

OZ Optics Limited

HIGH POWER FIBER OPTIC COMPONENTS

January 2011

OZ Optics Limited

Your solution provider for existing and next generation fiber optic components and test equipment...

- Commenced operations in 1985
- Corporate headquarters and manufacturing in Ottawa
- Manufacturing in Ottawa/Canada, Izmir/Turkey and Jiaxing/China
- Over 250 employees – 140 in Ottawa, 60 in Turkey, and 50 in China

OZ Optics Limited

Your solution provider for existing and next generation fiber optic components and test equipment...

- Seven Product Groups
 - Laser-to-Fiber Delivery Systems
 - High Power Fiber Optic Components
 - Polarization Maintaining Products
 - Attenuators
 - Opto-Electronic Packaging
 - Test Equipment
 - Fiber Optic Sensor Systems
- Over 1,000 products
- Deep and broad patent portfolio
- Robust new product development program
- ISO 9001 : 2008 Certified

Management Team

OZ Optics is lead by an experienced team:

- **Ömür Sezerman, Chairman, President & CEO**
 - Founder and CEO since inception (25 years)
- **Garland Best, VP of Components Division**
 - 19 years at OZ Optics
- **Gordon Youle, VP of Test Equipment Division**
 - 12 years at OZ Optics
- **Metin Sezerman, General Manager of OZ Turkey**
 - 10 years at OZ Optics
- **Bing Li, General Manager of OZ Optics China**
 - 5 years at OZ Optics

Addressed Markets

Using our strong direct sales force and distribution network, we address the following markets:

- Telecom/Datacom
- Oil & Gas
- Military & Homeland Security
- Medical & Pharmaceutical
- Industrial
- Educational

Why We Win Business

- Superior Technology
- Innovative Engineering
- Extensive experience in fiber optics (over 25 years)
- Competitive Pricing
- Exceptional Quality & Service
- Global Presence

Global Sales Channel

OZ Optics has resellers and distributors in over 30 Countries and regions including:

Australia

Denmark

Israel

South Korea

Austria

France

Italy

Spain

Benelux Countries

Germany

Japan

Switzerland

Brazil

Greece

Norway

Sweden

Canada

Hong Kong

Poland

Taiwan

China

India

Portugal

Turkey

Czech Republic

Ireland

Singapore

United Kingdom

United States

...sold to over 10,000 customers globally!

Manufacturing Strategy

- Product Design and Engineering in Ottawa
- Subcomponent Parts Manufactured in China and Turkey
- Final Assembly and Quality Assurance in Ottawa
- Components Sourced World-Wide
- Ensure Highest Quality and Lowest Cost

In-house Production Capabilities

- Experienced (over 25 years), well-trained staff
 - Optical, mechanical, electronic & software
- State-of-the-art machine shop – CNC Machines
- Thin Film Coating Facility
- Environmental Test Chambers
- Clean Room Facilities

Facilities

- **Ottawa:**

- 60,000 sq. ft - Manufacturing and R&D Facilities
- 14,000 sq. ft - Sales, Marketing and G&A
- 15,000 sq. ft - Training, and Fitness Facility

- **Izmir, Turkey:**

- 33,000 sq ft Manufacturing Facility
- Located in a Free Trade Zone
- Cost-Effective Manufacturing
- High Quality Labour Pool
- Very Low Tax Rates

- **Jiaxing, China:**

- Over 20,000 sq ft
- Low Cost Manufacturing

- **Sales Offices in Georgia, California and Florida**

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OZ Optics – Ottawa Campus



OZ Optics – Turkey Campus



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OZ China JiaXing Campus

- ZHEJIANG OZ OPTICS TECHNOLOGIES CO.,LTD China, Jiaxing 314033, 289 Mu Yang Road, Jiaxing Economic Development Zone
- 2000 Square Meters of Manufacture Area
- 100 Square Meters of Clean Room – Class 1000
- 100 Square Meters of ESD Working Area



Industry Standards

- ISO 9001:2008 Certified
- Controlled Goods Directorate Registered
- Telecordia Compliance
- CE Compliance
- RoHS Compliance

Technology

We have accumulated over 25 years of corporate knowledge and experience in the field of fiber optic components and test equipment

- Numerous patents granted and filed
- Advanced proprietary processes
- Extensive library of proven and tested designs
 - Optical, mechanical, electronic & software

Technology

- **OZ Optics was the first to manufacture:**
 - PM Fiber Connectors & Components
 - Visual Fiber Optic Fault Locators
 - Fiber Optic Patchcords With Attenuating Fiber
 - Reduces costs and complexity
 - Eliminates fixed female to male attenuators
 - In-line Power Monitors Based on Innovative Optical Taps With Integrated Photodiodes
 - Wireless Diagnostic Equipment for Monitoring of Optical Fibers
 - Fault Finder and Smart Patchcords
 - Fiber Optic Distributed Strain and Temperature Sensors
 - Sensitive detection of corrosion in large structures
 - Fast and simultaneous measurement of strain and temperature
 - Combined sensor technology and web monitoring

Technology

- Pioneer in Polarization Maintaining (PM) Components
- Leader in Wavelength Flattened, High Power & Low PDL Components
- Leader in High Power Fiber Optic Delivery Systems
- Custom Test Equipment, Including Polarization Test Equipment and FTTH Equipment
- Widest Range in Attenuator Product Offering
- Fiber Optic Distributed Strain and Temperature Sensors for highly accurate and rapid measurement of strain and temperature
- Complete product line for OCT applications

Clean Room for High Power Manufacturing Components



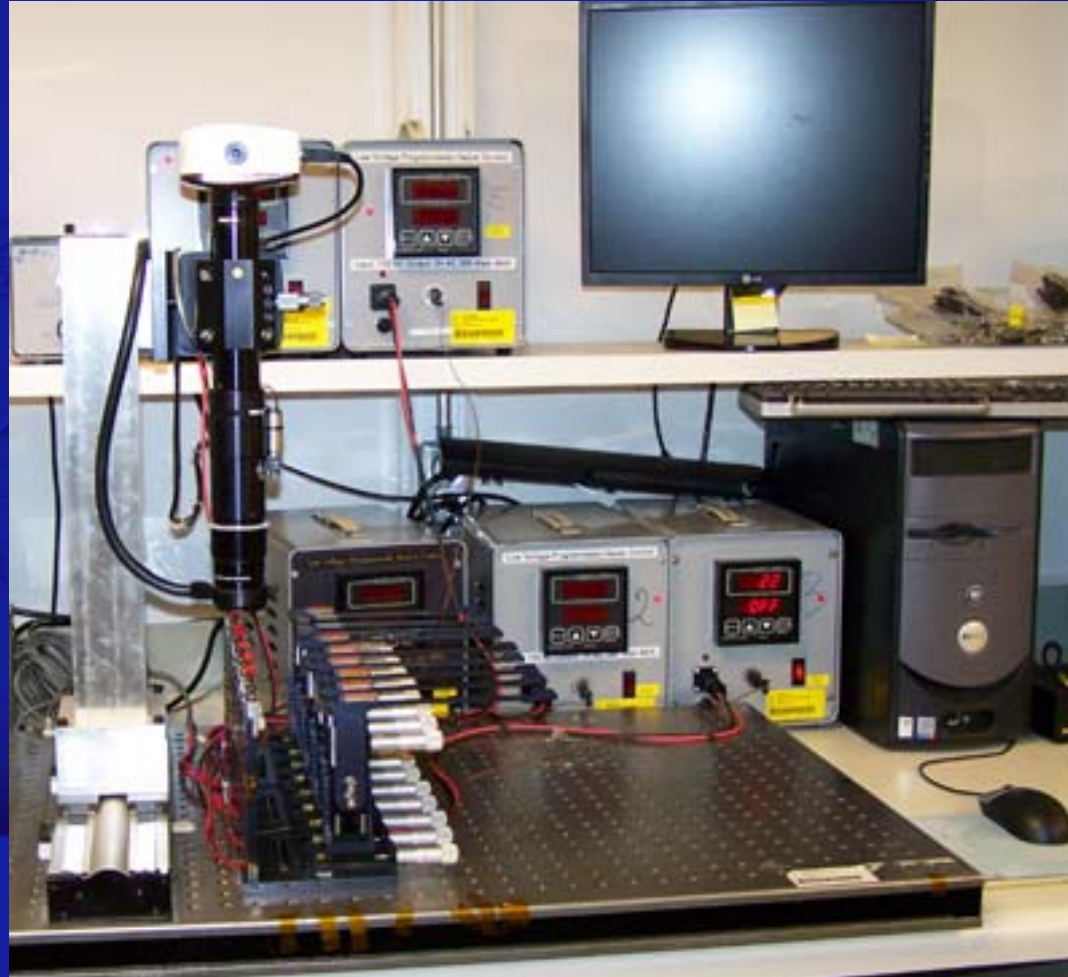
Fusion Splicer for End Capping



High Power Inspection Station



High Power Gluing Station for Patchcords



Fusion Splicer, Cleaver and Glass Processing System with PM Rotation



High Power AR Coating Machine



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Laser Conditioning Station



High Power Patchcords And Connectors



- Able To Transmit Over 100W Of Optical Power
- Operating Wavelengths From 200nm To 2000nm
- PMF, SMF, And MMF High Power AR Coatings

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- PMF, SMF, And MMF High Power AR Coatings

High Power Collimators/Focusers



- Up to 100 Watts CW Power Handling
- Available for 180nm to 2000nm Wavelengths
- Receptacle and Pigtailed Versions

High Power Fiber Pigtailed Isolators



- Low Insertion Loss, Up to 100 Watts
- Available From 400 - 2000nm
- Polarization Independent , High Isolation

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High Power Directional Taps/Power Monitors



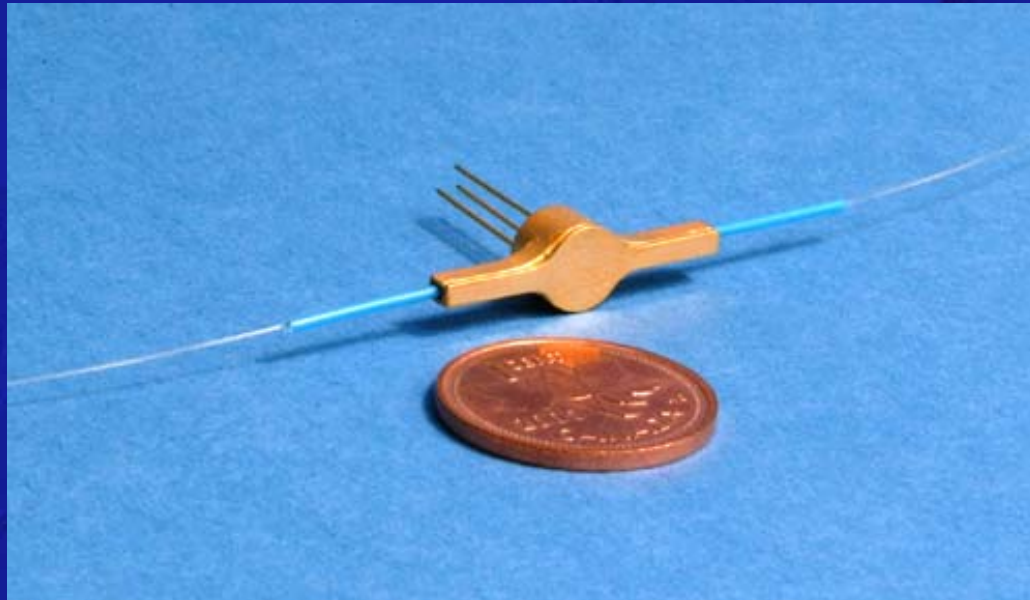
- Up to 10 Watts Power Handling
- SM, PM and Specialty Fiber Versions
- Available for 320nm to 2000nm Wavelengths

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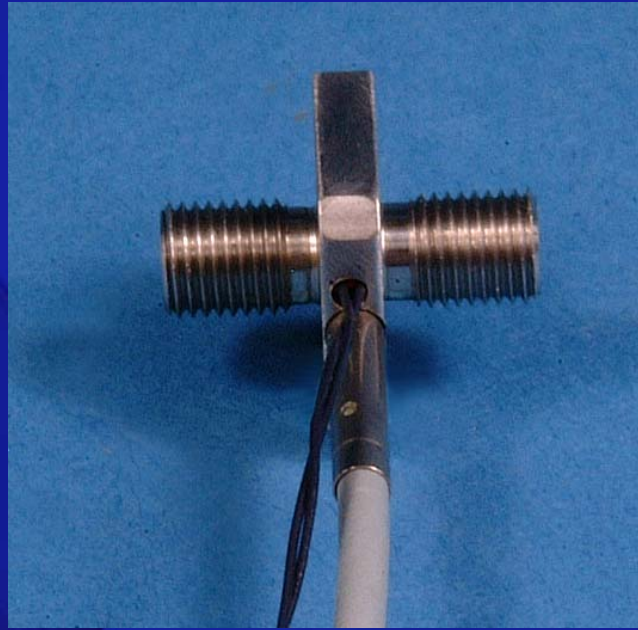
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High Power Directional Taps/Power Monitors



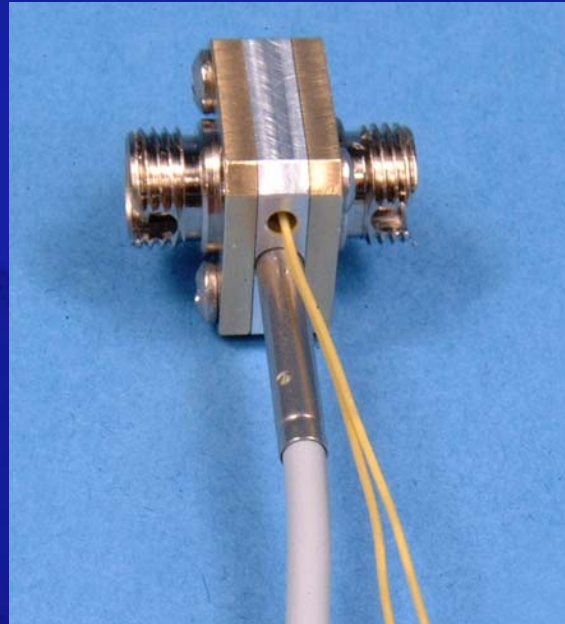
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- SM, PM and Specialty Fiber Versions
- Available for 320nm to 2000nm Wavelengths

High Power Shutters/Bulkhead Receptacles With Safety Interlocks



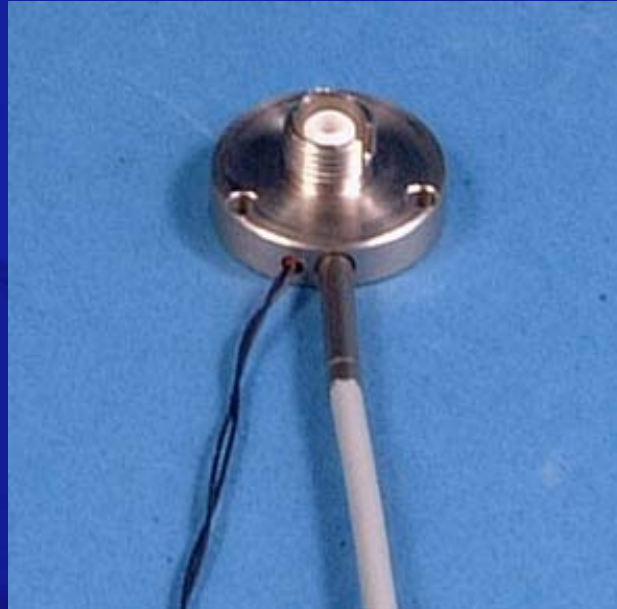
- **Multiple Watts CW Power Handling**
- **Shutter Speed of < 5 msec**
- **Temperature, Contact or Proximity Sensors for Safety Interlock**
- **SMA 905 or FC Receptacles**

High Power Shutters/Bulkhead Receptacles With Safety Interlocks



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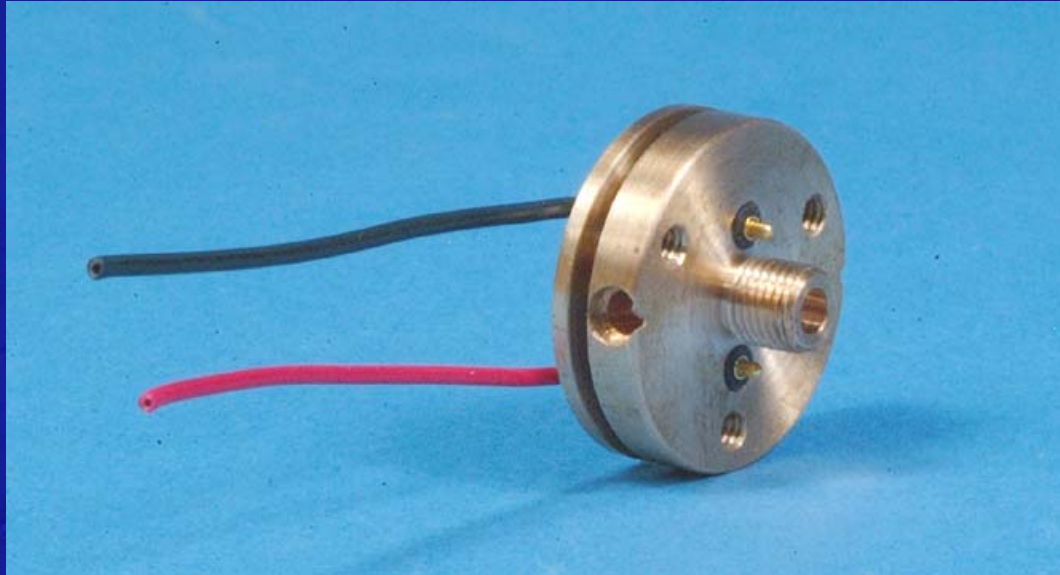
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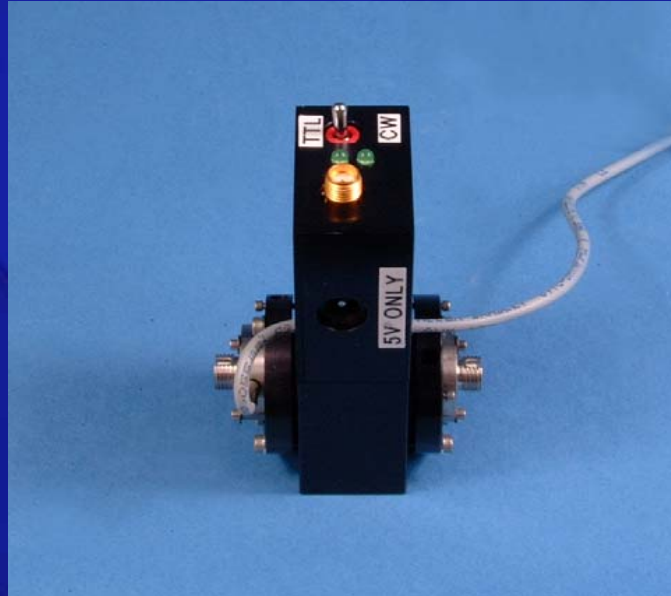
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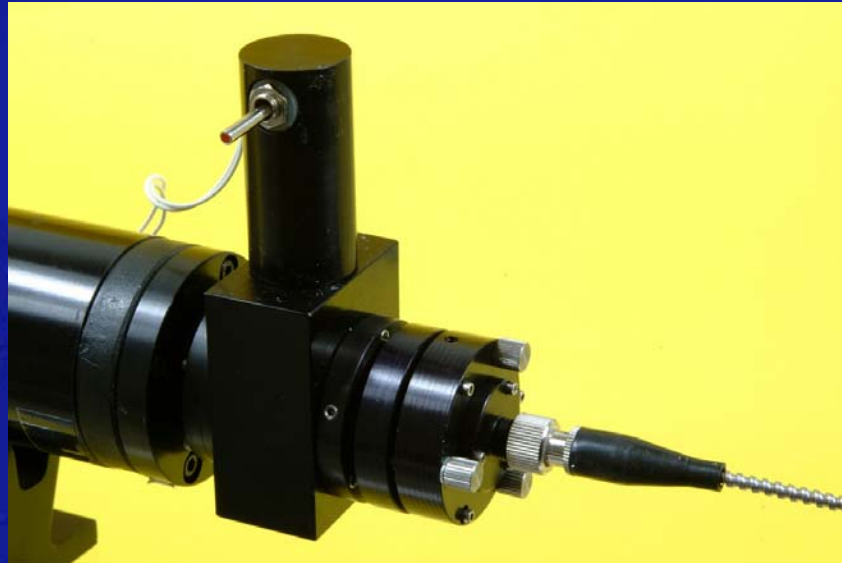
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Laser To Fiber Coupler With TE Cooler



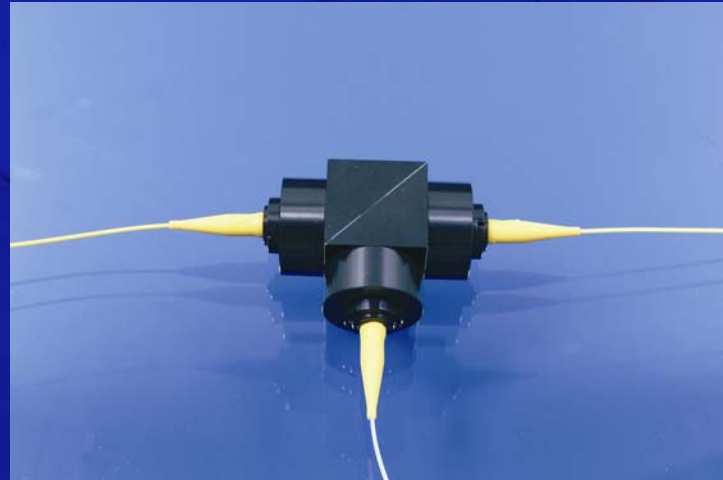
Up To 100 Watts CW Power Handling
0.10C Temperature Control
SMF, MMF & PMF Versions

Laser To Fiber Coupler With Shutters



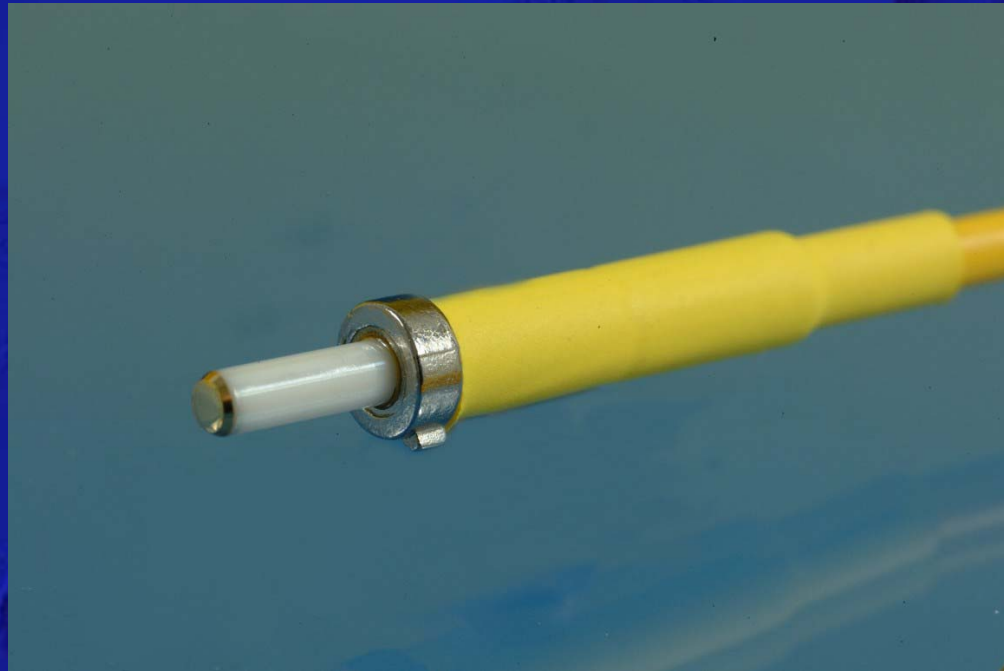
- Laser To Fiber Coupler With Shutters
- >60% Coupling Efficiency For SMF & PMF
- Up To 3 Watts Optical Power Handling
- Ideal For Safety Interlocks, Remote Control

High Power Wavelength Division Multiplexer



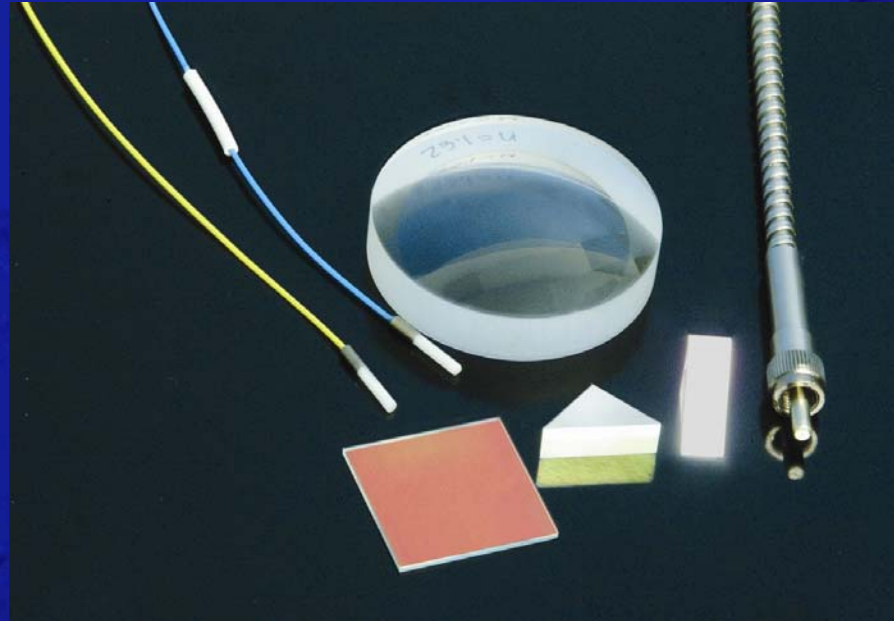
- 0.8dB Insertion Losses, 65dB Isolation
- Up To 2 Watt Power Handling
- -40dB, -50dB, -60dB Backreflection

High Power Antireflection (AR) And Highly Reflective (HR) Coated Fiber Ends



- HR, $R > 98\%$, $AR < 0.3\%$
- 350nm To 2000nm Wavelength Coatings
- SMF, MMF & PMF Versions

High Power Optical Coatings



- High Power AR, Beamsplitter, Dichroic Coatings On
- Fibers, Micro Optics, Lenses, Plates, Prisms Etc.
- Low Temperature High Abrasion Resistant Coatings