



Single-Sided Transmission (SST) Probe

The Single-Sided Transmission (SST) Probe is our most popular fiber optic probe. Rugged and reliable, it's ideal for continuous process monitoring applications. Easily installed in a pipe or reactor through a single access port, the SST Probe works with any Guided Wave single-fiber spectrophotometer. Optional accessories make it easy to adapt the SST Probe to different kinds of process installations.

Unique Design

The SST probe houses incoming and outgoing optical fibers side-by-side in a single 3/4-inch, or 1 inch stainless steel body: This unique, compact design (U.S. Patent #6,043,895) means true transmission which translates to more signal, less noise, better measurements.

Process-Resistant Construction

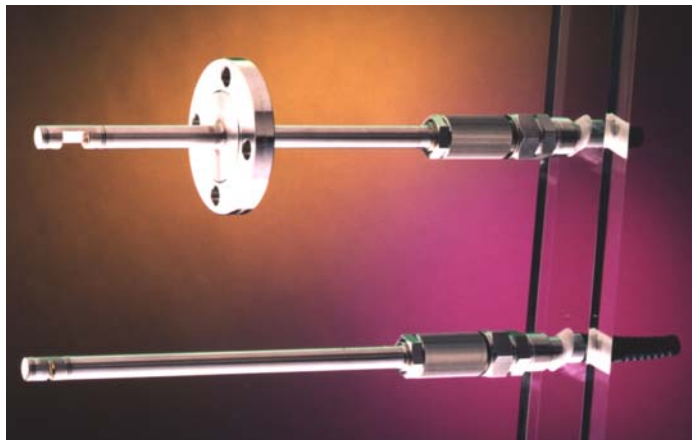
The SST Probe is designed to withstand harsh process conditions. The body of the probe is built from 316 stainless steel or -- by special order -- other corrosion-resistant materials. The SST Probe's sapphire optical windows are sealed to the probe body with proprietary gold alloy brazing. These materials are unaffected by most hydrocarbons and polymers. For extremely corrosive process streams, use the O-Ring SST Probe instead (for details, see O-Ring SST Probe data sheet). Additionally, our special construction techniques also make the probe insensitive to most process pipe vibrations.

Wide Operating Range

The SST Probe is designed to operate over a wide range of pressures and temperatures:

- Temperatures to 300 °C
- Pressures to 2000 psi
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This probe is available in five standard lengths and ten optical pathlengths. Other probe lengths and pathlengths are available by special order.



Exceptional Light Transmission

Like other Guided Wave optical probes, the SST Probe provides exceptional optical performance. Typically, peak transmission exceeds 40%. That means more signal, lower measurement noise, and lower limits of detection. Of course, the SST Probe's optics are permanently aligned at the factory. There's no need for optical adjustments at the time of installation, nor ever any chance for misalignment or varying pathlengths.

Compatible with All Guided Wave Analyzers

The probe, or sample interface, is a crucial component of a complete analyzer system. For optimal performance, the probe must be "optically matched" with the spectrophotometer and with the optical fiber that transmits the spectral data. The SST Probe (and each of Guided Wave's other optical probes) is matched to Guided Wave analyzers and fiber to achieve the highest possible performance.

Optional Accessories

The optional Extractor Assembly and custom flange service facilitate installation of the SST Probe into common process pipe configurations.

For additional information, contact Guided Wave at gwinfo@guided-wave.com or visit our web site at <http://www.guided-wave.com>.

Guided Wave Incorporated

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Literature: 1005-11-06

Guided Wave Europe BVBA

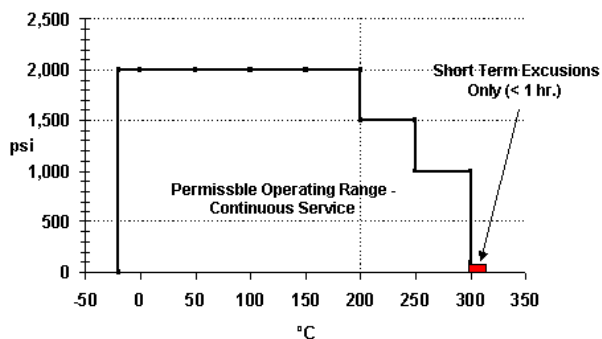
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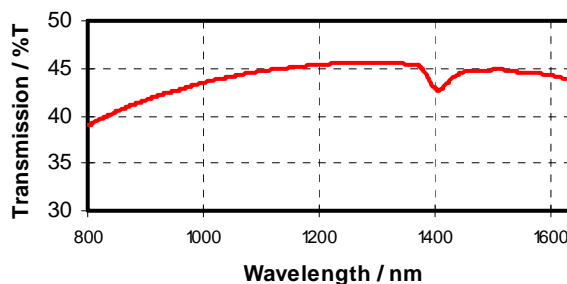
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Specifications	
Standard Probe Lengths (inches):	12; 18; 24; 30; 36; (longer lengths available on request)
Pathlength (mm \pm 0.075 mm):	2; 3; 4; 5; 10; 15; 20; 30; 40; 50 (exact pathlength engraved on all probes)
Probe Diameter (inches):	0.750 [19 mm]; 1.000 [25.4 mm] (larger diameter recommended for probes \geq 24" long)
Spectral Range:	UV-Vis (200 – 600 nm); Vis-NIR (380 – 1100 nm); NIR (800 – 2100 nm)
Optics:	Fused silica (UV-Vis); BK7 (Vis-NIR)
Fiber Diameter (μ m)/Connector:	200; 300; 400; 500; 600 / SMA 905; FC; ST
Fiber Types:	High-OH (UV-Vis); or Ultra Low-OH (Vis-NIR)
Efficiency:	> 30%
Temperature range:	-20 °C to 300 °C
Pressure Range:	0 psi to 2000 psi [0 – 138 bar]
Body Material:	SS316 standard; SS304, SS316L, Hastelloy C-276, Monel, Titanium, and Nickel available on request
Window Material:	Sapphire
Window Seal:	Au alloy braze

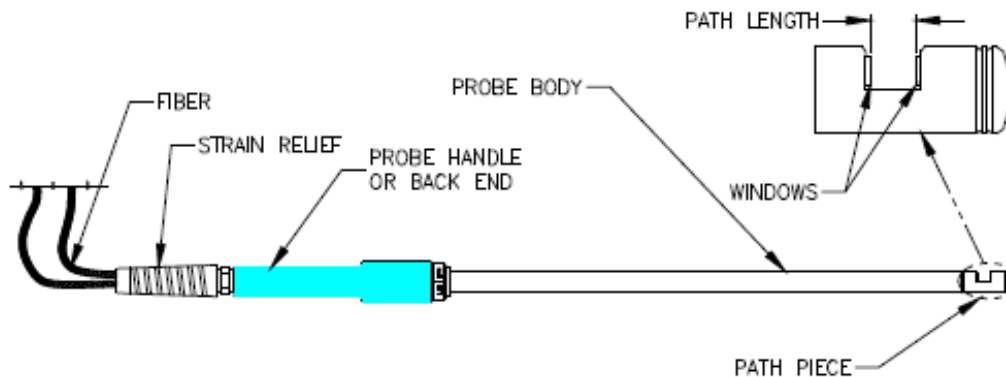
Operating Temperature/Pressure Range



Typical SST Transmission Curve



SST Probe



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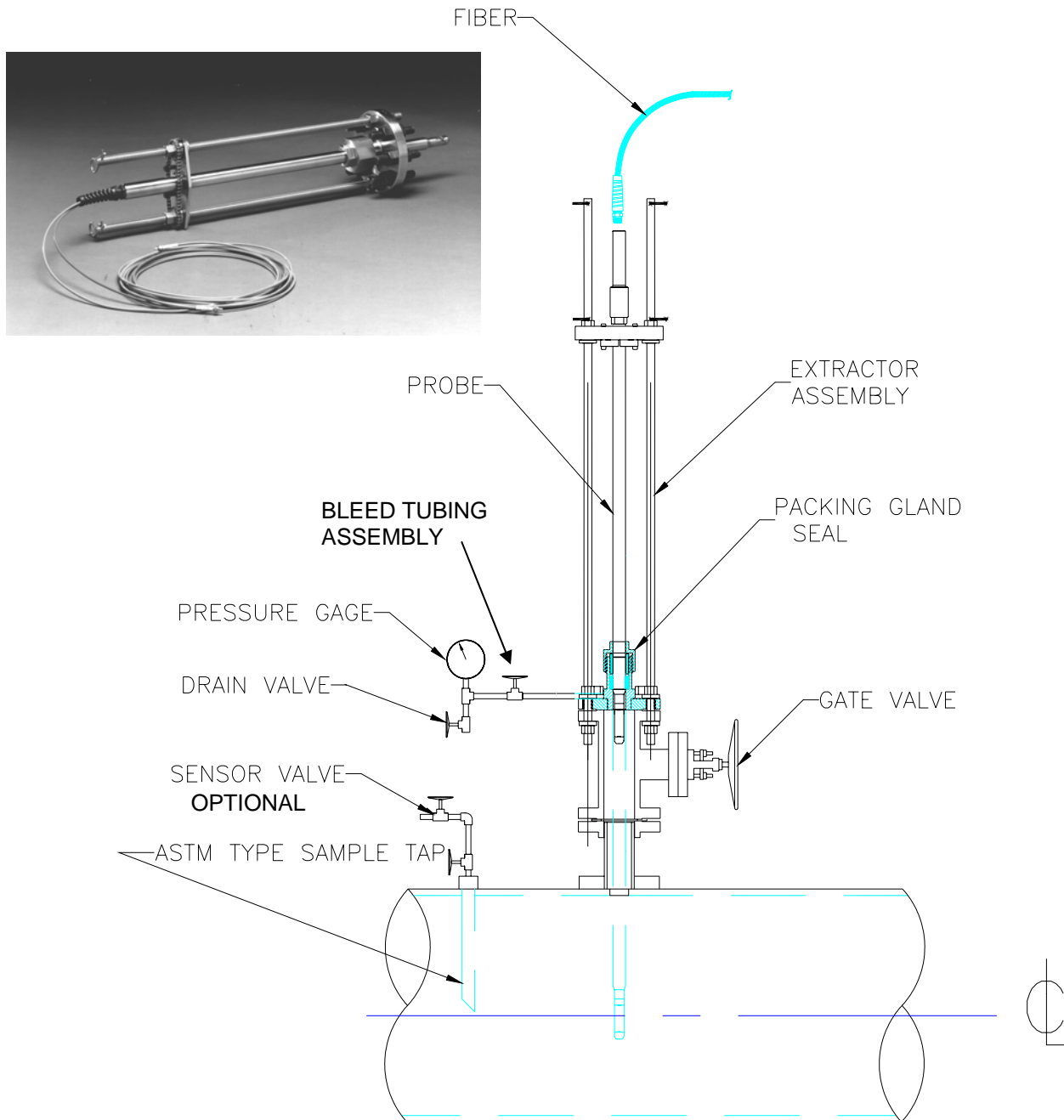
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Single-Sided Transmission (SST) Probe

SST Probe and Extractor Assembly



Note: Typical installation shown, gate valve, sample tap and bleed tubing assembly supplied by customer.

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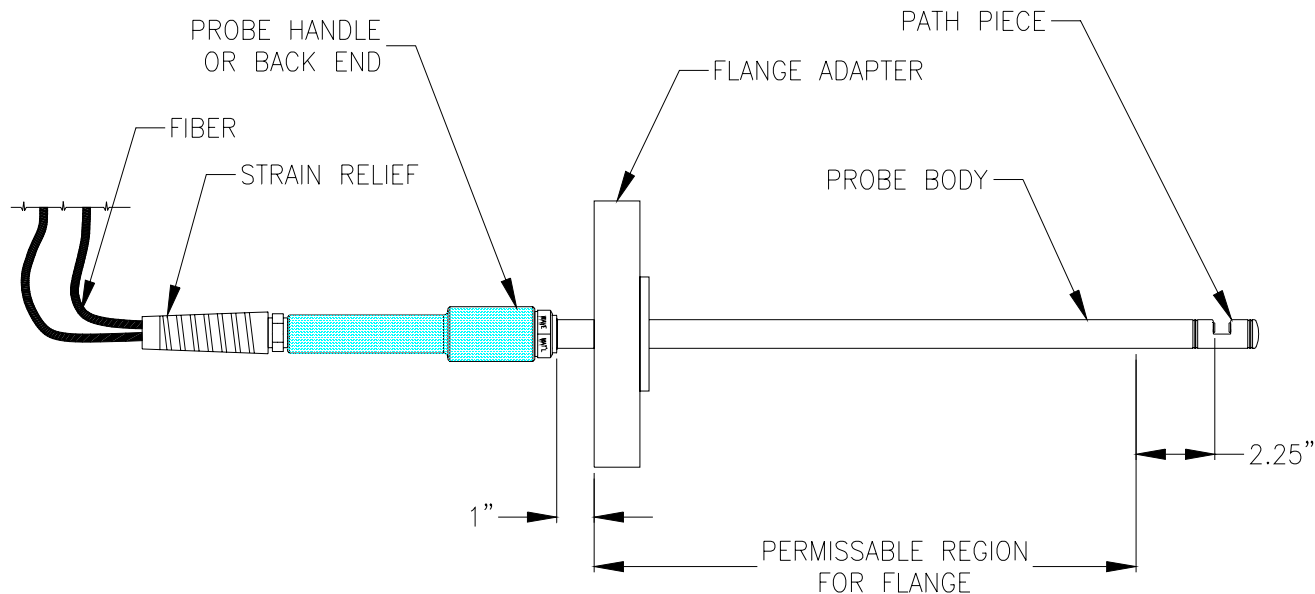
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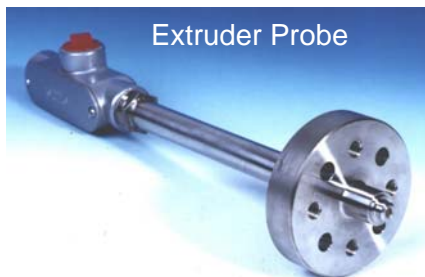
SST Probe with User Specified Flange Attached



Note: Customer design sign-off required prior to fabrication.

Custom and Variety of Probe Designs Available

Guided Wave has a wide variety of probe designs to meet your process needs, including the O-ring SST Probe, Shuttle Probe, Multi-Purpose Flow Cell, Teflon Flow Cell, Extruder Probe, Gas Cell, and laboratory probes. Guided Wave has built and delivered boiler code certified SST probes. Please call us with your custom sample interface needs.



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