imaging lenses are composed of a single glass element providing a stable, durable lens design.

You can use our advanced lenses with or without fluid! All ion VISion DirectView lenses come standard with our advanced broadband coating.

	DirectView Suture Lysis	DirectView Suture Lysis TS/TST	DirectView Fundus	DirectView Capsulotomy	DirectView Iridectomy/Iridotomy
Part Number	P-IOV-045	P-10V-046 TS P-10V-051 TST	P-IOV-034	P-IOV-030	P-IOV-031
Viewing Range	n/a	n/a	48°	n/a	n/a
Image Mag.	1.25x	1.5-2.0x	1.0x	1.57x	1.6x
Laser Spot Mag.	1.0x	1.0x	1.0x	.66x	.63x

4 Mirror No Flange

Perfect for fast and effective anterior segment examinations! Four 64° mirrors offer complete 360° view with minor rotation. 8mm all-glass “no fluid” surface diameter. Magnification is .9x. Laser spot magnification factor is 1.1x.



4 Mirror Flange

Similar to above but with “flanged” 14.5mm contact surface which is ideal for laser treatment Magnification is .9x. Laser spot magnification factor is 1.1x. No fluid design due to glass contacting element.



3 Mirror No Flange

ion VISion 3 mirror lenses are of a traditional design, incorporating 3 mirrors angled at 60°, 66° and 78°. An 11.5mm contacting surface facilitates dynamic compression technique. Magnification and laser spot magnification factor is 1.0x.



3 Mirror Flange

This 3 Mirror version contains a “flanged” 14.5mm contact surface which is ideal for laser treatment. Magnification and laser spot magnification factor is 1.0x. No fluid design due to “all-glass” contacting element – an ion VISion exclusive feature!



1 Mirror SLT & SLT Flange

This single element, ALL GLASS lens has been developed specifically for angle examinations and Selective Laser Trabeculoplasty (SLT) procedures. The DirectView 1 Mirror SLT Lens has an offset top convex surface that places the image and laser application precisely over the internal reflection viewing mirror with a magnification and laser spot factor of 1.0x.



1 Mirror Flange

This single element ALL GLASS lens has an offset top convex surface that places the image and laser application precisely over the viewing mirror and application area. “Flanged” 14.5mm contact surface is ideal for laser treatment.



	3 Mirror Flange	3 Mirror No Flange	4 Mirror Flange	4 Mirror No Flange	1 Mirror SLT & SLT Flange	1 Mirror Flange
Part Number	P-IOV-025	P-IOV-026	P-IOV-028	P-IOV-029	P-IOV-070 P-IOV-071	P-IOV-021
Mirror Angles	60°/66°/78°	60°/66°/78°	4 x 64°	4 x 64°	63°	63°
Image Mag.	1.0x	1.0x	.9 x	.9x	1.0x	1.0x
Laser Spot Mag.	1.0x	1.0x	1.1x	1.1x	1.0x	1.0x

Steam Sterilizable!

SurgiView Direct Imaging Vitrectomy Lenses

These advanced, ALL GLASS vitrectomy lenses are designed to fit a standard vitrectomy ring or lens handle. The first TRUE durable, autoclavable lens coating available for safe, repeated steam sterilization combines the attributes of our superior broadband AR coating to reduce reflection and glare.



SurgiView Direct .5

Wide-field direct imaging biconcave vitrectomy lens that delivers a wide 48° view of the posterior pole during surgery.



SurgiView Direct .75

Median-field direct imaging biconcave vitrectomy lens.



SurgiView Direct 1.0

High-magnification direct imaging plano vitrectomy lens.



SurgiView 1.5

Ultra-high-magnification direct imaging vitrectomy lens. Large imaging plane, lens is oversized at the top - yet still fits in any standard vitrectomy ring or holding handle. Made of high-index glass for peak performance.

	SurgiView .5	SurgiView .75	SurgiView 1.0	SurgiView 1.5
Part Number	P-IOV-047	P-IOV-048	P-IOV-038	P-IOV-040
Viewing Range	48°	28°	36°	36°
Image Mag.	.5x	.75x	1.0x	1.5x



Steam Sterilizable SurgiView 20D & 28D

Until now, you've been promised "Autoclave-safe" lenses only to receive specialized cleaning instructions and uncoated "special glass" lenses that accumulate water deposits and cause excessive glare in the O.R.

No More! Finally, you have a **real** choice.

ion VISion has developed an amazing coating – a decade in the making – which is a TRUE steam sterilizable coating. It doesn't require complex care instructions and it really works. Try it today, you won't be disappointed.



Multi Lens Cases

ION VISION now offers multi-lens cases in a 3"x4" size to hold either 3 or 4 of your ION VISION lenses.

3 Lens Cases:

P-IOV-CS01: Lens 1: EZVIEW 15D or 20D or 22D, Lens 2: EZVIEW 95 or 60D or 78D, Lens 3: EZVIEW 90D

P-IOV-CS02: Lens 1: EZVIEW 15D or 20D or 22D, Lens 2: EZVIEW 95 or 60D or 78D, Lens 3: EZVIEW 115

4 Lens Cases:

P-IOV-CS03: Lens 1: EZVIEW 15D or 20D or 22D, Lens 2: EZVIEW 90D, Lens 3: DIRECTVIEW 3 MIRROR & NF or 4 MIRROR & NF or

CAPSULOTOMY or IRIDOTOMY, Lens 4: EZVIEW 95 or 60D or 78D

P-IOV-CS04: Lens 1: EZVIEW 15D or 20D or 22D, Lens 2: EZVIEW 115, Lens 3: DIRECTVIEW 3 MIRROR & NF or 4 MIRROR & NF or CAPSULOTOMY or IRIDOTOMY, Lens 4: EZVIEW 95 or 60D or 78D

NOTE: We cannot guarantee size of other company's lenses fitting in these holes, but it is foam and pliable.

What is an Anti-Reflective (AR) coating?

The anti-reflective surface coating is one of the most important components of lens quality. Anti-reflective coating is an extremely thin, invisible multi-layer (5 or more) coating of metal oxide that is deposited on both surfaces of the lens. This multi-layer coating reduces the amount of light reflected from the lens surface allowing more light to reach the retina and thus improving image transmission.

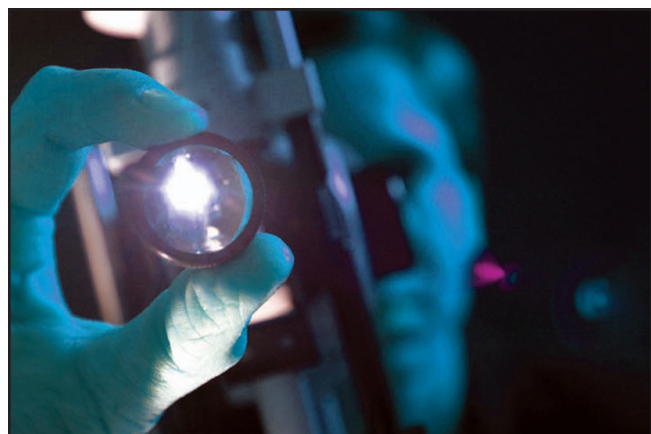
Why do you need AR coatings?

Between 4-16% of light is reflected back or lost by a non-coated lens. By adding an AR coating, the overall transmission of the lens can be increased by up to 15%!

Why does the ion VISION AR coating have a colored hue?

As we move through the visible spectrum of violet, blue, green, yellow, orange and red, the wavelengths (400 - 700 nm) become longer. AR coatings work at different degrees across the color spectrum based on their design. Hence the anti-reflectance effect is not the same for all colors, which results in a slight color shift to the lens. This color shift can be controlled in order to maximize image transmission as well as offer a pleasing cosmetic hue.

Our exclusive coating was designed to be effective in the visible wavelength range while optimized for the all laser treatment spectrums.



As a result, the ion VISION Broadband AR Coating was created assuring nearly full transmission of the laser application.

Cleaning Instructions

1. As all ion VISION, Inc. lens components are completely glass, it is possible to clean the contact element's concave surface or coated imaging lens with alcohol, peroxide, or acetone. If these cleaning solutions are unavailable or further cleaning is desired, then proceed with these additional cleaning steps.
2. Immediately upon removal from patient's eye or use, thoroughly rinse the entire lens in cool or tepid water.
3. Place a few drops of mild cleaning solution, such as diluted liquid dish soap, or similar on a clean moistened 100% cotton cloth, ball, or swab depending on the cleaning area.
4. Gently clean the entire lens, insuring the contact concave surface and/or convex surfaces have been thoroughly cleaned to remove any debris, dirt, film, fingerprints or residue. Do not apply excessive pressure as this may cause scratching of the glass lens and/or coating.
5. Rinse entire lens thoroughly in cool or tepid water.
6. Dry the lens by using a clean 100% cotton cloth, ball, or swab or non-linting cotton tissue insuring to remove all water droplets from the imaging surfaces.
7. Proceed with disinfecting or sterilization instructions as required.

Disinfecting Instructions

1. Two methods of disinfection are recommended. To avoid lens damage, do not exceed recommended exposure time:
 - Glutaraldehyde: 2% or 3.4% aqueous solution. Temperature per manufacturer's instructions. Recommended exposure time 20-25 minutes.
 - Sodium hypochlorite / Bleach: 10% solution mixed at 1 part bleach to 9 parts water Recommended exposure time 10-12 minutes.
2. Immerse the lens entirely in the chosen solution for the recommended exposure time. Either place lens on its side or insure all air bubbles are removed from under the lens for complete exposure.

3. Remove lens from the solution after recommended exposure time and rinse lens thoroughly with cool or tepid water to remove all disinfection solution with at least 3 rinse cycles of 1 minute duration.
4. Dry the lens by using a clean 100% cotton cloth, ball, or swab or non-linting cotton tissue insuring to remove all water droplets from the imaging surfaces.
5. Store in a dry storage case.

Ethylene Oxide Sterilization Instructions

Minimum Time: 60 minutes **Temperature:** 130°F (54°C), do not exceed 150°F **Aeration Time:** 12 hours

Steam Sterilization Instructions SurgiView Lenses ONLY

Follow the standard hospital vacuum steam sterilization procedures for instruments or use these as guidelines.

Prep: Place SurgiView lenses in a protective sterilization case.

Process: Standard Cycle (wrapped)

Temperature: 270°F (134°C)

Time: 15 minutes minimum or

Temperature: 250°F (121°C)

Time: 30 minutes minimum

CAUTION: Do not boil lenses. Do not autoclave (vacuum steam sterilize) lenses except for SurgiView lenses. Do not disassemble lenses for any reason. Insure contact surface is chip/scratch free and do not use a lens that has a chip or scratch on contact surface. Insure all lens surfaces are clean prior to diagnosis and do not treat / use a laser through a non-clean surface.

Ordering Information

To place an order or to locate an authorized distributor, contact ion VISion at (760) 814-7099, sales@ion-vision.com or visit us online at www.ion-vision.com.

Warranty

ion VISion, Inc. ("IVI") takes tremendous pride in designing, developing, manufacturing, distributing, and supporting high quality ophthalmoscopic lenses (the "Product"). If for any reason a Product does not meet or exceed your expectations, you may return it to IVI within 30 days of purchase for a full refund of the purchase price, less shipping. IVI warrants all of its products against defects in materials and workmanship for 1 year from the invoice date. Warranty service will not be provided without receipt or proof of purchase from IVI or an authorized distributor of IVI. Warranty repairs will include all labor, adjustments and replacement parts. The Warranty does not cover shipping damage from the returning party and it is the returning party's responsibility to properly package, insure, and track the product throughout the return shipping process. The Warranty does not cover any damages to the product caused in whole or in part by the customer's failure to follow the recommended cleaning, disinfection and sterilization instructions and/or precautions contained in the Instruction For Use, which shall be determined solely by IVI. The Warranty also does not cover service required because of disassembly, unauthorized modifications or service, misuse, abuse, droppage, etc. unrelated to the design and manufacturing processes of IVI, as determined solely by IVI.

Except for the above express warranty, no other warranties, express or implied (including merchantability or fitness for any particular purpose), are made or applicable to this agreement. IVI will not be liable to purchaser or any third party for consequential, incidental or special damages arising directly or indirectly from the manufacture, sale or use of IVI's products, including ophthalmoscopic lenses, and in no event will IVI's liability under this agreement exceed the amount of the purchase price received by ion vision for the product.

Product Return Policy

All returned Products must be accompanied by a Return Authorization Number to qualify for a refund. Please contact IVI's Customer Service Department prior to returning the Product to obtain a Return Authorization Number. Customers shall be responsible for returning Products for warranty service or returned goods to ion VISion, Inc., 105 Old Legacy Lane Chapel Hill, NC 27516 USA. IVI recommends that all shipments to IVI be made via UPS, prepaid and insured for full value. Products damaged during return shipping do not qualify for a refund or the warranty. Please clean and disinfect all Products prior to returning them to IVI.

If you have questions regarding or ion VISion, Inc.'s Policy Statements, please contact ion VISion, Inc.

Telephone: 1.760.814.7099
Fax: 1.760.494.4454
Email: sales@ion-vision.com
Website: www.ion-vision.com





105 Old Legacy Lane
Chapel Hill, NC 27516 USA
P: 760-814-7099
sales@ion-vision.com
www.ion-vision.com