

The chart below provides an overview of the standard integrating sphere models available from SphereOptics. Our engineers have carefully designed these sphere geometries to address the most common light and optical radiation measurement applications. If a standard sphere does not meet your requirements, please refer to our [custom integrating sphere design worksheet](#), or contact us for assistance. Integrating spheres are available in sizes ranging from 1-inch to 40 inches in diameter (interior dimensions). Spheres are available with a combination of ports; minimum and maximum number of ports are given in the selection guide below. [Click here](#) to view illustrations of our general purpose spheres.

How to order spheres:

Indicate the number of ports required by replacing the **X** in the order number with the number of ports you desire.

Standard port locations:

2 ports	0° and North Pole
3 ports	0°, 90° and North Pole
4 ports	0°, 90°, 270° and North Pole
5 ports	0°, 90°, 180°, 270° and North Pole

OPTOWHITE® sphere interior – recommended for applications covering the VIS wavelength region								
ORDER NUMBER	SPHERE SIZE		NO. OF PORTS	PORT DIAMETER		PORT STYLE	MOUNTING THREAD/STYLE	INTERIOR MATERIAL
	INCHES	CM		INCHES	CM			
SPH-1-X	1	2.54	2 to 4	0.25	0.635	Knife-edge	M4	Optowhite
SPH-2-X	2	5.08	2 to 4	0.50	1.27	Knife-edge	M4	Optowhite
SPH-4-X	4	10.2	2 to 5	1.00	2.54	Knife-edge	M6	Optowhite
SPH-6-X	6	15.2	2 to 5	1.50	3.81	Knife-edge	M6	Optowhite
SPH-8-X	8	20.3	2 to 5	2.00	5.08	Knife-edge	M6	Optowhite
SPH-12-X	12	30.5	2 to 3	2.00	5.08	Knife-edge	H-style frame	Optowhite
SPH-20-X	20	50.8	2 to 3	2.00	5.08	Knife-edge	H-style frame	Optowhite
SPH-40-X	40	101	2 to 3	2.00	5.08	Knife-edge	H-style frame	Optowhite
ZENITH® sphere interior — recommended for applications covering the UV-VIS-NIR wavelength regions								
ORDER NUMBER	SPHERE SIZE		NO. OF PORTS	PORT DIAMETER		PORT STYLE	MOUNTING THREAD/STYLE	INTERIOR MATERIAL
	INCHES	CM		INCHES	CM			
SPH-1Z	1	2.54	3	0.25	0.635	Knife-edge	M4	Zenith
SPH-2Z	2	5.08	3	0.50	1.27	Knife-edge	M4	Zenith
SPH-4Z	4	10.2	3	1.00	2.54	Knife-edge	M6	Zenith
SPH-6Z	6	15.2	3	1.50	3.81	Knife-edge	M6	Zenith
SPH-8Z	8	20.3	3	2.00	5.08	KE & tunnel	M6	Zenith
SPH-12Z	12	30.5	3	2.00	5.08	KE & tunnel	H-style frame	Zenith
SPH-20Z	20	50.8	3	2.00	5.08	KE & tunnel	H-style frame	Zenith
SPH-30Z	30	76.2	3	2.00	5.08	KE & tunnel	H-style frame	Zenith
ZENITH-GOLD sphere interior — recommended for applications covering the NIR-IR wavelength regions								
ORDER NUMBER	SPHERE SIZE		NO. OF PORTS	PORT DIAMETER		PORT STYLE	MOUNTING THREAD/STYLE	INTERIOR MATERIAL
	INCHES	CM		INCHES	CM			
SPH-1G-X	1	2.54	2 to 4	0.25	0.635	Knife-edge	M4	Zenith Gold
SPH-2G-X	2	5.08	2 to 4	0.50	1.27	Knife-edge	M4	Zenith Gold
SPH-4G-X	4	10.2	2 to 5	1.00	2.54	Knife-edge	M6	Zenith Gold
SPH-6G-X	6	15.2	2 to 5	1.50	3.81	Knife-edge	M6	Zenith Gold
SPH-8G-X	8	20.3	2 to 5	2.00	5.08	Knife-edge	M6	Zenith Gold
SPH-12G-X	12	30.5	2 to 3	2.00	5.08	Knife-edge	H-style frame	Zenith Gold
SPH-20G-X	20	50.8	2 to 3	2.00	5.08	Knife-edge	H-style frame	Zenith Gold
REFLECTANCE/TRANSMITTANCE SPHERES								
ORDER NUMBER	SPHERE SIZE		NO. OF PORTS	PORT DIAMETER		PORT STYLE	MOUNTING THREAD/STYLE	INTERIOR MATERIAL
	INCHES	CM		INCHES	CM			
RT-6	6	15.2	5	1.00	2.54	KE & tunnel	M6	Optowhite
RT-6Z	6	15.2	5	1.00	2.54	KE & tunnel	M6	Zenith

SPHERE ACCESSORIES

We offer a variety of baffle sizes and mounting options, bases, posts and holders, port plugs, port reducers, and adapters to complement all sphere models.

[Click here](#) for a listing of sphere baffle options, mounting posts and holders, and bases available.

[Click here](#) for a listing of port plugs, port reducers, detector adapters and fiber adapters available.

Application specific spheres are found in our Lamp, Laser and Luminance/Radiance Selection Guides on our website.