

# Integrating Sphere Smart Heads For Divergent Beams

## 3A-IS

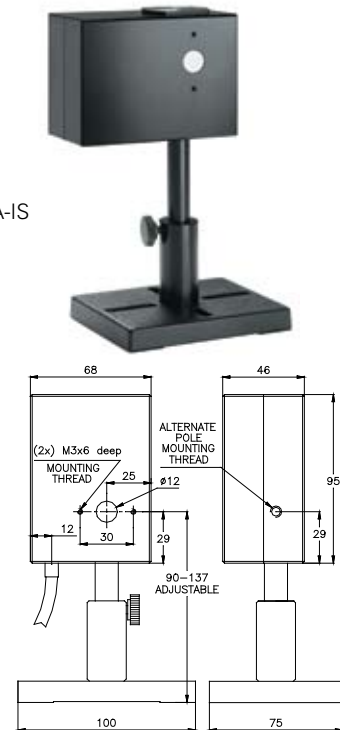
### CW & Average Power Measurements 1µW-3W

Recommended Use: Divergent beams, diode lasers

Special Features: Measures total power of divergent beams

Absorber:	Photodiode: 420-1100nm
Aperture:	∅12mm
Digital Power Scales:	3W to 3µW and dBm
Maximum Average Power Density:	200W/cm <sup>2</sup> on integrating sphere surface
Power Noise Level:	20nW
Power Accuracy:	±5% 420-1000nm, ±10% 1000-1100nm
Maximum Pulse Energy:	5mJ
Response Time with Display (0 - 95%):	0.2s
Linearity with Power:	±1%
Maximum Beam Divergence:	±40 degrees
Sensitivity to Beam Size and Angle:	±2%
Cooling:	Convection
Fiber Adapters Available:	SC, LC, ST, FC, SMA
Fiber Output Port:	One fiber output port available with output= 2E-4 of input power/ mm <sup>2</sup> of fiber area.

3A-IS



Laser Power & Energy

Heads

## 3A-IS-IRG

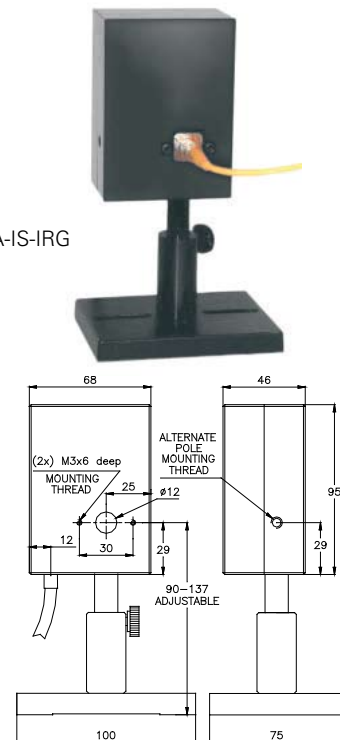
### CW & Average Power Measurements 1µW-3W

Recommended Use: Divergent beams for 800-1700nm

Special Features: Measures divergent beams for DWDM

Absorber:	InGaAs detector: 800-1700nm
Aperture:	∅12mm
Digital Power Scales:	3W to 3µW and dBm
Maximum Average Power Density:	200W/cm <sup>2</sup> on integrating sphere surface
Power Noise Level:	20nW
Power Accuracy:	±5%
Maximum Pulse Energy:	5mJ
Response Time with Display (0 - 95%):	0.2s
Linearity with Power:	±1%
Maximum Beam Divergence:	±40 degrees
Sensitivity to Beam Size and Angle:	±2%
Cooling:	Convection
Fiber Adapters Available:	SC, LC, ST, FC, SMA
Fiber Output Port:	One fiber output port available with output= 2E-4 of input power/ mm <sup>2</sup> of fiber area.

3A-IS-IRG



Displays

Beam Profile Wavelength

OEM Products

#### Ordering Information

Item	Description	Ophir P/N
3A-IS-V1	Integrating Sphere power meter for 420-1100nm	7Z02404
3A-IS-IRG	Integrating Sphere power meter for 800-1700nm	7Z02403
Fiber adapters	See page 54 for fiber adapter ordering information	

# F100A-IS

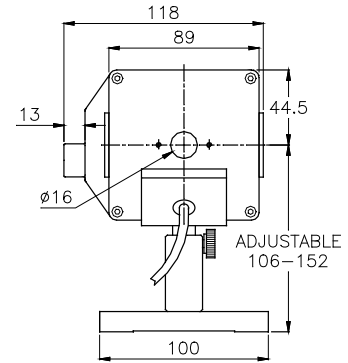
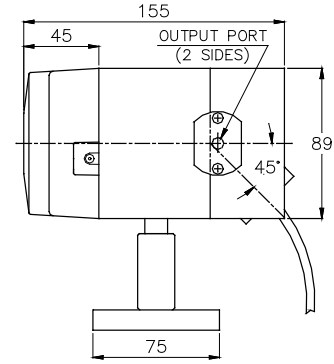
## CW & Single Pulsed Measurements 50mW-100W 30mJ-100J

Recommended Use: Divergent beams, diode lasers

Special Features: Measures total power of divergent beams and has additional output fiber ports.

Absorber:	Lambertian white coating with thermal detector
Spectral Range:	350-1300nm
Aperture:	Ø16mm
Maximum Beam Divergence:	±45 degrees
Sensitivity to Beam Size and Angle:	±2%
Fiber Ports:	2 sides fiber ports with adapters for SMA, FC, ST
	Input also accepts Ophir fiber adapters
Digital Power Scales:	100W / 20W / 2W
Maximum Average Power Density:	200W/cm <sup>2</sup> on integrating sphere surface
Power Noise Level:	5mW
Power Accuracy:	±5% at wavelengths 532nm, 800nm and 1064nm
Response Time with Display (0-95%):	1s
Linearity with Power:	±1%
Energy Scales:	100J / 30J / 3J
Energy Threshold:	30mJ
Cooling:	Fan cooled

F100A-IS



Ordering Information		
Item	Description	Ophir P/N
F100A-IS	100 Watt integrating sphere power/energy meter	7Z02510
Fiber adapters	See page 54 for fiber adapter ordering information	