

RETRO-REFLECTION PROBE

PART NUMBER: P-RR

- Economical
- High Throughput
- Rugged Construction
- 280°C, 3000 psi
- Compatible with all CDI Spectrographs



Control Development's rugged, high-throughput Retro-Reflection Probe is ideal for use in an industrial process environment. It is capable of operating at temperatures from -50°C to 280°C and at pressures up to 3000 psi. This outstanding performance is achieved by using Kalrez®, O-ring seals. The Retro-Reflection Probe is available in fixed path lengths of 2, 5, 10, 20 and 50 mm. The optical fiber is 400-micron core fused silica and is clad in PVC-coated stainless steel armor. If needed, the armor can be sealed with Teflon, for high-temperature operation. A four-inch extension tube is added to the rear of the probe to allow direct insertion into a process stream. The extension tube can be adapted to the customer's process connection requirements. The Retro-Reflection Probe is available in both UV and NIR versions, as dictated by the customer's application needs. Control Development's Retro-Reflection Probe incorporates a back-reflecting aluminum mirror for high light return at UV wavelengths. Under Control Development's design, the sensitive aluminum layer is back-coated on a silica disk with a protective MgF2 overcoat. The mirror is then sealed into the bottom of the probe. Both the mirror and the collimating lens are held in the stainless steel housing with Kalrez®, o-rings. All wet surfaces are silica, stainless steel, or Kalrez®.

Optical:

Path Lengths _____ 2,5,10 & 50 mm
Lens/window material _____ UV or NIR fused silica**
Numerical aperture _____ 0.32 NA
Reflector material _____ Back surface Al/silica**
Efficiency _____ Typical: 30% at 500 nm*
_____ Guaranteed: 20% at 500 nm
Optical fiber type _____ UV or NIR 400/440 silica
_____ on silica‡
Fiber Packaging _____ PVC-coated (80°C) armored
_____ duplex Teflon®-coated
_____ (220°C) armored duplex
Fiber Length _____ 1 meter Standard‡
Fiber Termination _____ SMA 905

Physical

Body and wand materials _____ 316 SS**
Body dimensions _____ 1.5" + path length/2 L x OD
Extension tube dimensions*** _____ 4" L x 0.5" OD
Seal type _____ O-ring
Seal material _____ Kalrez® 1050LF**
Temperature range _____ -50°C to 280°C
Maximum pressure _____ 3000 psi / 207 bar

Ordering Information:

Part Number: P-RR

Control Development, Inc. reserves the right to change specifications without notice.

*Efficiency measured relative to direct fiber connection between light source and detector using 400 micron core fiber

**Other materials available upon request - allow 8 weeks for delivery of special materials

***Custom length up to 1 meter available

‡Other fiber sizes and lengths available upon request.

Affordably Priced At \$2,265.00

Control Development, Inc. also manufactures integrated spectroscopy systems for: UV-VIS, NIR, RAMAN and OEM customers.



DWDM



NIR



PORTABLE



RAMAN



MY INSTRUMENT



OEM

CONTROL DEVELOPMENT
THE PRICE PERFORMANCE LEADER...

2633 Foundation Drive, South Bend, IN 46628
(574) 288-7338 - Fax (574) 288-7339
Email: Orders@controldevelopment.com
www.controldevelopment.com