



FAP 600 Series

High-Brightness Fiber-Coupled Bars

Fiber Array Packages (FAP) from Coherent are the highest quality fiber-coupled diode lasers in the industry, offering you the simplest way of delivering the output from a diode laser bar to your application.

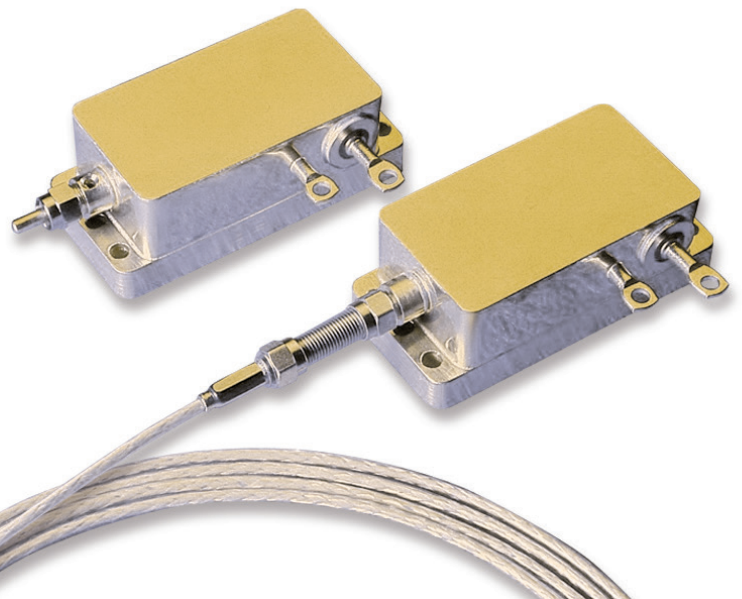
The FAP 600 series consists of a 19-element conduction-cooled diode laser bar, lensed and coupled to an 600 μm , multimode fiber bundle array.

FEATURES

- High reliability
- High efficiency
- High brightness
- Rugged construction

APPLICATIONS

- Solid-State Laser Pumping
- Plastic Welding
- Soldering
- Heating



COHERENT
Superior Reliability & Performance

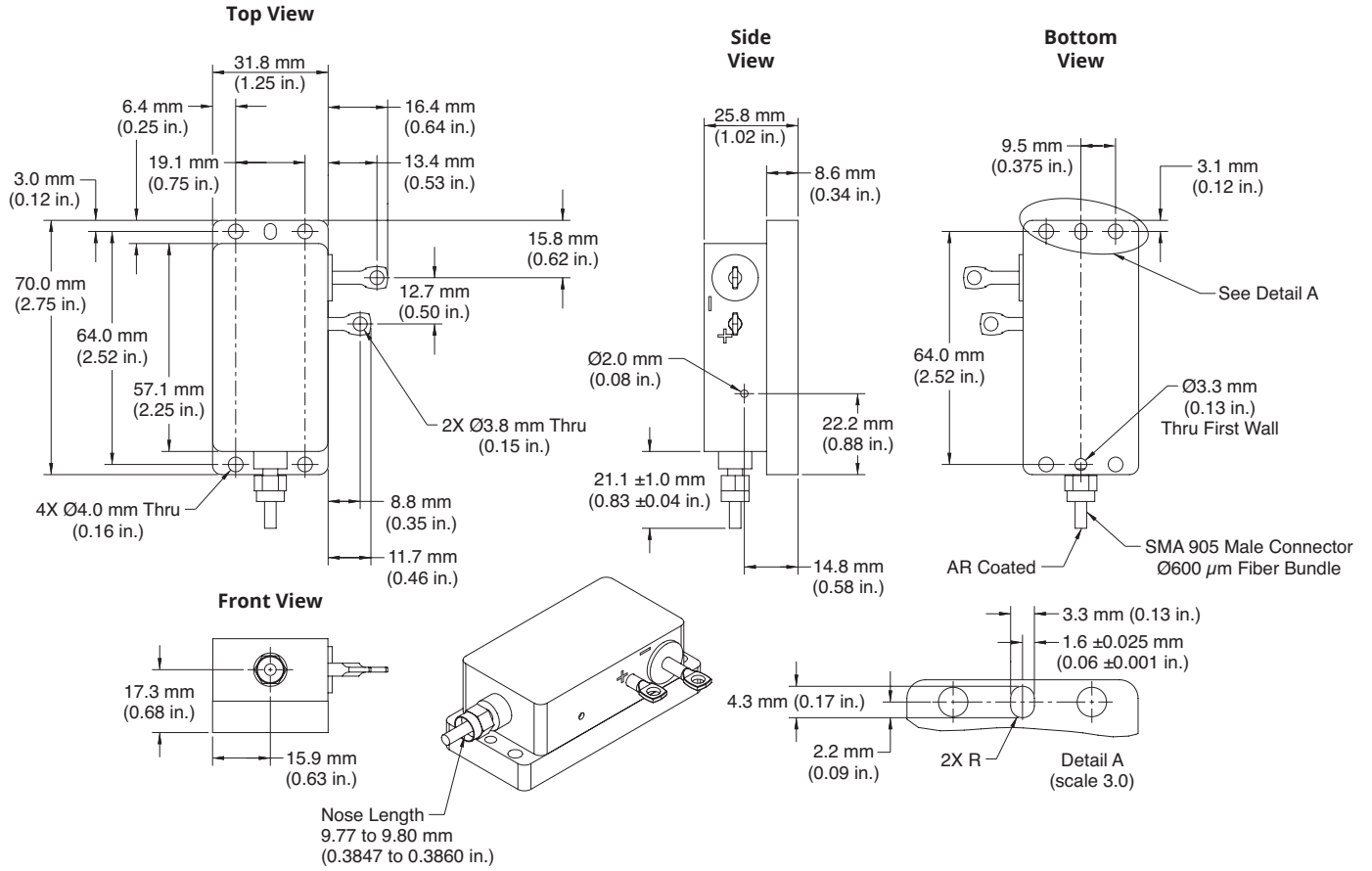
| SPECIFICATIONS ¹ | FAP600-25W- 805.0to811.0-F<3.5-25C | FAP600-50W-800.0to 820.0-FW90E<8.0-25C |
|--|---------------------------------------|---|
| Part Number | 1041806 | 1276388 |
| OPTICAL SPECIFICATIONS | | |
| CW Output Power (W) | 25 | 50 |
| Center Wavelength ² (nm) | 808 | 810 |
| Center Wavelength Tolerance (nm) | ±3.0 | ±10.0 |
| Spectral Width ² (nm) | <3.5 | <8.0 |
| Wavelength Temperature Coefficient (nm/°C) | 0.28 | 0.28 |
| Beam Divergence ³ (NA) | <0.16 | <0.16 |
| Beam Diameter (µm) | 600 | 600 |
| ELECTRICAL CHARACTERISTICS (typical) | | |
| Slope Efficiency (W/A) | >0.9 | >1.0 |
| Conversion Efficiency (%) | >40 | >52 |
| Threshold Current (A) | 6 to 9 | 8 |
| Operating Current (A) | <36 | <55 |
| Operating Voltage (V) | <2.0 | <2.0 |
| Recommended Hookup Wire (gauge) | 8 or heavier | 8 or heavier |
| THERMAL SPECIFICATIONS | | |
| Thermal Resistance (typical) (°C/W) | 0.7 | 0.7 |
| Case Operating Temperature (°C) | -20 to 30 | -20 to 30 |
| Case Storage Temperature (°C) | -20 to 60 | -20 to 60 |
| RECOMMENDED HEAT SINK | | |
| Capacity (W) | 100 | 100 |
| Thermal Resistance (°C/W) | <0.1 | <0.1 |
| MECHANICAL SPECIFICATIONS | | |
| Weight | 300 g (10.3 oz.) | 300 g (10.3 oz.) |
| Fiber Connector | SMA 905 | SMA 905 |

¹ All values measured at case temperature (TC) = 25°C.

² Custom center wavelengths and custom spectral widths are available, some from stock. Consult your Coherent representative.

³ The numerical aperture of the output beam is defined as the sine of the half-angle of the divergence cone that encircles 90% of the energy.

MECHANICAL SPECIFICATIONS



MECHANICAL SPECIFICATIONS

