



rheonics

inline process  
density and viscosity  
monitoring

# Teletube Sensor probe parts list and Assembly guide



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## About Rheonics Ultra-long probe

When the insertion length required for the Rheonics SRV or SRD, is ultra long (above 600mm), Rheonics offers the Teletube assembly. This variant allows the unit to be delivered in smaller parts that are assembled by the user prior to final installation. Assembly is straightforward and simplified based on threaded joints. Teletube probes are then used to simplify the assembly and reduce costs of using an ultra-long insertion length. For the Type SR-TT, teletube version of the SRV or SRD sensor, user should define the process connection, total length and insertion length of the probe.

## Type-SR Teletube sensor probe parts list



Next table details all parts that can be used for the assembly, depending on the teletube back-end variant, some parts may not be included. Quantities vary depending on the insertion length.

Part	Quantity	Comment	Images
SRV-TT or SRD-TT	1	Sensor Probe	
OR-TT	1 for Sensor 1 for Back-end connector 1 for each extension tube	Ø27X1.5 O-ring  Select the right material for your process fluid and operational temperature compatibility.	
EXT-TT EXT-TT-BXXX	Defined by insertion length	Extension tubes: May be one or many. These parts are numbered from 1 to X. The part with the process connection flange is generally the last one.	
AB-TT	1	End back adapter Female G3/4 - Female NPT 1/2"	
AT-TT	1	Only for -TT-TR option. Transmitter mount adapter.	
CG-TT	1	Only for -TT-CAB option. Cable gland for sensor cable.	

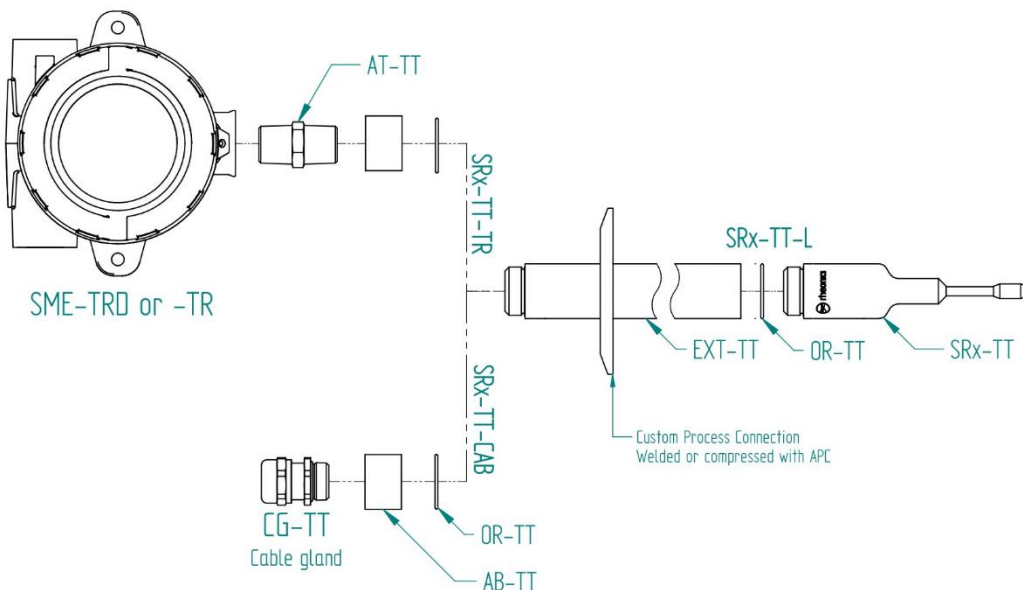
OR-TT is a standard O-Ring that is used for sealing all the threaded interfaces. This is available in various materials from Rheonics and third-party o-ring suppliers. Order the correct o-ring that is compatible with your process fluid and operational temperature.

Follow the specified temperature for your probes as components are only rated for the temperature that was ordered. Use of probes outside of their specified operational range will result in irreversible damage.

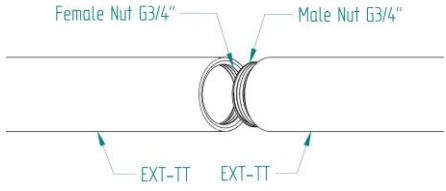

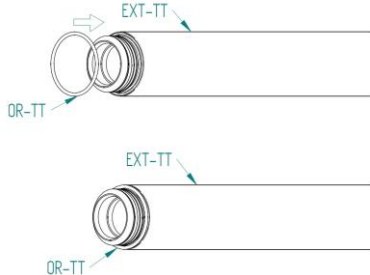
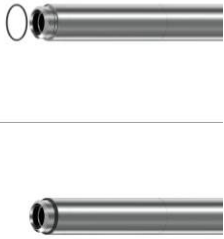
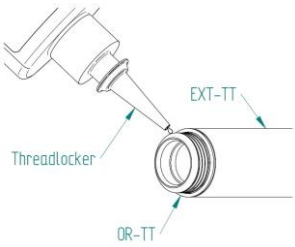

## Assembly Tools

Tools	Quantity	Comment	Images
TOW-M12	1	Torque Wrench for M12 connector	
TLG	1	Thread Locker Glue  LOCTITE 2422 HI TEMP TL MS 30G	

It is recommended to use TLG (Thread Locker Glue) to avoid the threads coming loose. However, when the sensor needs to be disassembled, then you can assemble the teletube sensor without the TLG and only apply TLG when the permanent configuration is fixed. TLG is reworkable in some cases - check the TLG is appropriate for your use case and process fluid.



## Assembly Instructions

N	Instruction	Drawings	Pictures
<p><b>Verify all parts for assembly and tools to be used.</b></p>			
<p>I. Prepare extension Tubes: If only one extension tube EXT-TT is delivered, no preparation is required, go to step 5. If multiple EXT-TT parts are delivered, follow next steps.</p>			
<p>1</p>	<p>Identify female and male G3/4 thread port of the EXT-TT part.</p> <p>Identify EXT-TT with flange, this will be last tube to assemble - not applicable if APC adapter is used.</p>		
<p>2</p>	<p>Place an O-Ring OR-TT at the male thread port base.</p>		
<p>3</p>	<p>Apply some of the TLG paste in the male G3/4 threads for secure thread lock.</p>		

<p>4</p>	<p>Thread in the G3/4 male and female port until faces get in contact and O-Ring is compressed. Hand tightening is enough.</p> <p>Repeat the process (step 2 to 4) for all EXT-TT delivered in the assigned order.</p> <p>If there is a tube with a process connection, this one will be the last in the assembly before the AB-TT.</p>		
<p>5</p>	<p>Place an OR-TT on the G3/4 male port base of the last EXT-TT. Piece may look different depending on the process connection you ordered.</p>		
<p>6</p>	<p>Apply some TLG paste in the male G3/4 threads.</p>		
<p>7</p>	<p>Thread in the AB-TT port to the EXT-TT-BXXX G3/4 male port.</p>		

II. Sensor probe and cable			
<p>8</p>	<p>Insert sensor cable through the assembled extension tube.</p>		
<p>9</p>	<p>Place an OR-TT at the base of the G3/4 thread port of the sensor probe SRV-TT or SRD-TT.</p>		
<p>10</p>	<p>Thread in the sensor cable M12 connector to the M12 port at the sensor probe back end.</p> <p>Use the TOW-M12 tool for a secure connection.</p>		



<p>11</p>	<p>Apply some TLG paste in the male G3/4 threads of the sensor probe.</p>		
<p>12</p>	<p>Thread in the sensor probe G3/4 port into the extension tube assembly.</p>		
<p>13</p>	<p>A. For -TT-TR</p> <p>Pass the cable through the AT-TT, add PTFE tape to the thread, and thread this piece in the AB-TT NPT 1/2" port. Follow the next step to connect the Transmitter housing (SME-TRX) to the Probe.</p>		

<p>13</p>	<p><b>B. For -TT-CAB</b></p> <p>Pass the cable through the CG-TT Cable Gland, add PTFE tape to the thread, and thread it in the AB-TT NPT 1/2" port. Your probe is now ready. Once assembly is installed, connect the sensor cable to the appropriate electronics unit (SME-XXX).</p>		
<p>14</p>	<p><b>For -TT-TR</b></p> <p>Wire the sensor cable in the SME-TRD or -TR electronics, add PTFE tape to the thread, and thread the sensor probe to the SME.</p>		

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