## Light

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LASER RADIATION

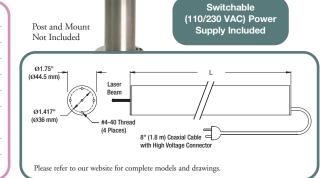
CLASS 3R LASER PRODUCT

**Terahertz** 

## High-Power, Red (632.8 nm) Helium-Neon Lasers, 5 mW to 17 mW

These high-power, red (632.8 nm), Helium-Neon lasers exhibit outstanding stability and performance with power outputs up to 17 mW. This classic tube design features four #4-40 holes located on the front for easy mounting of accessories. Please visit our website (www.thorlabs.com) for the latest

Specifications Operating Storage -20 to 70 Temperature (°C) -40 to 80 Altitude (m) 0 to 3000 0 to 6000 Humidity ≤80% ≤95% Shock 15 g for 11 ms <10 kVDC Start-up Voltage Beam Drift (After 20 min Warm-up) <0.2 mrad Long-Term Beam Drift <0.05 mrad



**HRP120** 

| II | ГЕМ#  | POWER   | POLARIZATION  | L      | \$          | £          | €          |   | RMB       | 1/e <sup>2</sup> BEAM<br>DIAMETER | BEAM<br>DIVERGENCE | LONGITUDINAL MODE SPACING |
|----|-------|---------|---------------|--------|-------------|------------|------------|---|-----------|-----------------------------------|--------------------|---------------------------|
| H  | RP050 | 5.0 mW  | Linear >500:1 | 16.75" | \$ 1,127.00 | £ 781.30   | € 1.000,60 | ¥ | 9,516.50  | 0.80 mm                           | 1.01 mrad          | 441 MHz                   |
| H  | RR050 | 5.0 mW  | Random        | 16.75" | \$ 1,150.00 | £ 797.30   | € 1.021,00 | ¥ | 9,710.70  | 0.80 mm                           | 1.01 mrad          | 441 MHz                   |
| H  | RP120 | 12.0 mW | Linear >500:1 | 21.00" | \$ 1,978.00 | £ 1,371.00 | € 1.756,00 | ¥ | 16,703.00 | 0.88 mm                           | 0.92 mrad          | 316 MHz                   |
| H  | RR120 | 12.0 mW | Random        | 21.00" | \$ 1,620.00 | £ 1,123.00 | € 1.438,00 | ¥ | 13,680.00 | 0.88 mm                           | 0.92 mrad          | 316 MHz                   |
| H  | RP170 | 17.0 mW | Linear >500:1 | 26.00" | \$ 2,450.00 | £ 1,698.50 | € 2.175,00 | ¥ | 20,688.00 | 0.98 mm                           | 0.82 mrad          | 252 MHz                   |
| H  | RR170 | 17.0 mW | Random        | 26.00" | \$ 2,370.00 | £ 1,643.00 | € 2.104,00 | ¥ | 20,013.00 | 0.98 mm                           | 0.8 mrad           | 252 MHz                   |

## 35 mW, Red (632.8 nm) Helium-Neon Lasers

<1% RMS

The HRP350 and HRP350-EC Helium-Neon Lasers are based on a novel extension of the hard-seal technology used in the cylindrical HeNe lasers. These lasers bring the same reliable, long-life operation to high-power applications as their lower power

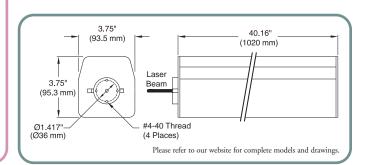
eration to high-power applications as their lower power counterparts. The innovative construction of this

system includes a rigid outer housing, which maintains mirror alignment and leads to a much lighter laser that is less susceptible to misalignment during shipment and installation than other designs.

## Features

- 35 mW of Output Power
- Complete System with Power Supply
- Novel Design for Long Life and Extreme Stability
- External Power Supply Provided
  - HRP350 for 110 VAC Nominal Input
  - HRP350-EC for 230 VAC Nominal Input

| Specifications          | Operating      | Storage   |  |  |
|-------------------------|----------------|-----------|--|--|
| Temperature (°C)        | -20 to 70      | -40 to 80 |  |  |
| Altitude (m)            | 0 to 3000      | 0 to 6000 |  |  |
| Humidity                | ≤80%           | ≤95%      |  |  |
| Shock                   | 15 g for 11 ms |           |  |  |
| Startup Voltage         | <10 kVDC       |           |  |  |
| Beam Drift              |                |           |  |  |
| (After 20 min Warm-up)  | <0.2 mrad      |           |  |  |
| Long-Term Beam Drift    | <0.05 mrad     |           |  |  |
| Noise (30 Hz to 10 MHz) | <1% RMS        |           |  |  |



| ITEM#       | POWER   | POLARIZATION  | \$          | £          | €          | RMB |           | 1/e <sup>2</sup> BEAM<br>DIAMETER | BEAM<br>DIVERGENCE | LONGITUDINAL MODE SPACING |
|-------------|---------|---------------|-------------|------------|------------|-----|-----------|-----------------------------------|--------------------|---------------------------|
| HRP350*     | 35.0 mW | Linear >500:1 | \$ 6,320.00 | £ 4,382.00 | € 5.611,00 | ¥   | 53,367.00 | 1.22 mm                           | 0.66 mrad          | 163 MHz                   |
| HRP350-EC** | 35.0 mW | Linear >500:1 | \$ 6,320.00 | £ 4,382.00 | € 5.611,00 | ¥   | 53,367.00 | 1.22 mm                           | 0.66 mrad          | 163 MHz                   |

<sup>\*110</sup> VAC External Power Supply Included \*\*230 VAC External Power Supply Included

HRP350