

FGC-G

Fiber Glass Geometry Measurement System



The FGC-G Fiber Glass Geometry Systems provide high-speed automated measurements of optical fiber end-face geometry. It uses the video grey-scale technique, which is the reference test method (RTM) described in the standards IEC-60793-1-20 annex B.

The FGC-G provides a direct measurement of the fiber geometry parameters including core diameter, core non-circularity, cladding diameter, cladding non-circularity and core-to-cladding concentricity.

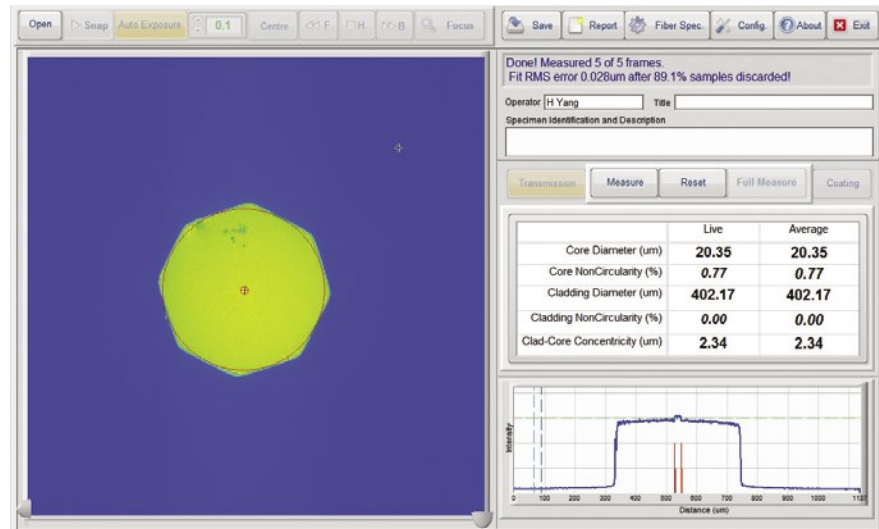
The FGC-G comes in 2 different models. The FGC-GT is optimised for measuring fibers of 125µm in diameter. Typical applications are development and manufacturing of measuring single and multimode telecom fibers, but it can also measure speciality fiber as well. The FGC-GS can measure fibers with diameters up to 1mm, and is optimized for measuring speciality fibers such as octagonal fibers, and dual-cladding fibers.

Features & Benefits

- Can measure special fiber e.g. Dual-clad, octagonal etc.
- Darkfield illumination gives clear view of the fiber endface
- Standards compliant - have confidence in its accuracy
- Compact, robust and reliable - means it is ready for production
- Consistent, repeatable fiber geometry measurements in seconds
- Traceable calibration
- Fiber handling including Arden and Fujikura/FITEL/Sumitomo holders
- Internal LED for consistent and fully filled core launch conditions

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FGC-G software user interface main screen

Technical Specification*

Physical	Single Mode	Multimode
Core Diameter	< 0.05 μm	< 0.08 μm
Cladding Diameter	< 0.05 μm	< 0.05 μm
Core Non-Circularity	< 1.0%	< 0.5%
Cladding Non-Circularity	< 0.1%	< 0.1%
Core-to-Cladding Concentricity	< 0.06 μm	< 0.05 μm
Measurement time	< 1 minute (including fiber preparation)	
Weight	11kg (with carry case 33kg)	
Size	0.5 x 0.5 x 0.2 m	

* Repeatability is measured on the FGC-GT using the same sample fiber without removing it from the unit.

Computer Requirements	All FGC systems are supplied with a desktop computer running up-to-date Windows operating system.
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Ordering Information

Part number	Description
FGC-GT	Fiber Glass Geometry System for measurement of optical fibers with diameters up to 150 μ m. Including optical unit, fiber handling bench, cables, software package; desktop computer; pair of Arden holders suitable for 250 μ m diameter coated fiber.
FGC-GS	Fiber Glass Geometry System for measurement of optical fibers with diameters up to 1000 μ m. Including optical unit, fiber handling bench, cables, software package; desktop computer; pair of Arden holders suitable for 400 μ m diameter coated fiber.
FG-H-250	Arden FGC fiber holder for telecoms fibers
FG-H-400	Arden FGC fiber holder for 400 μ m fibers
FG-H-600	Arden FGC fiber holder for 600 μ m fibers
FG-H-800	Arden FGC fiber holder for 800 μ m fibers
FG-H-1000	Arden FGC fiber holder for 1000 μ m fibers

Iss 01 Mar 16