

Fiber Glass Geometry Measurement System

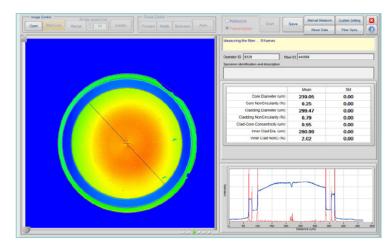


The FGC range is the complete solution for measuring the dimensions of standard and specialty fiber in both production and R&D environments. The FGC-G comes in 2 different models:

- FGC-GT fiber glass geometry for fibers up to 400 µm diameter
- FGC-GS fiber glass geometry for fibers up to 1000 µm diameter

Features & Benefits

- Measures the widest range of fiber sizes and types - single unit solution means less bench space, reduced training
- Standards compliant
 - calibrated to international standards, ensuring confidence in its accuracy
- Production ready
 - reliable, repeatable, operator-independent results in seconds



FGC-G software user interface main screen

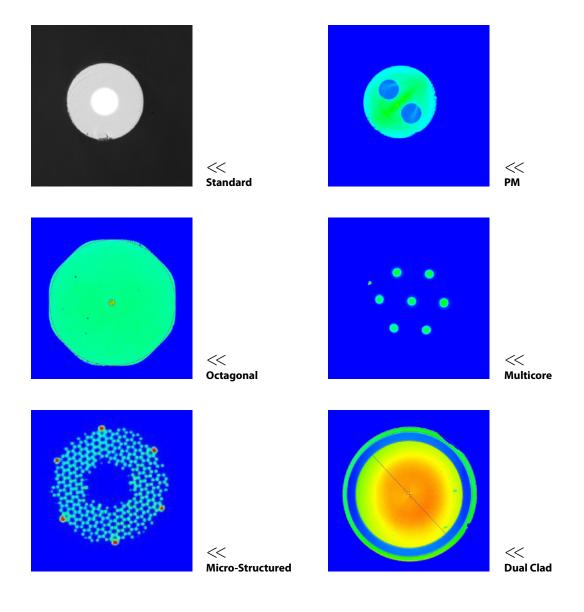
Transmission





Fiber Glass Geometry Measurement System

Fiber Gallery



Technical Specification

Optical	FGC-GT*	FGC-GS**
Max Field of View	600 µm	1200 µm
Fiber Illumination – Reflection	Darkfield illumination, 850nm LED	Darkfield illumination, 850nm LED
${\bf Fiber\ Illumination-Transmission}$	Multiple LED array, 850nm	Multiple LED array, 850nm

Repeatability	Singlemode	Multimode	Multimode
Core Diameter	< 0.05 μm	< 0.08 μm	< 0.1 μm
Cladding Diameter	< 0.05 μm	< 0.05 μm	< 0.25 μm
Core Non-Circularity	< 1.0%	< 0.5%	< 0.05%
Cladding Non-Circularity	< 0.1%	< 0.1%	< 0.1%
Core-To-Cladding Concentricity	< 0.06 μm	< 0.05 µm	< 0.15 μm

Measurement Capability		
Measurement Time	< 10 seconds (excluding fiber prep)	< 10 seconds (excluding fiber prep)
Fiber Diameter	up to 400μm	up to 1000μm
Special Fibers	Dual clad, Octagonal, PM, Multicore, PCF, etc.	Dual clad, Octagonal, PM, Multicore, PCF, etc.

Physical		
Weight	11kg (with carry case 33kg)	11kg (with carry case 33kg)
Size	0.5 × 0.5 × 0.2	0.5 × 0.5 × 0.2
Operating Temp	0 – 50° C	0 – 50° C
Humidity	5%-95%, relative, non-condensing	5%-95%, relative, non-condensing

Computer RequirementsAll FGC systems are supplied with a desktop computer running up-to-date Windows operating system.

Data Interface 2 X USB 3.0 (USB B to USB A; 2m cable supplied)

^{*} Repeatability is measured on the FGC-GT using a single 125 µm fiber without removing it from the unit, the repeatability specifications are only applicable to OM1, OM2 and singlemode fibers.

^{**} Repeatability is measured on the FGC-GS using a single 540/600 μm fiber without removing it from the unit.



Ordering Information

Part number	Description
FGC-GT	Fiber Glass Geometry System for measurement of optical fibers with diameters up to 400 µm. Including optical unit, fiber handling bench, cables, software package; desktop computer; pair of Arden holders suitable for 250 µm diameter coated fiber.
FGC-GS	Fiber Glass Geometry System for measurement of optical fibers with diameters up to 1000 µm. Including optical unit, fiber handling bench, cables, software package; desktop computer; pair of Arden holders suitable for 400 µm diameter coated fiber.
FG-H-250	Pair of Arden FGC fiber holders with 250 μm V-groove, suitable for 250 μm diameter coated fiber
FG-H-400	Pair of Arden FGC fiber holders with 400 μm V-groove, suitable for 400 μm diameter coated fiber
FG-H-600	Pair of Arden FGC fiber holders with 600 μm V-groove, suitable for 600 μm diameter coated fiber
FG-H-800	Pair of Arden FGC fiber holders with 800 μm V-groove, suitable for 800 μm diameter coated fiber
FG-H-1000	Pair of Arden FGC fiber holders with 1000 μm V-groove, suitable for 1000 μm diameter coated fiber
FG-H-CUST	Pair of Arden FGC fiber holders with customer defined V-groove diameter
FGC-GUEW3	FGC-Glass geometry system, extended warranty covering parts and labour for 3 years from purchase, return to base. Cover excludes camera.
FGC-GUEW5	FGC-Glass geometry system, extended warranty covering parts and labour for 5 years from purchase, return to base. Cover excludes camera.
FGC-PMI	PM illuminator designed for use with the FGC

For North American sales enquiries call (727) 478-2651 or email us on sales@ardenphotonics.com

For Rest of World sales enquiries call +44 (0)121 733 7721 or email us on sales@ardenphotonics.com