

SERIES 700 Liquid Transmission Cell

PSD's Series 700 Liquid Transmission Cell is a precision optical instrument that allows remote sensing of liquids via fiber optic assemblies at high temperature and pressure operating conditions. This cell is fiber-coupled for unattended side-stream or in-line process monitoring or laboratory testing. Fibers are easily attached via SMA 905 connectors. The optical design is pre-aligned and optimized for maximum optical throughput in the UV to NIR spectral region. The design creates a collimated beam across the interior space of the cell for transmission measurements. One lens assembly collimates the light from the incoming fiber assembly into and across the transmission cell and the second lens assembly focuses the received energy back into the return fiber assembly.

A special version of this product is available with brazed sapphire window seal that is capable of operating at very high temperature and pressure conditions. If required, a cooling jacket and air purge capability is also available to help maintain the temperature of the cell or the tips of the fiber optic assembly from excessive operating conditions.

The cell can handle operating temperatures and pressures up to 400°C and 1,200 PSI. The standard construction material is 316/316L stainless steel. The path length is pre-set at PSD and is determined by a high tolerance spacer. Spacers are available to provide path lengths from 1mm–50mm. The process connections are made through two 1/8" NPT female threaded ports.

PRODUCT HIGHLIGHTS & SPECIFICATIONS

Optional UV and visible light sampling

Robust and inert construction
for industrial process applications

Alternate material per customer
request to construct probe

Air purge capability available for
higher temperature applications

Capable of operating up
to 400°C and 1,200 PSI