

# laservision®

## Kokyo

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## Laser Safety

# PROTECTION

Barriers / Windows / Enclosures

v4

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we protect your eyes

# laservision®

Rapid advancement in laser technology makes laser safety more important than ever before. New lasers in medicine, defense, research and industry present unique challenges for safety and personal protection.

**laservision USA**, part of uvex safety group, is committed to providing you the best and most advanced laser safety protection. Our Certified Laser Safety Officers (CLSOs) are available to help customers worldwide find the protection they require.

## LASER SAFETY PROTECTION - CATALOG

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**we protect your eyes**

## Our brand vision

As a leading manufacturer of laser safety products, we are committed to providing innovative products and services, based on the precise needs of our customers. Protecting you from artificial optical radiation is our core mission. With our high level of proficiency, new ideas and a dedication to customer service, we will meet this challenge.

Our attention to detail throughout the entire process allows us to guarantee high-quality, dependable products and personal service. We operate according to three core brand values to ensure we meet the highest standards of safety and reliability: Innovation, Quality and Customer Orientation.



### Innovation

laservision delivers certified eye protection against laser radiation. As advancements in laser technology continue, we constantly address new challenges with innovative products and services. Comprehensive experience and a motivated team are the perfect combination to ensure the continued development of new laser safety solutions. We stay true to our mission of **“we protect your eyes”**.

### Quality

Since 1987, the name laservision has been synonymous with first-class quality you can rely on. Our well-established technology and development expertise ensures that our products are a step ahead. ISO-certified processes guarantee the reliability, precision and durability of laservision products.

### Customer orientation

We understand the precise needs of our customers. This knowledge forms the basis and focus of our work. By request, we develop and manufacture customer-specific laser protection products in close collaboration with independent certification bodies. From individual product development to qualified advisory services, protection of health is the core focus at laservision, in line with the uvex group's brand mission: protecting people.

# laservision®

## Our products and services

As your worldwide **LASER SAFETY** expert for more than thirty years, laservision offers a full-array of laser safety products, keeping you safe from laser applications in medical, research, military, industrial, manufacturing and more.



### **Eyewear and filters**

Manufactured in-house, we offer a wide range of laser safety eyewear filters that provide varying degrees of protection and visible light transmission (VLT) levels, and a wide selection of frames that offer comfort, style, durability, and maximum field of view. Custom solutions are created based on your laser safety requirements.



### **Barriers** (Curtains, Panels and Enclosures)

We have developed a complete line of laser protection systems with well-adapted accessories tested to withstand a variety of laser output parameters. Barrier frames are designed to reduce specular reflections and are supported by heavy-duty hardware that can be mounted or portable to meet your specifications. Curtains and panels can be custom ordered to fit any space.



### **Windows**

Our large selection of laser safety windows can be customized to facilitate most laser environments, including doors, rooms, walls, laser systems and enclosures. The ultimate protection is our Active Window that will automatically shut down the laser when struck by a stray beam.



### **Consulting, training and audits** (Online or in-person)

**Laser Safety Officer** and Awareness training programs are created and taught by Certified Laser Safety Officers (CLSOs). These programs are designed to address safety issues and present methods for controlling laser hazards. Custom training options are available. Contact us for laser safety audits and regulatory approval assistance to be in compliance and avoid accidents and penalties with OSHA and ANSI.

# We tailor **laser safety** barriers to your needs!

- Curtain and panel systems
- Fast lead times
- Design support by our CLSOs
- ISO-Certified manufacturing
- Quality materials and workmanship

We build our laser safety barriers in-house with guaranteed quality and quick lead times. Our team will work with you to find the best solutions for your project requirements.

## Barriers, windows and enclosures

These systems are used to contain hazardous beams and reflections. Tested to withstand laser exposure according to a variety of output parameters such as beam power, beam size, exposure time, and wavelength. Frames and hardware are designed to reduce specular reflection. Additional items include: **domes, interlocks, signs and labels.**

Window  
P5P10



### Custom barriers

For workplace installations, custom options can take many forms and can be integrated into machinery housing. laservision offers standard and customer-specific solutions for screening that comply with the applicable standards.

Due to our wide selection of materials, sizes and solutions, we advise our customers to contact us with their laser and space specifications to find the best possible solution.



Image courtesy  
of Newport

**Please contact our Laser Safety Experts to discuss your requirements. 800-393-5565**

## Laser Safety Custom barriers

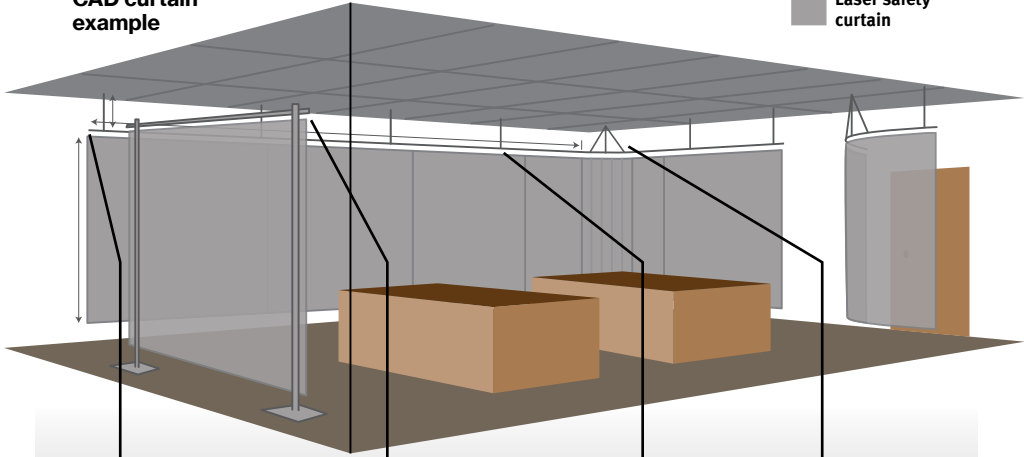
### Let us help you create your next barrier project.

laservision has CLSOs on staff to help you design your layout using CAD (Computer Aided Design) software. Manufactured in-house with guaranteed high-quality materials and short lead times. Curtains and panels can be tailor-made in different sizes to fit any room.



### CAD curtain example

■ Laser safety curtain



Wall end mount



Track with floor-mounted support



Ceiling suspended mount

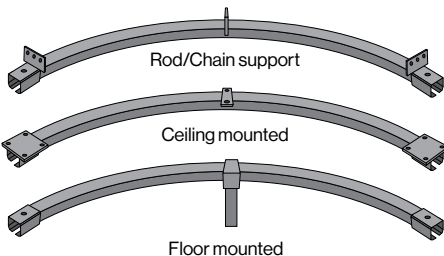


Curved roller track with chain support

### Laser safety curtain mounting options - tracks and accessories

Industrial grade, tough, galvanized steel hardware is our standard mounting solution. We build custom mounting options, including ceiling, floor and along the wall, based on your laser safety application.

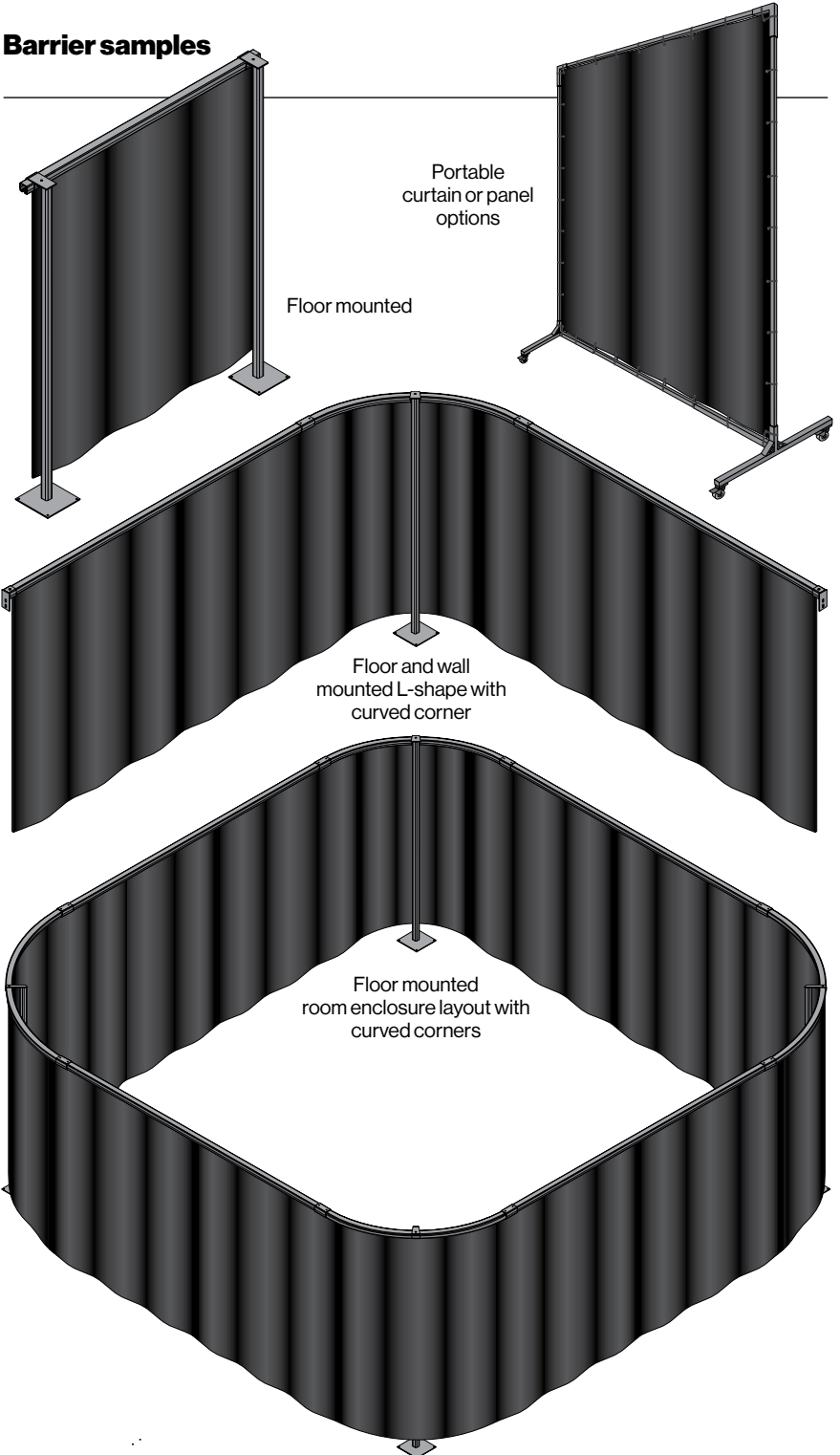
#### Curved tracks samples



#### Barrier options

- Steel wheel trolleys
- Curved or straight tracks
- Base plates for floor mounting
- Window covering and valences
- Black powder coated hardware
- Laser safety window inserts
- Fasteners (hook & loop or heavy duty 3M dual lock)
- Grommets
- Magnetic options
- Sign pockets

**Barrier samples**



**Our Certified Laser Safety Officers are available to help.  
Call us at 800-393-5565**

## Laser Safety Curtains

At laservision, we manufacture standard and custom laser safety curtains onsite with the fastest lead time in the industry. Custom-made curtains are tailored to your specific requirements. Our mounting options include ceiling, floor and along the wall.



### Standard curtains BCO

Great for basic needs and simple designs. You can build a laser curtain system to fit your room by connecting several curtains together with hook & loop fasteners. Size 58" x 96" in-stock and ready to ship. Available in all three curtains types: F5P01, F5P02 and F5P06.



**Window covers:** Options for grommet, hook & loop, or magnet installation.



## Laser safety curtains

### Portable curtains BC4

This curtain offers mobility.

- Heavy-duty steel frame
- Easy to move and store
- Standard and custom sizes






### Roller shades BRS

Easily rolls up when the laser is not in use.



## Curtain specifications

Part #	F5P06 Curtain	F5P01 Curtain	F5P02 Curtain
Images			
Layers	1 Layer	2 Layers	3 Layers
Color	Charcoal Black	Charcoal Black	Charcoal Black
Laser Safety Rating	100 W/cm <sup>2</sup> for 100 seconds	200 W/cm <sup>2</sup> for 100 seconds	300 W/cm <sup>2</sup> for 100 seconds
Description	Fiberglass-based fabric with rubberized silicone coating		
Features	Thermal, flame, abrasion, puncture and tear resistance. Repels water and oil		
Available Products	Standard/Custom Framed Barriers. Optical Table and Enclosures. Window Covers and Roller Shades		

Also available:



Clean room  
White outer layer



ESD  
Electrostatic  
discharge protective  
outer layer

## Laser Safety Panels

Panel systems offer higher protection levels compared to laser safety curtains. Our panel systems provide you with optimum protection in a lightweight structure.



### Portable foldable panels BMO

- Extremely versatile system constructed with 360° hinges
- Easy movement and storage to maximize space
- Moves and positions easily to fit around application
- Available in 3, 5, 7 and 9 panel systems, extending to 25' W x 6'10" H
- Windows added upon request



## Laser safety panels



### Portable extendable panels BM2

- Easy movement and storage to maximize space
- Panels slide in and out to fit your application
- Available in 3, 5 and 7 panel systems extending up to 15'6" W x 6'10" H

### Custom framed panels BM3

- Tailored to your laser containment requirements
- Designed as portable or mounted system
- Variety of layout alternatives
- Built from black aluminum hardware



### Panel specifications

Part #	M5P06 Panel	X5P01 Panel
Images		
Color	Black	Black
Laser Safety Rating*	1,000 W/cm <sup>2</sup> 315-1050 nm 2,500 W/cm <sup>2</sup> >1050-1400 nm 10,000 W/cm <sup>2</sup> 10600 nm	10,000 W/cm <sup>2</sup> 315-1050 nm 25,000 W/cm <sup>2</sup> >1050-1400 nm
Description	Two layers of lightweight aluminum bonded with corrugated polyallomer core.	Durable aluminum foam structure for high-power laser applications.
Features	Maintenance-free, strong, doesn't swell, chip, corrode or peel.	
Available Products	Standard/Custom Framed Barriers. Extendable and Foldable Barriers. Optical Table and Enclosures	

\*Tested for 100 seconds at 1mm beam diameter

## Curtain and panel examples

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According to the standards of laser safety, each laser must be enclosed to ensure no dangerous radiation can escape under predictable conditions. Dangerous refers to the accessible amount of radiation below the Maximum Permissible Exposure (MPE) values for eyes and skin.



Wall-to-wall mounted curtain



Custom designed rod mounted lab curtain system for multiple rooms

Curved ceiling mounted curtain





Floor mounted curtain

Curved ceiling  
mounted curtain  
for clinic door



Portable foldable panel  
system with optional  
window installed



## Laser Safety Enclosures

Our custom enclosures, large and small, are individually designed to accommodate any laser application. Enclosure material is certified to protect your employees from laser radiation.

- Laser protection windows allow for safe viewing
- Door interlocks provide safe access to laser
- Design and installation support included



## Laser safety enclosures

Side view on  
assembly line



### Optical Table Panels

Modular design with time-saving assembly. Provides accessibility to optical components while maintaining laser safety parameters



Window enclosure



**laservision®**

**Laser Safety** **NEW**

## Custom modular barrier system

New modular design allows for fast and easy construction of protective barriers and enclosures. We customize each unit with laser-rated panels and safe viewing windows, according to your requirements. Each segment can be equipped with wheels for a more portable solution.

- Designed to fit your laser environment
- Certified laser barrier materials for multiple power densities
- Incorporates laser safety windows and doors
- Wall segments - Standard width 39" and three height options: 19.5", 39" and 78"
- Quick and easy set-up





## Laser safety modular barrier system



### Wall segment

- Standard width 39"
- Three height options: 19.5", 39" and 78"
- Panel and window options available



### Door module

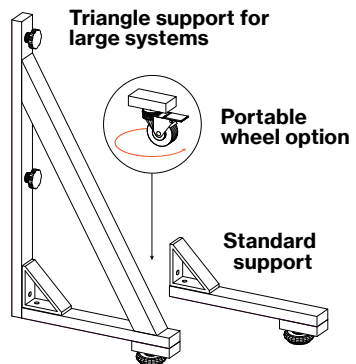
- Standard dimensions 78" x 39"
- Right or left hinged
- Covered gaps
- Panel and window options available



### Corner connection

Features a 90° corner in three height options: 19.5", 39" and 78"

### Leg supports



## Laser Safety Control systems

### Interlock Box

B99.SSCBOX.5000

Ideal choice for safeguarding against lasers. Minimizes the use of wiring. Capable of networking with overlapping safety functions in modular machines.

- Plug and play component design
- Compatible with our custom modular barrier system
- Easy access to components for connections and repair



### E-Stop and Reset Button

B99.ESTOPRS.5000

Emergency stop component. Includes a reset to manually restore the machine to a safe state for restart.

### Safety Door Switch

B99.SDSWTCH.5000

Proximity-based safety door switch with flexible mounting options.



### Magnetic Door Lock

B99.MAGDRLC.5000

Safety locking device for personal and process protection. Ensures secure interlocking of movable, physical guards such as doors and hoods. Reliably prevents access to or interference in a hazardous area.

### Light Tower

B99.LGHTTWR.5000

Laser safety light tower, equipped with green, yellow and red alert LEDs.



### Access Card Reader

B99.ACCESCARD.5000

### RFID Tag for Reader

B99.RFIDTAG.5000

Well-suited for hazardous areas, requiring identification to access.

## Laser safety control systems

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### LED Laser Warning Signs

Using the latest in LED technology, mini and large LED Laser Warning Signs are energy efficient.

#### 18.5" LED Laser Warning Sign

AOE.SIGNL.5000\*

Large, low-energy, 3-state LED sign controls exit/entrance to your laser environment, indicating hazardous and non-hazardous conditions.

- 3 laser states:      ON "Access Prohibited"  
                             ON "Access Allowed"  
                             and OFF
- Energy efficient - 50,000 operational hours
- Standard size: 18.5 x 7 x 1 inches
- Custom sizes available



#### Mini LED Laser Warning Sign

AOE.SIGNM.5000\*

Mini LED Laser Warning Sign is an ultra-low-energy 3-state LED sign to control exit/entrance to your laser environment.

- 3 laser states:      ON "No Hazard Laser Off"  
                             ON "Danger Laser On"  
                             and OFF
- Energy efficient - 50,000 operational hours
- Power consumption of only 3.6 W
- Standard size: 6.3 x 4.3 x 1.5 inches
- Custom sizes available



*\*Power supply sold separately*

## Laser Safety Windows

laservision offers a wide selection of laser safety windows, ideal for safe viewing of lasers from outside the nominal hazard zone. Acrylic, polycarbonate and glass windows can be custom-sized, based on your laser applications. Designed for all laser environments including doors, rooms, curtains and enclosures.

Window  
P5P10



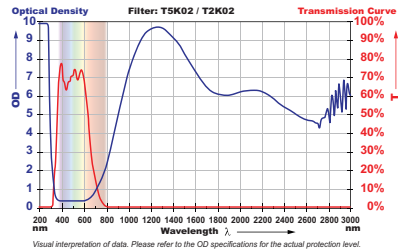
### T5K02

**Color:** Clear  
**Material:** Glass  
**VLT:** 70%



#### Optical Density (OD)

OD 3+ @ 850 - 900 nm  
 OD 4+ @ 900 - 950 nm  
 OD 5+ @ 950 - 1000 nm  
 OD 7+ @ 1000 - 1600 nm  
 OD 5+ @ 1600 - 2400 nm  
 OD 5+ @ 2900 - 10600 nm



#### Lasers

CO<sub>2</sub>,  
 Diode,  
 Disk,  
 Er:YAG,  
 Fiber,  
 Ho:YAG,  
 Nd:YAG

#### Sizes

Part No.	Thickness +/- .02"	Size
000.T5K02.5000	4.2mm	165x165mm

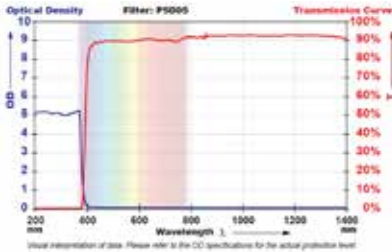
Also available in 100 x 200mm and 210 x 297mm

Additional glass windows available. Please contact sales for more information 800-393-5565

## P5D05

**Color:** Clear  
**Material:** Acrylic  
**VLT:** 90%

**Optical Density (OD)**  
 OD 6+ @ 10600 nm



**Lasers**  
 CO<sub>2</sub>

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5D05.5005	.125"	4"x8"
000.P5D05.5001	.125"	12"x12"
000.P5D05.5002	.125"	12"x24"
000.P5D05.5003	.125"	12"x36"
000.P5D05.5004	.125"	24"x24"
000.P5D05.5000	.125"	24"x36"

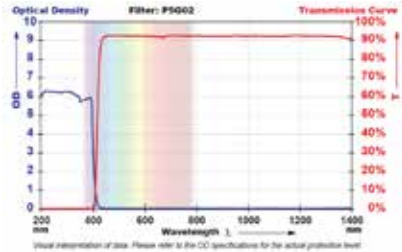
Part No.	Thickness +/- .02"	Size
000.P5D05.5255	.25"	4"x8"
000.P5D05.5251	.25"	12"x12"
000.P5D05.5252	.25"	12"x24"
000.P5D05.5253	.25"	12"x36"
000.P5D05.5254	.25"	24"x24"
000.P5D05.5250	.25"	24"x36"

Custom sizes are available.

## P5G02

**Color:** Light Yellow  
**Material:** Acrylic  
**VLT:** 92%

**Optical Density (OD)**  
 OD 5+ @ 190 - 375 nm  
 OD 6+ @ 10600 nm



**Lasers**  
 CO<sub>2</sub>,  
 Excimer

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5G02.5005	.125"	4"x8"
000.P5G02.5001	.125"	12"x12"
000.P5G02.5002	.125"	12"x24"
000.P5G02.5003	.125"	12"x36"
000.P5G02.5004	.125"	24"x24"
000.P5G02.5000	.125"	24"x36"

Part No.	Thickness +/- .02"	Size
000.P5G02.5255	.25"	4"x8"
000.P5G02.5251	.25"	12"x12"
000.P5G02.5252	.25"	12"x24"
000.P5G02.5253	.25"	12"x36"
000.P5G02.5254	.25"	24"x24"
000.P5G02.5250	.25"	24"x36"

Custom sizes are available.

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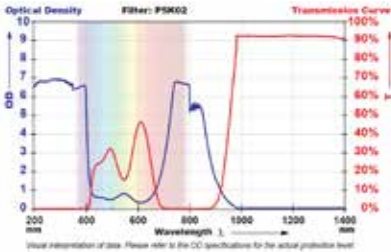
## P5K02

**Color:** Pink  
**Material:** Acrylic  
**VLT:** 30%



### Optical Density (OD)

OD 5+ @ 730 - 855 nm  
 OD 7+ @ 750 - 840 nm  
 OD 5+ @ 10600 nm



### Lasers

Alexandrite  
 CO<sub>2</sub>  
 Diode  
 Ti:Sapphire

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5K02.5005	.125"	4"x8"
000.P5K02.5001	.125"	12"x12"
000.P5K02.5002	.125"	12"x24"
000.P5K02.5003	.125"	12"x36"
000.P5K02.5004	.125"	24"x24"
000.P5K02.5000	.125"	24"x36"

Custom sizes are available.

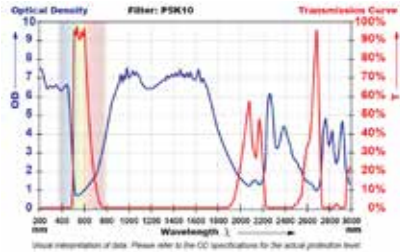
## P5K10

**Color:** Green  
**Material:** Acrylic  
**VLT:** 10%



### Optical Density (OD)

OD 3+ @ 780 - 808 nm  
 OD 4+ @ 808 - 850 nm  
 OD 5+ @ 850 - 870 nm  
 OD 6+ @ 870 - 900 nm  
 OD 7+ @ 900 - 1070 nm  
 OD 6+ @ 1070 - 1100 nm  
 OD 5+ @ 1100 - 1400 nm  
 OD 4+ @ 1400 - 1750 nm



### Lasers

Diode  
 Disk  
 Fiber  
 Nd:YAG  
 Ti:Sapphire

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5K10.5005	.125"	4"x8"
000.P5K10.5001	.125"	12"x12"
000.P5K10.5002	.125"	12"x24"
000.P5K10.5003	.125"	12"x36"
000.P5K10.5004	.125"	24"x24"
000.P5K10.5000	.125"	24"x36"
000.P5K10.5012	.125"	36"x48"

Part No.	Thickness +/- .02"	Size
000.P5K10.5255	.25"	4"x8"
000.P5K10.5251	.25"	12"x12"
000.P5K10.5252	.25"	12"x24"
000.P5K10.5253	.25"	12"x36"
000.P5K10.5254	.25"	24"x24"
000.P5K10.5250	.25"	24"x36"
000.P5K10.5212	.25"	36"x48"

Custom sizes are available.

Available in CE.

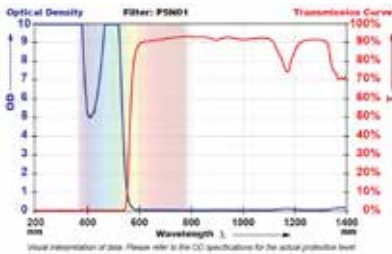
## P5N01

**Color:** Orange  
**Material:** Acrylic  
**VLТ:** 38%



### Optical Density (OD)

OD 5+ @ 190 - 375 nm  
 OD 4+ @ 375 - 532 nm  
 OD 6+ @ 532 nm  
 OD 5+ @ 10600 nm



### Lasers

Argon,  
 CO<sub>2</sub>,  
 Excimer,  
 KTP

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5N01.5005	.125"	4"x8"
000.P5N01.5001	.125"	12"x12"
000.P5N01.5002	.125"	12"x24"
000.P5N01.5003	.125"	12"x36"
000.P5N01.5004	.125"	24"x24"
000.P5N01.5000	.125"	24"x36"
000.P5N01.5012	.125"	36"x48"

Part No.	Thickness +/- .02"	Size
000.P5N01.5255	.25"	4"x8"
000.P5N01.5251	.25"	12"x12"
000.P5N01.5252	.25"	12"x24"
000.P5N01.5253	.25"	12"x36"
000.P5N01.5254	.25"	24"x24"
000.P5N01.5250	.25"	24"x36"

Custom sizes are available.

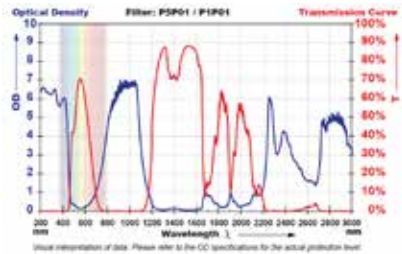
## P5P01

**Color:** Light Green  
**Material:** Acrylic  
**VLТ:** 65%



### Optical Density (OD)

OD 6+ @ 180 - 315 nm  
 OD 5+ @ 315 - 420 nm  
 OD 3+ @ 790 - <820 nm  
 OD 4+ @ 820 - <850 nm  
 OD 5+ @ 850 - <940 nm  
 OD 6+ @ 940 - 1065 nm  
 OD 4+ @ 1065 - 1080 nm  
 OD 3+ @ 2750 - 3000 nm



### Lasers

Diode,  
 Disk,  
 Er:YAG,  
 Excimer,  
 Fiber,  
 Nd:YAG,  
 Ti:Sapphire

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5P01.5005	.125"	4"x8"
000.P5P01.5001	.125"	12"x12"
000.P5P01.5002	.125"	12"x24"
000.P5P01.5003	.125"	12"x36"
000.P5P01.5004	.125"	24"x24"
000.P5P01.5000	.125"	24"x36"
000.P5P01.5012	.125"	36"x48"

Part No.	Thickness +/- .02"	Size
000.P5P01.5255	.25"	4"x8"
000.P5P01.5251	.25"	12"x12"
000.P5P01.5252	.25"	12"x24"
000.P5P01.5253	.25"	12"x36"
000.P5P01.5254	.25"	24"x24"
000.P5P01.5250	.25"	24"x36"
000.P5P01.5212	.25"	36"x48"

Custom sizes are available.

Available in CE.

# laservision®

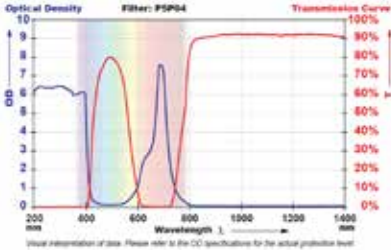
## P5P04

**Color:** Light Blue  
**Material:** Acrylic  
**VLT:** 46%



### Optical Density (OD)

OD 5+ @ 190 - 375 nm  
 OD 6+ @ 694 nm  
 OD 5+ @ 670 - 710 nm  
 OD 5+ @ 10600 nm



### Lasers

CO<sub>2</sub>,  
 Excimer,  
 Ruby

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5P04.5005	.125"	4"x8"
000.P5P04.5001	.125"	12"x12"
000.P5P04.5002	.125"	12"x24"
000.P5P04.5003	.125"	12"x36"
000.P5P04.5004	.125"	24"x24"
000.P5P04.5000	.125"	24"x36"

Custom sizes are available.

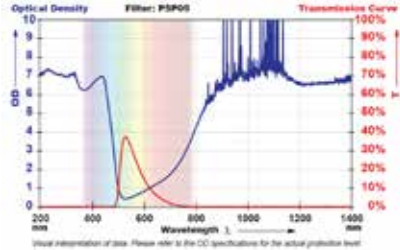
## P5P05

**Color:** Green  
**Material:** Acrylic  
**VLT:** 40%



### Optical Density (OD)

OD 5+ @ 190 - 375 nm  
 OD 6+ @ 900 - 950 nm  
 OD 7+ @ 950 - 1085 nm  
 OD 5+ @ 10600 nm



### Lasers

CO<sub>2</sub>,  
 Diode,  
 Disk,  
 Excimer,  
 Fiber,  
 Nd:YAG

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5P05.5005	.125"	4"x8"
000.P5P05.5001	.125"	12"x12"
000.P5P05.5002	.125"	12"x24"
000.P5P05.5003	.125"	12"x36"
000.P5P05.5004	.125"	24"x24"
000.P5P05.5000	.125"	24"x36"
000.P5P05.5012	.125"	36"x48"

Part No.	Thickness +/- .02"	Size
000.P5P05.5255	.25"	4"x8"
000.P5P05.5251	.25"	12"x12"
000.P5P05.5252	.25"	12"x24"
000.P5P05.5253	.25"	12"x36"
000.P5P05.5254	.25"	24"x24"
000.P5P05.5250	.25"	24"x36"

Custom sizes are available.



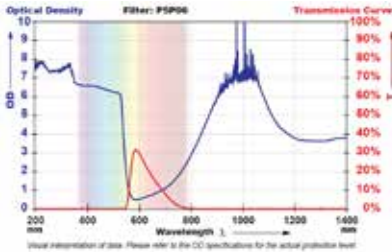
## P5P06

**Color:** Brown  
**Material:** Acrylic  
**VLT:** 6%



### Optical Density (OD)

OD 5+ @ 190 - 375 nm  
 OD 4+ @ 375 - 532 nm  
 OD 4+ @ 900 - 1070 nm  
 OD 5+ @ 1064 nm  
 OD 5+ @ 10600 nm



### Lasers

Argon,  
 CO<sub>2</sub>,  
 Diode,  
 Disk,  
 Excimer,  
 KTP,  
 Nd:YAG

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5P06.5005	.125"	4"x8"
000.P5P06.5001	.125"	12"x12"
000.P5P06.5002	.125"	12"x24"
000.P5P06.5003	.125"	12"x36"
000.P5P06.5004	.125"	24"x24"
000.P5P06.5000	.125"	24"x36"

Custom sizes are available.

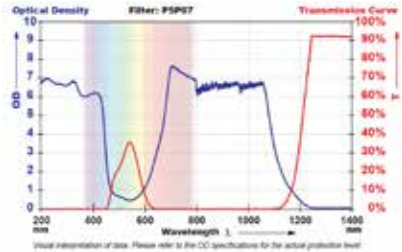
## P5P07

**Color:** Green  
**Material:** Acrylic  
**VLT:** 21%



### Optical Density (OD)

OD 6+ @ 200 - 410 nm  
 OD 2+ @ 640 - 1106 nm  
 OD 4+ @ 680 - 1080 nm  
 OD 6+ @ 692 - 1064 nm  
 OD 5+ @ 10600 nm



### Lasers

Alexandrite,  
 CO<sub>2</sub>,  
 Diode,  
 Disk,  
 Excimer,  
 Fiber,  
 ND:YAG  
 Ruby,  
 Ti:Sapphire

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5P07.5005	.125"	4"x8"
000.P5P07.5001	.125"	12"x12"
000.P5P07.5002	.125"	12"x24"
000.P5P07.5003	.125"	12"x36"
000.P5P07.5004	.125"	24"x24"
000.P5P07.5000	.125"	24"x36"

Custom sizes are available.

## P5P10

**Color:** Blue  
**Material:** Polycarbonate  
**VLT:** 16%



### Optical Density (OD)

OD 10+ @ 180 - 315 nm  
 OD 8+ @ >315 - 385 nm  
 OD 4+ @ >385 - 400 nm  
 OD 2+ @ 730 - <770 nm  
 OD 3+ @ 770 - <800 nm  
 OD 4+ @ 800 - <840 nm  
 OD 5+ @ 840 - <880 nm  
 OD 6+ @ 880 - <960 nm  
 OD 7+ @ 960 - <1030 nm  
 OD 8+ @ 1030 - 2200 nm  
 OD 4+ @ >2200 - 3600 nm  
 OD 3+ @ >3600 - 4800 nm  
 OD 4+ @ >4800 - 11500 nm  
 OD 6+ @ 10600 nm



### Lasers

Alexandrite, Fiber,  
 CO<sub>2</sub>, Ho:YAG  
 Diode, Nd:YAG,  
 Disk, Ti:Sapphire  
 Er:YAG  
 Excimer,

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5P10.5005	.125"	4"x8"
000.P5P10.5001	.125"	12"x12"
000.P5P10.5002	.125"	12"x24"
000.P5P10.5003	.125"	12"x36"
000.P5P10.5004	.125"	24"x24"
000.P5P10.5000	.125"	24"x36"
000.P5P10.5012	.125"	36"x48"

Part No.	Thickness +/- .02"	Size
000.P5P10.5255	.25"	4"x8"
000.P5P10.5251	.25"	12"x12"
000.P5P10.5252	.25"	12"x24"
000.P5P10.5253	.25"	12"x36"
000.P5P10.5254	.25"	24"x24"
000.P5P10.5250	.25"	24"x36"
000.P5P10.5212	.25"	36"x48"

Custom sizes are available.  
 Maximum size 59" x78"

Available in CE.

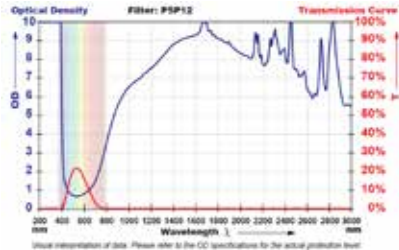
## P5P12

**Color:** Light Blue  
**Material:** Polycarbonate  
**VLT:** 20%



### Optical Density (OD)

OD 10+ @ 180 - 315 nm  
 OD 8+ @ >315 - 385 nm  
 OD 3+ @ >385 - 400 nm  
 OD 2+ @ 740 - <800 nm  
 OD 3+ @ 800 - <830 nm  
 OD 4+ @ 830 - <890 nm  
 OD 5+ @ 890 - <940 nm  
 OD 6+ @ 940 - 1400 nm  
 OD 3+ @ >1400 - 2000 nm  
 OD 4+ @ >2000 - 3600 nm  
 OD 3+ @ >3600 - 4800 nm  
 OD 4+ @ >4800 - 11500 nm



### Lasers

Alexandrite, Fiber,  
 CO<sub>2</sub>, Ho:YAG  
 Diode, Nd:YAG,  
 Disk, Ti:Sapphire  
 Er:YAG  
 Excimer,

### Sizes

Part No.	Thickness +/- .02"	Size
000.P5P12.5005	.125"	4"x8"
000.P5P12.5001	.125"	12"x12"
000.P5P12.5002	.125"	12"x24"
000.P5P12.5003	.125"	12"x36"
000.P5P12.5004	.125"	24"x24"
000.P5P12.5000	.125"	24"x36"
000.P5P12.5012	.125"	36"x48"

Part No.	Thickness +/- .02"	Size
000.P5P12.5255	.25"	4"x8"
000.P5P12.5251	.25"	12"x12"
000.P5P12.5252	.25"	12"x24"
000.P5P12.5253	.25"	12"x36"
000.P5P12.5254	.25"	24"x24"
000.P5P12.5250	.25"	24"x36"
000.P5P12.5212	.25"	36"x48"

Custom sizes are available.  
 Maximum size 59" x78"

Available in CE.

# Laser Safety Active window

Active Windows offer the ultimate protection against high power lasers. A passive or active protection window and sensor are integrated into the safety circuit of the laser. When a laser beam hits the window and the sensor detects radiation, the laser will immediately shut down. For added protection, incorporate an Active Window into a laser safety barrier or enclosure system..

- Active protection solution
- Certified category T1 for automated operation without supervision
- Wavelength range 820-1100nm
- CE certified acc. EC-machinery directive
- Tested with 16 kW fiber laser
- Easy integration into safety circuits

**Call for more information  
800-393-5565**



## P1P01

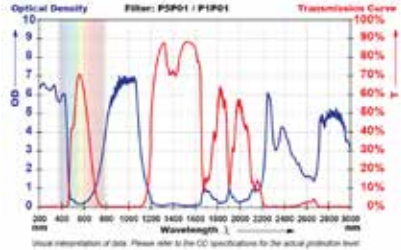
**Color:** Light Green

**Material:** Acrylic

**VLT:** 50%

**Wavelength range**

820 - 1100 nm



### Lasers

Diode,  
Disk,  
Fiber,  
Nd:YAG

## A0E.P1P01 Series

### Active cabin window kit

Size	Part numbers
.1004 297 mm x 420 mm 16.45" x 11.69"	A0E.P1P01.1004
.1003 590 mm x 895 mm 35.24" x 23.23"	A0E.P1P01.1003

### Protection Class / Norm

EN 954-1  
EN 60825

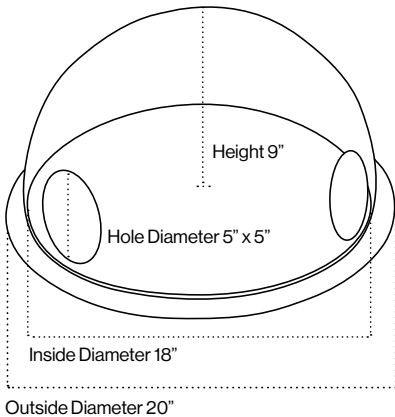
## Laser Safety Domes

laservision has developed Laser Safety Domes for use in demonstrating laser applications in public areas and trade shows. These glueless, manufactured domes are made of acrylic laser safety filter material and offer excellent visibility without any protruding edges or connectors. The dome has two access points for easy handling of laser beam delivery systems. Laser Safety Domes are ideal to showcase your laser innovations and capabilities, while keeping in mind the safety of your demonstrator and clients.



Contact us with specifications.

### Dome specifications



### P5D05

**Color:** Clear  
**Material:** Acrylic  
**VLT:** 90%

#### Optical Density (OD)

OD 5+ @ 10600 nm  
 OD 3+ @ 2750 - 2848 nm  
 OD 2+ @ 2840 - 2920 nm  
 OD 1+ @ 2920 - 3000 nm

#### Lasers

CO<sub>2</sub>  
 Er:YAG



Dome  
 000.P5D05.5DME

### P5K02

**Color:** Pink  
**Material:** Acrylic  
**VLT:** 8%

#### Optical Density (OD)

OD 4+ @ 760 - 820 nm

#### Lasers

Diode  
 Ti:Sapphire



Dome  
 000.P5K02.5DME

### P5P01

**Color:** Light Green  
**Material:** Acrylic  
**VLT:** 65%

#### Optical Density (OD)

OD 3+ @ 900 - 950 nm  
 OD 4+ @ 950 - 975 nm  
 OD 5+ @ 975 - 1020 nm  
 OD 4+ @ 1020 - 1030 nm  
 OD 3+ @ 1030 - 1060 nm

#### Lasers

Diode  
 Disk



Dome  
 000.P5P01.5DME

# Laser Safety Face shields

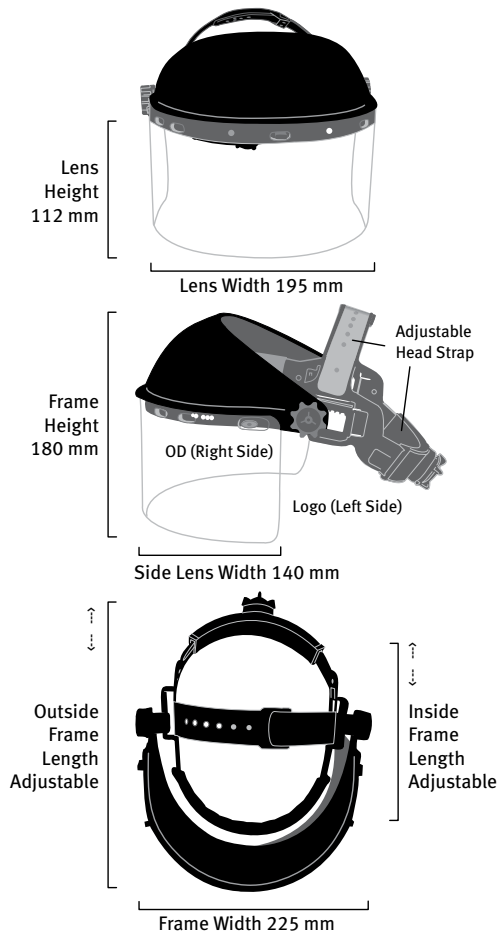
Made of lightweight, durable, heat and cold-resistant, optical-quality acrylic. The large contoured shield offers maximum eye and face protection. Adjustable head piece provides versatility and comfort for laser applications. Accommodates fit-over prescription eyewear.

Available in multiple filter options and lens height.



## Face shield specifications

**Color:** Black



## Face shield filters

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P5G02 Page 21



P5K02 Page 22



P5N01 Page 23



P5P01 Page 23



P5P04 Page 24



P5P05 Page 24



P5P06 Page 25



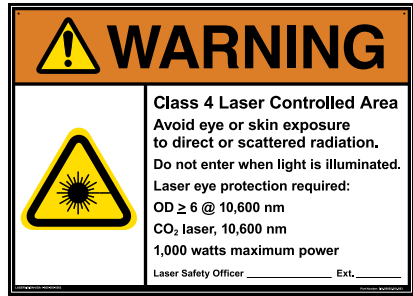
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## Laser Safety Signs & labels

Keep personnel safe and aware with appropriate signs and labels in laser environments. laservision provides a complete line of warning, caution, danger and notice signs that are available in both standard and custom formats to fit any application you may require.

We will **customize** your sign for any laser application, including options for additional languages.



### Sign classifications



- **Caution:**  
Class 2, Class 2M and Class 3R lasers



- **Warning:**  
Class 3B and Class 4 lasers








- **Danger:**  
Class 4 lasers



- **Notice:** All laser types  
For temporary use when laser systems are under repair and the accessible laser radiation exceeds acceptable MPE

### Laser class

- Class 1:** Incapable of producing damaging radiation levels and exempt from any control measures.
- Class 1M:** Incapable of producing damaging radiation levels unless the beam is viewed with optically aids (telescope/loupe) and exempt from any control measures other than optical viewing.
- Class 2:** Emits in the visible portion of the spectrum (400 nm to 700 nm) where eye protection is normally afforded by the aversion. 
- Class 2M:** Emits in the visible portion of the spectrum (400 nm to 700 nm) where eye protection is normally afforded by the aversion for unaided viewing. 
- Class 3R:** Reduced control requirements and is hazardous under some direct and specular reflection conditions if the eye is appropriately focused and stable, but the probability of an injury is small. This laser will not pose a fire or diffused reflection hazard. 
- Class 3B:** Hazardous under direct and specular reflection viewing conditions, but normally not a fire or diffuse reflection hazard, nor a laser generated air containment production hazard. 
- Class 4:** High powered and hazardous to the eye or skin from the direct beam (may cause devastating and permanent eye or skin damage). May have sufficient energy to ignite materials to pose a fire or diffuse reflection hazard. May also produce plasma radiation and generate hazardous fumes. 



### Laser warning symbol

This symbol indicates that a potential hazard to personal safety exists from a laser source and to proceed with all necessary precautions.

## Signs and labels

Back Lighted Sign:  
SIN.80001.001



Sign: SIN.80003.001



## Signs & labels



Item Options	Caution	Warning	Danger	Notice
Lighted Sign (12"x16"x2")	SIN.80001.000	SIN.80001.002	SIN.80001.001	SIN.80001.004
Plastic (10"x14"x1/8")	SIN.80002.000	SIN.80002.002	SIN.80002.001	SIN.80002.004
Magnetic (10"x14"x1/8")	SIN.80003.000	SIN.80003.002	SIN.80003.001	SIN.80003.004
Label (10"x14")	SIN.80004.000	SIN.80004.002	SIN.80004.001	SIN.80004.004
3 Labels (5"x3")	SIN.80005.000	SIN.80005.002	SIN.80005.001	SIN.80005.004
3 Labels (3"x2")	SIN.80006.000	SIN.80006.002	SIN.80006.001	SIN.80006.004
3 Labels (2"x1.5")	SIN.80007.000	SIN.80007.002	SIN.80007.001	SIN.80007.004

## Laser warning symbol labels



Item Options	Warning Symbol
3 Labels (4"x4")	SIN.80008.000
3 Labels (3"x3")	SIN.80009.001
3 Labels (2"x2")	SIN.80010.002



# laservision®

## Laser Safety

**Eyewear • Barriers • Windows • Training**

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Saint Paul, Minnesota 55130

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**P** 651-357-1800

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**E** [info@lasersafety.com](mailto:info@lasersafety.com)

**W** [lasersafety.com](http://lasersafety.com)

ISO Certified

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**we protect your eyes**

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