

Aspherical Glass Lenses

Type: **EYLG**□□□□□□□□



Lightweight, high-performance aspherical glass lenses for various optical electronics applications.

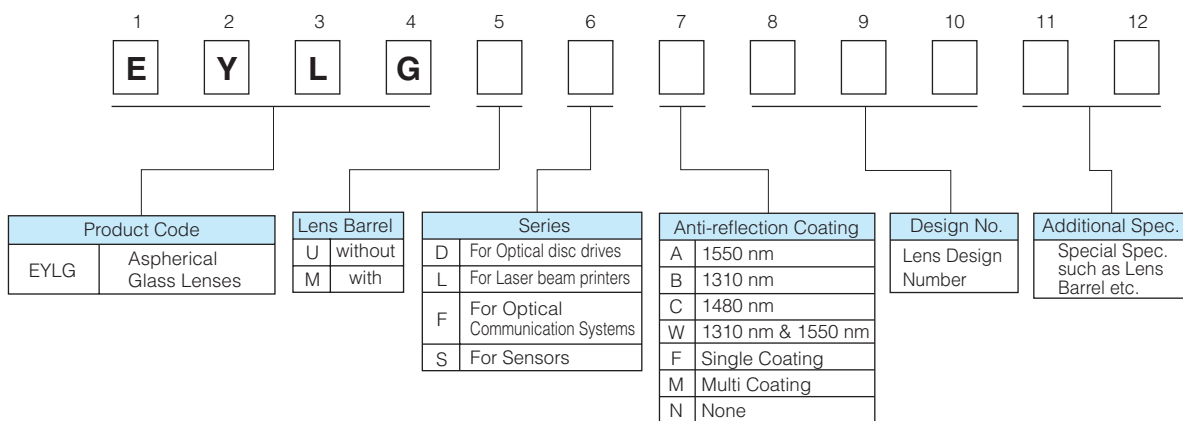
Features

- "One Shot" precision manufacturing process for an extremely compact, lightweight and high-performance lens
- High-quality processing and measurement techniques for superior performance
- Short focal length for compact size
- High numerical aperture achieved via aspherical design
- Wide temperature and humidity range for increased reliability and stability
- Various lenses and lens material available for many different applications
- RoHS compliant

Recommended Applications

- Pickup lens for optical drive devices
- Collimator lens for laser beam printers
- Coupling lens for optical communication systems
- Image formation lens for sensors

Explanation of Part Numbers



Ratings

Item	Ratings
Operating Temperature Range	-30 to +85 °C
Storage Temperature Range	-40 to +100 °C

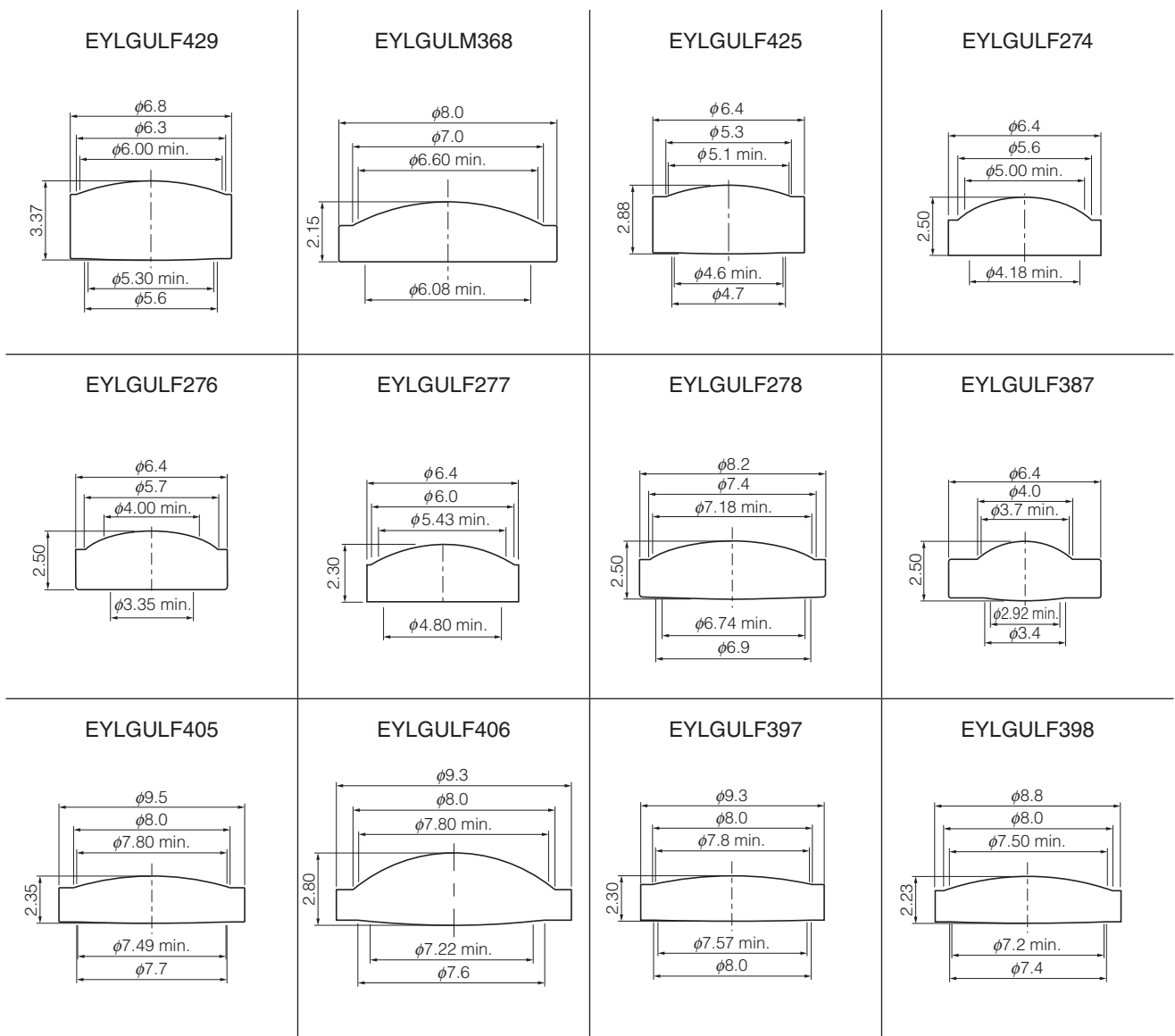
■ Please contact the factory for packaging methods.

Specifications

- For storages, laser beam printers, sensors and other applications
Collimator Lens

Part No.	Item	Wave Length (nm)	Numerical Aperture	Focal Length (mm)	Working Distance (mm)	Lens Diameter (mm)	Mass (Weight) (mg)	Abbe Number	Cover Glass (mm)
EYLGULF429		780	0.20	14.96	12.81	φ6.80	256	64	0.30
EYLGULM368		780	0.33	10.00	8.60	φ8.00	250	46	0.25
EYLGULF425		780	0.23	12.50	10.63	φ6.40	306	53	0.30
EYLGULF274		780	0.40	6.25	4.60	φ6.40	234	53	0.25
EYLGULF276		780	0.25	8.00	6.34	φ6.40	250	53	0.25
EYLGULF277		820	0.30	9.00	7.43	φ6.40	230	53	0.30
EYLGULF278		780	0.24	14.91	13.24	φ8.20	247	64	0.30
EYLGULF387		830	0.40	4.60	3.04	φ6.40	125	64	0.25
EYLGULF405		785	0.16	24.32	22.73	φ9.50	322	64	0.30
EYLGULF406		785	0.39	10.00	8.46	φ9.30	288	64	0.30
EYLGULF397		785	0.12	31.99	30.43	φ9.30	318	64	0.30
EYLGULF398		785	0.18	20.99	19.47	φ8.80	256	64	0.30

Dimensions in mm (not to scale)



NOTES

1) Formation of the lens barrel

Since the lenses with barrels for optical communications are integral-molded with the barrels, no further processing is possible after the assembly. Please note that if the thickness of a lens barrel is 0.25 mm or less, the barrel tends to expand during assembly. The lenses are designed on the assumption that the barrel is in a simple or a two-step cylindrical shape.

2) Anti-reflective coating

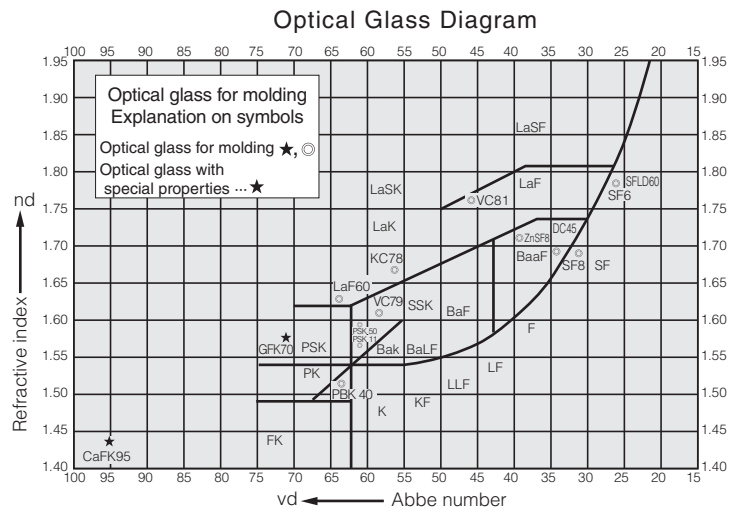
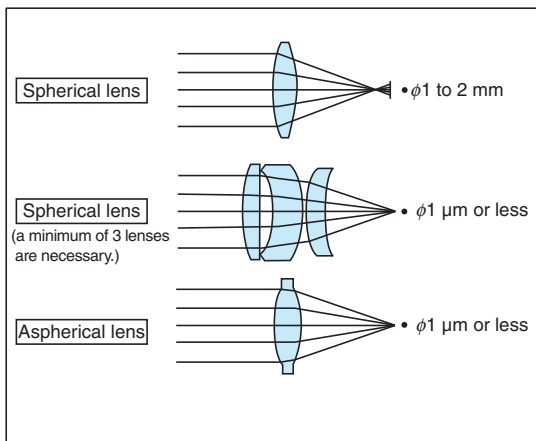
a) Panasonic uses only the best glass materials and applies an anti-reflective coating to achieve the highest possible performance.

b) Average center wavelength of a lens' transmittance band is either 1310 or 1550 nm for optical communications. Wide wavelength (1310 to 1550 nm) and dual wavelength (980/1550) designs are available as well. Custom anti-reflective coatings are available upon request. Wide wavelength designs become increasingly prohibitive as the length of lens barrel increases.

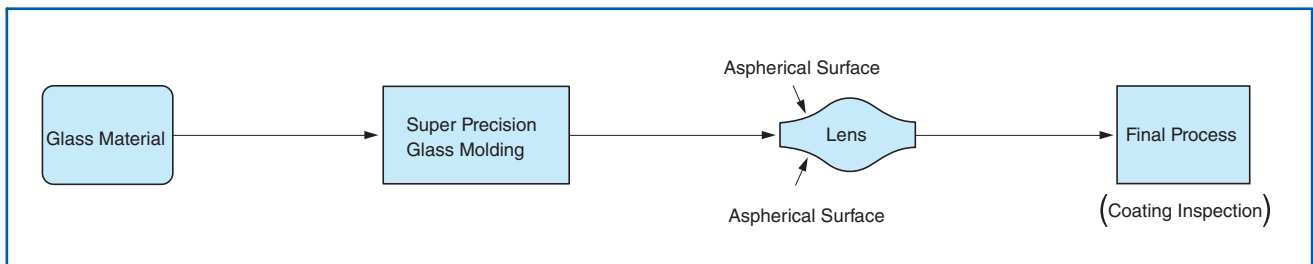
3) Custom Specification lenses

Lenses of various shapes and dimensions can be designed to meet the individual needs of customers. Please consult with Panasonic for details.

Performance of Aspherical Glass Lens



Production Process of Aspherical Glass Molded Lens



⚠ Safety Precautions

(Common precautions for Aspherical Glass Lenses)

- When using our products, no matter what sort of equipment they might be used for, be sure to make a written agreement on the specifications with us in advance. The design and specifications in this catalog are subject to change without prior notice.
- Do not use the products beyond the specifications described in this catalog.
- This catalog explains the quality and performance of the products as individual components. Before use, check and evaluate their operations when installed in your products.
- Install the following systems for a failsafe design to ensure safety if these products are to be used in equipment where a defect in these products may cause the loss of human life or other significant damage, such as damage to vehicles (automobile, train, vessel), traffic lights, medical equipment, aerospace equipment, electric heating appliances, combustion/gas equipment, rotating equipment, and disaster/crime prevention equipment.
- * Systems equipped with a protection circuit and a protection device
- * Systems equipped with a redundant circuit or other system to prevent an unsafe status in the event of a single fault

1) Precautions for use

- These products are designed and manufactured for general and standard use in general electronic equipment (e.g. AV equipment, home electric appliances, office equipment, information and communication equipment)
- These products are not intended for use in the following special conditions. Before using the products, carefully check the effects on their quality and performance, and determine whether or not they can be used.
 1. In liquid, such as water, oil, chemicals, or organic solvent
 2. In direct sunlight, outdoors, or in dust
 3. In salty air or air with a high concentration of corrosive gas, such as Cl₂, H₂S, NH₃, SO₂, or NO₂
 4. In an environment where these products cause dew condensation
- Carefully position these products so that their temperatures will not exceed the category temperature range due to the effects of neighboring heat-generating components.
- Dust or dirt on the surface of a lens should be removed using compressed air, or by blowing air across the lens surface.

If dust/dirt remains, wipe the lens lightly with a swab soaked in ethanol. Note that the performance or appearance of lenses will be affected if their surfaces are scratched as a result of being rubbed strongly.
Do not cleanse lenses with water, doing so could also influence their performance or make the surfaces dull.
- Do not directly touch the surfaces of lenses when taking them out from trays. Hold the flange or lens barrel instead.
- Always use plastic tweezers when handling lenses.

2) Precautions for storage

- Always store lenses in desiccators.
- Avoid storage under conditions of high temperature and high humidity.

<Package markings>

Package markings include the product number, quantity, and country of origin. In principle, the country of origin should be indicated in English.