bürkert
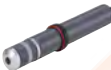FLUID CONTROL SYSTEMS

Armatures for analytical sensors

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

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

Type 8203 ▶
pH- and ORP-probes

Type 8221 ▶
Conductivity sensor for hygienic applications

Type 8232 ▶
Chlorine sensor

Type S020 ▶
Insertion fitting for flow or analytical measurement

Type BBS-25 ▶
Clamp ferrules, clamps and gaskets - acc. DIN 32676

Type description

The holder range allows the installation of 120 mm analytical probes (pH/redox potential (ORP)/conductivity) or chlorine sensors, etc., on tanks or process pipelines and covers general purpose, water treatment, food & beverage and pharmaceutical applications.

This product range includes a variety of process connections for general purpose, hygienic holders and transparent one-piece holders for multiple measurements.
The general holders are available with or without protective rods or as immersion fittings. The hygienic versions are also available with or without protection rods or tubes and can be directly welded on, as well as used for a 2" clamp connection, a DN 50 threaded process connection for highest requirements or a 2" (DN 50/40) connection, suitable for VARINLINE process connections from GEA Tuchenhagen.
The special transparent, one-piece holders (so-called analytical measuring chambers) can hold from one to several probes and sensors, depending on the design.

Depending on the version, the holder can be used for steam sterilisation, autoclaving, cleaning in place (CIP), to save space, for positioning the sensor according to the flow of the medium, or for mounting it in vertical pipes, but can also be equipped with a Pt1000 temperature sensor.

Measuring chambers are available for specific integration into the process. Transparent, they allow visualization of the fluid flow and ensure optimal measuring conditions. The single-slot measuring chamber has been designed for use with the Type 8232 chlorine sensor; those with three or four slots allow the simultaneous measurement of several parameters (chlorine, temperature and pH/ORP/conductivity). Two of the slots are always intended for temperature and chlorine sensors, the others are intended for other analysis probes. The three-slot measuring chamber is available in cold or warm water version.

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1. General technical data

Note:
These holders are used in combination with 120 mm analytical probes for general or hygienic purposes. These must be equipped with either a Bürkert pH- or ORP-probe Type 8203 or a conductivity probe Type 8221. The special measurement chamber must be used with the chlorine sensor Type 8232.

See **data sheet Type 8203** ▶, **data sheet Type 8221** ▶ or **data sheet Type 8232** ▶ for more information.

Product properties	
Materials	
Please make sure the device materials are compatible with the fluid you are using. Detailed information can be found in chapter "4.1. Chemical Resistance Chart – Bürkert resistApp" on page 10.	
Depending on the holder version. Detailed information can be found in chapter "2. Product versions" on page 5.	
Medium data	
Fluid temperature	Depending on the holder version. Detailed information can be found in chapter "2. Product versions" on page 5. Temperature limits may depend on the inserted probe. Refer to the relevant operating instructions and data sheet of the probe. If the temperature ranges given for the holder and the inserted probe are different, use the most restrictive range.
Fluid pressure max.	Depending on the holder version. Detailed information can be found in chapter "2. Product versions" on page 5. Pressure limits may depend on the inserted probe. Refer to the relevant operating instructions and data sheet of the probe. If the pressure ranges given for the holder and the inserted probe are different, use the most restrictive range.
Process/Port connection & communication	
Process connection	
General purpose holder	• G 2" for use with S020 Insertion fitting • G 1" for use with T-fitting • Solvent union for use with T-fitting d32 x d32 up to d32 x d110
Hygienic holder	• G 1¼" (28 or 46 mm O-ring position) • Clamp 1½" (Ø 50.5 mm) or 2" (Ø 64 mm - acc. to ISO2852) • For DN 50 thread (acc. to SMS1145) process connection • 2" (DN 50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections • Direct welding on pipe
Measurement chamber	Straight ¼" screw-in connections for hose 6/8 (for inlet and outlet) with O-ring, mounting nut (to fasten the sensor) and hose sleeve (to sample)
Approvals and Certificates	
Pressure equipment directives	Complying with Article 4, Paragraph 1 of 2014/68/EU directive Detailed information on the pressure equipment directive can be found in chapter "3.2. Pressure Equipment Directive" on page 10.
Certificates	Depending on the holder version. Detailed information can be found in chapter "2. Product versions" on page 5.
Environment and installation	
Ambient temperature	Temperature limits may depend on the inserted probe. Detailed information can be found in the relevant operating instructions and data sheet of the probe.

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2. Product versions

2.1. General purpose holder

G 2" connection

This holder is always equipped with protection rods, and is available with or without boring for a Pt1000 temperature probe/liquid earth rod. It is designed for use with Insertion fitting, Type S020. Detailed information can be found in the **data sheet Type S020 ▶**.

Product properties	
Materials	• Body in PVC or stainless steel (316L/1.4404) • Seals in FKM (EPDM optional)
Dimensions	Detailed information can be found in chapter **"5.1. General purpose holder" on page 11**.
Medium data	
Fluid temperature	With S020 fitting in: • PVC: 0…+50 °C (+32…+122 °F) • Stainless steel: -20…+130 °C (+5…+266 °F)
Fluid pressure max.	With S020 fitting in: • PVC: PN 10 (145 PSI) • Stainless steel: PN 16 (232 PSI)

G 1" or solvent union connection

This holder has no protection rod, but is available with or without boring for a Pt1000 temperature probe/liquid earth rod.

Product properties	
Materials	• Body in PVC • Seals in FKM
Dimensions	Detailed information can be found in chapter **"5.1. General purpose holder" on page 11**.
Medium data	
Fluid temperature	0…+50 °C (+32…+176 °F)
Fluid pressure max.	PN 10 (145 PSI)

2.2. Hygienic purpose holder

G 1¼" connection (28 or 46 mm O-ring position)

This support, equipped with 3 rods ensuring a good protection of the sensor, allows an easy cleaning. Thanks to its sanitary design, steam sterilisation, autoclaving and CIP cleaning are possible.

Product properties	
Materials	• Body in stainless steel (316L/1.4435) (316Ti/1.4571 on request) • Seals in EPDM (FKM or PTFE on request)
Dimensions	Detailed information can be found in chapter "5.2. Hygienic holder" on page 13.
Surface quality	Ra< 0.4 µm (15 µin.) electro-polished
Medium data	
Fluid temperature	-10…+135 °C (+14…+275 °F)
Fluid pressure max.	6 bar (87 PSI)
Approvals and Certificates	
Certificate	• USP Class VI • FDA • Inspection certificate 3.1 • On request: roughness certificate

1½" clamp (Ø 50.5 mm) connection, short immersion depth

This support, equipped with 3 rods ensuring a good protection of the sensor, allows an easy cleaning. Thanks to its sanitary design, steam sterilisation, autoclaving and CIP cleaning are possible.

Product properties	
Materials	• Body in stainless steel (316L/1.4435) • Seals in EPDM
Dimensions	Detailed information can be found in chapter "5.2. Hygienic holder" on page 13.
Surface quality	Ra <0.4 µm (15 µin.) electro-polished
Medium data	
Fluid temperature	-10…+135 °C (+14…+275 °F)
Fluid pressure max.	6 bar (87 PSI)
Approvals and Certificates	
Certificate	• USP Class VI • FDA • ECR 1935/2004 • Inspection certificate 3.1 • On request: roughness certificate

1½" clamp (Ø 50.5 mm) connection, long immersion depth

This support, equipped with a tube ensuring a good protection of the sensor, allows an easy cleaning. Thanks to its sanitary design, steam sterilisation, autoclaving and CIP cleaning are possible.

Product properties	
Materials	• Body in stainless steel (316L/1.4404) • Seals in FKM
Dimensions	Detailed information can be found in chapter "5.2. Hygienic holder" on page 13.
Surface quality	Ra <1.6 µm (63 µin.)
Medium data	
Fluid temperature	-10…+135 °C (+14…+275 °F)
Fluid pressure max.	6 bar (87 PSI)

2" clamp (Ø 64 mm - acc. to ISO2852) connection or for DN 50 thread (acc. to SMS1145) process connection

This support satisfies the highest demands, for example, in CIP applications. A Pt1000 temperature probe is available as an option.

Product properties	
Materials	• Body in stainless steel (316L/1.4404) • Seals in EPDM (FFKM on request)
Dimensions	Detailed information can be found in chapter **"5.2. Hygienic holder" on page 13**.
Surface quality	Ra < 0.8 µm (30 µin.)
Medium data	
Fluid temperature	-20…+140 °C (+5…+284 °F)
Fluid pressure max.	PN 16 (232 PSI)
Approvals and Certificates	
Certificate	• USP Class VI • FDA • Inspection certificate 3.1 • On request: roughness certificate

2" (DN 50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections

This 15° version support enables the probe to be positioned in relation to the flow direction or to be mounted in vertical pipes.

Product properties	
Materials	• Body in stainless steel (316L/1.4435) • Seals in EPDM
Dimensions	Detailed information can be found in chapter **"5.2. Hygienic holder" on page 13**.
Surface quality	Ra < 0.4 µm (15 µin.)
Medium data	
Fluid temperature	-10…+135 °C (+14…+275 °F)
Fluid pressure max.	6 bar (87 PSI)
Approvals and Certificates	
Certificate	• USP Class VI • FDA • ECR 1935/2004 • Inspection certificate 3.1 • On request: roughness certificate

Visit product website ▶

Direct welding connection

This support saves space and is designed for installation in fermenters and many other applications on tanks and pipelines. Steam sterilisation, autoclavation, CIP are possible.

Product properties	
Materials	• Body in stainless steel (316L/1.4435) • Seals in EPDM
Dimensions	Detailed information can be found in chapter "5.2. Hygienic holder" on page 13.
Surface quality	Ra < 0.4 μm (15 μin.)
Medium data	
Fluid temperature	-10…+145 °C (+14…+284 °F)
Fluid pressure max.	16 bar (232 PSI)
Approvals and Certificates	
Certificate	• USP Class VI • FDA • ECR 1935/2004 • Inspection certificate 3.1

2.3. Measurement chamber

With one sensor slot for chlorine measurement

This holder is designed for use with the chlorine sensor, Type 8232.
Detailed information can be found in the **data sheet Type 8232** ▶.

Product properties	
Materials	• Body in PMMA polished, bevelled edges • Mounting nut in PVC grey • O-ring holder in PVC grey • Slide ring (30 × 25.5 × 4) in PETP black • O-ring (30 × 2.6) in FPM • O-ring (25 × 2.5) in Silicone • Hose connection in PA grey • O-ring (12.42 × 1.78) in NBR • Inlet needle valve with knurling in PVC grey • Float in PEEK nature • M10 sealing plug in PVC grey • Sample needle valve with knurling in PVC grey
Dimensions	PMMA block: D 50 x W 80 x H 175 mm Detailed information can be found in chapter "5.3. Measurement chamber" on page 17.
Medium data	
Fluid temperature	Max. 45 °C (max. 113 °F) Permitted operating temperature of the sensor has to be respected.
Fluid pressure max.	4 bar (58 PSI) Permitted operating pressure of the sensor has to be respected.
Sample flow rate	> 15 l/h

With three sensor slots for chlorine, temperature and one other analytical measurements

This holder is designed for the installation of a chlorine sensor Type 8232, a temperature sensor (see chapter **"8.4. Ordering chart accessories" on page 31**) and one electrochemical electrode with a PG13.5 threaded connection (pH or redox from Type 8203, conductivity from Type 8221). Detailed information can be found in the **data sheets Type 8232 ▶, Type 8203 ▶ and Type 8221 ▶**.

Product details	
Materials	• Body in PMMA polished
	• Version cold water: connection in PP, screw connection in PVC
	• Version warm water: connection in PVDF, screw connection in PVDF
Dimensions	PMMA block: D 50 x W 140 x H 130 mm Detailed information can be found in chapter "5.3. Measurement chamber" on page 17.
Medium data	
Fluid temperature	• Cold water version: max. 50 °C (max. 122 °F)
	• Warm water version: max. 80 °C (max. 176 °F) Permitted operating temperature of the sensor has to be respected.
Fluid pressure max.	• Cold water version: 6 bar (87 PSI)
	• Warm water version: 8 bar (116 PSI) Permitted operating pressure of the sensor has to be respected.
Sample flow rate	>30 l/h

With four sensor slots for chlorine, temperature and two other analytical measurements

This holder is designed for the installation of a chlorine sensor Type 8232, a temperature sensor (see chapter **"8.4. Ordering chart accessories" on page 31**) and two electrochemical electrodes with a PG13.5 threaded connection (pH or redox from Type 8203, conductivity from Type 8221). Detailed information can be found in the **data sheets Type 8232 ▶, Type 8203 ▶ and Type 8221 ▶**.

Product details	
Materials	• Body in PMMA polished
	• Connection in PVDF, screw connection in PVDF
Dimensions	PMMA block: D 60 x W 140 x H 135 mm Detailed information can be found in chapter "5.3. Measurement chamber" on page 17.
Medium data	
Fluid temperature	Max. 80 °C (max. 176 °F) Permitted operating temperature of the sensor has to be respected.
Fluid pressure max.	8 bar (116 PSI) Permitted operating pressure of the sensor has to be respected.
Sample flow rate	>30 l/h

3. Approvals

3.1. Certificates

Certificates	Description
FDA	The versions with the housing made of stainless steel (316L/1.4435) materials and the seal made of EPDM materials comply in their composition with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA).
USP	**USP Class VI** The versions with the housing made of stainless steel (316L/1.4435) materials and the seal made of EPDM materials are approved according to USP Class VI.

3.2. Pressure Equipment Directive

The device conforms to Article 4, Paragraph 1 of the Pressure Equipment Directive 2014/68/EU under the following conditions:

Device used on a pipe

Note:
- The data in the table is independent of the chemical compatibility of the material and the fluid.
- PS = maximum admissible pressure; DN = nominal diameter of the pipe

Type of fluid	Conditions
Fluid group 1, Article 4, Paragraph 1.c.i	DN ≤ 25
Fluid group 2, Article 4, Paragraph 1.c.i	DN ≤ 32 or PS*DN ≤ 1000
Fluid group 1, Article 4, Paragraph 1.c.ii	DN ≤ 25 or PS*DN ≤ 2000
Fluid group 2, Article 4, Paragraph 1.c.ii	DN ≤ 200 or PS ≤ 10 or PS*DN ≤ 5000

Device used on a vessel

Note:
- The data in the table is independent of the chemical compatibility of the material and the fluid.
- PS = maximum admissible pressure, V = vessel volume

Type of fluid	Conditions
Fluid group 1, Article 4, Paragraph 1.a.i	V > 1 L and PS*V ≤ 25 bar.L or PS ≤ 200 bar
Fluid group 2, Article 4, Paragraph 1.a.i	V > 1 L and PS*V ≤ 50 bar.L or PS ≤ 1000 bar
Fluid group 1, Article 4, Paragraph 1.a.ii	V > 1 L and PS*V ≤ 200 bar.L or PS ≤ 500 bar
Fluid group 2, Article 4, Paragraph 1.a.ii	PS > 10 bar and PS*V ≤ 10000 bar.L or PS ≤ 1000 bar

4. Materials

4.1. Chemical Resistance Chart – Bürkert resistApp

Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.
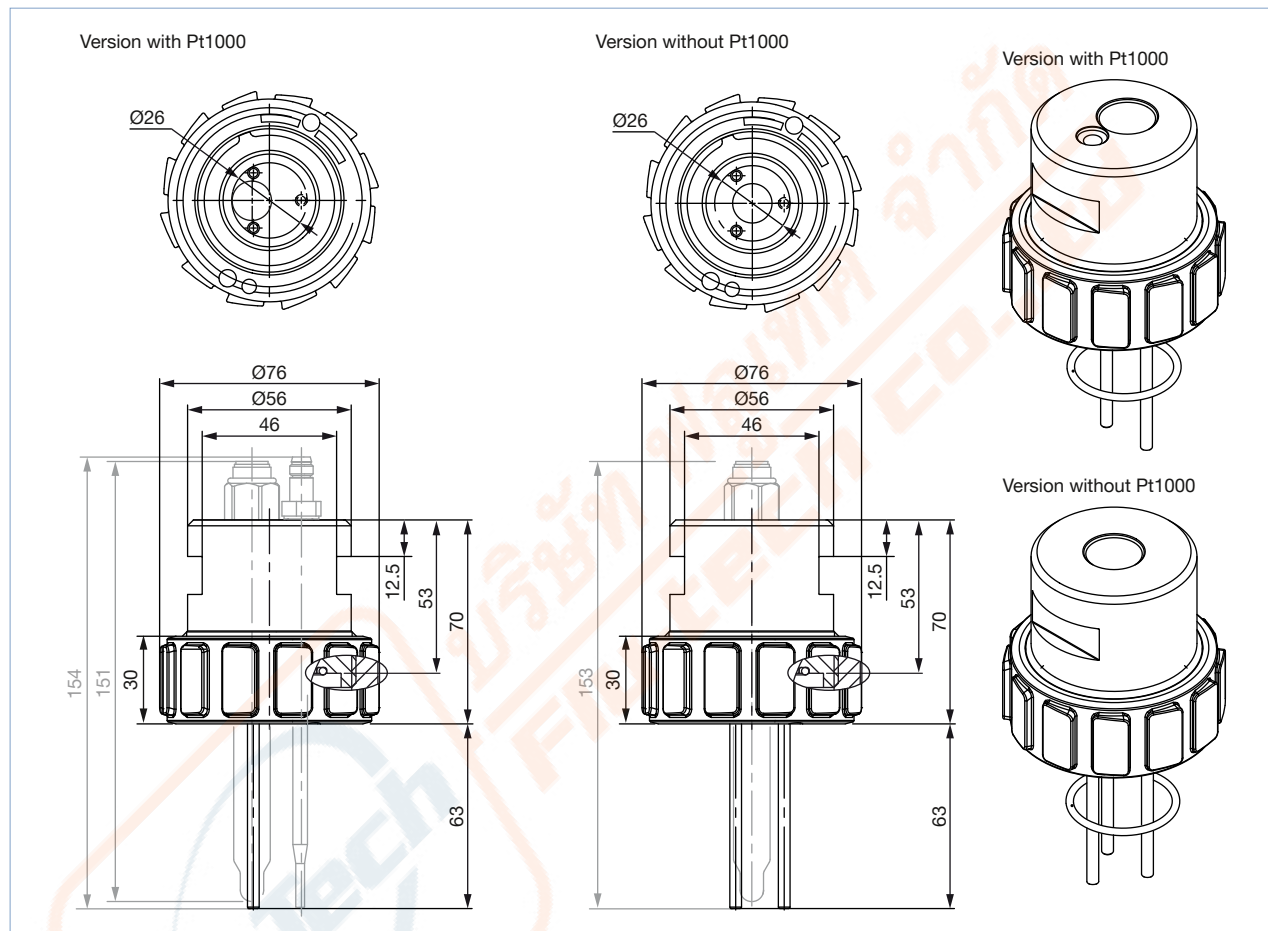
Start Chemical Resistance Check

5.   Dimensions

5.1.   General purpose holder

G 2" connection

Note:

• Dimensions in mm

• With analytical probe and Pt1000 temperature probe/liquid earth rod (have to be ordered separately)

• For installation on Bürkert S020 fitting, PVC or stainless steel

Version with Pt1000

Version without Pt1000

Version with Pt1000

Version without Pt1000

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G 1" connection

Note:

- Dimensions in mm
- With analytical probe and Pt1000 temperature probe/liquid earth rod (have to be ordered separately)
- For installation on T-fitting, PVC

Version with Pt1000   Version without Pt1000
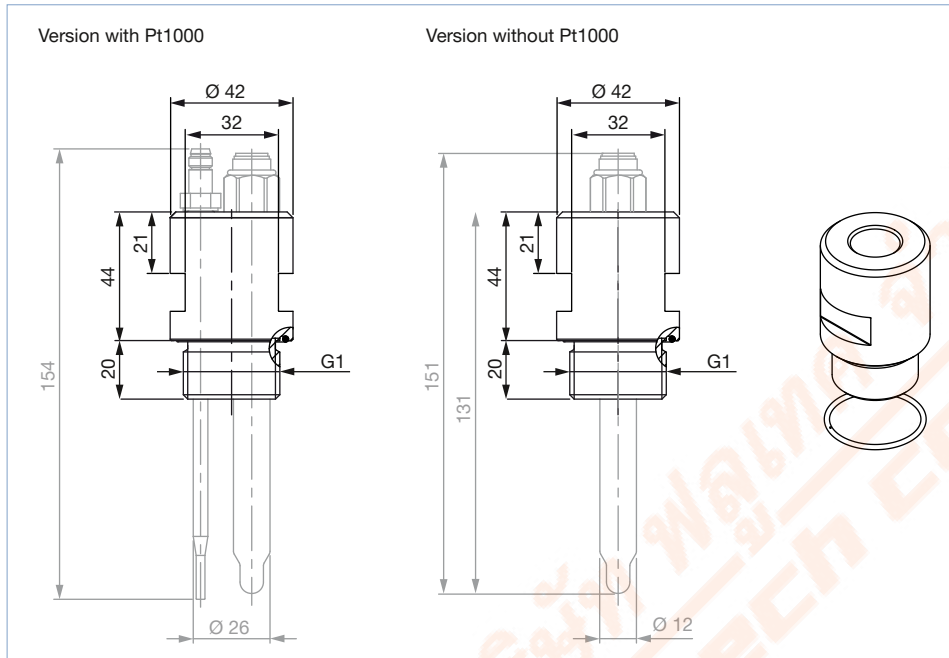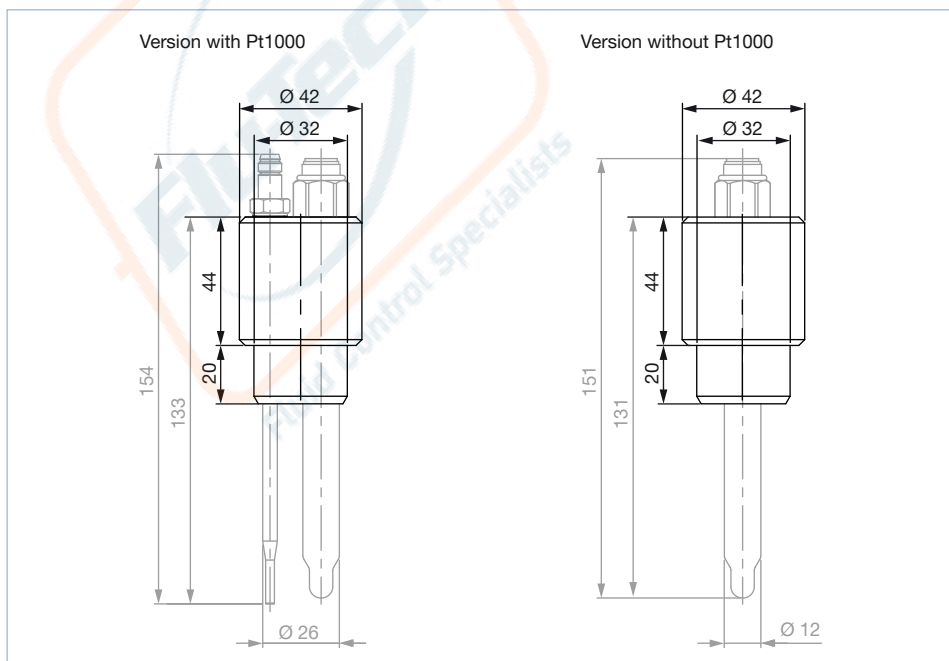

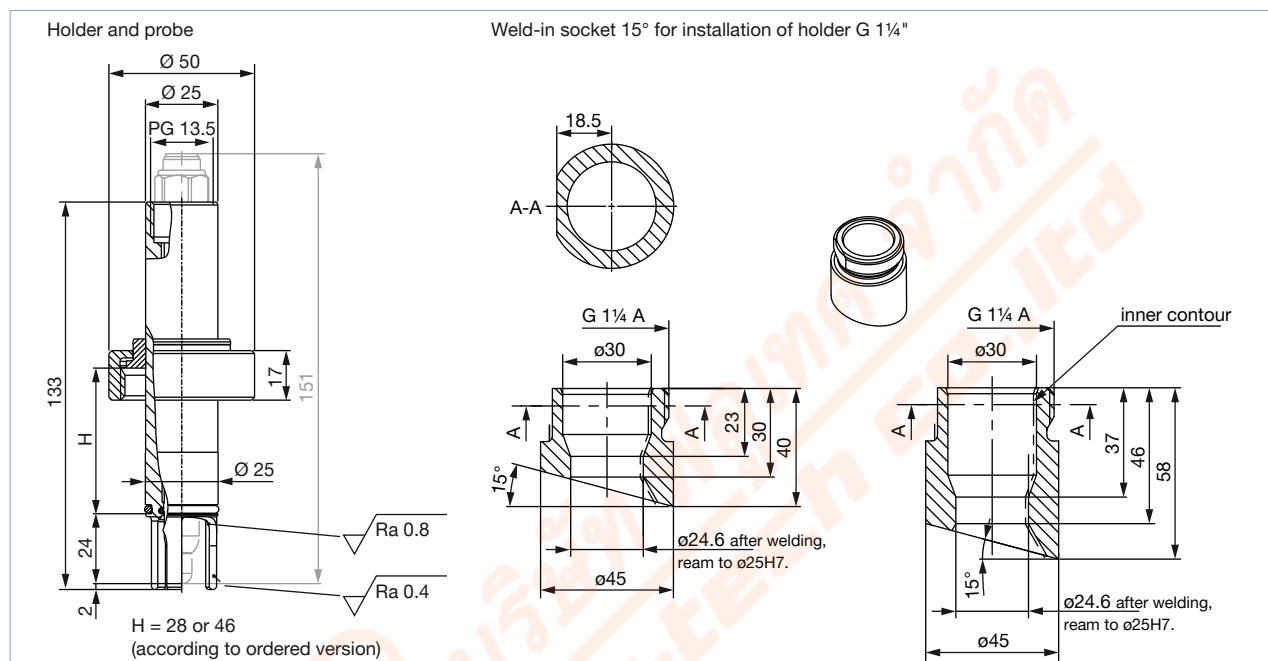**Stick (solvent union) connection**

Note:

- Dimensions in mm
- With analytical probe and Pt1000 temperature probe/liquid earth rod (have to be ordered separately)
- For installation on T-fitting, PVC

Version with Pt1000   Version without Pt1000

Visit product website ▶

5.2. Hygienic holder

G 1¼" connection (28 or 46 mm O-ring position)
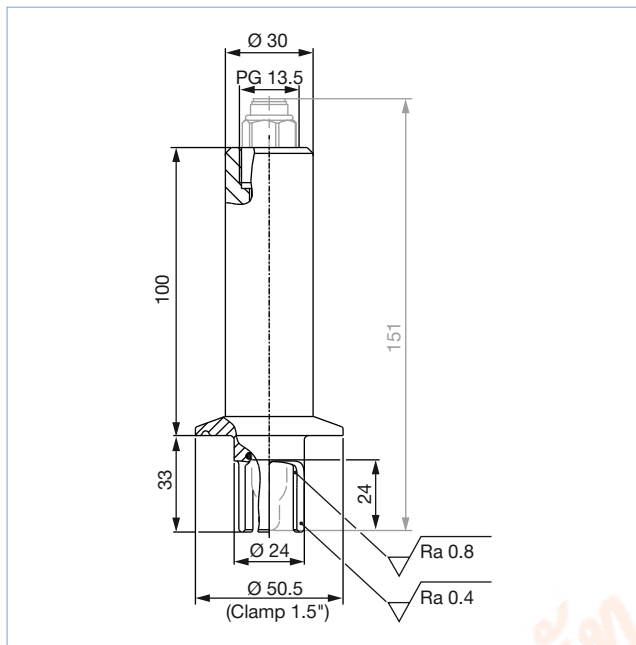
Note:

- Dimensions in mm
- With analytical probe (have to be ordered separately)
- To install in weld-in socket 15°, see **data sheet Type BBS-11** ▶ for more information and chapter **"8.4. Ordering chart accessories" on page 31**.

Holder and probe

Weld-in socket 15° for installation of holder G 1¼"

H = 28 or 46
(according to ordered version)

Ra 0.8

Ra 0.4

ø24.6 after welding, ream to ø25H7.

inner contour

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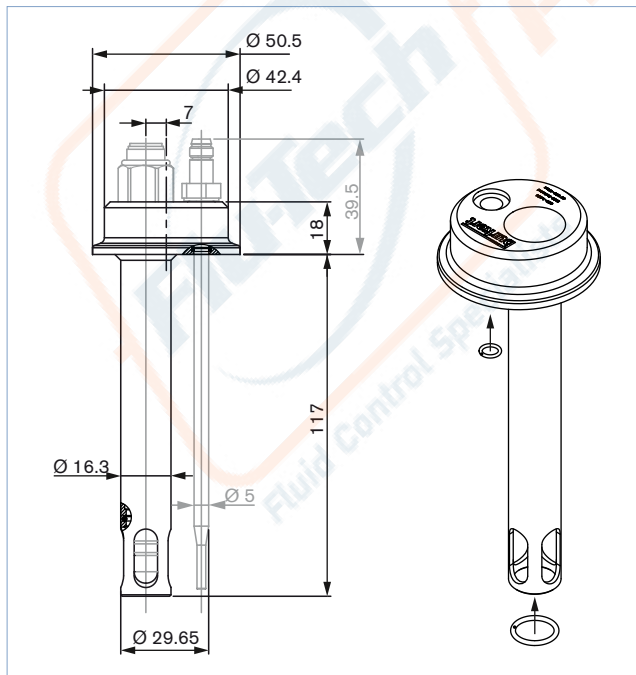
1½" clamp connection (Ø 50.5 mm), short immersion depth

Note:
- Dimensions in mm
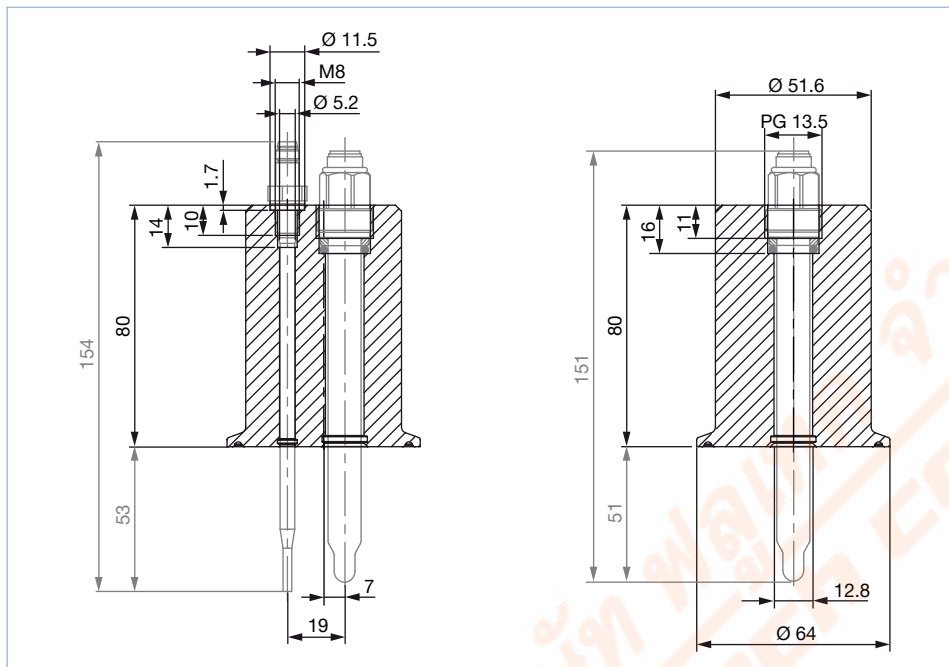- With analytical probe (have to be ordered separately)

1½" clamp connection (Ø 50.5 mm), long immersion depth

Note:
- Dimensions in mm
- With analytical probe and Pt1000 temperature probe/liquid earth rod (have to be ordered separately)
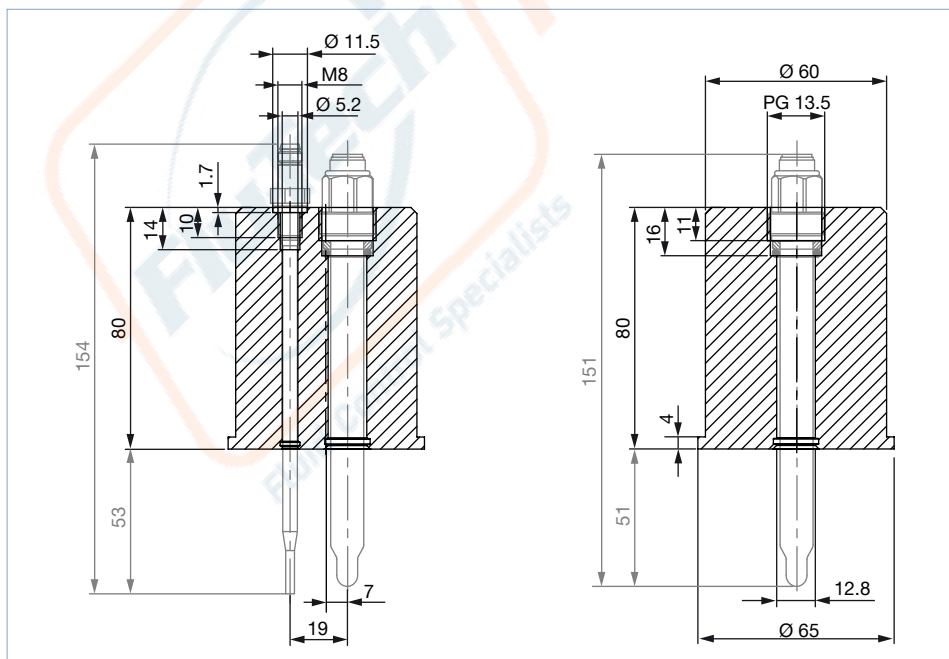
2" clamp connection (Ø 64 mm - acc. to ISO2852)

Note:

- Dimensions in mm
- With analytical probe and Pt1000 temperature probe/liquid earth rod (have to be ordered separately)

For thread process connection - DN 50 (acc. to SMS1145)

Note:

- Dimensions in mm
- With analytical probe and Pt1000 temperature probe/liquid earth rod (have to be ordered separately)

Visit product website ▶
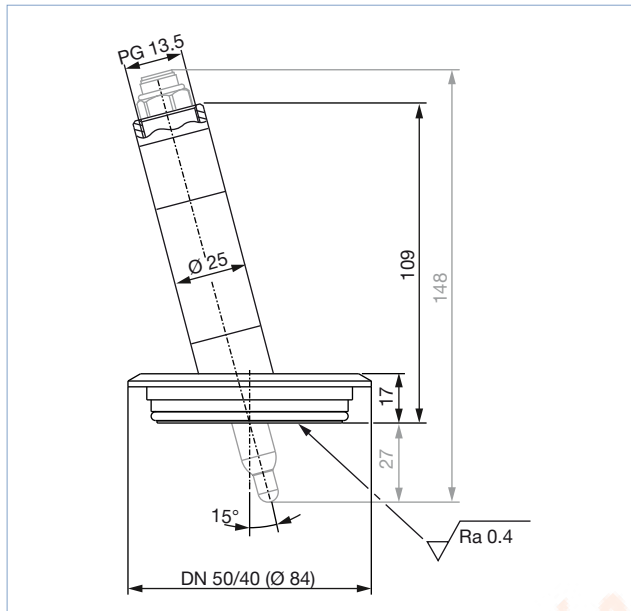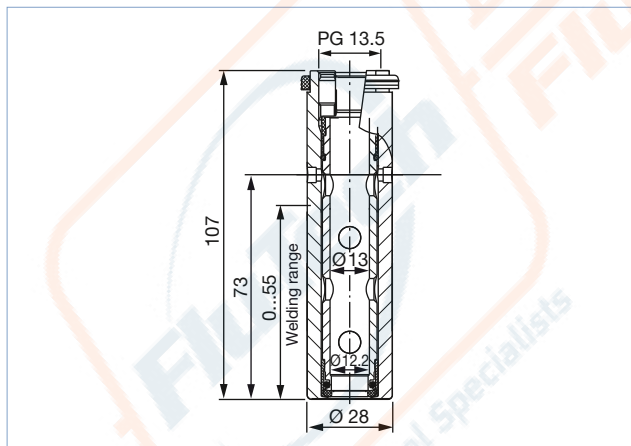
2" (DN 50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections

Note:
- Dimensions in mm
- With analytical probe (have to be ordered separately)

Direct welding connection

Note:
Dimensions in mm

5.3. Measurement chamber

With one sensor slot for chlorine measurement

Note:
Dimensions in mm

A: Hose connection 6 x 8 mm

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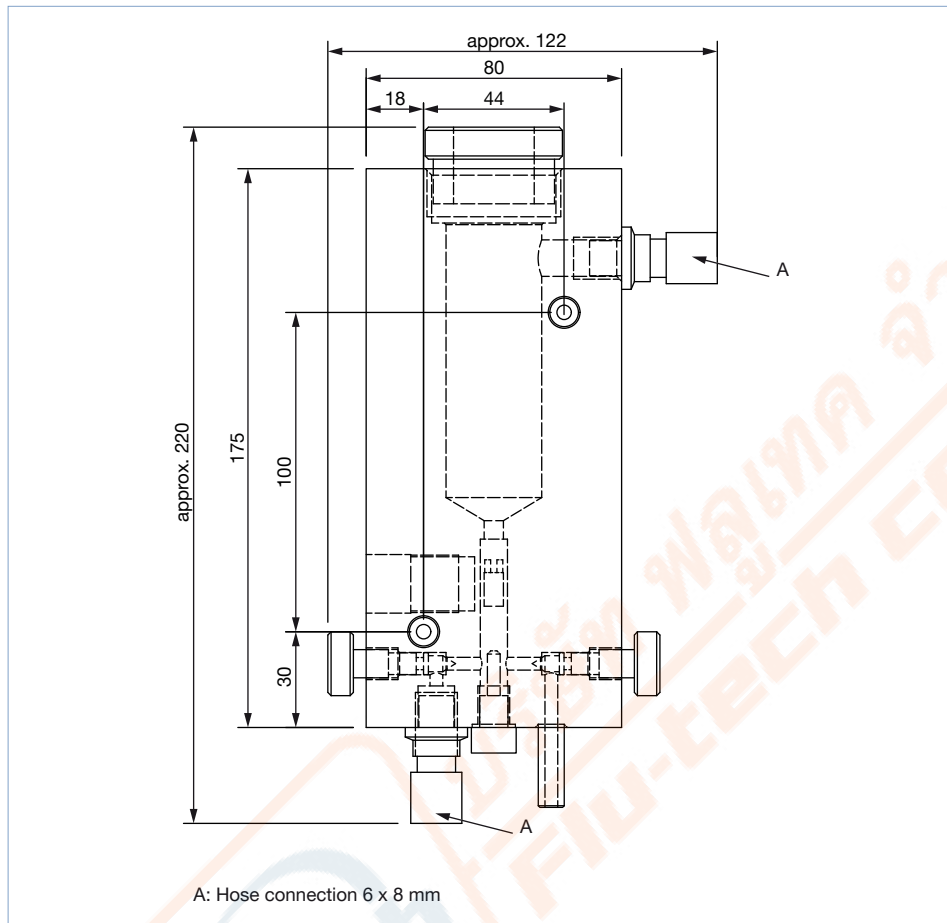
With three sensor slots; chlorine, temperature and one other for analytical measurements

Note:
Dimensions in mm

PG 13.5

G ½   G 1¼

G ½

G ⅛   A

G ½

Ø 5

130

M14 x 1.5

65

G ⅛

G ¼

A: Hose connection 6 x 8 mm
B: Hose connection 8 x 10 mm

G ½   A

B

122

140
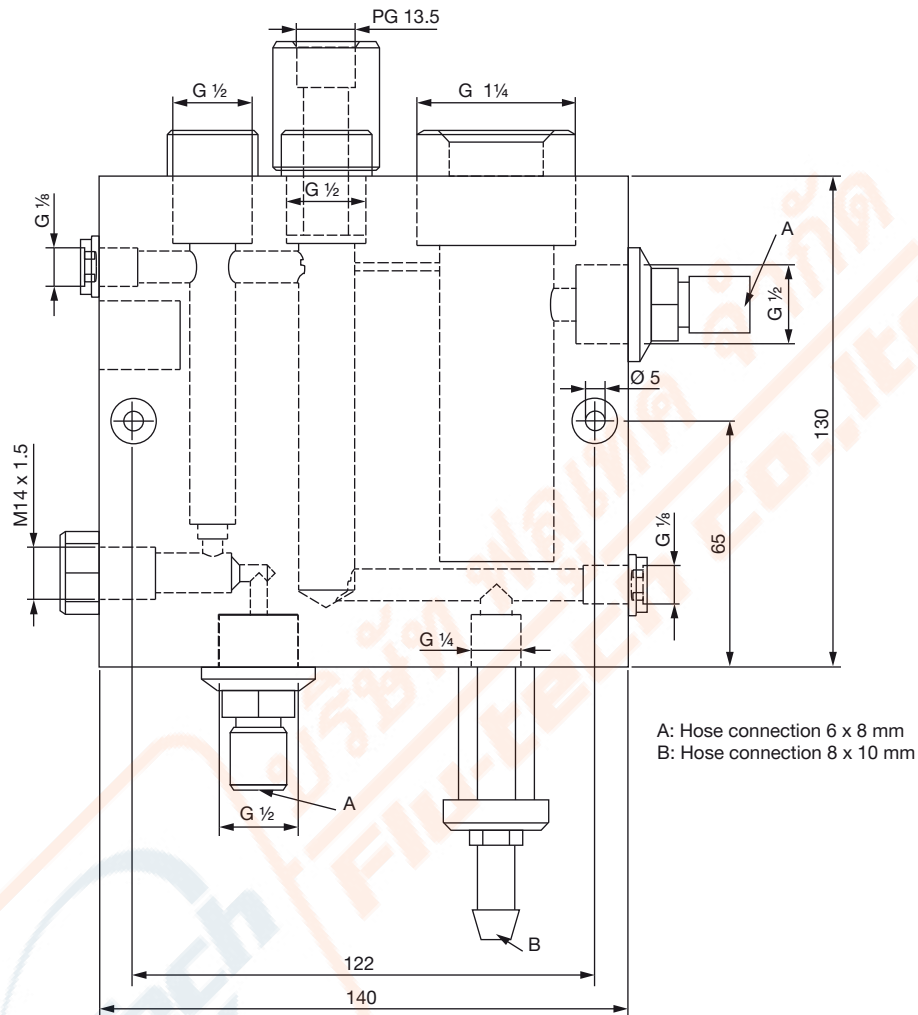
With four sensor slots; chlorine, temperature and two other for analytical measurements

Note:
Dimensions in mm

PG 13.5   PG 13.5

G 1¼

G ½

G ½
G ½

A

G ½

Ø 5
Ø 12

135

M14 x 1.5

76

M14 x 1.5

G ¼

Ø 5
Ø 12

G ½   A

A: Hose connection 6 x 8 mm
B: Hose connection 8 x 10 mm

B

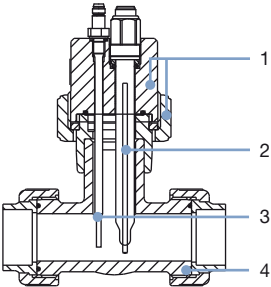119

140

Visit product website ▶
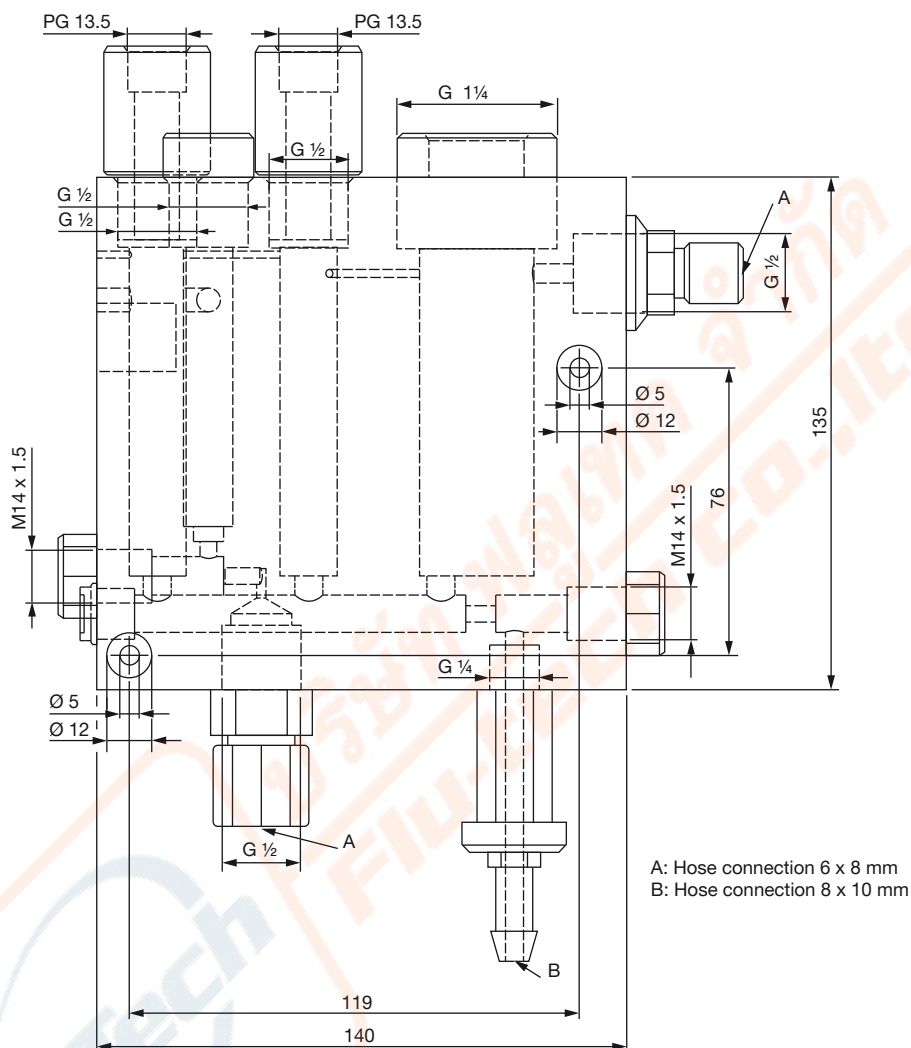
6. Product installation
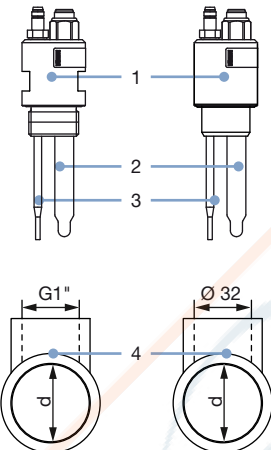
6.1. Installation notes

General purpose holder with G 2" connection for installation on S020 Bürkert fitting

A complete pH/ORP/conductivity sensor consists of the following components:

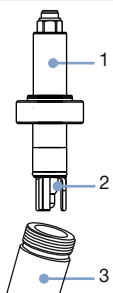| Installation example	No.	Description
	1	A complete probe holder Type 8200 with nut and seals
	2	A pH/ORP probe Type 8203 or a conductivity probe Type 8221 of 120 mm with PG 13.5 connection See **data sheet Type 8203 ▶** or **data sheet Type 8221 ▶**
	3	A Pt1000 temperature probe/liquid earth rod (optional, if needed) Detailed information can be found in chapter **"8.4. Ordering chart accessories" on page 31**.
	4	An S020 Bürkert fitting (G 2" connection) See **data sheet Type S020 ▶**

General purpose holder with G 1" or solvent connection for installation on T-fitting

A complete pH/ORP/conductivity sensor consists of the following components:

Installation example	No.	Description
	1	A probe holder Type 8200 with external thread G 1" process connection or solvent union process connection
	2	A pH/ORP probe Type 8203 or conductivity probe Type 8221 of 120 mm with PG 13.5 connection See **data sheet Type 8203 ▶** or **data sheet Type 8221 ▶**
	3	A Pt1000 temperature probe/liquid earth rod (optional, if needed) Detailed information can be found in chapter **"8.4. Ordering chart accessories" on page 31**.
	4	A T-fitting (with internal thread G 1" connection or solvent union Ø 32 mm connection to the probe holder)

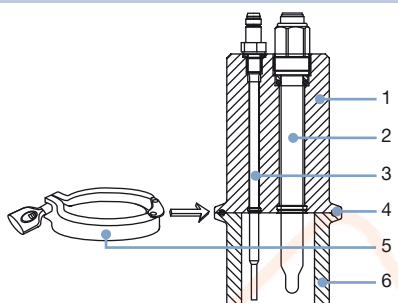**Hygienic holder with G 1¼" connection and O-ring position of 28 or 46 mm for installation on sockets**

A complete pH/ORP/conductivity sensor consists of the following components:

Installation example	No.	Description
	1	A G 1¼" probes holder Type 8200 with O-ring position of 28 mm or 46 mm
	2	A pH/ORP probe Type 8203 or conductivity probe Type 8221 of 120 mm with PG 13.5 connection See **data sheet Type 8203** ▶ or **data sheet Type 8221** ▶
	3	A Type BBS-11 weld-in socket with 15° (Sockets 15°) which are welded on pipes or 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 fluid leaks through the G 1¼" coupling nut. Detailed information on socket ordering can be found in chapter **"8.4. Ordering chart accessories" on page 31** or see **data sheet Type BBS-11** ▶.

Hygienic holder with 2" clamp (acc. to ISO2852) process connection

The probes holder has to be mounted into 2" clamp (acc. to ISO2852) sockets which are welded on pipes or tanks.
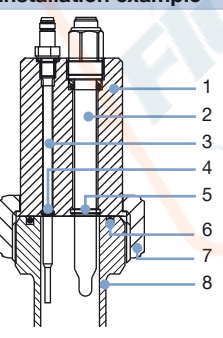
A complete pH/ORP/conductivity sensor consists of the following components:

Installation example	No.	Description
	1	A probe holder Type 8200 with 2" clamp (acc. to ISO2852)
	2	A pH/ORP probe Type 8203 or conductivity probe Type 8221 of 120 mm with PG 13.5 connection. See **data sheet Type 8203** ▶ or **data sheet Type 8221** ▶
	3	A Pt1000 temperature probe/liquid earth rod (optional, if needed). Detailed information can be found in chapter **"8.4. Ordering chart accessories" on page 31**.
	4	A seal (not included in the probe holder delivery)
	5	A clamp (not included in the probe holder delivery)
	6	A clamp socket

Hygienic holder for DN 50 thread (acc. to SMS1145) process connection

The probes holder has to be mounted into sockets DN 50 thread (acc. to SMS1145) which are welded on pipes or tanks.

A complete pH/ORP/conductivity sensor consists of the following components:

Installation example	No.	Description
	1	A probe holder Type 8200 for DN 50 thread (acc. to SMS1145) process connection
	2	A pH/ORP probe Type 8203 or conductivity probe Type 8221 of 120 mm with PG 13.5 connection. See **data sheet Type 8203** ▶ or **data sheet Type 8221** ▶
	3	A Pt1000 temperature probe/liquid earth rod (optional, if needed). Detailed information can be found in chapter **"8.4. Ordering chart accessories" on page 31**.
	4	A seal for Pt1000 probe (part of the probe holder)
	5	A seal for pH/ORP/conductivity probe (part of the probe holder)
	6	A sealing ring (not included in the probe holder delivery)
	7	A coupling nut (not included in the probe holder delivery)
	8	A socket DN 50 thread acc. to SMS1145

Hygienic holder, direct welding for installation on pipe

The probe's steel mantle holder can be welded into a designated hole on the tank wall with almost any installation 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 (see following description).

A complete pH/ORP/conductivity sensor consists of the following components:

Installation example	No.	Description
O-ring Holes O-ring sleeve (contains O-ring) PG13.5 thread Pressure evacuation holes (also accepts cleaning adapter)	**1**	A probe holder Type 8200 made of 1. a "steel sleeve" which must be welded into a circular cut-out of appropriate size (28 mm diameter) at its place of use. Installation depth can be 0…55 mm. 2. a "seal frame" which is inserted into the steel sleeve (after having checked that all o-rings are in place in their appropriate grooves, and are free of damage).
	2	• A pH/ORP probe Type 8203 of 120 mm with PG 13.5 connection See **data sheet Type 8203** ▶ or • A conductivity probe Type 8221 of 120 mm with PG 13.5 connection which is screwed into the PG13.5 thread. See **data sheet Type 8221** ▶
	3	A pipe

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Measurement chamber with one sensor slot for chlorine measurement

Note:
• The special holder has been designed to be used with the chlorine sensor Type 8232.
 Detailed information can be found in the **data sheets Type 8232** ▶.
• When choosing the installation location of the 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.
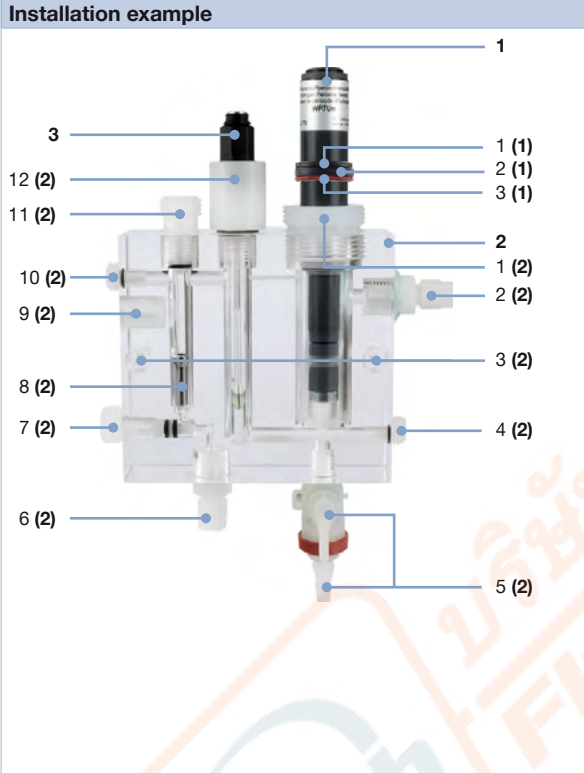
A complete chlorine sensor consists of the following components:

Installation example	No.	Description
	1	A chlorine sensor Type 8232 (not included in the delivery), see **data sheet Type 8232** ▶ 1. Seal 2. Slide ring 3. Snap ring
	2	An analytical measurement chamber Type 8200 with nut and seals, which is made of: 1. Water outlet, 6 x 8 mm hose connection 2. Float (flow indicator) 3. Knurling for sample 4. Water sample 5. M10 sealing plug 6. Water inlet, 6 x 8 mm hose connection 7. Knurling for flow regulation 8. Drilling for flow switch (optional) 9. Holes for fixing screws 10. Union nut for holding the sensor (to be removed before installing the chlorine sensor, seal and rings, then screwed back in to tighten the sensor)

Measurement chamber with three slots for chlorine, temperature sensors and one other analytical probes

Note:

- The special holder has been designed to be used with the chlorine sensor Type 8232, a temperature sensor (see chapter **"8.4. Ordering chart accessories" on page 31**) and one other analytical probe (pH, ORP Type 8203 or conductivity Type 8221…). Detailed information can be found in the **data sheets Type 8232 ▶, Type 8203 ▶ and Type 8221 ▶**.
- When choosing the installation location of the 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 complete analytical system consists of the following components:

Installation example	No.	Description
	1	A chlorine sensor Type 8232 (not included in the delivery), see **data sheet Type 8232 ▶** 1. Seal 2. Slide ring 3. Snap ring
	2	An analytical measurement chamber Type 8200 with nut and seals, which is made of: 1. Thread for sensor union nut (not shown) 2. Water outlet, 6 x 8 mm hose connection 3. Holes for fixing screws 4. Sealing plug (drain) 5. Sampling tap, 8 x 10 mm hose connection 6. Water inlet, 6 x 8 mm hose connection 7. Knurling for flow regulation 8. Float (flow indicator) 9. Drilling for flow switch (optional) 10. Sealing plug (drain) 11. For temperature sensor (not included in the delivery, see chapter **"8.4. Ordering chart accessories" on page 31**) or sealing plug 12. Union nut
	3	An analytical probe with a PG13.5 threaded connection (not included in the delivery) or if none a sealing plug

Measurement chamber with four slots for chlorine, temperature sensors and two other analytical probes

Note:

- The special holder has been designed to be used with the chlorine sensor Type 8232, a temperature sensor (see chapter **"8.4. Ordering chart accessories" on page 31**) and two other analytical probes (pH, ORP Type 8203 or conductivity Type 8221…). Detailed information can be found in the **data sheets Type 8232 ▶, Type 8203 ▶ and Type 8221 ▶**.
- When choosing the installation location of the 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 complete analytical system consists of the following components:

Installation example	No.	Description
	1	A chlorine sensor Type 8232 (not included in the delivery), see **data sheet Type 8232 ▶** 1. Seal 2. Slide ring 3. Snap ring
	2	An analytical measurement chamber Type 8200 with nut and seals, which is made of: 1. Union nut for holding the sensor (to be removed before installing the chlorine sensor, seal and rings, then screwed back in to tighten the sensor) 2. Water outlet, 6 x 8 mm hose connection 3. Holes for fixing screws 4. Sealing plug (drain) 5. Sampling tap, 8 x 10 mm hose connection 6. Water inlet, 6 x 8 mm hose connection 7. Sealing plug (drain) 8. Knurling for flow regulation 9. Float (flow indicator) 10. Drilling for flow switch (optional) 11. For temperature sensor (not included in the delivery, see chapter **"8.4. Ordering chart accessories" on page 31**) or sealing plug
	3	Analytical probes with a PG13.5 threaded connection (not included in the delivery) or if none a sealing plug

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7. Networking and combination with other Bürkert products

7.1. Combination of general purpose holder with G 2" connection for installation on S020 Bürkert fitting

Example:

Type 8200	**Type 8203 ▶** pH- and ORP-probes and with or without Pt1000	**Type 8221 ▶** Conductivity probe for hygienic applications	**Type S020 ▶** Insertion fitting for analytical measurements

Complete pH/ORP/conductivity sensor

Type 8619 ▶
multiCELL - transmitter/controller

7.2. Combination with S020 fittings

Available S020 fittings DN	DN15		DN32¹⁾	DN50	DN65	DN100	DN200
T-Fitting							
Welding socket							
Fusion spigot							
Analytical measurement using probe holder G 2" connection for S020	⚠ 2.)						

1.) Except fittings with **external threads** acc. to SMS 1145, **weld ends** acc. to SMS 3008, BS 4825-1/ASME BPE/DIN 11866 series C or DIN 11850 series 2/DIN 11866 series A/DIN EN 10357 series A, **Clamp** acc. to SMS 3017, BS 4825-3/ASME BPE, DIN 32676 series A for 8020, 8025, 8026

2.) Only use plastic fitting in analytical version with true union connection with nut and solvent/fusion socket acc. to DIN 8063 (PVC), to DIN 16962 (PP) or to ISO 10931 (PVDF), other materials on request.

See **data sheet Type S020 ▶** for more information.

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7.3. Combination of general purpose with G 1", solvent connection or hygienic holders

Example:

Type 8200

▶

Type 8203 ▶
pH- and ORP-probes
and with or without Pt1000

Type 8221 ▶
Conductivity probe for hygienic applications

Complete pH/ORP/conductivity sensor

Type 8619 ▶
multiCELL -
transmitter/controller

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7.4. Combination of the measurement chamber

Example:

Type 8200

Type 8232 ▶
Chlorine sensor

Type 8203 ▶
pH- and ORP-
probes

Type 8221 ▶
Conductivity probe

Complete analytical system

Type 8619 ▶
multiCELL -
transmitter/controller

Visit product website ▶
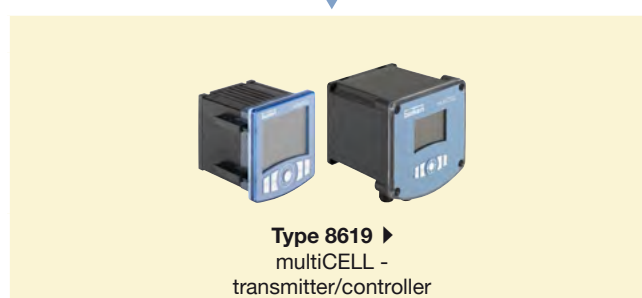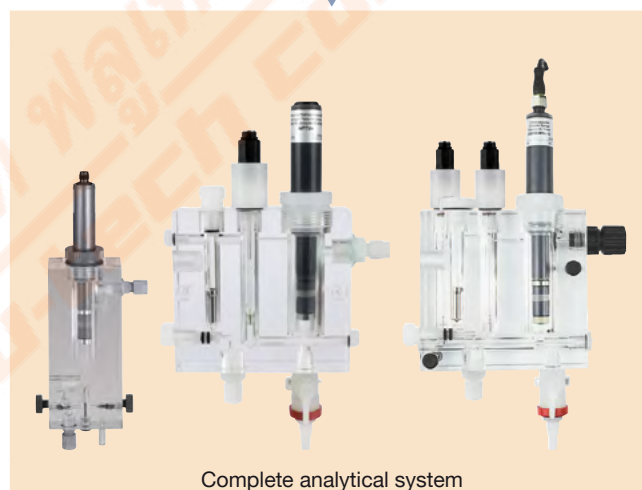
8. Ordering information

8.1. Bürkert eShop – Easy ordering and quick delivery

Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

Order online now

8.2. Bürkert product filter

Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

Try out our product filter
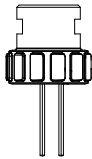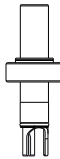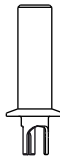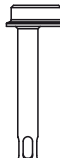
8.3. Ordering chart

General purpose or hygienic holders for pH/ORP/conductivity measurement for tank or pipe installation

Note:
Depending on the type of measurement to be performed, different components must be ordered in order to select a complete pH, ORP or conductivity meter for tank or pipe installation. The following information is required:

- For pH/ORP measurement
  – **Article no.** of the probe holder **Type 8200**
  – **Article no.** of the pH or ORP probe **Type 8203** (see **data sheet Type 8203** ▶)
  – **Article no.** of the Pt1000 temperature probe/liquid earth rod if needed (see chapter **"8.4. Ordering chart accessories" on page 31**)
  – **Article no.** of the selected Insertion fitting **Type S020** (DN 15…DN 200, see **data sheet Type S020** ▶) **only** if probe holder has a G 2" connection or of the selected socket (see chapter **"8.4. Ordering chart accessories" on page 31**) **only** if the probes holder has a G 1¼" connection with O-ring position of 28 or 46 mm.
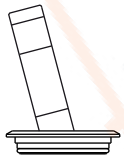
- For conductivity measurement
  – **Article no.** of the probe holder **Type 8200**
  – **Article no.** of the conductivity probe **Type 8221** (see **data sheet Type 8221** ▶)
  – **Article no.** of the selected Insertion fitting **Type S020** (DN 15…DN 200, see **data sheet Type S020** ▶) **only** if probe holder has a G 2" connection or of the selected socket (see chapter **"8.4. Ordering chart accessories" on page 31**) **only** if the probes holder has a G 1¼" connection with O-ring position of 28 or 46 mm.

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Description		Version	Material	Boring for Pt1000 temperature probe/ liquid earth rod	Protection rods/tube	Article no.
General purpose holder						
	G 2" connection for installation on Bürkert Insertion fitting S020	Standard	PVC	No	Yes	429224 🛒
				Yes	Yes	429228 🛒
			Stainless steel 316L/1.4404	No	Yes	429227 🛒
				Yes	Yes	429231 🛒
	G 1" connection	Short	PVC	No	No	429220 🛒
				Yes	No	429221 🛒
	Stick connection	Short	PVC	No	No	564236 🛒
				Yes	No	563475 🛒
Hygienic purpose holder						
	G 1¼" connection	High = 28	Stainless steel 316L/1.4435	No	Yes	562431 🛒
		High = 46	Stainless steel 316L/1.4435	No	Yes	562432 🛒
	1½" clamp connection (Ø 50.5 mm)	Short immersion depth	Stainless steel 316L/1.4435	No	Yes	558885 🛒
	1½" clamp connection (Ø 50.5 mm)	Long immersion depth	Stainless steel 316L/1.4404	Yes	Yes	429235 🛒
	2" clamp connection (Ø 64 mm - ISO2852)	Standard	Stainless steel 316L/1.4404	No	No	567197 🛒
		Standard	Stainless steel 316L/1.4404	Yes	No	567198 🛒
	For DN 50 thread (acc. to SMS1145) process connection	Standard	Stainless steel 316L/1.4404	Yes	No	566501 🛒
		Standard	Stainless steel 316L/1.4404	No	No	566502 🛒
	2" (DN 50/40) connection adapted for GEA Tuchenhagen VARINLINE process connections	15°	Stainless steel 316L/1.4435	No	Yes	562433 🛒
	Hygienic direct welding connection	Standard	Stainless steel 316L/1.4435	No	No	561728 🛒

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Measurement chamber

Note:
- A complete analytical measuring system consists of a measurement chamber Type 8200, a chlorine sensor and according to the measurement chamber version a temperature sensor and one or two analytical probes.
- If a slot is not used, it must be sealed with a sealing plug (see chapter "8.4. Ordering chart accessories" on page 31).

Different components must be ordered in order to select a complete device. The following information is required:
- **Article no.** of the analytical measurement chamber **Type 8200**
- **Article no.** of the chlorine sensor **Type 8232** (see **data sheet Type 8232** ▶)
- **Article no.** of the temperature sensor (see chapter "8.4. Ordering chart accessories" on page 31)
- **Article no.** of the pH or ORP probes Type 8203 (see **data sheet Type 8203** ▶) or of the conductivity probe Type 8221 (see **data sheet Type 8221** ▶) if needed
- **Article no.** of the flow switch for continuous monitoring of the flow according to the measurement chamber version (optional, see chapter "8.4. Ordering chart accessories" on page 31)

Description	Article no.
Measurement chamber with 1 slot (G 1¼" connection) for a chlorine sensor	569221 🛒
Measurement chamber with 1 slot (G 1¼" connection) for a chlorine sensor, 1 slot (G ½" connection) for a temperature sensor and 1 slot (PG13.5) for an analytical probe, cold water version	571930 🛒
Measurement chamber with 1 slot (G 1¼" connection) for a chlorine sensor, 1 slot (G ½" connection) for a temperature sensor and 1 slot (PG13.5) for an analytical probe, warm water version	571931 🛒
Measurement chamber with 1 slot (G 1¼" connection) for a chlorine sensor, 1 slot (G ½" connection) for a temperature sensor and 2 slots (PG13.5) for two analytical probes	571932 🛒

8.4. Ordering chart accessories

Description	Article no.
For general purpose holders G 2", G 1", stick connection and hygienic holders 1½", 2" clamp or DN 50 thread process connection	
Pt1000 temperature probe/liquid earth rod in stainless steel 1.4571	427023 🛒
Pt1000 temperature probe/liquid earth rod in titanium	560317 🛒
For general purpose holders G 2" connection	
Set with FKM seal	429264 🛒
Set with 1 green FKM + 1 black EPDM seal	552111 🛒
For hygienic holder G 1¼" connection	
Weld-in socket 15° **Type BBS-11** ▶, L = 30 for holder G 1¼"	747772 🛒
Weld-in socket 15° **Type BBS-11** ▶, L = 46 for holder G 1¼"	737260 🛒
For analytical measurement chamber	
Pt100 temperature sensor with 4 m cable for measurement chamber with 3 or 4 slots	571962 🛒
Flow switch for measurement chamber, PNP, 2 m cable (optional)	775261 🛒
Sealing plug G ½"	571934 🛒
Sealing plug PG13.5	571936 🛒
Seal FKM for sealing plug PG13.5 or G ½"	571937 🛒