

# PROCESS TRANSMISSION CELL

- ✓ **Very Economical**
- ✓ **High Throughput**
- ✓ **Rugged Construction**
- ✓ **Low Internal Volume**
- ✓ **300°C, 3,000 psi**
- ✓ **Compatible with all CDI Spectrographs**



This high throughput transmission cell is ideal for industrial process environments. Outstanding performance, temperatures of -50°C to 300°C, pressures up to 3000 psi, high throughput and at the same time rugged and lightweight is achieved by using Kalrez O-ring seals. The collimating lens is held in the stainless steel housing with Kalrez O-rings. All wetted surfaces are silica, stainless steel or Kalrez. The high temperature capability is achieved by making all parts of the cell, including the first meter of the fiber, to be able to withstand 300°C temperatures indefinitely. The transmission cell is available in fixed path lengths of 1 to 1000 mm. The optical fiber is 400 micron core fused silica and is clad in stainless steel armor. If needed, the armor can be sealed with Teflon to provide a barrier against the environment. A two-inch extension tube added to each end of the probe provides protection against fiber shear. The transmission cell is available in both UV and NIR versions.

## Specifications:

### OPTICAL

Path Length \_\_\_\_\_ 1 to 1000 mm  
 Lens/Window Material \_\_\_\_\_ Fused Silica \*\*  
 Numerical Aperture \_\_\_\_\_ 0.32 NA  
 Efficiency \_\_\_\_\_ Typical 70% @ 500 nm  
 \_\_\_\_\_ Guaranteed: 50% at 500 nm  
 Fiber Optic Terminations \_\_\_\_\_ 905 SMA  
 Fiber Optic Type \_\_\_\_\_ 400/440 Silica On Silica \*\*  
 Fiber Optic Cable Type \_\_\_\_\_ Armored Duplex  
 Fiber Optic Cable Length \_\_\_\_\_ 3 mtrs to 200 mtrs

### PHYSICAL

Body Materials \_\_\_\_\_ 316 Stainless Steel  
 Body Length \_\_\_\_\_ 2.5" Plus Path Length  
 Diameter \_\_\_\_\_ 0.5"  
 Seal Type \_\_\_\_\_ Double O-Ring  
 Seal Material \_\_\_\_\_ Kalrez  
 Temperature Range \_\_\_\_\_ -50°C to 300°C  
 Maximum Pressure \_\_\_\_\_ 3000 psi

\*Specify UV grade or NIR grade Fused silica - UV grade 200 nm to 900 nm - NIR grade 350 nm to 2200 nm  
 \*\*Optional Teflon seal available for armor, #Optional diamond-like carbon coating available. This film improves corrosion resistance and reduces fouling. ##Other fiber sizes available upon request.

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

**Very Affordably Priced At \$3,990.00**

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



**CONTROL DEVELOPMENT**  
 THE PRICE PERFORMANCE LEADER...

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