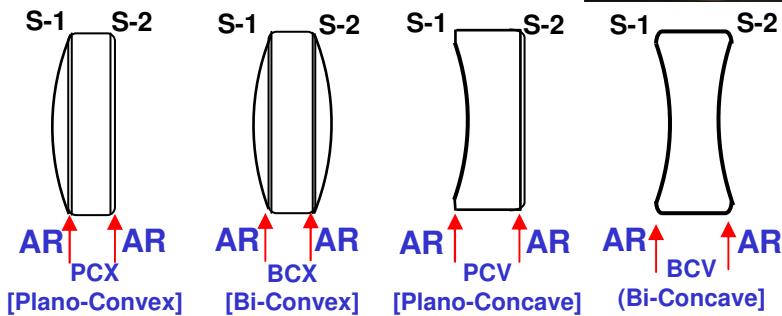


# PRECISION OPTICAL LENSES

**LG - Laser Grade Series**  
**(193 ~ 10,600nm)**

**PHOTONIK** hv



## General Specifications:

Substrate Material:

Surface Figure:

Transmitted Wave-front:

Surface Quality (after coated):

*Broadband Coating:*

*Narrowband Coating:*

Diameter/Thickness Tolerance:

Chamfer/Concentricity:

Effective Focal Length (EFL)/Tolerance:

Coating Technology:

Durability Performance:

BK7, UV grade fused silica, Silicon, GaAs, CaF<sub>2</sub>, ZnSe  
Sapphire .... Selections per wavelength and applications.  
 $\lambda / 10$  typical at 633nm over 1" area  
 $\lambda / 10$  typical at 633nm

40-20 scratch and dig laser quality (MIL SPECS 0-13830B)  
10 - 5 scratch and dig laser quality (MIL SPECS 0-13830B)  
+ 0.00mm, - 0.25mm /  $\pm 0.25$ mm  
0.35mm at 45° typ. /  $\leq 0.05$ mm  
Per customer drawings or user specified /  $\pm 1\%$  typ.  
Electron/Ion beam multi-layer dielectric standard  
Adhesion, moderate abrasion, severe abrasion, humidity as  
per the following (where applicable): MIL-C-675,  
MIL-M-13508, MIL-M-14806, MIL-C-48497, MIL-F-48616,  
MIL-STD-810F

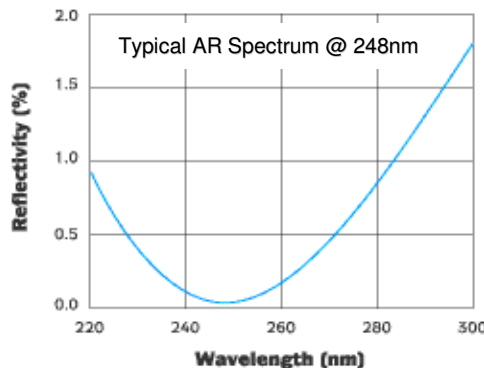
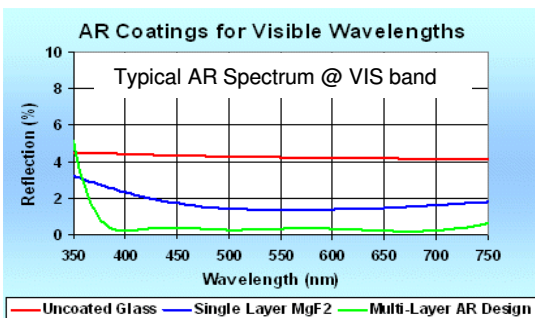
Clear Aperture:

Angle of Incidence(AOI):

Damage Threshold:

Anti-reflection(AR) Coating:

> 90% of dimension, central area  
0 ~ 30° AOI standard; Others per specified for special order.  
20-J/cm<sup>2</sup>, 8nsec pulse; 1-MW/cm<sup>2</sup>, CW @ 1064nm typ.  
R < 0.25% @ specified single center wavelength;  
R < 0.5% Average @ broadband ranges(-UV, -A, -B & -C)



Call us for Lens Set Information



## Ordering Information:

**POL** — ① — ② — ③ — ④ — ⑤

- ① — Substrate Material: 1 = BK7; 2 = UV fused silica; 3 = Silicon; 4 = GaAs. 5 = GaF<sub>2</sub>; 6 = ZnSe; 7 = Sapphire ...
- ② — Lense Type: PCX = Plano-Convex; BCX = Bi-Convex; PCV = Plano-Concave; BCV = Bi-Concave.
- ③ — Outer Dimension/Edge Thickness: e.g. **15/2**:  $\phi 15 \times \text{ET}2$ mm; **12.7/6**:  $\phi 0.5 \times \text{ET}6$ mm; **25.4/10**:  $\phi 1 \times \text{ET}10$ ; or user specified;
- ④ — Single-Point Wavelength AR Coating: e.g. **S/355**: single wavelength at 355nm; **S/633**: single wavelength at 633nm; ...  
193, 213, 244-248, 266, 308, 337, 351, 355, 400-410, 488-515, 532, 632, 650-690, 755, 780-785, 800-810, 830, 850, 870, 915, 940, 976-980, 1032, 1047, 1053, 1064, 1235, 1310, 1319, 1480, 1550, 1610, ..., 10600.  
Broadband AR Coating: **B/UV**: Broadband UV AR Coating 290 ~ 370nm; **B/A**: Broadband AR Coating 350 ~ 650nm; **B/B**: Broadband AR Coating 650 ~ 1050nm; **B/C**: Broadband AR Coating 1050 ~ 1620nm;
- ⑤ — Effective Focal Length (EFL): e.g. **200N**: EFL= -200mm; **1000P**: EFL= +1000mm; Thousands of EFL available per specified;

## Contact Information:

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