

Thermo-Sensor

Installation, handling procedures for S96FX.

E-11.14

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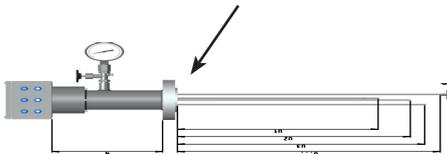
Installation and handling procedures for Flexible Multipoints S96

The personnel required to install the cables and thermocouples is to be determined by the client. All scaffolding, required equipment and personnel to be in place before installation service. This will reduce unnecessary waiting and costs to the client.

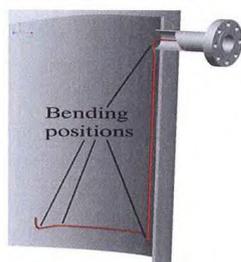
Installation preparation and procedure:

1. Identify the site and climate conditions are suitable for installation. Installation should NOT proceed in raining day. The vessel must ventilated and there is no potential risk for all staff involved during installation.
2. Before installation, test sensor for functionality.
3. Sidewall brackets and weld clips are to be incorporated into vessel manufacturing and should be in place prior to multipoint installation, if any.
4. Review with the client, the proposed thermocouple locations with reference to trays, struts, and any other vessel obstructions. These locations are usually determined during installation review procedure.
5. From drawing data, mark thermocouple point locations inside the vessel & bending positions.
6. Hang support cables and set clip locations (location of the measuring points).

Warning :
Do not bend along the 300 mm length under the flange.

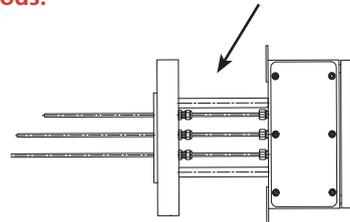


7. Before to introduce the thermosensor S96 into the reactor, you have to straighten all insets.
8. After that, you must put a mark on inset for each bending position.



9. When all marks are done, you can place the multipoint in front of nozzle.

Warning :
Do not handle the instrument by using the 4 rods.



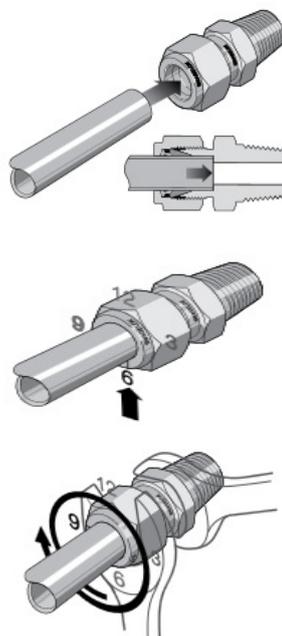
Firstly, do not forget to place the washer between the flanges. Start to introduce the thermosensor. Using the upper flange assembly, lift and lower and introduce the thermocouple assembly into the vessel.

10. When flange reaches the right position, you can fix it.
11. From inside the reactor, bend the insets each time bending marks is appearing (bending radius is 100mm). In the same time, you have to guide all insets to their respective positions.
12. After fixing the multipoint head, you have to route all insets to their respective positions.(see reactor drawing and routing plan).
13. Once all insets are placed, you just have to fix them by using clamps or clips (see reactor drawing).
14. Be careful that each insets can not touch each other to avoid wear due to friction.
15. After installation is completed, be careful that all insets are fixed and can not move due to vibrations and test sensor again for functionality.

Instructions for installation of ATX compression fittings with metal ferrule.

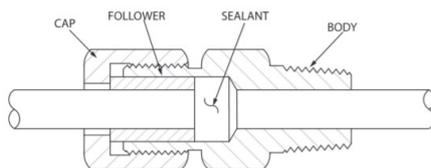
Procedure:

1. Fully insert the tube into the fitting against the shoulder; tighten the nut by hand.
High pressure systems with high safety factor applications, tighten the nut further until you can no longer turn manually and it can not move.
2. Mark the position of the nut at 6 o'clock.
3. Keeping the body of the fixed connector, tightening the nut 5/4 turn to the position at 9 o'clock. On stem < 6 mm tighten the nut 3/4 turn to the 3 o'clock position.



Instructions for installation of compressors fittings with ferrule Viton, Teflon, Lava, Graphoil.

Make sure you observe the torque according to the table below to ensure the tightness of the system.



PG Series Torque Requirements

	Neoprene/Viton		Teflon		Lava		Grafoil	
	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
MC	N/O	N/O	7-9 in-lbs	0.8-1	45-50 in-lbs	5-5.6	45-50 in-lbs	5-5.6
MPG	55-60 in-lbs	6.2-6.7	55-60 in-lbs	6.2-6.7	75-80 in-lbs	8-9	55-60 in-lbs	6.2-6.7
PG2	30-35	4.0-4.7	15-20	2.0-2.7	40-45	5.4-6.1	35-40	4.7-5.4
PG4	55-60	7.4-8.1	55-60	7.4-8.1	125-140	17.0-19.0	90-100	12.2-13.6
PG5	55-60	7.4-8.2	90-100	12.2-13.6	200-220	27.2-29.9	90-100	12.2-13.6
PG6	165-170	22.4-23.1	300-325	40.8-44.2	N/O	N/O	N/O	N/O

N/O = Not Offered

Modifications reserved,
 All technical data serves as a guideline
 and does not guarantee particular
 properties to any products.

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