



F-SERIES FIBER LASERS FQ10 and FQ20

Innovative, compact and flexible F-SERIES Fiber Lasers are perfectly suited for marking applications that require 24/7 “set and forget”, unattended operation.

Select the **FQ10** for low to medium speed applications and the **FQ20** when higher power/faster process speeds are required. The FQ20 features upgraded power. Both lasers offer the additional long-term safeguard of built-in, polarization/optical isolators.



Example — Laser marking on Coated Label Stock



Zenith® FQ10 and FQ20 Laser Systems

LASER SPECIFICATIONS

Compliance CDRH, CE, UID
 Wavelength 1,060nm
 Laser Type Ytterbium Fiber Laser, Galvo Steered
 Laser Source Diode-pumped, Fiber to Fiber, Pulsed
 Pulse Repetition..... 20 KHz to 125KHz
 Average Power FQ10..... 10 Watts
 Average Power FQ20 20 Watts
 Long term Output Power <5% Instability
 Peak Power FQ10..... >4KW
 Peak Power FQ20..... >8KW
 Beam Quality $M^2 < 2$
 Fiber Length FQ10..... 5 Meters (16 ft) Std.
 Fiber Length FQ20..... 3 Meters (9.8 ft) Std.
 Optical Isolator FQ10..... Standard
 Optical Isolator FQ20..... Standard
 Positioning..... Visible Red Diode Light. 636nm

Marking Speed Raster = 300 CPS; Vector > 500 CPS
 (application dependent)
 Input Power Selectable 115VAC / 230VAC, 50/60HZ
 Cooling Air Cooled, Fan/Filter
 (no water cooling required)
 Operating Temperature Range..... 10° to 42° C Non-Condensing
 (50° F to 107° F)
 Expected MTTF (Diode)..... Greater than 100,000 hours



Customized Part Handling Options Available



Features DATA MATRIX™ 2-D Code Marking Capability — Meets all Department of Defense UID Requirements

28181 River Drive • Circleville, Ohio 43113, USA
 Tel.: 740-477-5000 • 800-654-5696 • Fax: 740-477-5001

www.telesis.com

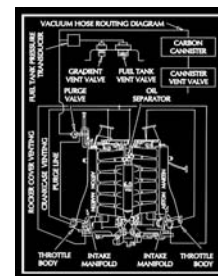


F-SERIES FIBER LASERS FQ10 and FQ20

Powered by 110/230VAC with no water-cooling requirements, these units are extremely dependable over a long life, and are backed by a full TWO-YEAR factory warranty.

"All of your employees seem to be willing and able to give that "little bit extra" to make everything go right. The laser marking equipment you have supplied to us thus far has been totally reliable and continues to perform flawlessly, helping Federal-Mogul Corporation reduce costs as it continues to improve product quality. I look forward to a continued relationship with the people I consider my "friends" at Telesis Technologies."

Best Regards,
Ed Reinemeyer
Process Engineer,
Federal-Mogul Corporation



Example
Laser marking
on Coated Label
Stock



Features DATA MATRIX™ 2-D Code Marking Capability —
Meets all Department of Defense UID Requirements

Zenith® FQ10 and FQ20 Laser Systems

DIMENSIONS

FQ10 Marking Head... 51.0 (L) x 12.7 (W) x 14.0 (H) cm 20.1" (L) x 5.0" (W) x 5.5" (H)
Weight 6.82 kg (15 lbs.)

FQ10 Laser Controller Standard Rack Mount
42.5 (W) x 13.7 (H) x 50.8 (D) cm
(16.7" (W) x 5.4" (H) x 20.0" (D))
Weight 15 kg (33 lbs.)

FQ20 Marking Head... 51.0 (L) x 12.7 (W) x 14.0 (H) cm 20.1" (L) x 5.0" (W) x 5.5" (H)
Weight 6.82 kg (15 lbs.)

FQ20 Laser Controller Standard Rack Mount
42.5 (W) x 13.7 (H) x 50.8 (D) cm
(16.7" (W) x 5.4" (H) x 20.0" (D))
Weight 15 kg (33 lbs.)

LENS CONFIGURATIONS AVAILABLE

Focal Length	Marking Field	Work Clearance
100mm	45mm x 45mm (1.8" x 1.8")	97mm (3.82")
160mm	90mm x 90mm (3.5" x 3.5")	176mm (6.93")
163mm	110mm x 110mm (4.3" x 4.3")	185mm (7.28")
254mm	155mm x 155mm (6.1" x 6.1")	296mm (11.65")
* 330mm	215mm x 215mm (8.4" x 8.4")	387mm (15.23")
* 420mm	275mm x 275mm (10.8" x 10.8")	493mm (19.40")

* Application dependent

SOFTWARE

Software..... Merlin® II LS
 Operating System Windows® 2000, Windows XP, or Windows Vista™
 Font Generation True Type Fonts
 Barcodes and Matrix..... 2D Data Matrix TM, PDF417, BC 39, Interleaved 2 of 5, UPCA/UPCE BC 128, Maxi Code, Code 93, QR Code and Others
 Graphic Formats Raster and Vector, BMP, .GIF, .JPG, .WMF, .EMF, .PLT, .DXF
 Serialization Automatic and Manual Input Host Interface Capable
 Linear Marking..... Scalable with Letter Spacing Control
 Arc Text Marking Scalable and Adjustable
 Drawing Tools Line, Rectangle, Arc, Circle
 Interface..... Serial, I/O and Host capable
 Power Monitoring Self-Calibrating, Output Power Feedback and Auto Adjustment

28181 River Drive • Circleville, Ohio 43113, USA
Tel.: 740-477-5000 • 800-654-5696 • Fax: 740-477-5001

www.telesis.com