UMBB-150-S20-D integrating sphere detector: base sphere with 150mm / 6 inch diameter

Integrating sphere detectors

The decision criteria to consider when using an integrating sphere as a radiation detector are:

- Large measurement aperture
- Measurement of divergent radiation beams
- Attenuator (damping element) in the case of high radiant power
- Diffuse back reflection

Approved standard configurations

Despite the great flexibility of our modular integrating sphere concept, many of our customers mostly opt for the approved standard configurations or use these as a template for their own customized sphere designs. Standard configurations allow for shorter delivery times since extra construction time is thereby avoided.

UMBB-150-S20-D integrating sphere detector

The UMBB-150-S20-D is used as a base sphere for setting up of integrating sphere detectors. Its measurement port has a 38.1mm diameter. The detector port is aligned at a 55° angle to the measurement port. A socket with an M6 connector is used for mounting.

Reflective coating made of barium sulfate

The UMBB-150-S20-D is coated with Gigahertz-Optik's self-manufactured ODP97 barium sulfate diffusely reflective coating. The multilayer coating guarantees diffuse reflective properties over the entire usable spectral range.

Standard options

- Port reducer for the measurement port
- Baffle between the measurement port and detector. Necessary for highly divergent radiation beams
- SMA light guide connector
- Opening with plug for auxiliary lamp

Complementary products and services

For further enhancement of the UMBB-150-S20-D, Gigahertz-Optik offers a wide range of port adapters and sphere accessories. These can be connected with radiation detectors and light meters for various applications. In addition, the Gigahertz-Optik calibration laboratory for optical radiation measurands performs traceable calibrations of the integrating sphere radiation detectors.

UMBB-150-S20-D base sphere for integrating sphere detector

UMBB-150-S20-D base sphere configured with additional port frames to mount auxiliary lamp and SMA fiber connector.

Specifications and purchasing information

UMBB-150-S20-D

Internal diameter	150 mm / 6 inch		
Coating	ODP97	Spectral range	350-2500nm
Socket	UMSS-SM14-M6		
Measurement port	UMPF-1.5	Free diameter	38.1 mm
Detector port	UMPF-0.5	Free diameter	12.7 mm
Dimensions	UMBB-150-S20-D.pdf		
Order number	102987		

Standard options with purchasing information

Model	Description	Order number
Baffle	UMPB-150D	102987-1
Cap measurement port	UMPF-1.5-C	102872
Reducer measurement port	UMPR-1.5-xx; xx = free diameter	100946
Cap reducer	UMPR-1.5-C	102889
Extra SMA connector	UMPF-0.5	100886
	UMPA-0.5-11	100924
	UFC-11-SMA	100929
Extra port e.g. for auxiliary lamp	UMPF-1.0 port frame	100887
	UMPP-1.0 plug	100933
Stand	PMS-P14-95 pole	102072
	PMS-S25-14 stand	102071
	PMS-B-150 base plate	102703

Similar products

Model	Description	Available information
ISD-15-Si	Integrating sphere detector head with UMBB-150-S20-D integrating sphere, Si-photodiode detector and calibration	Data sheet
ISD-15-IGA	Integrating sphere detector head with UMBB-150-S20-D integrating sphere, InGaAs-photodiode detector and calibration	Data sheet
ISD-15-VL	Integrating sphere detector head with UMBB-150-S20-D integrating sphere, photometric detector head and luminous flux calibration	Data sheet