

## Armatures for analytical probes

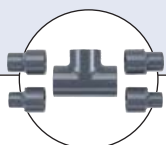


Type 8200 can be combined with...



**Type S020**

INSERTION fitting

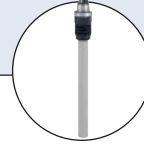


**Pipe and fitting**



**Type 8203**

pH/ORP probe



**Type 8221**

Conductivity probe



**Type 8232**

Chlorine Sensor



**Type BBS-11**

Safety sockets

- For many different types of installations and applications
- Large range of probe holders
- General purpose, water treatment, food & beverage, pharmaceutical applications

The holders range for analytical 120 mm probes (pH/ORP/conductivity...) covers many types of applications:


- General purpose
- Water treatment
- Food & Beverage
- Pharmaceutical/Biotechnology.


A wide range of process connection is available for:


- General purpose holders mounting on pipes or on tanks
- Hygienic holders designed for hygienic applications.
  - The 3-rod holders which ensure a good sensor protection allow an easy cleaning. Due to a sanitary design steam sterilisation, autoclavation, CIP and SIP cleanings are possible.
  - The direct welding holders save space and are designed for installation in fermenters and many other applications with tanks and pipes. Steam sterilisation, autoclavation, CIP are possible.
  - Special 2" Clamp (ISO2852) or for DN50 thread (SMS1145) process connections, available with optional Pt1000 temperature probe, satisfy highest demands for example in CIP-applications
  - The 15° version with 2" (DN50/40) connection adapted for GEA Tuchenhausen VARIN-LINE process connections enables positioning of the probe in relation to the flow or in vertical pipes.


A special holder, the analytical measurement chamber Type 8200, is designed to be used with the chlorine sensor Type 8232.


General data	
<b>Process connection</b>	
General purpose	G2" for use with INSERTION fitting Type S020 G1" for use with T-Fitting Sticking for use with T-Fitting d32xd32 up to d32xd110 Immersion fitting with fixing kit for use on tanks
Hygienic holder	G1 1/4" (28 or 46 mm O-ring position) Clamp 1 1/2" (ø 50.5 mm) or 2" (ø 64 mm - ISO2852) for DN50 thread (SMS1145) process connection 2" (DN50/40) connection adapted for GEA Tuchenhausen VARIN-LINE process connections Direct welding on pipe
Measurement chamber	Screwings (straight for inlet, elbow for outlet) 1/4" external thread to 6/8 hose; mounting nut (to fasten the sensor); hose sleeve (to sample)
<b>Medium temperature</b>	Temperature limits may depend on the inserted probe. Refer to the relevant instruction manual or technical data on next page. If the temperature ranges given for the holder and the inserted probe are different, use the most restrictive range.
<b>Medium pressure</b>	Pressure limits may depend on the inserted probe. Refer to the relevant instruction manual or technical data on next page. If the pressure ranges given for the holder and the inserted probe are different, use the most restrictive range.
<b>Environment</b>	
<b>Ambient temperature</b>	Temperature limits may depend on the inserted probe. Refer to the relevant instruction manual or data sheet for more details


 <b>General purpose holder G2" connection</b>	
<b>Materials</b>	
Body	Stainless steel 316L 1.4404, PVC
Seal	FKM (EPDM option)
<b>Medium temperature</b>	with S020 fitting in PVC: 0...+50°C (+32...+122°F), Stainless steel: -20...+130°C (+5...+266°F)
<b>Medium pressure</b>	with S020 fitting in PVC: PN10 (145 PSI), Stainless steel: PN16 (232 PSI)


 <b>General purpose holder G1" or stick connection</b>	
<b>Materials</b>	
Body	PVC
Seal	FKM
<b>Medium temperature</b>	0...+50°C (+32...+122°F)
<b>Medium pressure</b>	PN10 (145 PSI)


 <b>General purpose holder Immersion fitting with fixing kit</b>	
<b>Materials</b>	
Sensor holder	PVDF
Extension tube	PP
Seal	FKM (EPDM option)
Screws	Stainless steel
<b>Medium temperature</b>	0...+80°C (+32...+176°F)


 <b>Hygienic holder G1 1/4" connection (28 or 46 mm O-ring position)</b>	
<b>Materials</b>	
Body	Stainless steel (316L/1.4435)
Seal	EPDM (FDA)
<b>Medium temperature</b>	-10...+135°C (+14...+275°F)
<b>Medium pressure</b>	Max. 6 bar (max. 87 PSI)


 <b>Hygienic holder - short immersion depth Clamp 1 1/2" (ø 50,5 mm) connection</b>	
<b>Materials</b>	
Body	Stainless steel (316L/1.4435)
Seal	EPDM (FDA)
<b>Medium temperature</b>	-10...+135°C (+14...+275°F)
<b>Medium pressure</b>	Max. 6 bar (max. 87 PSI)

 <b>Hygienic holder - long immersion depth Clamp 1 1/2" (ø 50,5 mm) connection</b>	
<b>Materials</b>	
Body	Stainless steel (316L/1.4404)
Seal	FKM
<b>Medium temperature</b>	-10...+135°C (+14...+275°F)
<b>Medium pressure</b>	Max. 6 bar (max. 87 PSI)

 <b>Hygienic holder Clamp 2" (ø 64 mm - ISO2852) connection or for DN50 thread (SMS1145) process connection</b>	
<b>Materials</b>	
Body	Stainless steel (316L/1.4404)
Seal	EPDM
<b>Medium temperature</b>	-20...+140°C (+5...+284°F)
<b>Medium pressure</b>	PN16 (232 PSI)

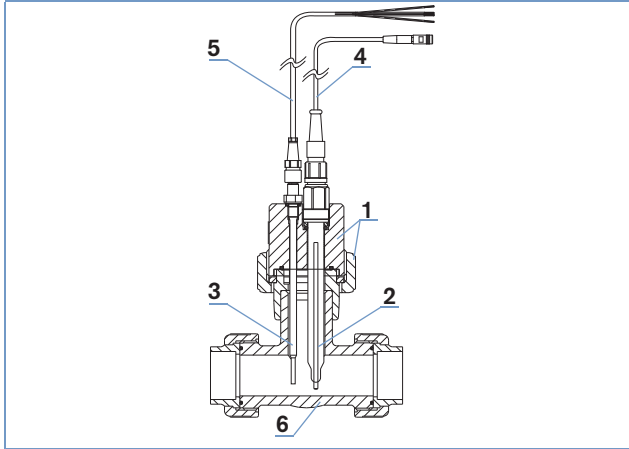
 <b>Hygienic holder 2" (DN50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections</b>	
<b>Materials</b>	
Body	Stainless steel (316L/1.4435)
Seal	EPDM (FDA)
<b>Medium temperature</b>	-10...+135°C (+14...+275°F)
<b>Medium pressure</b>	Max. 6 bar (max. 87 PSI)

 <b>Hygienic holder Direct welding connection</b>	
<b>Materials</b>	
Body	Stainless steel (316L/1.4435)
Seal	EPDM (FDA)
<b>Medium temperature</b>	-10...+140°C (+14...+284°F)
<b>Medium pressure</b>	Max. 16 bar (max. 232 PSI)

 <b>Analytical measurement chamber</b>	
<b>Materials</b>	
Body	PMMA polished, beveled edges
Mounting nut	PVC-U grey
O-ring holder	PVDF nature
Slide ring (30x25.5x4)	PETP black
O-ring (30x2.6)	FPM
O-ring (25x2.5)	Silicone
Hose connection	PA
Inlet ball valve	PVC-U
Float	PEEK, steel 1.0037
O-ring flat (12x6x2)	Silicone transparent
Sample valve	
Ball valve (with hose sleeve)	PVC-U
Elbow screwing	Stainless steel
<b>Medium temperature</b>	Max. 45°C (max. 113°F)
<b>Medium pressure</b>	Max. 4 bar (max. 58 PSI) - Permitted operating pressure of the sensor has to be respected

## Installation example of Type 8200

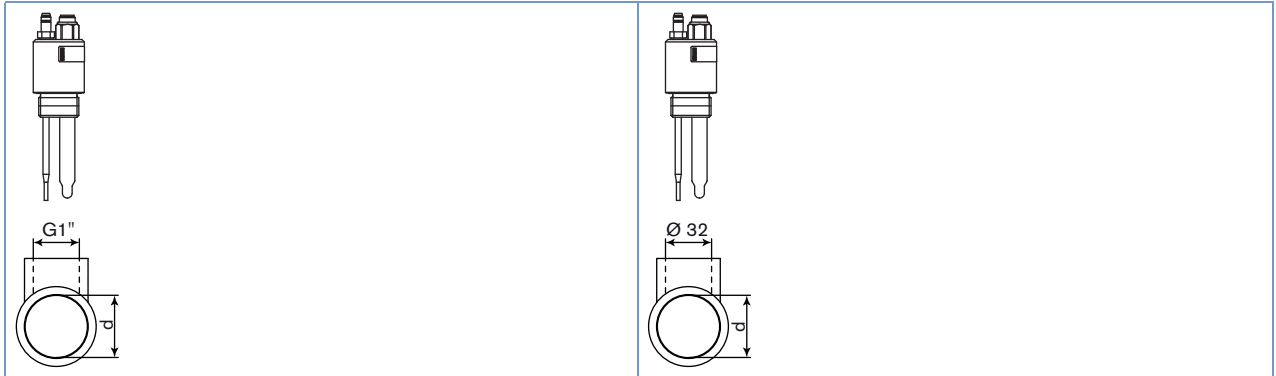
### Probe holder Type 8200 for installation on Bürkert fitting S020



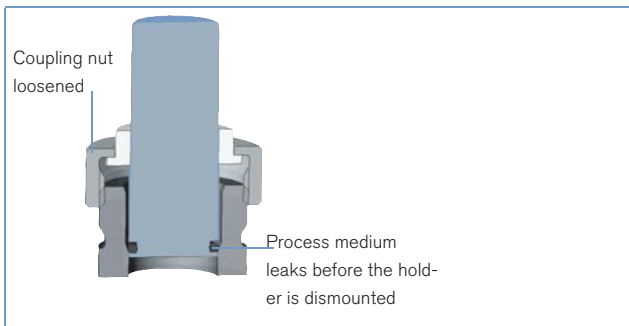
A complete pH/ORP/conductivity sensor consists of

1. Complete probe holder Type 8200 with nut and seals
2. pH/O.R.P probe or conductivity probe with PG 13.5 connection
3. Pt1000 temperature probe/liquid earth rod (option, if needed)
4. Shielded cable for pH/ORP or conductivity cable varioPin (6.0)
5. Shielded cable for Pt1000 temperature probe/liquid earth rod (option, if needed)
6. Bürkert fitting S020 (G2\"/>

### G1\"/>



### G1 1/4\"/>



The G1 1/4\"/>

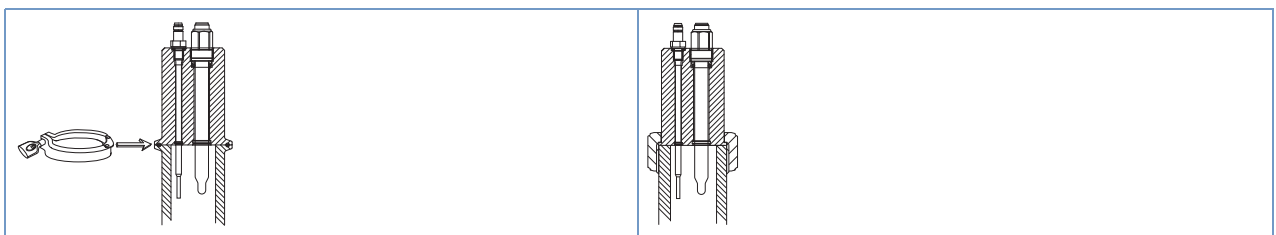
Sockets 15°

Robust weld-in socket with 15° angle to be mounted on tanks.

The sockets have a safety construction. The socket seals only if the o-ring of the holder is exactly at the right place.

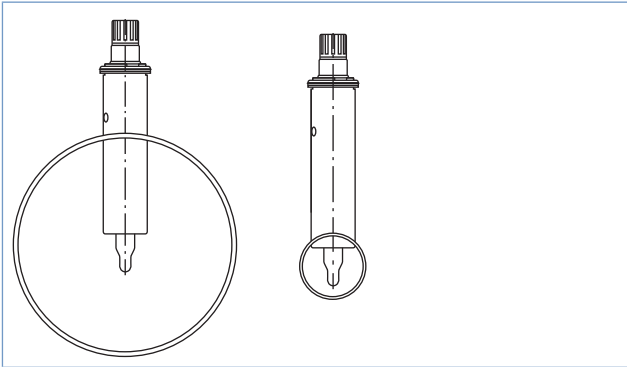
Otherwise the medium leaks through the G1 1/4\"/>

### Probes holders in 2\"/>



## Installation example of Type 8200

### Direct welding probes holder Type 8200 for installation on pipe



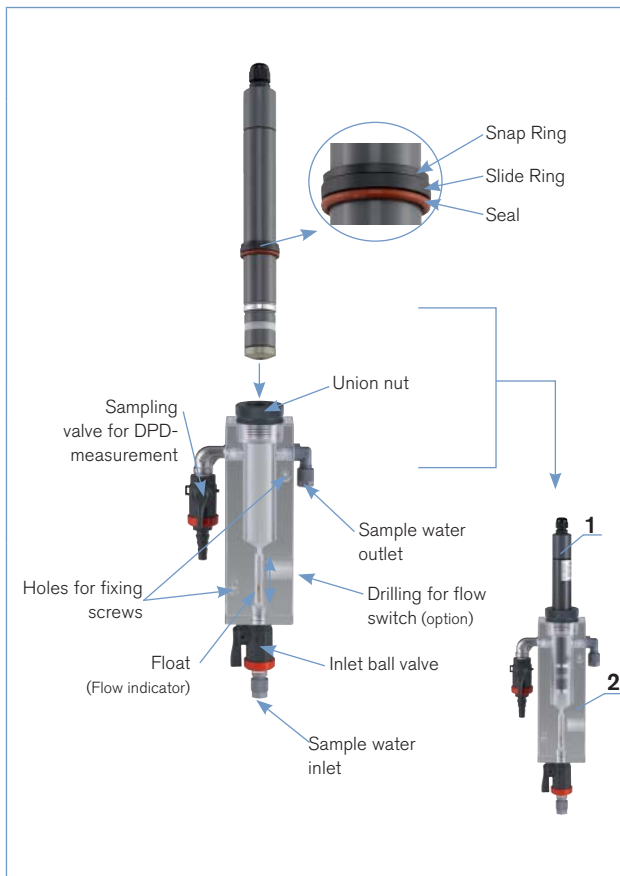
The steel mantle can be welded into a hole in the tank wall at virtually any depth.

As a result the probe is always immersed to exactly the desired position in the tank.

The O-ring can be easily replaced thanks to the « seal pusher » part.

By screwing in an adapter instead of a pH sensor, conductivity sensors can be mounted practically flush with the holder and is then designed in accordance with EHEDG guidelines.

### Analytical measurement chamber Type 8200



A complete chlorine sensor consists of

1. an analytical measurement chamber Type 8200 with nut and seals
2. a chlorine sensor Type 8232



**Do not install the sensor in the main pipe.**

**Measure only in bypass with use of the analytical measuring chamber Type 8200.**

- Respect the sensor pressure and temperature ranges.
- Close the water inlet ball valve of the analytical measurement chamber Type 8200.
- Avoid installations that allow air bubbles to enter the measuring water.
- Stop the circulation of fluid, cut off the pressure and drain the pipe before loosening the process connections.

Installing the analytical measurement chamber Type 8200 on the support.



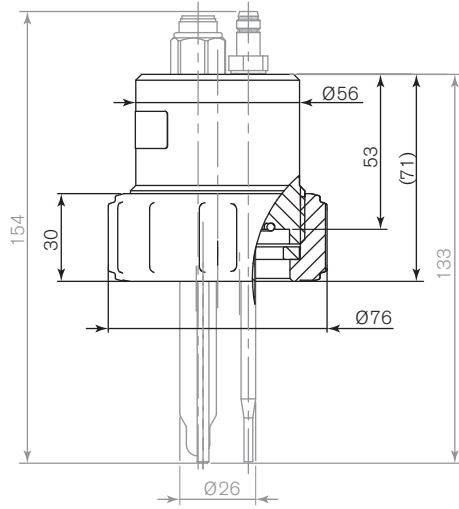
■ For the choose of the installation place for the analytical measurement chamber Type 8200, please consider the max. height of the chlorine sensor (approx. 220 mm without cable connected), so it can be set up in this analytical measurement chamber.

- A. Drill holes in the support according to the dimensions indicated on the dimension drawing on page 9.
- B. Mount the analytical measurement chamber Type 8200 with two screws (recommendation: M4x60 mm pan head screw or hexagon socket head screw. The screws are not provided) onto the support.
- C. Connect the water inlet of the analytical measurement chamber with a 6/8 hose to the sample water source.
- D. Connect the water outlet of the analytical measurement chamber with a 6/8 hose to the drain for example.
- E. Install the chlorine sensor (see operating instruction manual)
- F. Establish the circulation of the fluid.
- G. Open the water inlet ball valve.

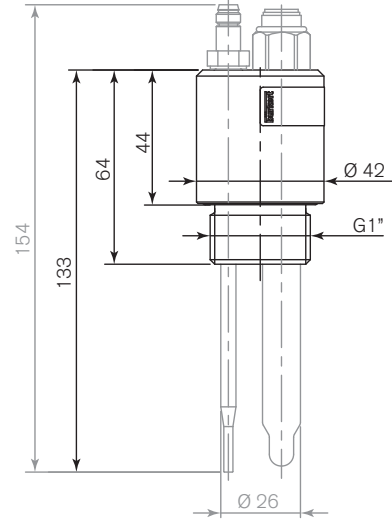
Dimensions [mm]

General purpose holder

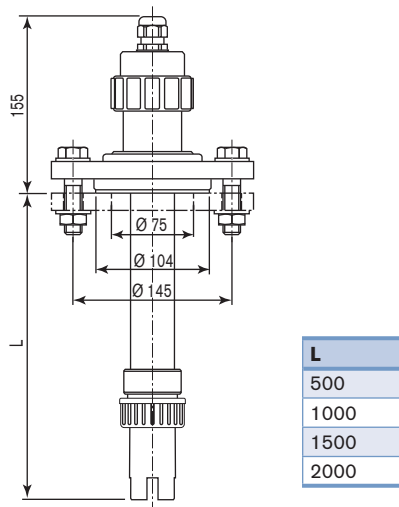
G 2" connection\* for installation on Bürkert fitting S020 - PVC, Stainless steel



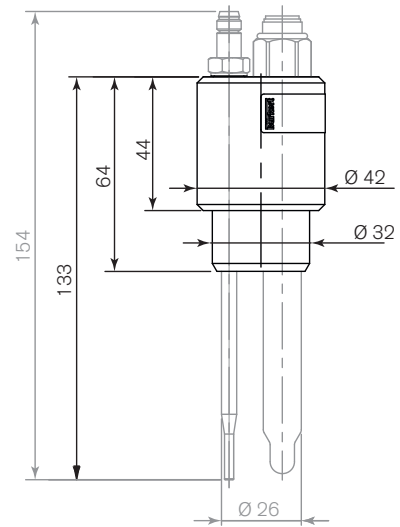
G 1" connection\* for installation on T-Fitting - PVC



Immersion fitting with fixing kit for installation on Tanks



Stick connection\* for installation on T-Fitting - PVC

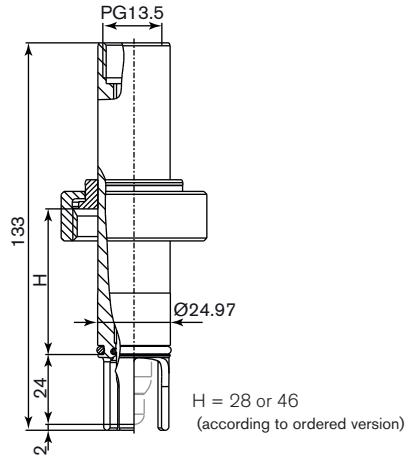


\* with analytical probe and Pt1000 temperature probe/liquid earth rod - have to be ordered separately

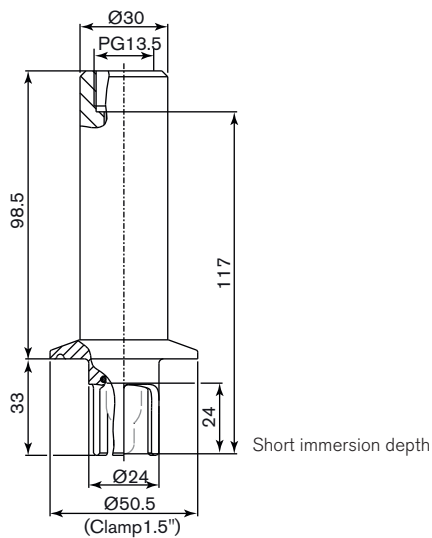
Dimensions [mm]

Hygienic holder

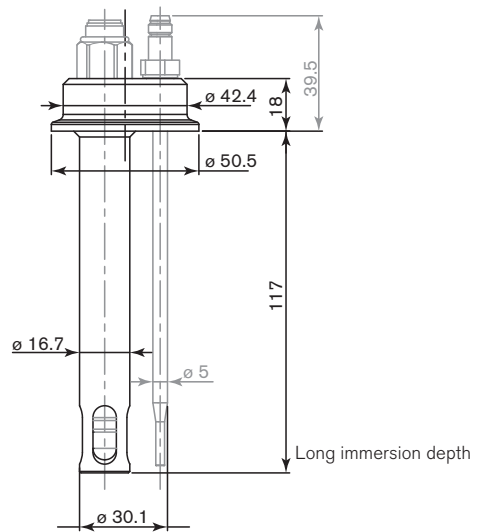
G1¼" connection  
Stainless steel 316L/ DIN1.4435



Clamp connection 1½" (ø 50,5 mm)\*  
Stainless steel 316L / DIN1.4435



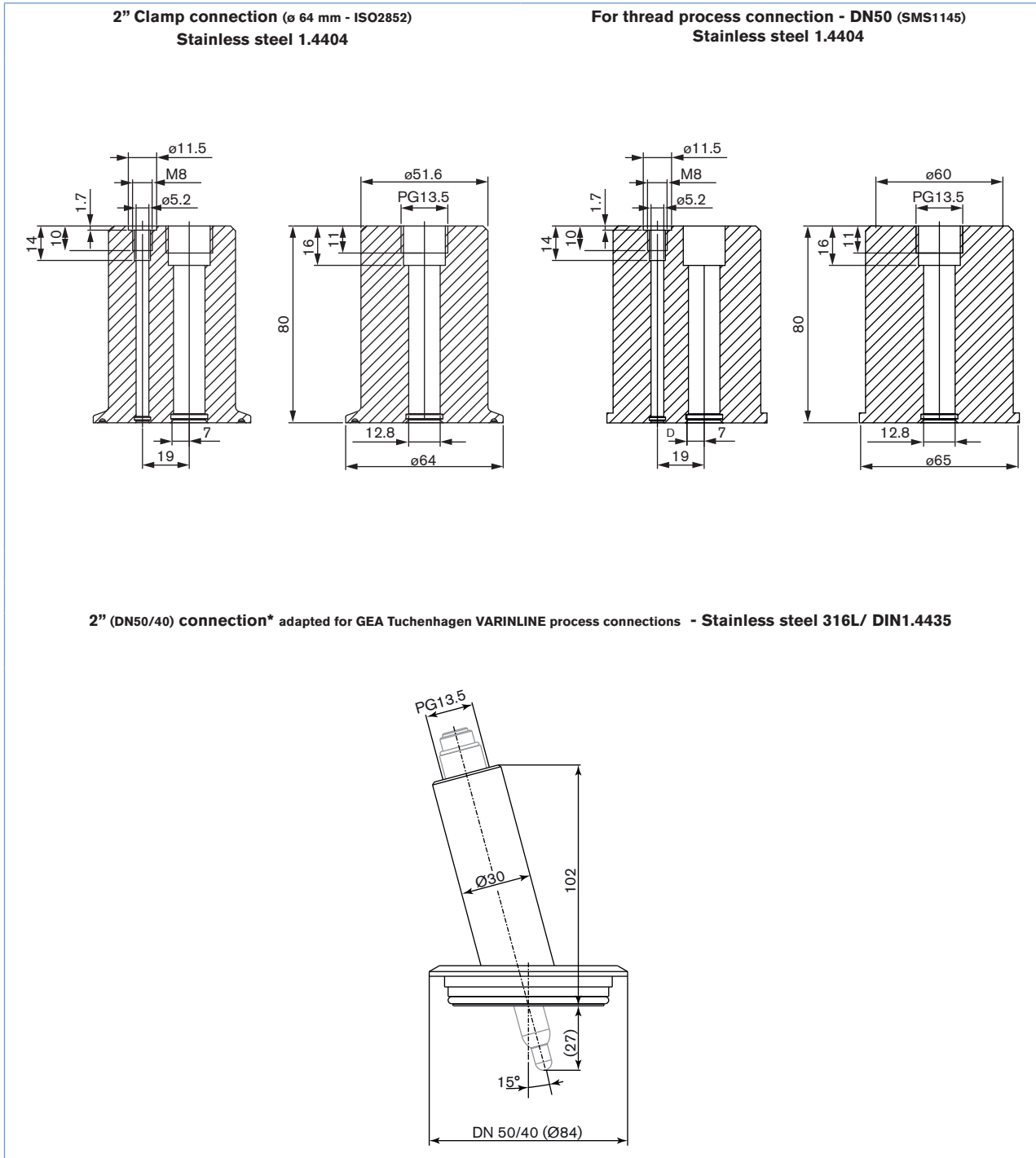
Clamp connection 1½" (ø 50,5 mm)\*  
Stainless steel 316L



\* with analytical probe and Pt1000 temperature probe/liquid earth rod - have to be ordered separately

Dimensions [mm]

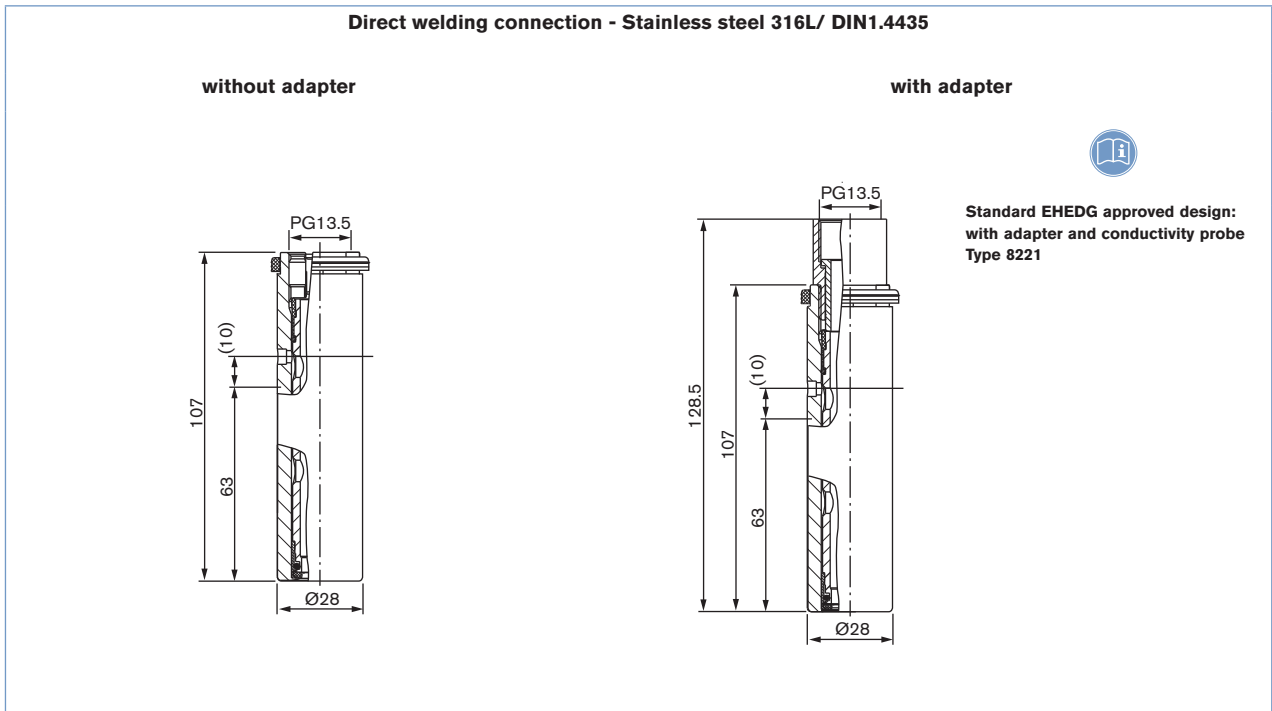
Hygienic holder



\* with analytical probe - have to be ordered separately

## Dimensions [mm]

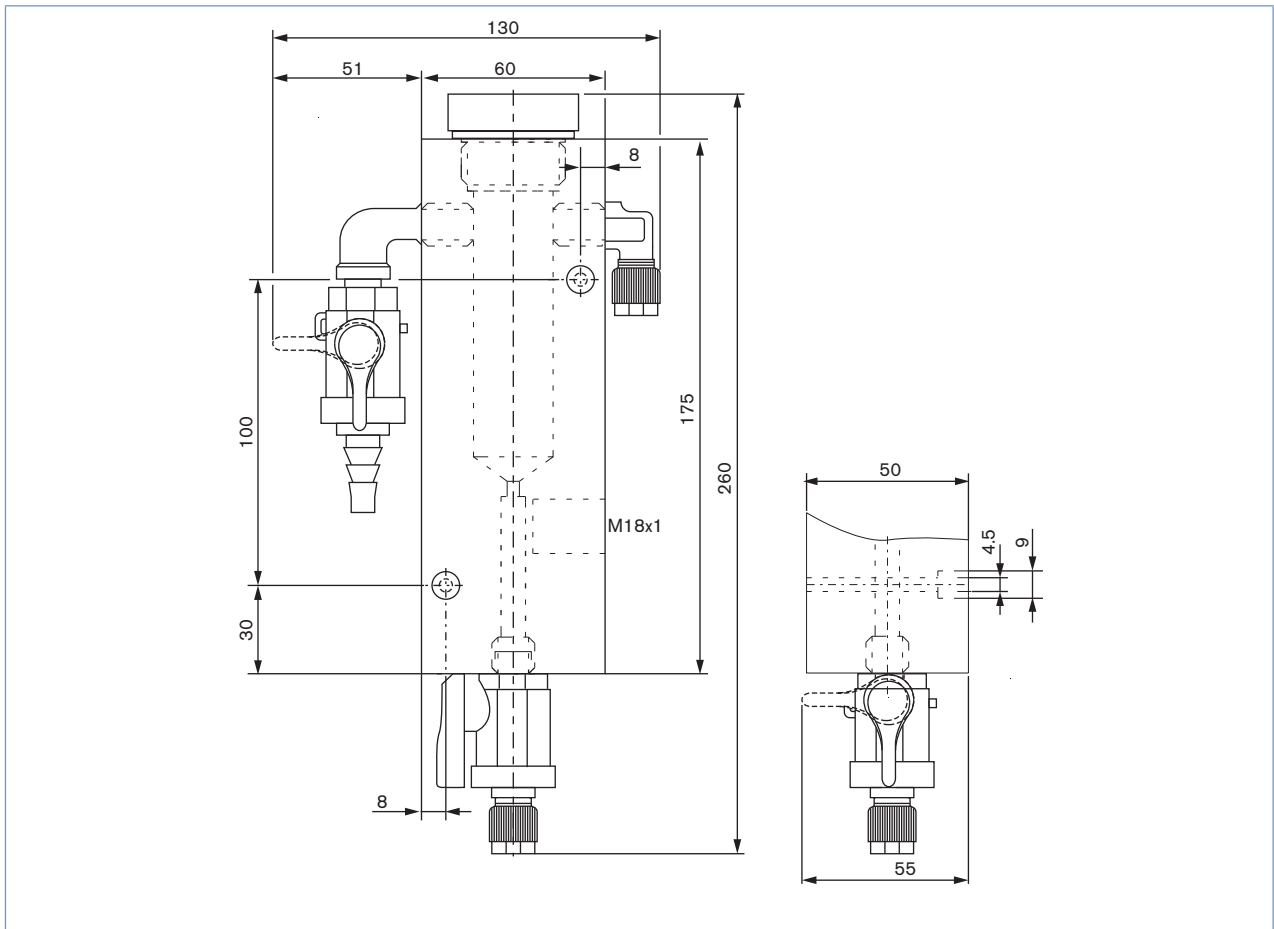
## Hygienic holder



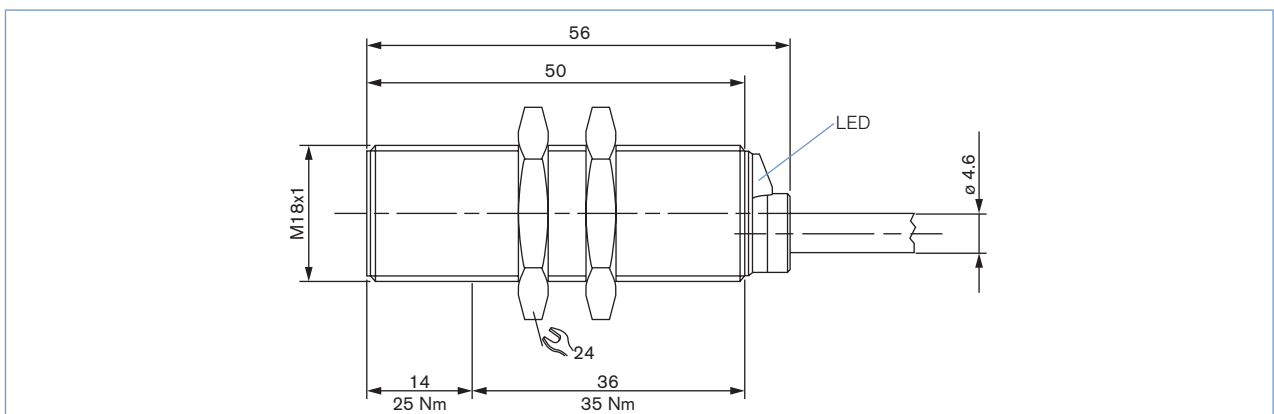


## Dimensions [mm]

## Analytical measurement chamber







## Flow switch for analytical measurement chamber (option)



Ordering information for complete pH/ORP sensor using Type 8200

■ Combining the probe holder Type 8200 with fittings Type S020



Available fitting DN	DN15	DN32	DN50	DN65	DN100	DN200
T-Fitting 	[Shaded]					
Weld-in socket 			[Shaded]			
Fusion spigot 			[Shaded]			
Analytical measurement using probe holder G2" connection for S020	[Shaded]  Note A					

Note A: Only use plastic fitting **in analytical version** with true union acc. to DIN8063 (PVC), to DIN16962 (PP) or to ISO10931 (PVDF), see data sheet Type S020

■ pH/O.R.P sensor for tank or pipe installation

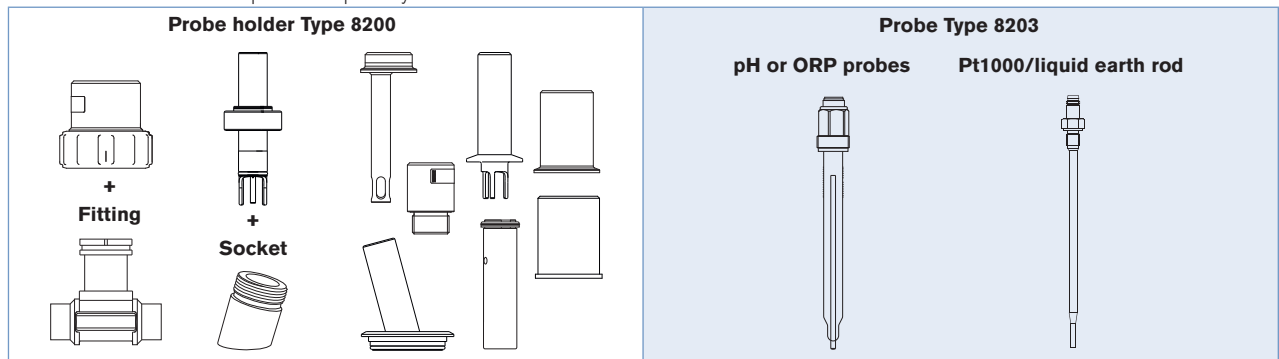
A complete pH/ORP sensor consists of a probe holder Type 8200 with seals, a pH or O.R.P probe Type 8203, a Pt1000 temperature probe/liquid earth rod (option) and a fitting according to the selected holder.

The following information is necessary for the selection of a complete device:

- Item no. of the desired probe holder **Type 8200** (see ordering chart, p. 12)
- Item no. of the selected pH or O.R.P probe **Type 8203** (see separate data sheet) 
- Item no. of the Pt1000 temperature probe/liquid earth rod if needed (see separate data sheet Type 8203)
- Item no. of the selected fitting **Type S020** (DN15 - DN200) **only** if probe holder with G 2" connection (see separate data sheet)  or of the select socket **only** if probes holder with G 1 1/4" connection with o-ring position of 28 or 46 mm (see ordering chart, p. 13)

When you click on the orange box "More info.", you will come to our website for the resp. product where you can download the data sheet.


→ You have to order the components separately.



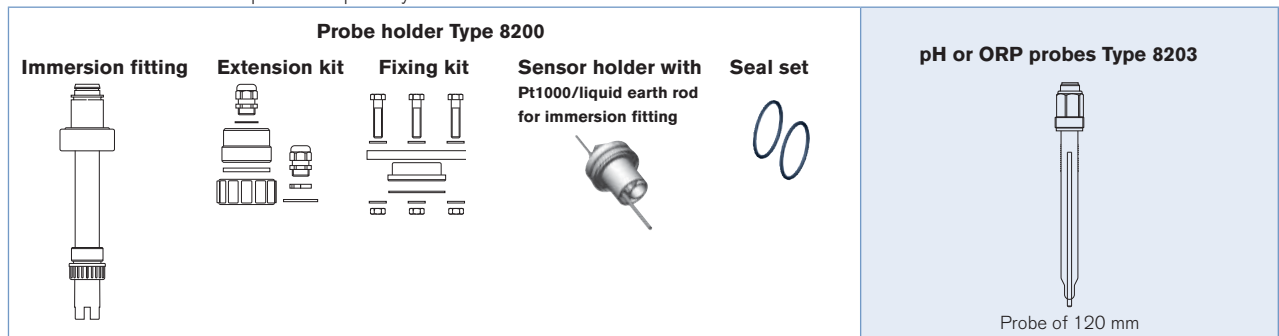
■ pH/O.R.P sensor for tank installation with the immersion fitting

A complete pH/ORP sensor for tank installation consists of an immersion fitting, an extension kit for immersion fitting, a fixing kit (flange DN65 with stainless steel screws), a probe holder with Pt1000 temperature probe/liquid earth rod, a pH or ORP probe Type 8203 and a seal.

The following information is necessary for the selection of a complete device:

- Item no. of the immersion fitting (see ordering chart of probe holders, p. 12)
- Item no. of the extension kit for the immersion fitting (see ordering chart of accessories, p. 13)
- Item no. of the fixing kit (flange DN65 with stainless steel screws - see ordering chart of accessories, p. 13)
- Item no. of the probe holder for immersion fitting with Pt1000 temperature probe/liquid earth rod (see ordering chart of probe holder, p. 12)
- Item no. of the 120 mm pH or ORP probe **Type 8203** (see separate data sheet) 
- Item no. of the seal set if EPDM desired (see ordering chart of accessories, p. 13)

→ You have to order the components separately.



## Ordering information for complete conductivity sensor using Type 8200

### ■ Conductivity sensor for tank or pipe installation

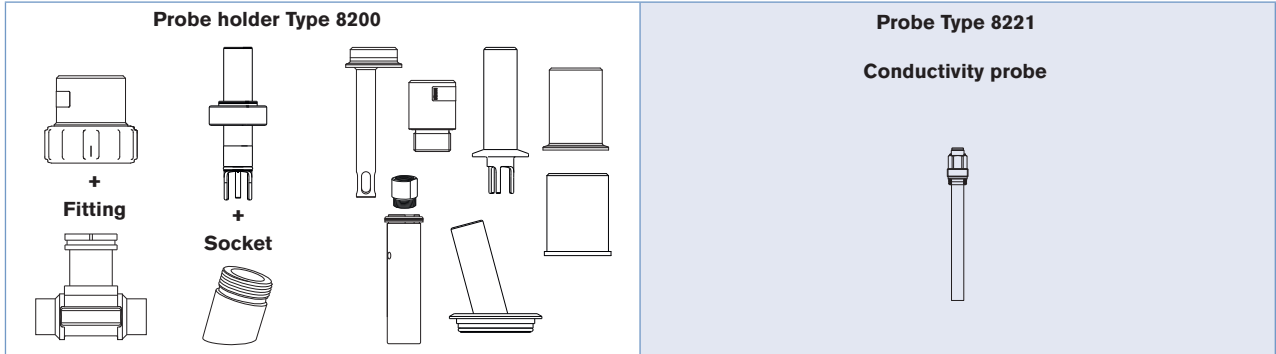
A complete conductivity sensor consists of a probes holder Type 8200 and a conductivity probe.

The following information is necessary for the selection of a complete device:

- **Item no.** of the probes holder **Type 8200** (see ordering chart of probes holder, p. 12)
- **Item no.** of the selected conductivity probe (see separate data sheet Type 8221) [More info.](#)

When you click on the orange box "More info.", you will come to our website for the resp. product where you can download the data sheet.

→ You have to order the components separately.



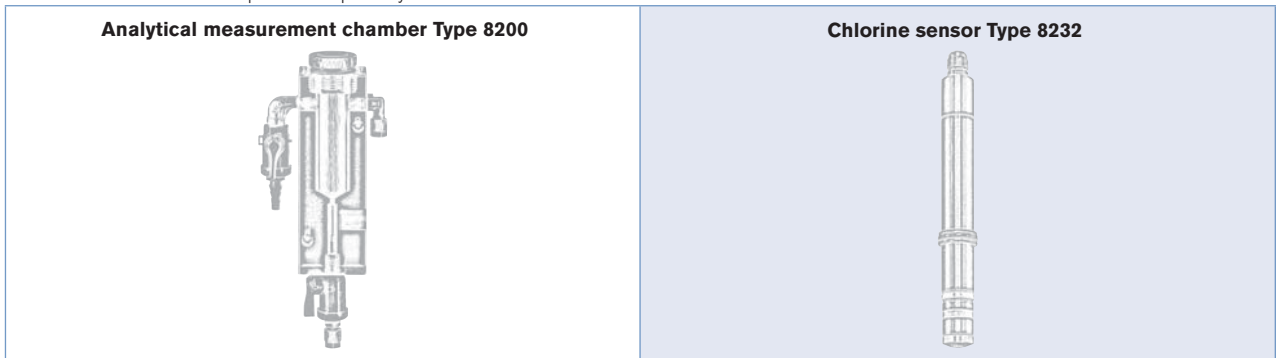
## Ordering information for complete chlorine sensor using Type 8200

A complete chlorine sensor consists of an analytical measurement chamber Type 8200 and a chlorine sensor.

The following information is necessary for the selection of a complete device:

- **Item no.** of the analytical measurement chamber **Type 8200** (see ordering chart of analytical measurement chamber, p. 12)
- **Item no.** of the selected chlorine sensor (see separate data sheet Type 8232) [More info.](#)
- **Item no.** of the flow switch for continuous monitoring of the flow (optional) (see ordering chart of analytical measurement chamber, p. 12)

→ You have to order the components separately.



## Ordering chart - probe holders Type 8200

Specifications	Version	Material	Boring for Pt1000 temperature probe/liquid earth rod	Protection tube	Item no.
G2" connection for installation on Bürkert fitting S020	standard	PVC	No	Yes	429 224
			Yes	Yes	429 228
		Stainless steel	No	Yes	429 227
			Yes	Yes	429 231
G1" connection	short	PVC	No	No	429 220
			Yes	No	429 221
Stick connection	short	PVC	No	No	564 236
			Yes	No	563 475
For immersion fitting	Pt1000 temperature probe/liquid earth rod in stainless steel	PVDF	Yes	Yes	418 889
	Pt1000 temperature probe/liquid earth rod in titanium	PVDF	Yes	Yes	418 890
Immersion fitting	L=0.5 m	PP	No	Yes	419 567
	L=1.0 m	PP	No	Yes	419 568
	L=1.5 m	PP	No	Yes	419 569
	L=2.0 m	PP	No	Yes	419 570
Hygienic G1¼" connection	High=28	Stainless steel 316L	No	Yes	562 431
	High=46	Stainless steel 316L	No	Yes	562 432
Clamp 1½" connection - (ø 50.5 mm)	Short immersion depth	Stainless steel 316L	No	Yes	558 885
	Long immersion depth	Stainless steel 316L	Yes	Yes	429 235
Clamp 2" connection (ø 64 mm - ISO2852)	standard	Stainless steel 1.4404	Yes	No	567 197
	standard	Stainless steel 1.4404	No	No	567 198
For DN50 thread (SMS1145) process connection	standard	Stainless steel 1.4404	Yes	No	566 501
	standard	Stainless steel 1.4404	No	No	566 502
2" (DN50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections	15°	Stainless steel 316L	No	Yes	562 433
Hygienic direct welding connection	Standard	Stainless steel 316L/ DIN1.4435	No	No	561728

## Ordering chart - Analytical measurement chamber Type 8200

Description	Item no.
Analytical measurement chamber	566 054
Flow switch for analytical measurement chamber, PNP, 2 m cable (optional)	772 858

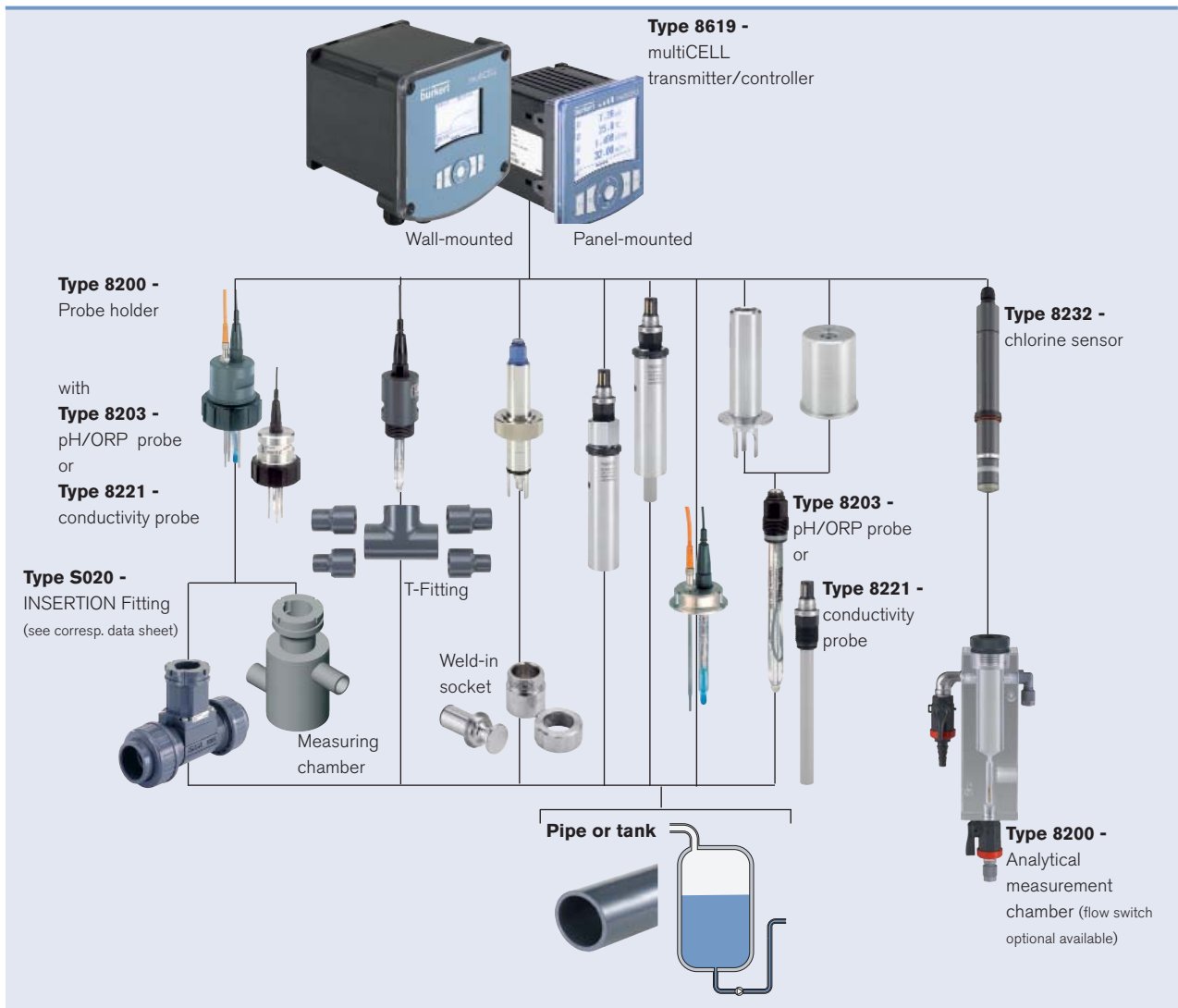
## Ordering chart for accessories

Description	Item no.
Pt1000 temperature probe/liquid earth rod - in stainless steel 1.4571	427 023
Pt1000 temperature probe/liquid earth rod - in titanium	560 317

**Ordering chart for accessories**

Description	Item no.
Set with FKM seal for the general purpose holder G2" connection	429 264
Set with 1 green FKM + 1 black EPDM seal for the general purpose holder G2" connection	552 111
Extension kit for the immersion fitting L= X m	562 573
Fixing kit - flange DN65 with stainless steel screws for the immersion fitting L= X m	413 615
Weld-in socket 15° L=28 for holder G1¼"	737 241
Weld-in socket 15° L=46 for holder G1¼"	737 260
Adapter for hygienic direct welding connection and conductivity probe	563 477

**Interconnection possibilities with other Bürkert devices**



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[www.burkert.com](http://www.burkert.com)

In case of special application conditions, please consult for advice.

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