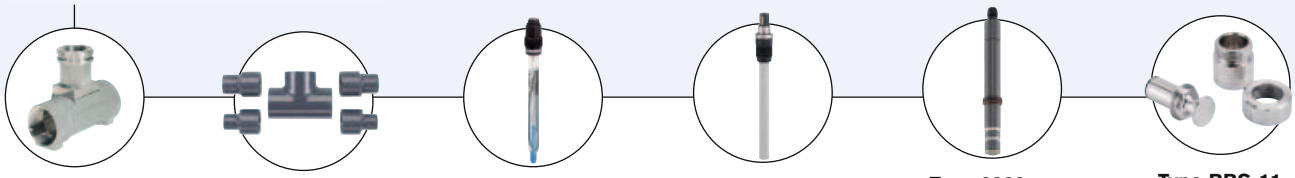
bürkert
FLUID CONTROL SYSTEMS

Armatures for analytical probes

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

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

- The holder range for 120 mm analytical probes (pH/ORP/conductivity...) covers many types of applications:
  - General purpose
  - Water treatment
  - Food & Beverage
  - Pharmaceutical/Biotechnology.

  A wide range of process connections are available for:
  General purpose holders mounted on pipes or tanks

  Hygienic holders designed for hygienic applications:
  - 3-rod holders which ensure good sensor protection and allow easy cleaning. Due to a sanitary design steam sterilisation, autoclavation, CIP 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 holders for the 2" Clamp connection or for DN50 thread process connections satisfy highest demands, for example, in CIP-applications A Pt1000 temperature probe is available as an option.
  - The 15° version with 2" (DN50/40) connection adapted for GEA Tuchenhagen VARINLINE 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	
Process connection	
General purpose	G2" for use with INSERTION fitting Type S020 G1" for use with T-Fitting Solvent union for use with T-Fitting d32 x d32 up to d32 x d110 Immersion fitting with fixing kit for use on tanks
Hygienic holder	G1¼" (28 or 46 mm O-ring position) Clamp 1½" (ø 50.5 mm) or 2" (ø 64 mm - acc. to ISO2852) for DN50 thread (acc. to SMS1145) process connection 2" (DN50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections
Measurement chamber	Direct welding on pipe Screw connections (straight for inlet, elbow for outlet) ¼" external thread to 6/8 hose; mounting nut (to fasten the sensor); hose sleeve (to sample)
Medium temperature	Temperature limits may depend on the inserted probe. Refer to the relevant instruction manual and technical data on next page. If the temperature ranges given for the holder and the inserted probe are different, use the most restrictive range.
Medium pressure	Pressure limits may depend on the inserted probe. Refer to the relevant instruction manual and technical data on next page. If the pressure ranges given for the holder and the inserted probe are different, use the most restrictive range.
Environment	
Ambient temperature	Temperature limits may depend on the inserted probe. Refer to the relevant instruction manual or datasheet for more details

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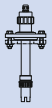
General purpose holder
G2" connection

Materials	
Body	Stainless steel 316L 1.4404, PVC
Seal	FKM (EPDM option)
Medium temperature	with S020 fitting in PVC: 0...+50 °C *(+32...+122 °F)*, Stainless steel: -20...+130 °C *(+5...+266 °F)*
Medium pressure	with S020 fitting in PVC: PN10 *(145 PSI)*, Stainless steel: PN16 *(232 PSI)*

General purpose holder
G1" or solvent union connection

Materials	
Body	PVC
Seal	FKM
Medium temperature	0...+50 °C *(+32...+122 °F)*
Medium pressure	PN10 *(145 PSI)*



General purpose holder
Immersion fitting with fixing kit

Materials	
Sensor holder	PVDF
Extension tube	PP
Seal	FKM (EPDM option)
Screws	Stainless steel
Medium temperature	0...+80 °C *(+32...+176 °F)*

Hygienic holder
G1¼" connection (28 or 46 mm O-ring position)

Materials	
Body	Stainless steel (316L/1.4435)
Seal	EPDM (FDA)
Medium temperature	-10...+135 °C *(+14...+275 °F)*
Medium pressure	Max. 6 bar *(max. 87 PSI)*

Hygienic holder - short immersion depth
1½" clamp (ø 50,5 mm) connection

Materials	
Body	Stainless steel (316L/1.4435)
Seal	EPDM (FDA)
Medium temperature	-10...+135 °C *(+14...+275 °F)*
Medium pressure	Max. 6 bar *(max. 87 PSI)*

Hygienic holder - long immersion depth
1½" clamp (ø 50,5 mm) connection

Materials	
Body	Stainless steel (316L/1.4404)
Seal	FKM
Medium temperature	-10...+135 °C *(+14...+275 °F)*
Medium pressure	Max. 6 bar *(max. 87 PSI)*

Hygienic holder
2" clamp (ø 64 mm - acc. to ISO2852) connection or for DN50 thread (acc. to SMS1145) process connection

Materials	
Body	Stainless steel (316L/1.4404)
Seal	EPDM
Medium temperature	-20...+140 °C *(+5...+284 °F)*
Medium pressure	PN16 *(232 PSI)*

Hygienic holder
2" (DN50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections

Materials	
Body	Stainless steel (316L/1.4435)
Seal	EPDM (FDA)
Medium temperature	-10...+135 °C *(+14...+275 °F)*
Medium pressure	Max. 6 bar *(max. 87 PSI)*

Hygienic holder
Direct welding connection

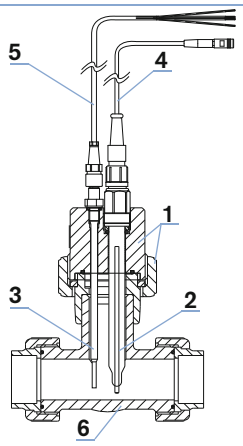
Materials	
Body	Stainless steel (316L/1.4435)
Seal	EPDM (FDA)
Medium temperature	-10...+140 °C *(+14...+284 °F)*
Medium pressure	Max. 16 bar *(max. 232 PSI)*

Analytical measurement chamber

Materials	
Body	PMMA polished, beveled edges
Mounting nut	PVC-U grey
O-ring holder	PVDF nature
Slide ring (30 x 25.5 x 4)	PETP black
O-ring (30 x 2.6)	FPM
O-ring (25 x 2.5)	Silicone
Hose connection	PA
Inlet ball valve	PVC-U
Float	PEEK, steel 1.0037
O-ring flat (12 x 6 x 2)	Silicone transparent
Sample valve	
Ball valve (with hose sleeve)	PVC-U
Elbow screw connection	Stainless steel
Medium temperature	Max. 45 °C *(max. 113 °F)*
Medium pressure	Max. 4 bar *(max. 58 PSI)* - Permitted operating pressure of the sensor has to be respected

Installation example of Type 8200

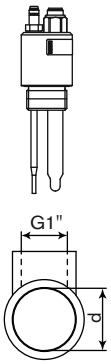
Type 8200 probe holder for installation on S020 Bürkert fitting

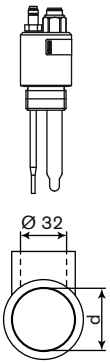


A complete pH/ORP/conductivity sensor consists of

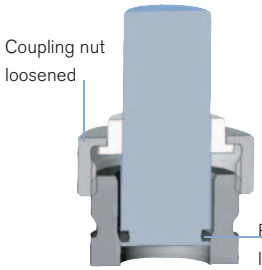
1. Complete Type 8200 probe holder with nut and seals
2. pH/O.R.P probe or conductivity probe with PG13.5 connection
3. Pt1000 temperature probe/liquid earth rod (option, if needed)
4. Shielded cable for pH/ORP or conductivity cable varioPin (6.0)
5. Shielded cable for Pt1000 temperature probe/liquid earth rod (option, if needed)
6. S020 Bürkert fitting (G2" connection)

Type 8200 G1" or solvent probe holder for installation on T-Fitting





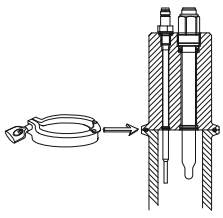
Type 8200 G1¼" probe holder with o-ring position of 28 or 46 mm for installation on sockets

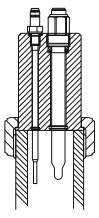


The G1¼" probes holder with O-ring position of 28 mm or 46 mm has to be mounted into sockets which are welded on pipes or tanks.

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 in the right position.
Otherwise the medium leaks through the G1¼" coupling nut.

Type 8200 probe holders with 2" clamp (acc. to ISO2852) connection or for DN50 thread (acc. to SMS1145) process connection





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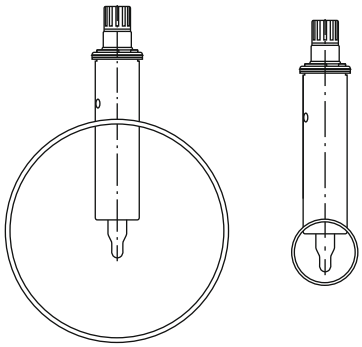
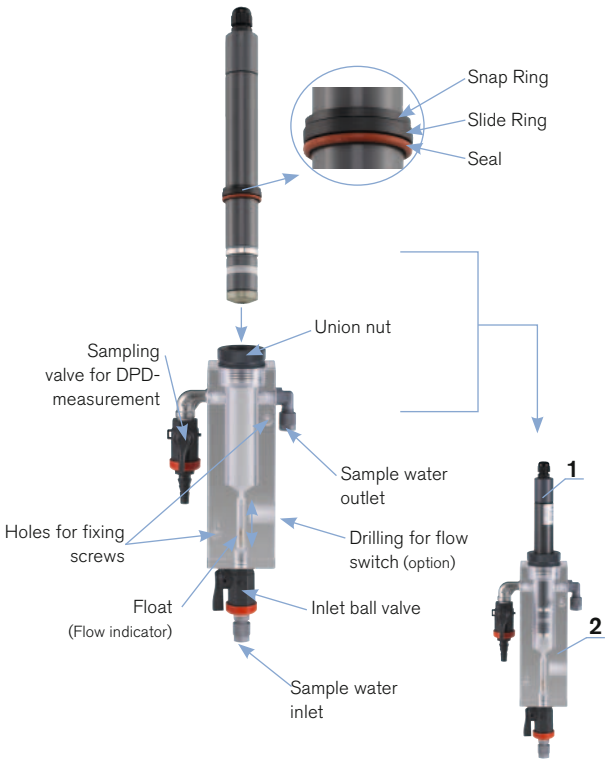
Installation example of Type 8200

Direct welding Type 8200 probes holder 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.

Type 8200 analytical measurement chamber



A complete chlorine sensor consists of
1. Type 8200 analytical measurement chamber with nut and seals
2. Type 8232 chlorine sensor

Do not install the sensor in the main pipe.
Measure only in bypass with use of Type 8200 analytical measurement chamber.

- Respect the sensor pressure and temperature ranges.
- Close the water inlet ball valve of Type 8200 analytical measurement chamber.
- 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 Type 8200 analytical measurement chamber on the support.

- When choosing of the installation place for Type 8200 analytical measurement chamber, 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 Type 8200 analytical measurement chamber with two screws (recommendation: M4 x 60 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.

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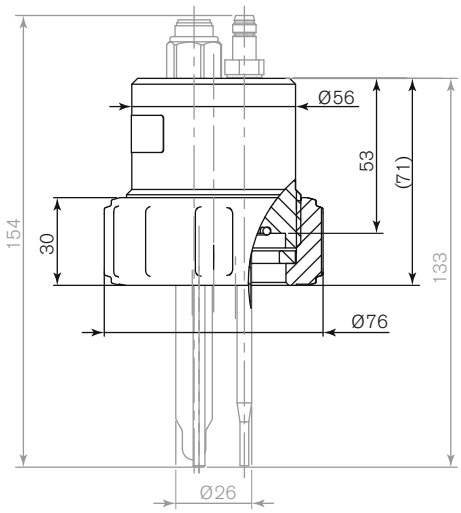
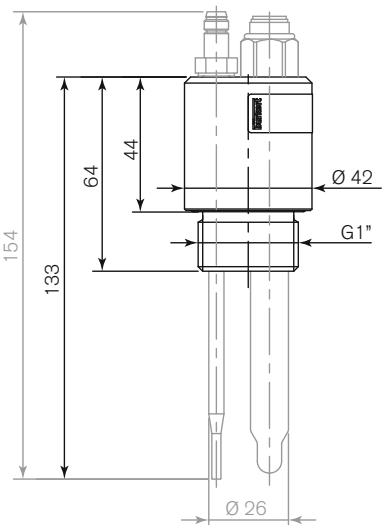
Dimensions [mm]

General purpose holder

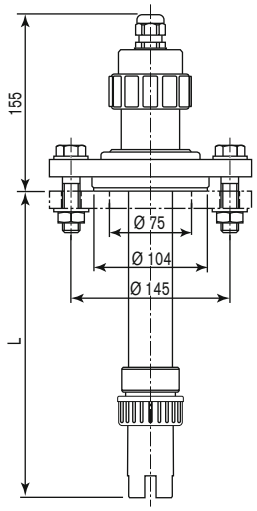
G2" connection* for installation on Bürkert fitting S020 - PVC, stainless steel



G1" connection* for installation on T-Fitting - PVC

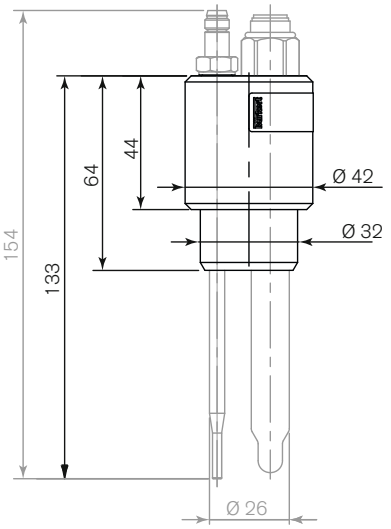


Immersion fitting with fixing kit for installation on Tanks



L
500
1000
1500
2000

Stick connection* for installation on T-Fitting - PVC



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

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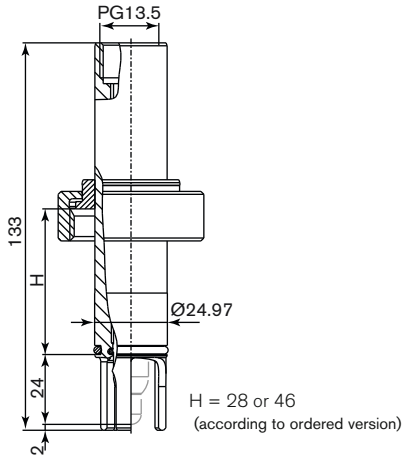
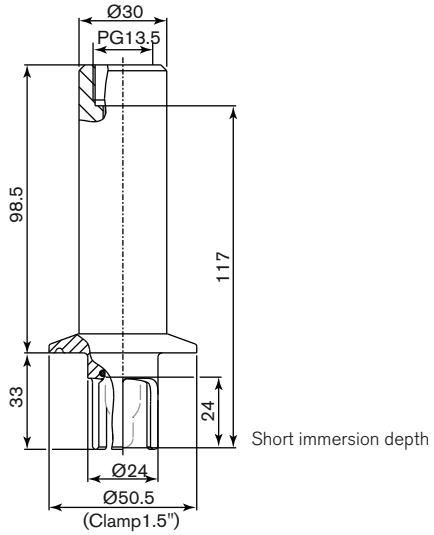
Dimensions [mm]

Hygienic holder

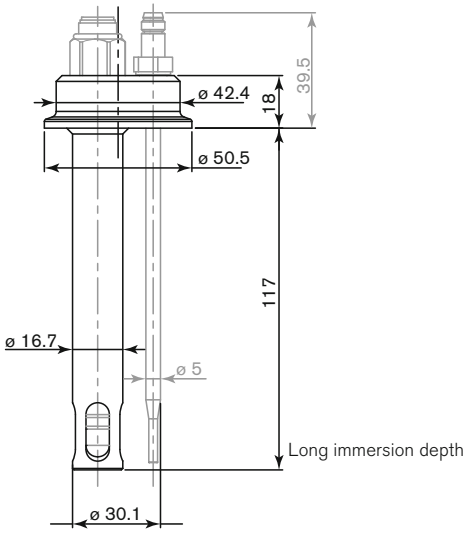
G1¼" connection -
stainless steel 316L/ DIN1.4435



1½" clamp connection (ø 50,5 mm)* -
stainless steel 316L / DIN1.4435



1½" clamp connection (ø 50,5 mm)* -
stainless steel 316L



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

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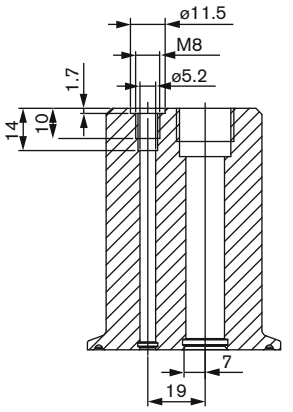
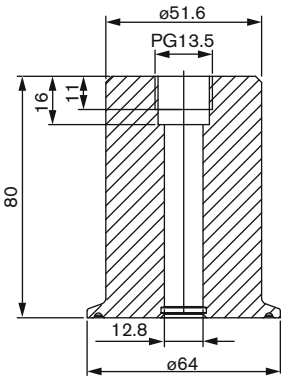
Dimensions [mm]

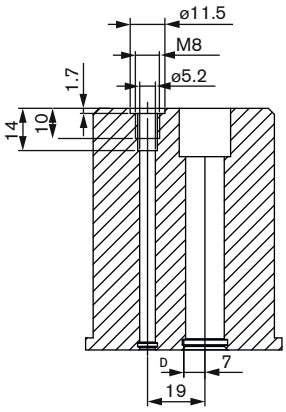
Hygienic holder

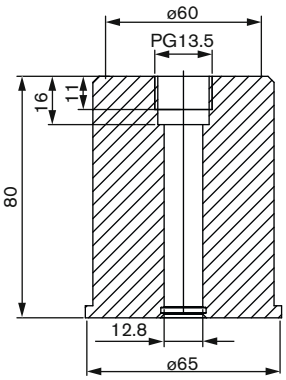
2" clamp connection (ø 64 mm - acc. to ISO2852) - stainless steel 1.4404



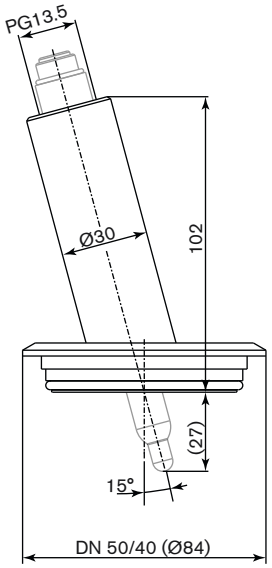


For thread process connection - DN50 (acc. to SMS1145) - stainless steel 1.4404





2" (DN50/40) connection* adapted for GEA Tuchenhagen VARINLINE process connections - stainless steel 316L/ DIN1.4435



*** with analytical probe - have to be ordered separately**

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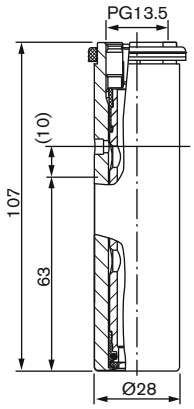
Dimensions [mm]

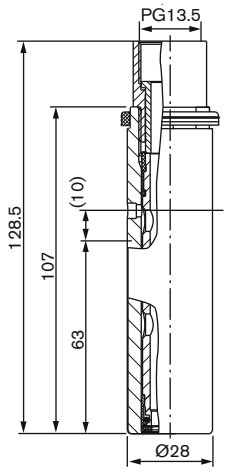
Hygienic holder

Direct welding connection - stainless steel 316L/ DIN1.4435

without adapter



with adapter



Standard EHEDG approved design: with adapter and conductivity probe Type 8221

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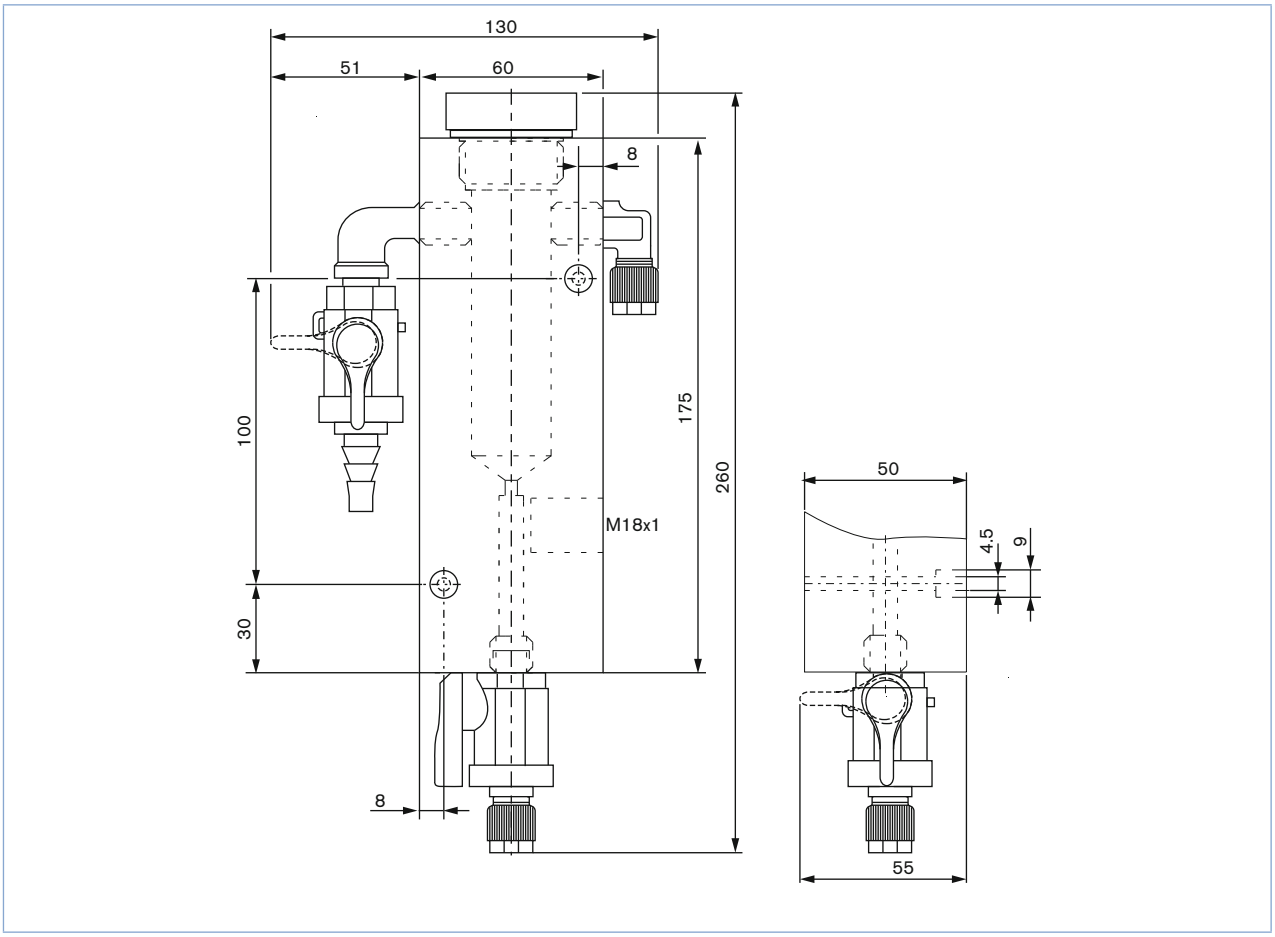
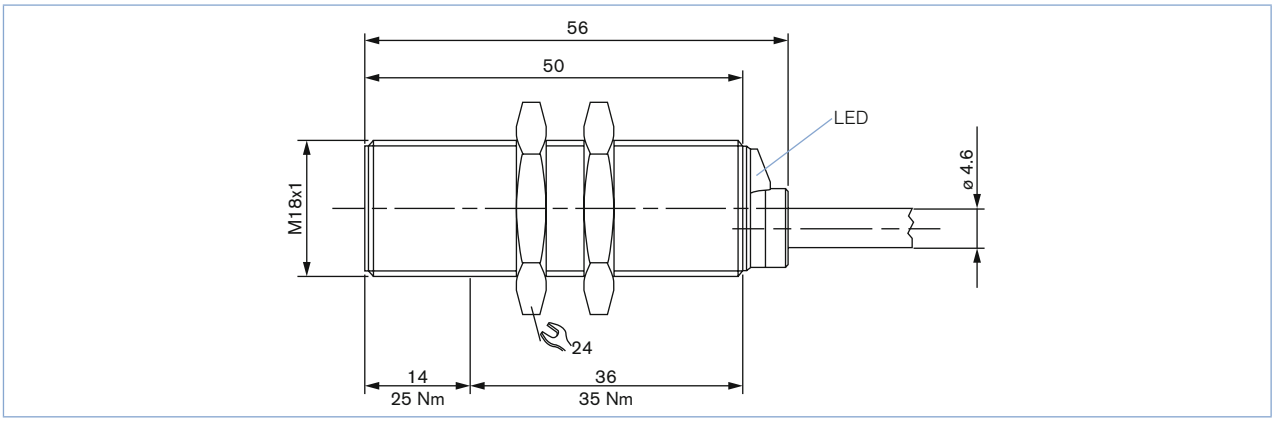
Dimensions [mm]

Analytical measurement chamber



Flow switch for analytical measurement chamber (option)



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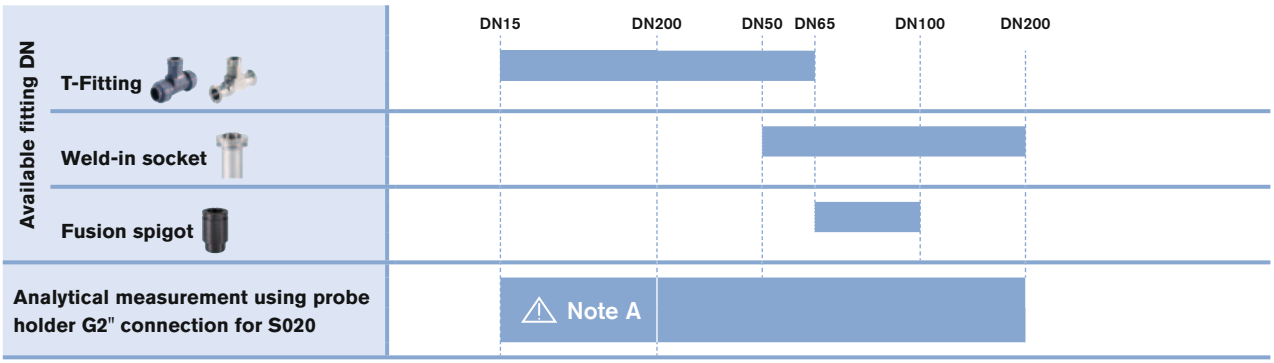
Ordering information for complete pH/ORP sensor using Type 8200

Combining Type 8200 probe holder with Type S020 fitting



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

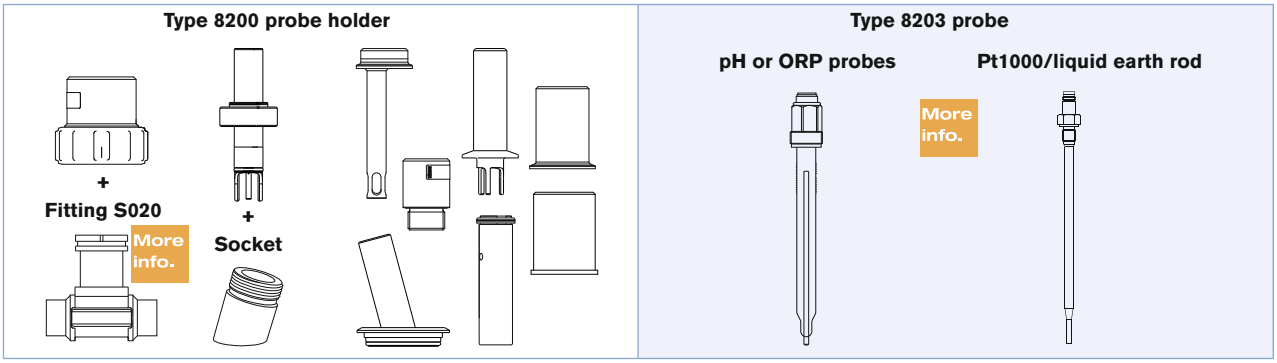
pH/O.R.P sensor for tank or pipe installation

A complete pH/ORP sensor consists of Type 8200 probe holder with seals, Type 8203 pH/O.R.P probe, 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 **Type 8200** probe holder (see ordering chart, p. 13)
- **Item no.** of the selected **Type 8203** pH or O.R.P probe (see separate datasheet)
- **Item no.** of the Pt1000 temperature probe/liquid earth rod if needed (see separate datasheet Type 8203)
- **Item no.** of the selected **Type S020** fitting (DN15 - DN200) **only** if probe holder has a G2" connection (see separate datasheet)
  or of the selected socket **only** if probes holder has a G1¼" connection with o-ring position of 28 or 46 mm (see ordering chart, p. 14)

→ You have to order the components separately.
When you click on the orange box "More info.", you will come to our website for the resp. product where you can download the datasheet.



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Ordering information for complete pH/ORP sensor using Type 8200 (continued)

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, Type 8203 pH/ORP probe and a seal.

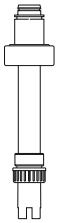
The following information is necessary for the selection of a complete device:

- **Item no.** of the immersion fitting (see ordering chart of probe holders, p. 13)
- **Item no.** of the extension kit for the immersion fitting (see ordering chart of accessories, p. 14)
- **Item no.** of the fixing kit (flange DN65 with stainless steel screws - see ordering chart of accessories, p. 14)
- **Item no.** of the probe holder for immersion fitting with Pt1000 temperature probe/liquid earth rod (see ordering chart of probe holder, p. 13)
- **Item no.** of **Type 8203** 120 mm pH/ORP probe (see separate datasheet)
- **Item no.** of the seal set if EPDM desired (see ordering chart of accessories, p. 14)

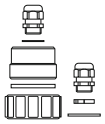
→ You have to order the components separately.
When you click on the orange box “More info.”, you will come to our website for the resp. product where you can download the datasheet.

Type 8200 probe holder

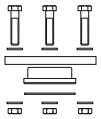
Immersion fitting



Extension kit



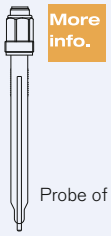
Fixing kit



Sensor holder with Pt1000/liquid earth rod for immersion fitting

Seal set

Type 8203 pH/ORP probes



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Ordering information for complete conductivity sensor using Type 8200

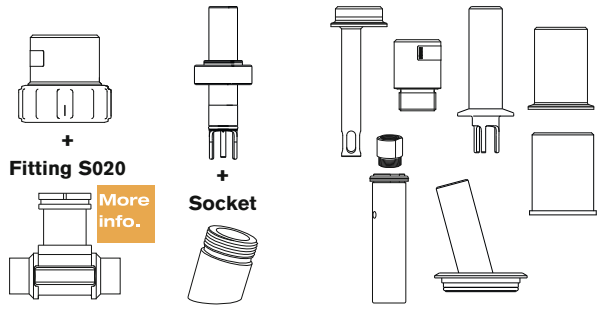
Conductivity sensor for tank or pipe installation

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 **Type 8200** probes holder (see ordering chart of probes holder, p. 13)
- **Item no.** of the selected conductivity probe (see separate datasheet Type 8221)
- **Item no.** of the selected **Type S020** fitting (DN15 - DN200) **only** if probe holder has a G2" connection (see separate datasheet)

→ You have to order the components separately.
When you click on the orange box “More info.”, you will come to our website for the resp. product where you can download the datasheet.

Type 8200 probe holder



Type 8221 probe

Conductivity probe

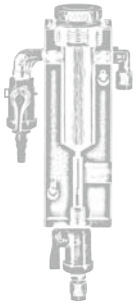
Ordering information for complete chlorine sensor using Type 8200

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

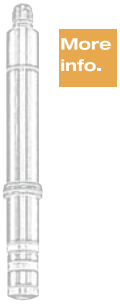
The following information is necessary for the selection of a complete device:
- **Item no.** of **Type 8200** analytical measurement chamber (see ordering chart of analytical measurement chamber, p. 13)
- **Item no.** of the selected chlorine sensor (see separate datasheet, Type 8232)
- **Item no.** of the flow switch for continuous monitoring of the flow (optional) (see ordering chart of analytical measurement chamber, p. 13)

→ You have to order the components separately.
When you click on the orange box “More info.”, you will come to our website for the resp. product where you can download the datasheet.

Type 8200 analytical measurement chamber



Type 8232 chlorine sensor



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Ordering chart - Type 8200 probe holders

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 316L/1.4404	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/1.4435	No	Yes	562 431
	High = 46	Stainless steel 316L/1.4435	No	Yes	562 432
1½" clamp connection - (ø 50.5 mm)	Short immersion depth	Stainless steel 316L/1.4435	No	Yes	558 885
	Long immersion depth	Stainless steel 316L/1.4404	Yes	Yes	429 235
2" clamp connection (ø 64 mm - ISO2852)	standard	Stainless steel 316L/1.4404	No	No	567 197
	standard	Stainless steel 316L/1.4404	Yes	No	567 198
For DN50 thread (acc. to SMS1145) process connection	standard	Stainless steel 316L/1.4404	Yes	No	566 501
	standard	Stainless steel 316L/1.4404	No	No	566 502
2" (DN50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections	15°	Stainless steel 316L/1.4435	No	Yes	562 433
Hygienic direct welding connection	Standard	Stainless steel 316L/1.4435	No	No	561728

Ordering chart - Type 8200 analytical measurement chamber

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

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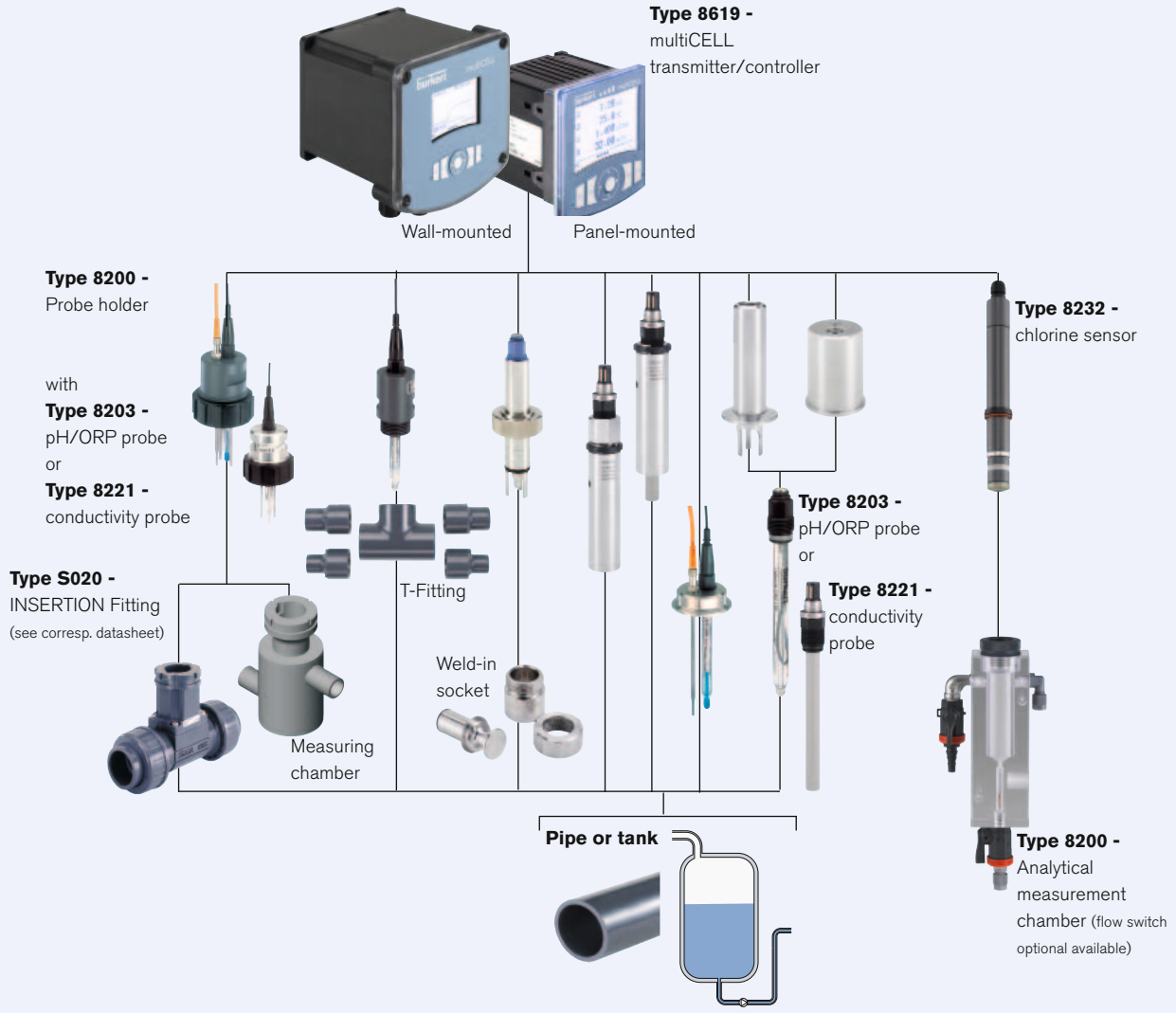
Ordering chart for accessories

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



To find your nearest Bürkert facility, click on the orange box → www.burkert.com

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

Subject to alteration.

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