



FIBER OPTIC
Temperature sensors

INSTALLATION GUIDE



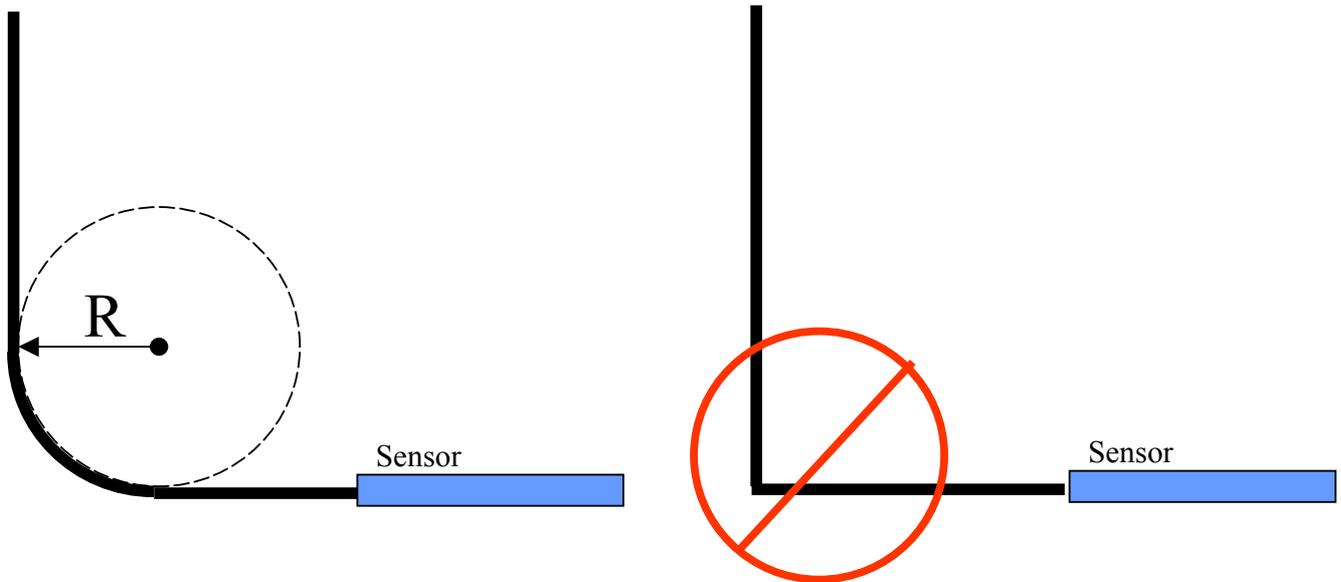
1.0 INTRODUCTION

The following document is a guide that will help the user in the installation of his fiber optic temperature sensors. The informations provided is based on our expertise and past customer applications. This said, since each application is different, it is the user responsibility to ensure proper installation of the sensor. The use and installation of fiber optic is different from standard technology and may require some trial and error tests before to obtain the best setup. If you have any questions or are looking for advices please do not heistate to contact FISO Technologies technical support:

Pierre-Philippe Frenette B. Sc.
Technical support and after sales service - Application engineer

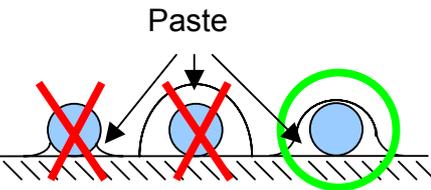
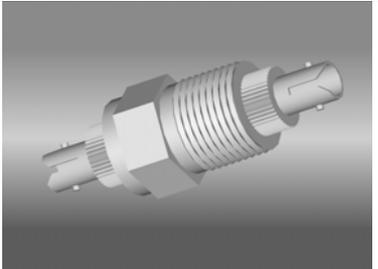
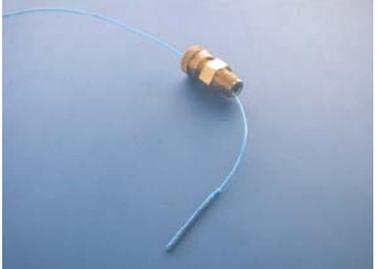
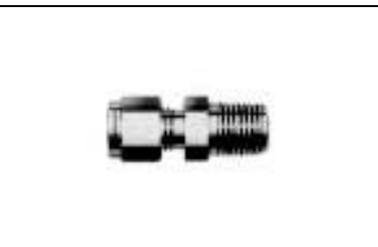
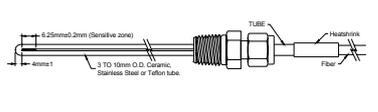
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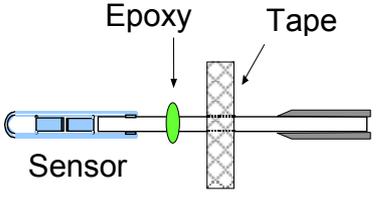
2.0 MINIMUM BENDING RADIUS



Depending on the cable OD, the fiber optic routing must exceed the cable minimum bending radius specification (larger loop). Cable OD being equal or larger than 3mm should respect a minimum bending radius of 3mm. Cable OD being smaller than 3mm should respect a minimum bending radius of 2mm.

3.0 DIFFERENT WAY TO INSTALL YOUR SENSORS.

#	Description	Supplier	Part Number	Picture
1	Thermal paste	Omega www.omega.com	Thermally conductive silicon paste P/N: OT-201	
				
2	Easy-Through	FISO www.fiso.com	P/N: EST-NOR-120 Comments Limited to 120 °C Useful for pressurized enclosure. Fiber optic connectors (ST model) on both side.	
3	Feedthrough	Swagelok www.swagelok.com	FOT-L Ultra-Torr; SS-2-UT-1-2 FOT-M, FOT-BARE, FOT-HERO, Mems Ultra-Torr ; SS-1-UT-1-2 Comments Compression O-ring limited to 200 °C Useful for pressurized enclosure.	
4	Fitting	Swagelok	P/N: SS-400-1-4 1/4" male NPT fitting P/N: SS-200-1-2 1/8" male NPT fitting Comments Fixed length (cable cured in the fitting)	
5	Thermowell sensor (to be combined with item #4 above)	FISO	P/N: FOT-F Comments Thermowell construction which slide back and forth through the fitting for variable length.	

6	Adhesive	Vishay www.vishay.com	<p>P/N: M-BOND 610</p> <p>Comments Operating Temperature Range Short Term: -269° to +370°C Long Term: -269° to +260°C * Make sure to select an adhesive which thermal properties exceed the temperature monitoring.</p>	
7	Tape	Any brand	<p>Comments Make sure to select a tape which thermal properties exceed the temperature monitoring.</p> <p>The tape can be installed anywhere on the cable but not on the sensor (isolation).</p>	
8	Spiral Wrap	FISO	<p>P/N: Spiral Wrap strain relief.</p> <p>Comments Give more strength to the cable. Good protection to prevent fiber bending and «Minimum bending radius» excess.</p>	<p>No picture available at the present time.</p>