Honeywell

Saturated Steam Probe Installation

Instruction Sheet for SmartLine Transmitters:

GWR SLG726 Level Transmitters

Document No: ***34-SL-33-04***
Effective Date: ***13th December 2017***

Please take appropriate steps to avoid ESD damage when handling transmitter electronics assemblies.

All local electrical codes, and relevant service and repair regulations must be observed.

When installed as explosion-proof or flame-proof in a hazardous location, keep covers tight while the transmitter is energized. Disconnect power to the transmitter in the non-hazardous area prior to removing end caps for service. When installed as non-incendive or non-sparking equipment in a hazardous location, disconnect power to the transmitter in the non-hazardous area, or determine that the location is non-hazardous before disconnecting or connecting the transmitter wires.

Tools required

Required tools depend on options ordered.

For this item	Use this tool
Coaxial probe outer tube removal/installation	Pipe wrench
Rod probe (16 mm) (SRK, SRL, SRC)	AF 14 mm wrench
Rod probe nut (16 mm)	AF 14 mm wrench
Saturated steam reference rod (22 mm)	AF 20 mm wrench
Saturated steam nut (22 mm)	AF 20 mm wrench
Mounting thread 1-1/2” process connector (SLG726)	AF 60 mm wrench
Coaxial probe outer tube threads (SCB)	Process compatible thread locking compound (ie Loctite 242) [1]
Rod trimming	Metal saw

[1] Thread locking compound is recommended. The thread locking compound must be process compatible.

Procedure

Saturated steam application is available with SLG726 rod and coaxial probes. The retrofit kit comes with a nut, a steam reference rod, a stud and two washers. Prior to installing the saturated steam hardware, the current SLG726 probe needs to be trimmed to maintain the same overall probe length after the saturated steam hardware is installed. Whether the probe type is rod or coaxial, only the rod (inner rod for coaxial probe) needs to be trimmed. The following instructions detail the probe trimming and hardware installation procedures.

Step – 1: Turn off transmitter power.

Step – 2: Remove transmitter from installed location.

Step – 3: For coaxial probes, depending on the length of the coaxial probe, the outer tube may be constructed from a single length of tube or be assembled using several tube segments joined to each other using tube couplers. Remove the retaining ring and the end spacer from the end of the tube. If the probe is under 2.0 m in length, it will be secured to the process connector by an internal thread. Use a 60 mm wrench to hold the process connector by its flats and a pipe wrench to unscrew the outer coaxial tube. If the probe is over 2.0m in length, starting from the end segment, loosen the two M3 set screws holding the couplers in place and then use two pipe wrenches to unscrew the tubes from the coupler.

Step – 4: Use two 14 mm wrenches to unscrew the rod assembly from the nut. Remove and discard the old nut and washer.

Step – 5: The steam reference rod comes with 0.3 m or 0.5 m lengths. To maintain the same overall probe length after the steam reference rod is installed, the old rod probe needs to be trimmed off the same amount as the reference reflector rod length. The rob probe is either constructed out of a single piece, or out of multiple segments joined together using studs and lock washers. Determine how many rod segments need to be removed from the rod probe assembly to complete the trimming operation. Use two 14 mm wrenches to unscrew the rods from the rest of the assembly, taking care not to misplace the lock washer and M10x30 stud holding the rods together.

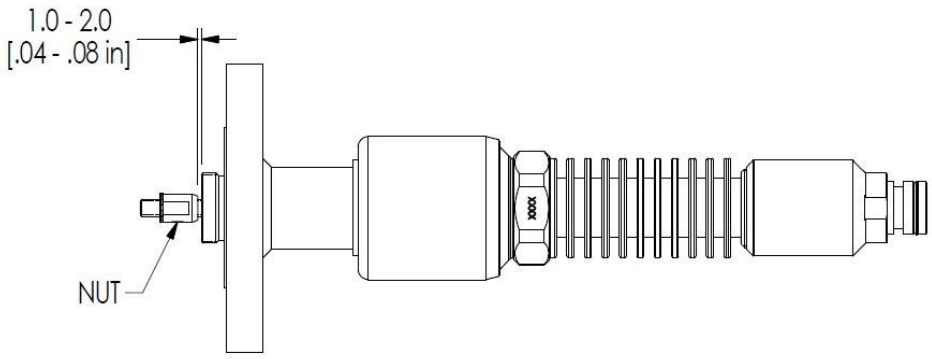

Figure 1: SLG726 flanged process connection, probe nut installation position, mm [in]

Step – 6: Measure 0.3 m or 0.5 m (determined by the steam reference rod length included in the kit) from the probe unthreaded end, mark and trim the relevant rod segment using a metal saw.

Step – 7: Reattach the trimmed rod to the rest of the probe assembly using the M10x30 stud and lock washer. Tighten the rod connection to 15.0 Nm (11 ft-lbs).

Step – 8: Thread the saturated steam application nut included in the retrofit kit to the center conductor, tapered end towards the process connector. For flanged process connectors, ensure the nut position is as shown in **Error! Reference source not found.**. Place a lock washer included in the retrofit kit between the locknut and the steam reference rod. Torque the connection to 15 Nm (11ft-lbs). Refer to **Error! Reference source not found.**.

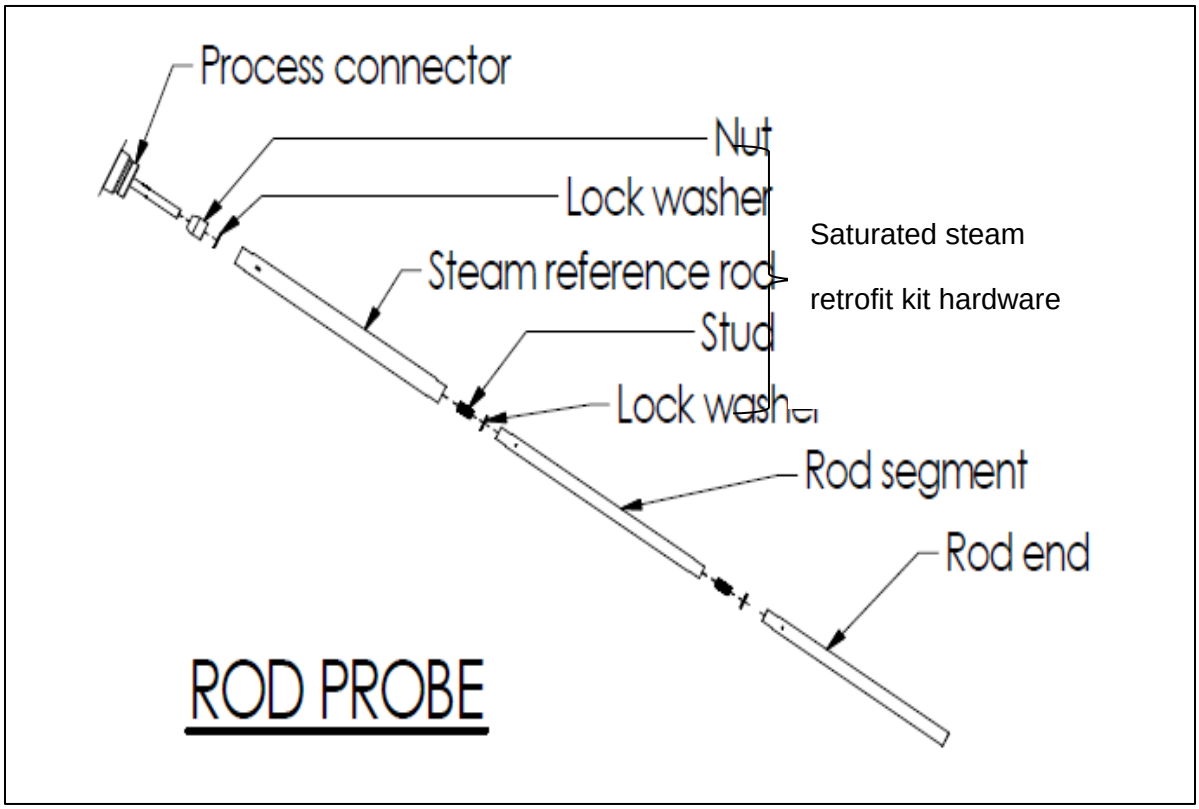

Figure 2 - Saturated steam application rod probe assembly

Step – 9: Reassemble the rest of the rod probe using the lock washer and M10x30 stud included in the retrofit kit.

Step – 10: For coaxial probe, slip the coaxial outer tube over the rod and tighten to the process connector. Torque the connection to 30 Nm (22 ft-lbs). It is recommended that a process compatible thread locking compound (i.e. Loctite 242) be used on the outer conductor threaded joints. Install end spacer between central conductor and outer tube in the counterbore. Secure end spacer using the retaining ring. Refer to Figure 3.

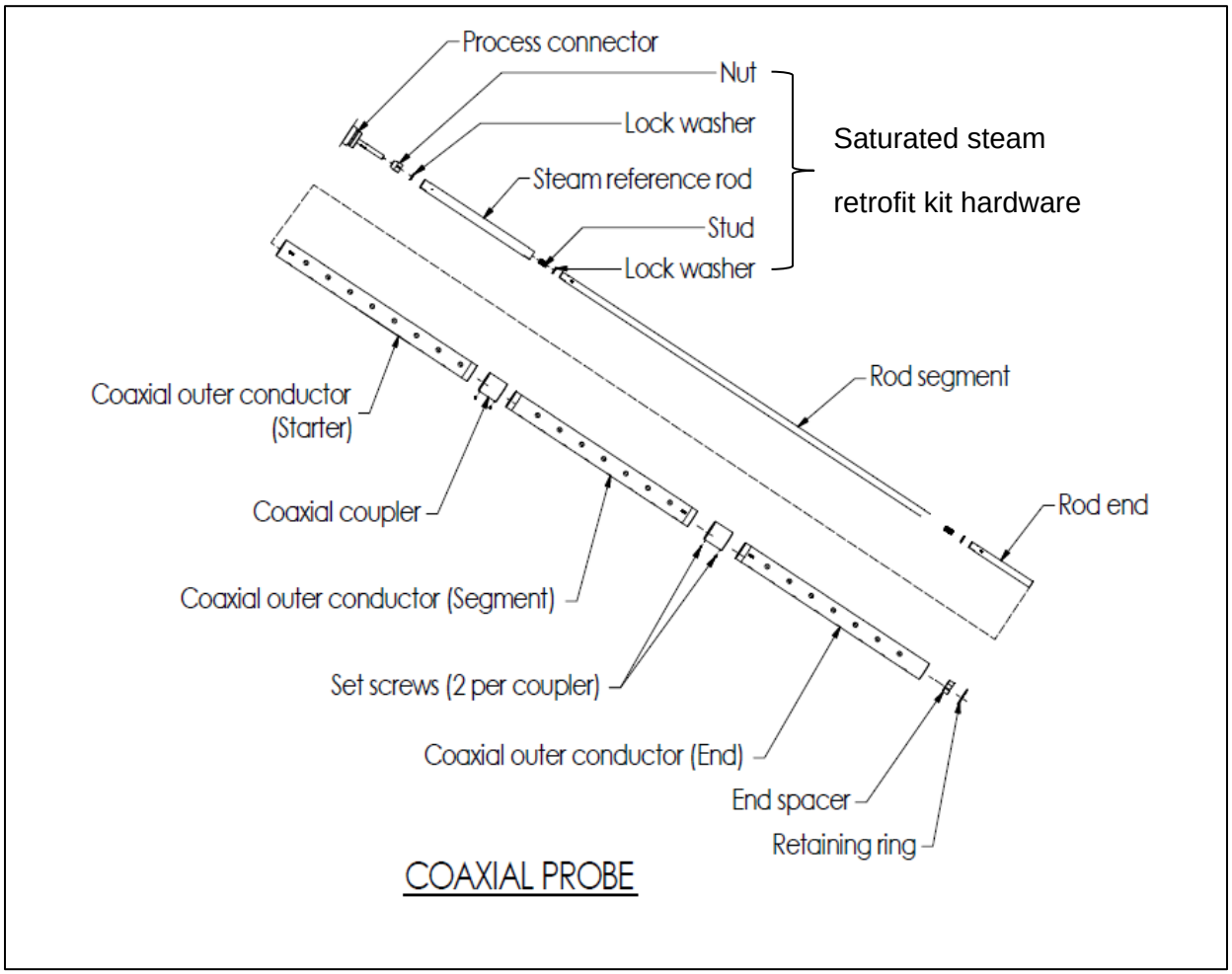

Figure 3 - Saturated steam application coaxial probe assembly

Sales and Service

For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact one of the offices below.

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