

Sanitary Sensor 4681

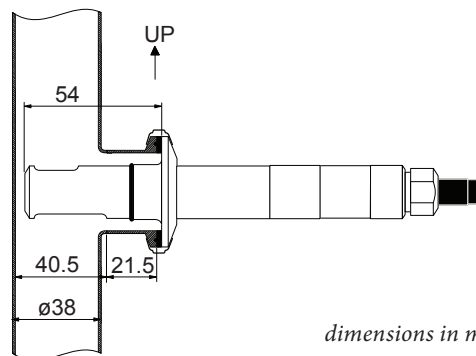
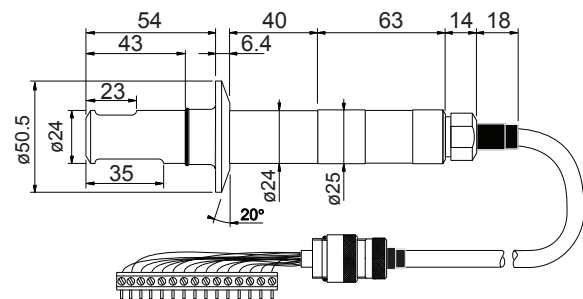
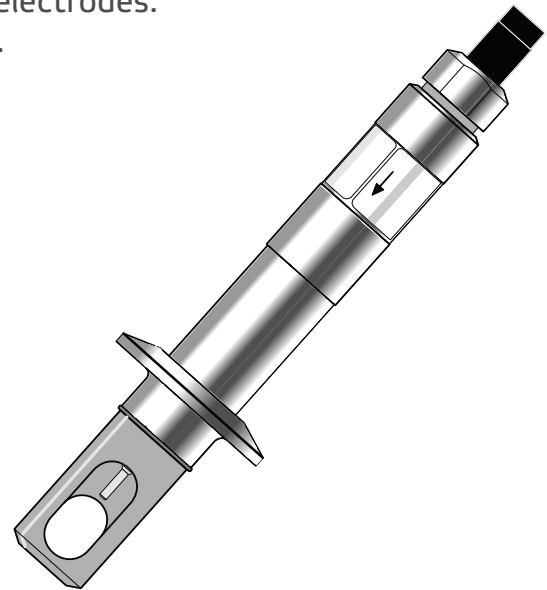
Sanitary closed type with 1.5" ISO clamp

4-electrode conductivity sensor with internal electrodes.
Used with Dual Conductivity TCU series 3200.

Typical mounting

- Mounting with a 1.5" ISO 2852 clamp (not included) in a T-piece with a welding nipple.
- Can be mounted to pipes of any directions; avoid mounting on the top side of a horizontal pipe.
- Flow opening must be parallel to the direction of the flow.
- Arrow on sensor indicates the position of the temperature sensor.
- No air bubbles or sedimentation at installation point.

Technical data	
Materials	PVDF, EPDM, silicone rubber, steel W 1.4404 (AISI 316L) Flange and cable connection: steel W 1.4404 (AISI 316L)
Pressure	10 bar at 130 °C
Cell constant	Sensor specific, factory calibrated
Accuracy	± 2 %
Meas. range	0.05...10 000 µS/cm
Linearity	In stainless steel pipe from 1µS/cm to 10.000µS/cm ±1 % per decade From 10.000 µS/cm to 200.000 µS/cm error +5 % per decade.
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T ₉₀ , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242/10 -> 10 m COND15242/15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	1.0 kg



dimensions in millimeters

Sanitary Sensor 4683

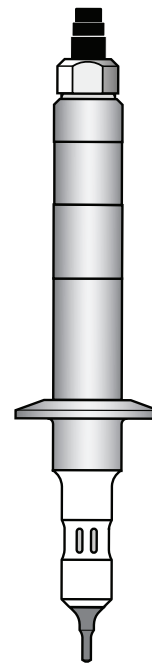
Sanitary open type for tank mounting

4-electrode conductivity sensor with external electrodes. Surface roughness of all wet parts $Ra < 0.80 \mu\text{m}$. Used with TCU series 3200.

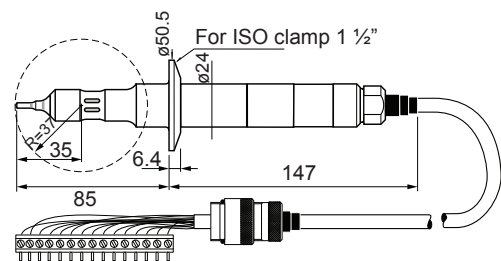
Mounting

- Mounting with a 1 1/2" ISO 2852 clamp (not included).
- Mount in a place where no air bubbles or sedimentation occur.
- The sensor has been calibrated in a measuring pipe with inside $\varnothing 180 \text{ mm}$. If the sensor will be mounted to a pipe smaller than $\varnothing 100 \text{ mm}$, recalibration is required.

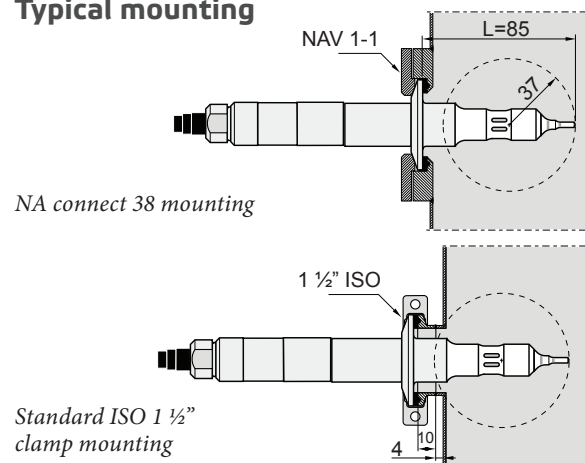
Technical data	
Materials	PTFE and steel W 1.4404 (AISI 316L). Flange and cable connection: steel W 1.4404 (AISI 316L). Inside pressure gasket: SIL
Pressure	12 bar at 150 °C
Cell constant	Sensor specific, factory calibrated Calibrated in a 180 mm pipe
Accuracy	$\pm 2 \%$
Meas. range	5...200 000 $\mu\text{S/cm}$
Linearity	$\pm 2 \%$ per decade
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T_{90} , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242-10 -> 10 m COND15242-15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	1.5 kg



dimensions
in mm

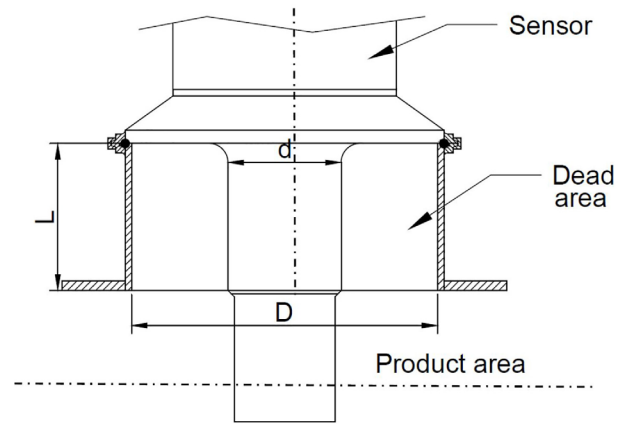


Typical mounting



Hygienic mounting

- Mounting in an EHEDG approved process connection.
- The installation must comply to the EHEDG criteria of $L < D-d$.
- Tri-clamps and combifit gaskets must be EHEDG approved type.



Sanitary Sensor 4683s

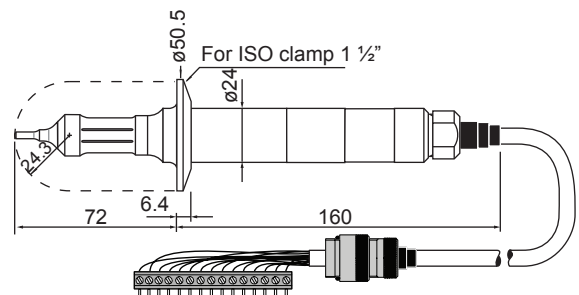
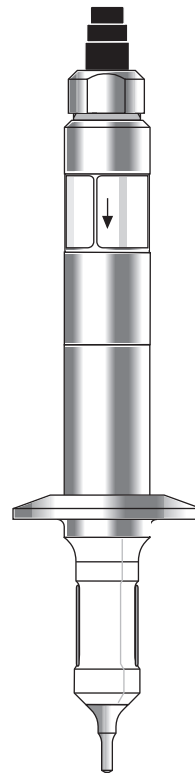
Pharmaceutical sanitary open type for ultra-pure injection water

4-electrode conductivity sensor with external electrodes. Surface roughness of all wet parts $Ra < 0.80 \mu\text{m}$. Used with series 3200 measurements.

Mounting

- Mounting with a 1 ½" ISO clamp (not included).
- Minimum distance to surroundings is 24.3 mm!
- On a horizontal pipe, always mount to the side of the pipe and at a place where no air bubbles occur. The piping must be made in a self-draining manner.

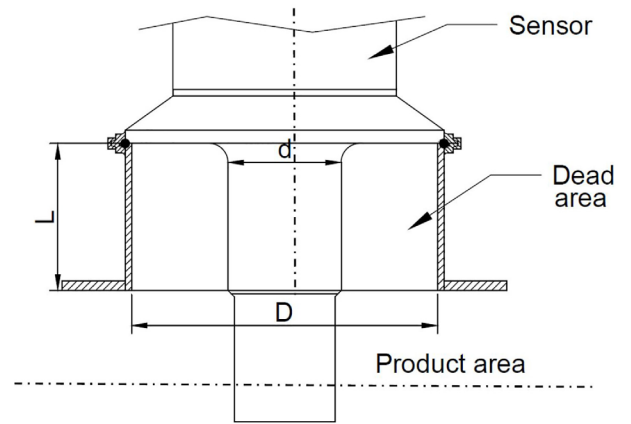
Technical data	
Materials	PTFE, silicone rubber, and steel W 1.4404 (AISI 316L)
Pressure	12 bar at 150 °C
Cell constant	Sensor specific, factory calibrated Calibrated in a $\varnothing 51$ mm SS pipe $\varnothing 63$ mm SS pipe gives an error of approximately -6% $\varnothing 63$ mm plastic pipe gives an error of approximately 20-30%.
Accuracy	$\pm 2 \%$
Meas. range	0.05...10 000 $\mu\text{S}/\text{cm}$
Linearity	$\pm 2 \%$ per decade Below 5 $\mu\text{S}/\text{cm}$ +0.01 $\mu\text{S}/\text{cm}$
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T_{90} , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242-10 -> 10 m COND15242-15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	0.6 kg



dimensions in millimeters

Hygienic mounting

- Mounting in an EHEDG approved process connection.
- The installation must comply to the EHEDG criteria of $L < D-d$.
- Tri-clamps and combifit gaskets must be EHEDG approved type.



Sanitary Sensor 4624s

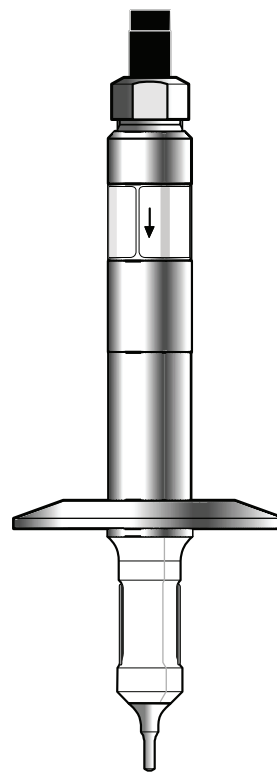
3-A sanitary open type for ultra pure water

4-electrode conductivity sensor with external electrodes. Surface roughness of all wet parts $R_a < 0.80 \mu\text{m}$. Used with Dual Conductivity TCU series 3200.

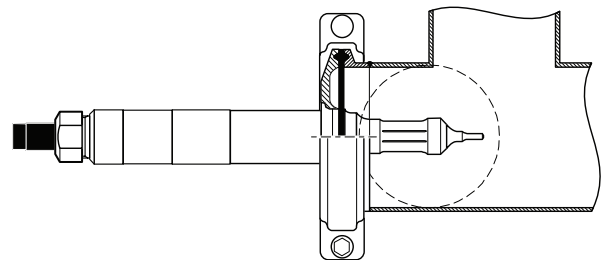
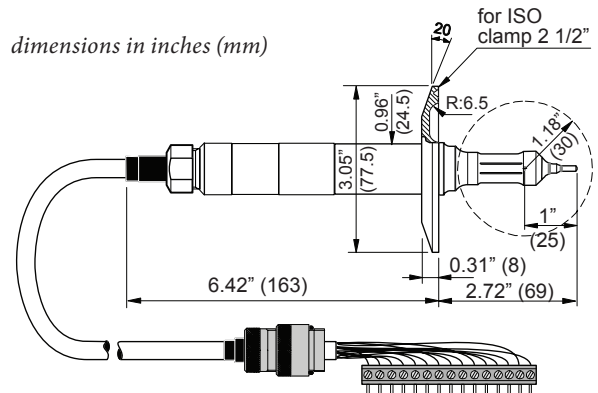
Typical mounting

- Mounting with 2 1/2" ISO 2852 clamp (not included)
- Keep a minimum distance to the surroundings.
- On a horizontal pipe, mount to the side of the pipe and make sure no air bubbles occur at the installation point.
- Construct piping in a self-draining manner.

Technical data	
Materials	PTFE, silicone rubber and steel W 1.4404 (AISI 316L)
Pressure	12 bar at 150 °C
Cell constant	Sensor specific, factory calibrated Calibrated in a $\varnothing 63$ mm pipe. $\varnothing 76$ mm pipe gives an error of -3 %
Accuracy	$\pm 2 \%$ or $\pm 0.01 \mu\text{S/cm}$
Meas. range	0.05...10 000 $\mu\text{S/cm}$
Linearity	$\pm 2 \%$ or $\pm 0.01 \mu\text{S/cm}$ Below 5 $\mu\text{S/cm}$ + 0.01 $\mu\text{S/cm}$
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T_{90} , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242-10 -> 10 m COND15242-15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	1.0 kg

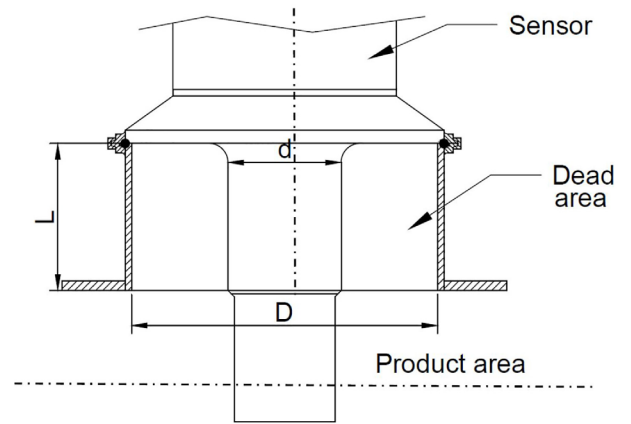


dimensions in inches (mm)



Hygienic mounting

- Mounting in an EHEDG approved process connection.
- The installation must comply to the EHEDG criteria of $L < D-d$.
- Tri-clamps and combifit gaskets must be EHEDG approved type.



Sanitary Sensor 4611

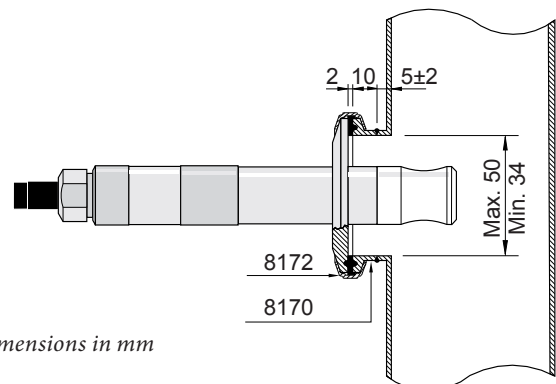
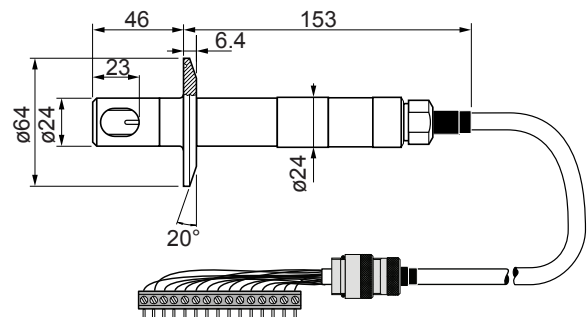
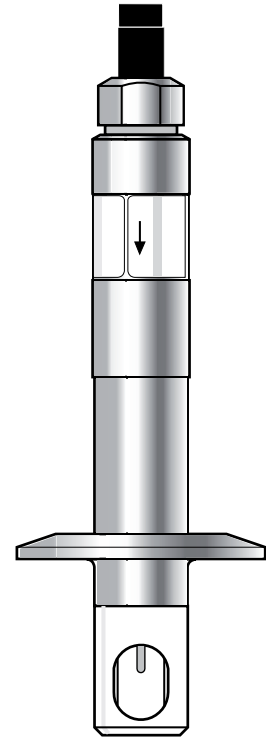
Sanitary closed type

4-electrode conductivity sensor with internal electrodes.
Used with Dual Conductivity TCU series 3200.

Mounting

- Mounting with 2" ISO 2852 clamp (not included) in a short Tee with a welding nipple.
- No air bubbles or sedimentation at the installation point.
- Do not mount on the top side of a horizontal pipe.
- Position the flow opening parallel to the direction of the flow.

Technical data	
Materials	PVDF, EPDM, silicone rubber and steel W 1.4404 (AISI 316L) Flange and cable connection: steel W 1.4404 (AISI 316L)
Pressure	10 bar at 130 °C
Cell constant	Sensor specific, factory calibrated
Accuracy	± 3 %
Meas. range	20...200 000 µS/cm
Linearity	± 3.8 % per decade
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T_{90} , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242/10 -> 10 m COND15242/15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	1.0 kg



Dimensions in mm

Sanitary Sensor 4613

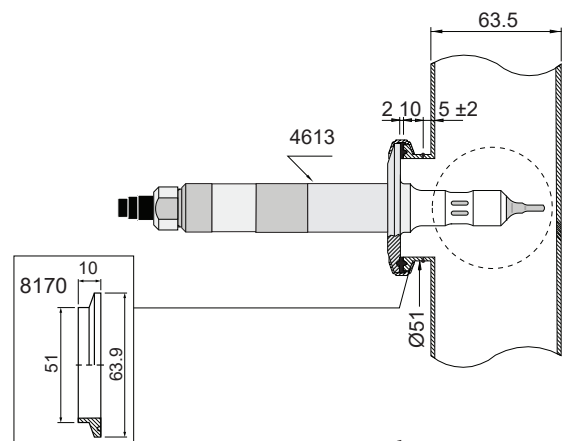
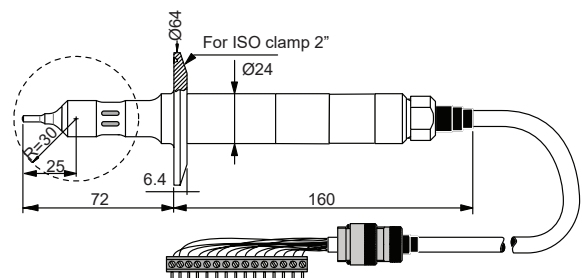
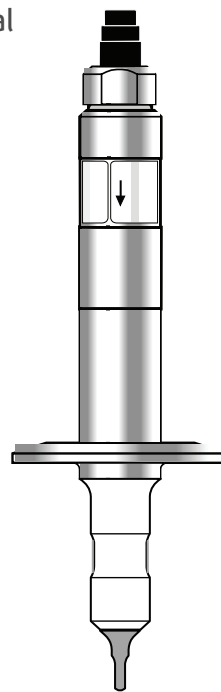
Sanitary open type

4-electrode conductivity sensor with external electrodes. Surface roughness of wet parts $Ra < 0.80 \mu\text{m}$. Used with TCU series 3200.

Mounting

- Mounting with a 2" ISO 2852 clamp (not included).
- Calibrated in a measuring pipe: outside $\varnothing 63$ mm, inside $\varnothing 60$ mm. During factory calibration electrodes are directed towards pipe wall as shown. If original factory calibration is used, mount the sensor in the same way; recalibration is required if mounted to a larger pipe or with a different electrode direction.
- On a horizontal pipe, mount to the side of the pipe. Make sure no air bubbles occur at installation point.

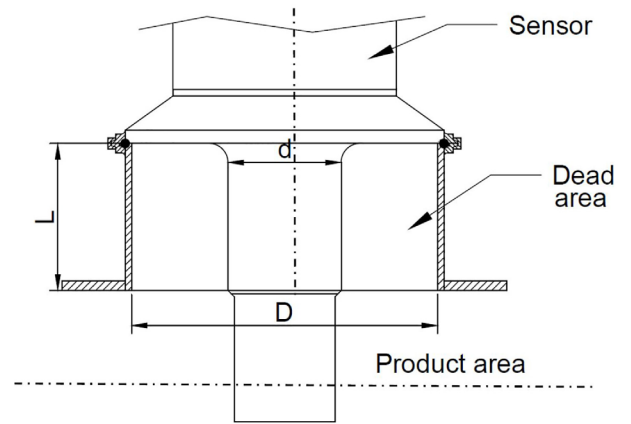
Technical data	
Materials	Sensor: PTFE, silicone rubber and steel W 1.4404 (AISI 316L) Flange and cable connection: W 1.4404 (AISI 316L)
Pressure	12 bar at 150 °C
Cell constant	Sensor specific, factory calibrated Calibrated in $\varnothing 63$ mm SS pipe. $\varnothing 51$ mm pipe gives an error of +6 %
Accuracy	$\pm 2 \%$
Meas. range	5...200 000 $\mu\text{S/cm}$
Linearity	$\pm 2 \%$ per decade
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T_{90} , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242-10 -> 10 m COND15242-15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	1.1 kg



dimensions in mm

Hygienic mounting

- Mounting in an EHEDG approved process connection.
- The installation must comply to the EHEDG criteria of $L < D-d$.
- Tri-clamps and combifit gaskets must be EHEDG approved type.



Sanitary Sensor 4613s

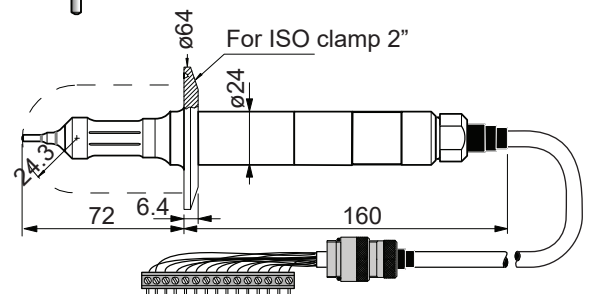
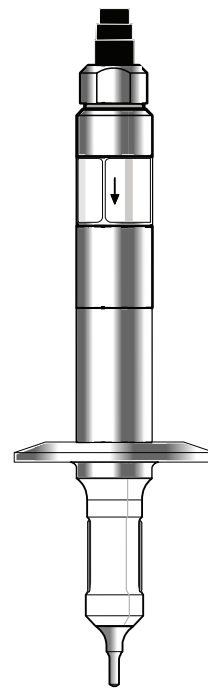
Pharmaceutical sanitary open type for ultra pure injection water

4-electrode conductivity sensor with external electrodes. Surface roughness of all wet parts $Ra < 0.80 \mu\text{m}$. Used with TCU series 3200.

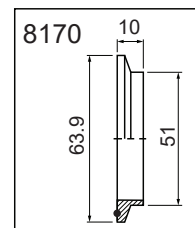
Mounting

- Mounting with a 2" ISO 2852 clamp (not included).
- Minimum distance to surroundings: 24.3 mm.
- On a horizontal pipe, mount to the side of the pipe and make sure no air bubbles occur at the installation point.
- Construct the piping in a self-draining manner.

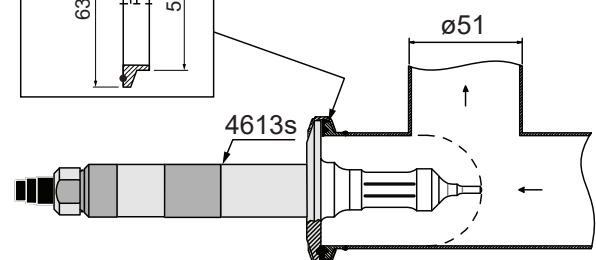
Technical data	
Materials	PTFE, silicone rubber and steel W 1.4404 (AISI 316L)
Pressure	12 bar at 150 °C
Cell constant	Sensor specific, factory calibrated Calibrated in $\varnothing 51$ mm SS pipe. $\varnothing 63$ mm SS pipe gives an error of ~ -6 %. $\varnothing 63$ mm plastic pipe gives an error of ~ 20-30 %
Accuracy	$\pm 2 \%$ or $\pm 0.01 \mu\text{S}/\text{cm}$
Meas. range	0.05...10 000 $\mu\text{S}/\text{cm}$
Linearity	$\pm 2 \%$ per decade Below 5 $\mu\text{S}/\text{cm}$ + 0.01 $\mu\text{S}/\text{cm}$
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T_{90} , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242-10 -> 10 m COND15242-15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	1.1 kg



dimensions in mm

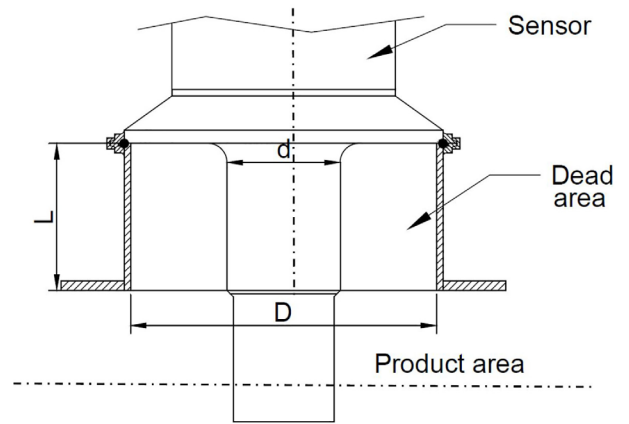


Short nipple with EPDM gasket



Hygienic mounting

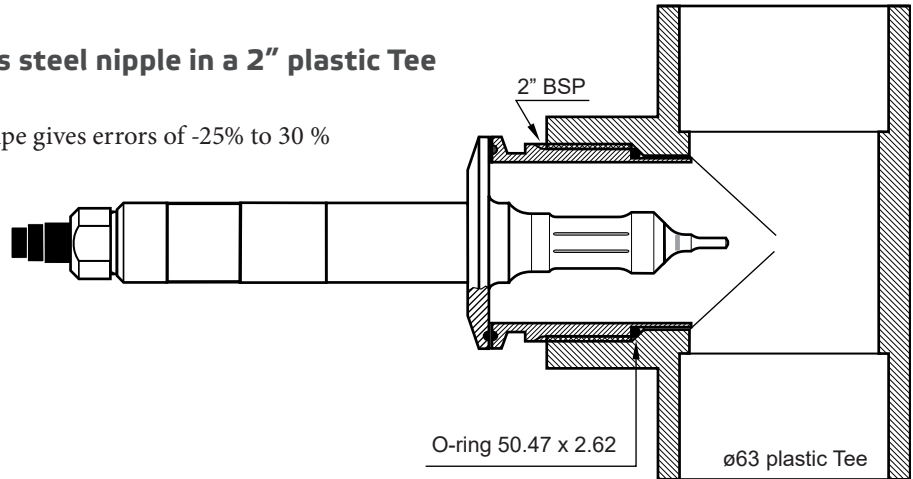
- Mounting in an EHEDG approved process connection.
- The installation must comply to the EHEDG criteria of $L < D-d$.
- Tri-clamps and combifit gaskets must be EHEDG approved type.



Mounting with stainless steel nipple in a 2" plastic Tee

Warning!

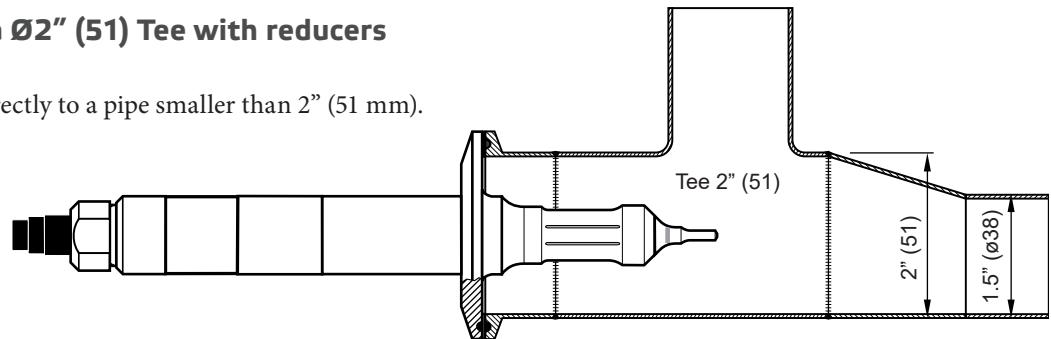
Direct mounting to a plastic pipe gives errors of -25% to 30 %



Mounting in a Ø2" (51) Tee with reducers

Warning!

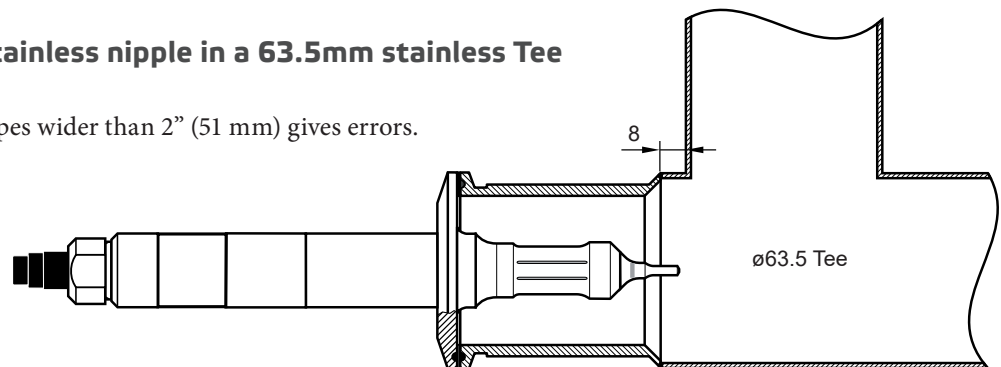
Do not mount directly to a pipe smaller than 2" (51 mm).



Mounting with stainless nipple in a 63.5mm stainless Tee

Warning!

Direct mounting to pipes wider than 2" (51 mm) gives errors.



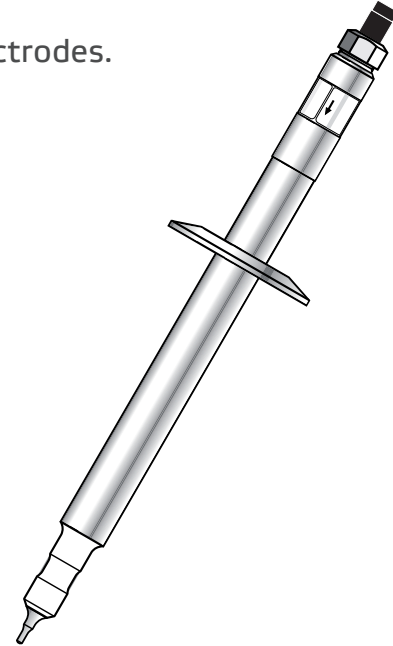
dimensions in millimeters

Sanitary Sensor 4625

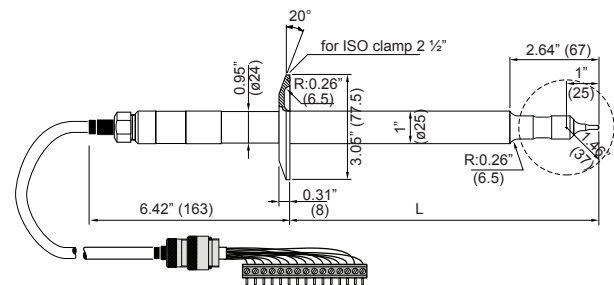
3-A sanitary open type

4-electrode conductivity sensor with external electrodes.
Used with TCU series 3200.

Technical data	
Length	220 mm or to be specified, max. 2000 mm
Materials	PTFE, silicone rubber and steel W 1.4404 (AISI 316L) Wet parts of sensor polished according to 3-A sanitary standard, Ra < 32 µin (0.80 µm)
Pressure	12 bar at 150 °C
Cell constant	Sensor specific, factory calibrated Calibrated in a ø180 mm vessel. Special calibration is needed for use on a ø2.5" (ø63.5 mm) pipe.
Accuracy	± 2 %
Meas. range	5...200 000 µS/cm
Linearity	± 2 % per decade
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T ₉₀ , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 12 x 0.25 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242/10 -> 10 m COND15242/15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	1.2 kg

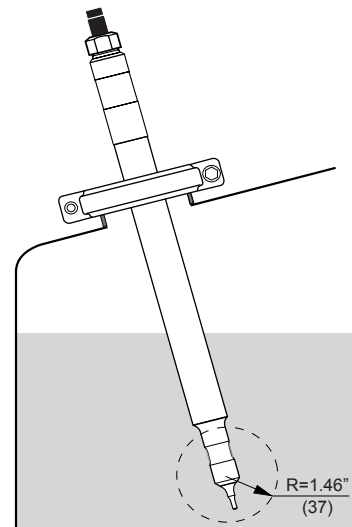
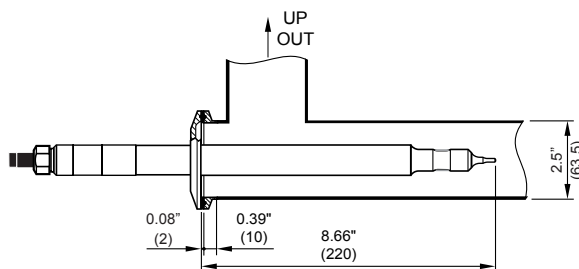


dimensions
in inches (mm)



Typical mounting

Sensor mounting with 2 1/2" ISO 2852 clamp (not included). Keep the minimum distance to the surroundings! Mount in a place where no air bubbles occur. Construct the piping in a self-draining manner.



For more information, contact your local Valmet office. www.valmet.com

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Sanitary Sensor 4634

Sanitary open type

4-electrode conductivity sensor with external electrodes.
Used with Dual Conductivity TCU series 3200.
Universal flange for SMS38, DIN DN32 and 40 union.

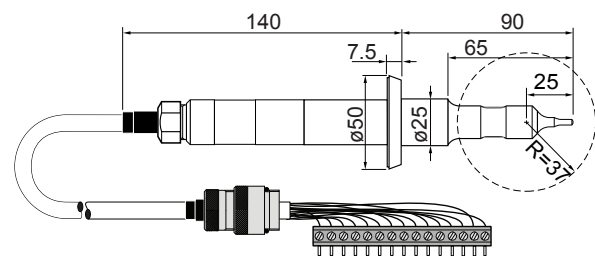
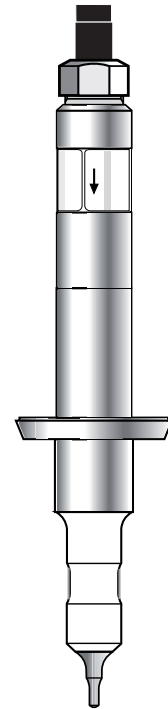
Mounting

- Mounting requires a welding nipple.
- Sensor can be mounted in any direction.
- Keep the minimum distance ($R = 37$ mm) to the surroundings!
- Make sure no air pockets or bubbles occur at the installation point.

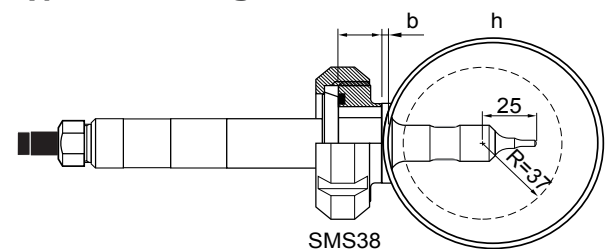
Accessories SMS38

- Union nut 8270
- Nipple with gasket 8285, height 22 mm, diameter 60

Technical data	
Materials	PTFE, silicone rubber and steel W 1.4404 (AISI 316L)
Pressure	12 bar at 150 °C
Cell constant	Sensor specific, factory calibrated Calibrated in a $\varnothing 76$ mm pipe. $\varnothing 63.5$ mm pipe gives error + 3 %.
Accuracy	± 2 %
Meas. range	20...200 000 $\mu\text{S}/\text{cm}$
Linearity	± 2 % per decade
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T_{90} , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242/10 -> 10 m COND15242/15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	0.9 kg



Typical mounting



Dimensions in mm

Sanitary Sensor 4635

Sanitary open type

4-electrode conductivity sensor with external electrodes.
Used with Dual Conductivity TCU series 3200.
Universal flange for SMS38, DIN DN32 and 40 union.

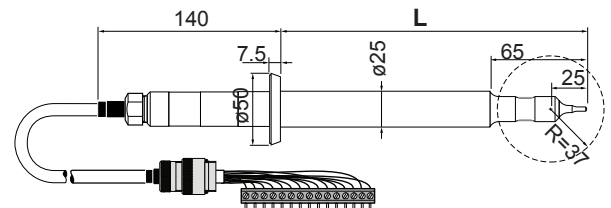
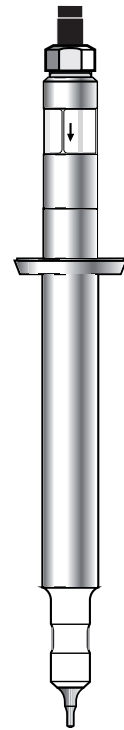
Mounting

- Mounting requires a welding nipple.
- Sensor can be mounted in any direction.
- Keep the minimum distance ($R = 37 \text{ mm}$) to the surroundings!
- Mount in a place where no air pockets or bubbles occur.

Accessories SMS38

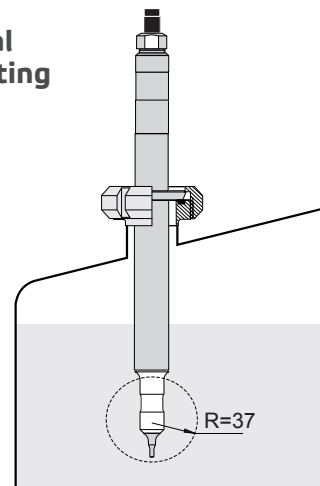
- Union nut 8270
- Nipple with gasket 8285, height 22 mm, diameter 60

Technical data	
Length	L = 220 mm or to be specified, max. 2.5 m
Materials	PTFE, silicone rubber and steel W 1.4404 (AISI 316L)
Pressure	12 bar at 150 °C
Cell constant	Sensor specific, factory calibrated Calibrated in an open vessel
Accuracy	$\pm 2 \%$
Meas. range	20...200 000 $\mu\text{S}/\text{cm}$
Linearity	$\pm 2 \%$ per decade
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T_{90} , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242/10 -> 10 m COND15242/15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	0.9 kg



Dimensions in mm

Typical mounting



Sanitary Sensor 4641

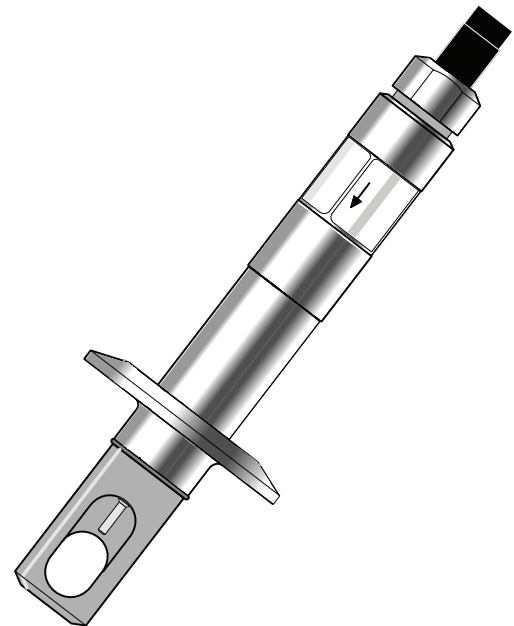
Sanitary closed type for small pipes

4-electrode conductivity sensor with internal electrodes. Resistant to acetone.
Used with Dual Conductivity TCU series 3200.

Typical mounting

- Mounting with a 2" ISO 2852 clamp (not included) in a short Tee with a welding nipple.
- Sensor can be mounted in pipes of all directions; avoid mounting to the upper side of a horizontal pipe.
- Mount to a place where no air bubbles or sedimentation occur.
- Flow opening should be parallel to the direction of the flow.

Technical data	
Materials	PVDF, EPDM, silicone rubber and steel W 1.4404 (AISI 316L) Flange and cable connection: steel W 1.4404 (AISI 316L) Temperature sensor PFA coated
Pressure	10 bar at 130 °C
Cell constant	Sensor specific, factory calibrated
Accuracy	± 2 %
Meas. range	5...200 000 µS/cm
Linearity	± 1 % per decade Below 5µS/cm ± 2 % per decade
Temp. sensor	Pt 1000 (IEC 751 class A) Time delay T ₉₀ , 9 sec
Protection	IP65 splash-proof (DIN 40 050)
Sensor cable	PVC 18 x 0.22 mm ² screened max. temp. 70 °C
Cable length	Standard length 5 m COND15242/10 -> 10 m COND15242/15 -> 15 m
Connection	15-pole strip connector with MF20 cable adapter
Weight	1.0 kg



dimensions in millimeters

