



Product catalog

Sensors  
valid from 01. January 2020

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## 1. Sensors

### 1.1 Zirkon® DIS

#### 1.1.1 Description



Art. No.: S24135130K

Order Code:  
23152110



Art. No.: S24135140K

Order Code:  
231612500



Art. No.: S24135230K

Order Code:  
231212110



Art. No.: S24135260K

Order Code:  
231712500

Zirkon® DIS are potentiostatic sensors, measuring parameter and range are defined by the connected instrument. A defined potential is applied to the measuring electrode resulting in an electrical charge. Disinfectant molecules remove part of the charge in an ORP reaction. Is the counter electrode part of the assembly you should use sensors with one electrode (ring or plate). If you use an assembly without counter electrode choose a Zirkon® DIS with two electrodes (double ring)

**Benefits**

- Low maintenance
- Automatic cleaning by ASR® possible  
(Art. No.: S24135140K, S24135260)
- Zero point stable

**1.1.2 Applications**

Cooling Water



Process Water



Disinfection

Drinking Water /  
Beverages

### 1.1.3 Technical data

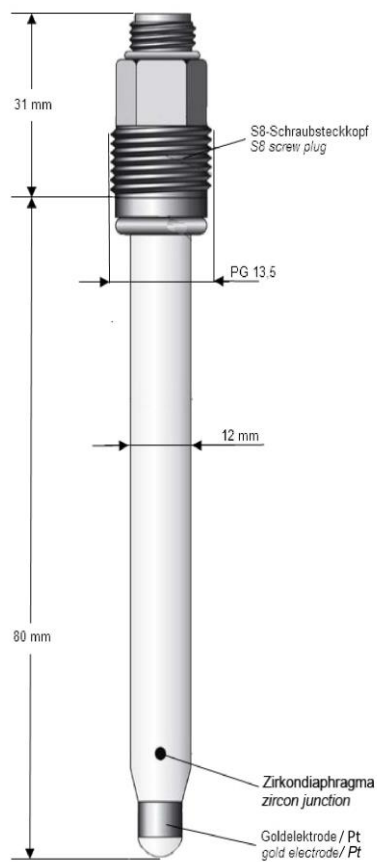
#### Prozessbedingungen / Ambient conditions

|  |  |
|--|--|
| Druck. /<br><i>Pressure</i>            | 10 bar bei 20 °C /<br><i>10 bar at 20 °C</i>   |
| Leitfähigkeit /<br><i>Conductivity</i> | >150 µS/cm, mit ASR®, > 200 µS/cm /<br><i>&gt;150 µS/cm, with ASR®, &gt; 200 µS/cm</i> |
| Temperature /<br><i>Temperature</i>    | -5.. +70 °C /<br><i>-5.. +70 °C / 23..158 °F</i>                                       |

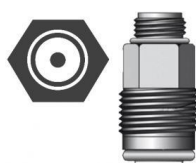
#### Konstruktiver Aufbau / Mechanical construction

|  |  |
|--|--|
| Diaphragma /<br><i>Junction</i>                          | Zirkon 1 mm /<br><i>Zircon 1mm</i>   |
| Schaftmaterial /<br><i>Shaft material</i>                | Glas /<br><i>Glass</i>   |
| Schaftlänge /<br><i>Shaft length</i>                     | 80 mm, 120 mm  |
| Elektrodenmaterial /<br><i>Electrode material</i>        | Platinring, Platinkuppe, Goldring, 2 Goldringe oder 2 Platinringe /<br><i>Platinum ring, Platinum cap, Gold ring, 2 Gold rings or 2 Platinum rings</i> |
| Bezugssystem /<br><i>Reference system</i>                | Ag, AgCl, Tepoxgel 3mol KCl /<br><i>Ag, AgCl, Tepox gel 3mol KCl</i>   |
| Mechanischer Anschluss /<br><i>Process connection</i>    | S8-Stecker (PG 13,5 - drehbar), M12-Stecker (PG 13,5 - drehbar) /<br><i>S8-plug (PG 13.5 - swivel), M12-plug (PG 13.5 - swivel)</i>                    |
| Elektrischer Anschluss /<br><i>Electrical Connection</i> | S8 (2-polig), M12 (5-polig) /<br><i>S8 (2-poles), M12 (5-poles)</i>  |

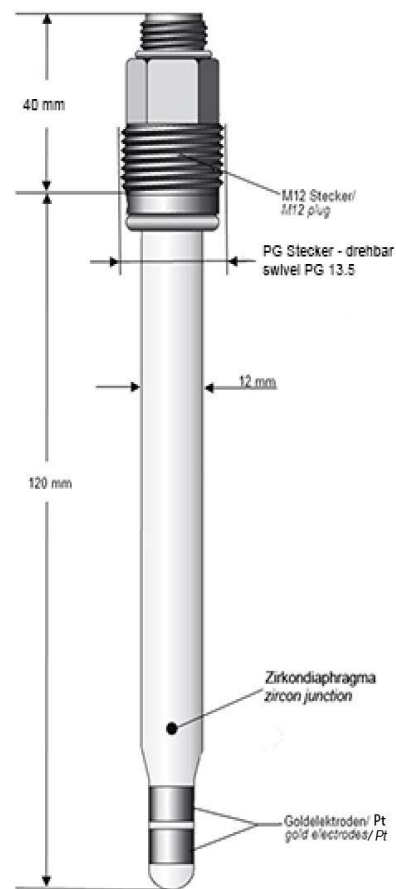
## 1.1.4 Mechanical drawing



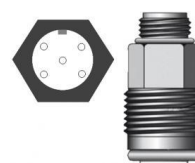
Art. No.: S24135130K / S24135230K  
 Order Code: 23152110 / 231212110



S8-plug



Art. No.: S24135140K / S24135260K  
 Order Code: 231612500 / 231712500



M12-plug



## 1.1.5 Order information

|  | <b>Article Nr. /<br/>Article No.</b> | <b>Description /<br/>Description</b>                                  |
|--|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                          | 231                                  | Zirkon® DIS   |
| <b>Elektrodenmaterial /<br/>Electrode material</b> | 2                                    | Platinring<br><i>Platinum ring</i>                                    |
|  | 5                                    | Goldring /<br><i>Gold ring</i>  |
|  | 6                                    | 2 Goldringe /<br><i>2 Gold rings</i>                                  |
|  | 7                                    | 2 Platinringe /<br><i>2 Platinum rings</i>                            |
|  | 9                                    | Sonderanfertigung /<br><i>Special</i>                                 |
| <b>Diaphragma /<br/>Junction</b>                   | 1                                    | Zirkon 1 mm /<br><i>Zircon 1 mm</i>                                   |
|  | 9                                    | Sonderanfertigung /<br><i>Special</i>                                 |
| <b>Elektrolyt /<br/>Electrolyte</b>                | 2                                    | Tepoxgel 3mol KCl /<br><i>Tepox gel 3mol KCl</i>                      |
|  | 9                                    | Sonderanfertigung /<br><i>Special</i>                                 |
| <b>Anschluss /<br/>Connection</b>                  | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br><i>S8-plug (swivel PG 13.5)</i>   |
|  | 5                                    | M12-Stecker (PG 13,5 - drehbar) /<br><i>M12-plug (swivel PG 13.5)</i> |
|  | 9                                    | Sonderanfertigung /<br><i>Special</i>                                 |
|  | 9                                    | Sonderlänge /<br><i>Special length</i>                                |

|                               |   |                                |
|-------------------------------|---|--------------------------------|
| <b>Länge /<br/>Length</b>     | 0 | 120 mm                         |
|                               | 1 | 80 mm                          |
| <b>Sonstiges/<br/>Special</b> | 0 | Keine /<br>None                |
|                               | 9 | Sonderanfertigung /<br>Special |



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Note!

If possible, choose items listed under „storage versions“ or „assembly versions“ for your orders. We will have to technically inspect and approve a free combination of individual key features.

Prices on request

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**1.1.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|--------------------------------------|-----------------------|--|
| S24135130K                           | 231512110             | DIS sensor: 1 Gold ring, Zirkon junction<br>1 mm, Tepox gel 3mol KCl, S8-plug (swivel<br>PG 13.5), 80 mm           |
| S24135140K                           | 231612500             | DIS sensor: 2 Gold rings, Zirkon junction<br>1 mm, Tepox gel 3mol KCl, M12-plug (swivel<br>PG 13.5),<br>120 mm     |
| S24135230K                           | 231212110             | DIS sensor: 1 Platinum ring, Zirkon junction<br>1 mm, Tepox gel 3mol KCl, S8-plug (swivel<br>PG 13.5), 80 mm       |
| S24135260K                           | 231712500             | DIS sensor: 2 Platinum rings, Zirkon junction<br>1 mm, Tepox gel 3mol KCl, M12-plug (swivel<br>PG 13.5),<br>120 mm |

## 1.2 Zirkon® DIS Total

### 1.2.1 Description



Art. No.: S24135440K

Order Code: 239412500

Zirkon® DIS Total is an open potentiostatic sensor for measuring chlorine compounds. Sensors - Made in Germany.

**Benefits**

- No exchange of membrane
- No exchange of electrolyte
- No delicate plastic membrane
- Immune to air bubbles

**1.2.2 Applications**

Cooling Water



Disinfection

Drinking Water /  
Beverages

### 1.2.3 Technical data

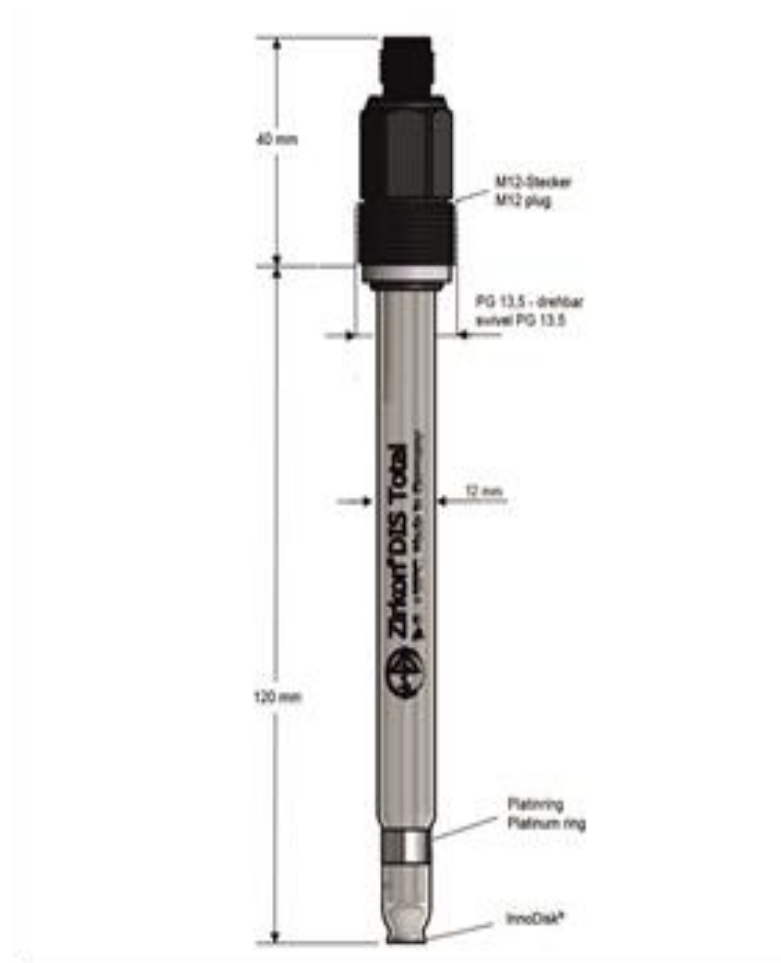
#### Prozessbedingungen / Ambient conditions

|                                     |   |
|-------------------------------------|---|
| Druck. /<br><i>Pressure</i>         | < 6 bar bei 20 °C /<br>< 6 bar at 20 °C / 68 °F |
| Temperature /<br><i>Temperature</i> | 0..+50 °C / 32..122 °F                          |

#### Konstruktiver Aufbau / Mechanical construction

|  |   |
|--|---|
| Diaphragma /<br><i>Junction</i>                          | Zirkon 1 mm /<br><i>Zircon 1mm</i>                                      |
| Schaftmaterial /<br><i>Shaft material</i>                | Glas /<br><i>Glass</i>  |
| Schaftlänge /<br><i>Shaft length</i>                     | 120 mm  |
| Schaftdurchmesser /<br><i>Shaft diameter</i>             | 12 mm   |
| Elektrodenmaterial /<br><i>Electrode material</i>        | Platinring + Innodisk® /<br><i>Platinum ring + Innodisk®</i>            |
| Bezugssystem /<br><i>Reference system</i>                | Ag, AgCl, Tepoxgel 3mol KCl /<br><i>Ag, AgCl, Tepox gel 3mol KCl</i>    |
| Mechanischer Anschluss /<br><i>Process connection</i>    | M12-Stecker (PG 13,5 - drehbar) /<br><i>M12-plug (PG 13.5 - swivel)</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 5-polig /<br><i>5-poles</i>   |

### 1.2.4 Mechanical drawing



Art. No.: S24135440K

Order Code: 239412500

## 1.2.5 Order information

|  | <b>Artikel Nr./<br/>Article No.</b> | <b>Beschreibung/<br/>Description</b>                        |
|--|-------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                          | 239                                 | Zirkon® DIS Total   |
| <b>Elektrodenmaterial /<br/>Electrode material</b> | 4                                   | Platinring + Innodisk®/<br><i>Platinum ring + Innodisk®</i> |
| <b>Diaphragma /<br/>Junction</b>                   | 1                                   | Zirkon 1 mm /<br><i>Zircon 1 mm</i>                         |
|  | 9                                   | Sonderanfertigung /<br><i>Special</i>                       |
| <b>Anschluss /<br/>Connection</b>                  | 2                                   | M12-Stecker /<br>M12-plug                                   |
|  | 9                                   | Sonderanfertigung /<br><i>Special</i>                       |
| <b>Elektrolyt /<br/>Electrolyte</b>                | 2                                   | Tepoxgel 3mol KCl /<br><i>Tepox gel 3mol KCl</i>            |
|  | 9                                   | Sonderanfertigung /<br><i>Special</i>                       |
| <b>Länge /<br/>Length</b>                          | 0                                   | 120 mm  |
|  | 9                                   | Sonderlänge /<br><i>Special length</i>                      |
| <b>Sonstiges /<br/>Special</b>                     | 0                                   | Keine /<br><i>None</i>                                      |
|  | 9                                   | Sonderanfertigung /<br><i>Special</i>                       |




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Note!

If possible, choose items listed under „storage versions“ or „assembly versions“ for your orders. We will have to technically inspect and approve a free combination of individual key features

Prices on request.

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**1.2.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|-----------------------|---|
| S24135440K                           | 239412500             | DIS Total-Sensor: InnoDisk®, Platinum ring,<br>Zirkon junction 1 mm, Tepox gel 3mol KCl,<br>M12-plug (swivel PG 13.5) |

### 1.3 Zirkon® DIS Pool

#### 1.3.1 Description



Art. No.:  
S24135145K

Order Code:  
237613500



Art. No.:  
S24135150K

Order Code:  
237813500



Art. No.:  
S24135155K

Order Code:  
237913990



Art. No.:  
S24135156K

Order Code:  
23791379K016



Art. No.:  
S24135288K

Order Code:  
237513110

Zirkon® DIS Pool are potentiostatic sensors, measuring parameter and range are defined by the connected instrument. A defined potential is applied to the measuring electrode resulting in an electrical charge. Disinfectant molecules remove part of the charge in an ORP reaction. Is the counter electrode part of the assembly you should use sensors with one electrode (ring or plate). If you use an assembly without counter electrode choose a sensor with two electrodes (double ring). The salt reservoir of the reference electrodes leads to a longer lifetime.

#### Benefits

- Low maintenance
- Automatic cleaning by ASR® or mechanically
- Zero point stable

### 1.3.2 Applications



Pool & Spa

### 1.3.3 Technical data

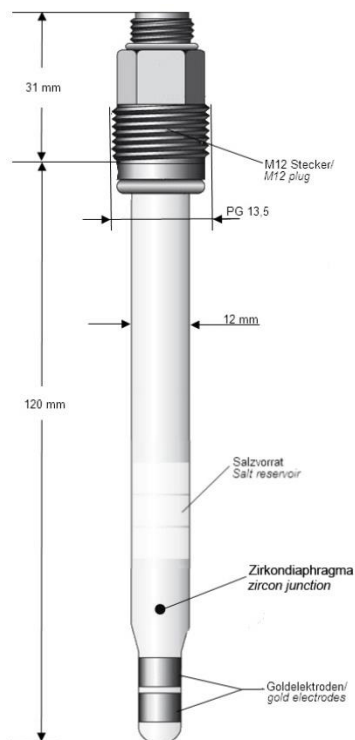
#### Prozessbedingungen / Ambient conditions

|                              |   |
|------------------------------|---|
| Druck /<br>Pressure          | < 10 bar bei 20 °C /<br>< 10 bar at 20 °C / 68 °F |
| Temperature /<br>Temperature | 0..+50 °C / 32..122 °F                            |

#### Konstruktiver Aufbau / Mechanical construction

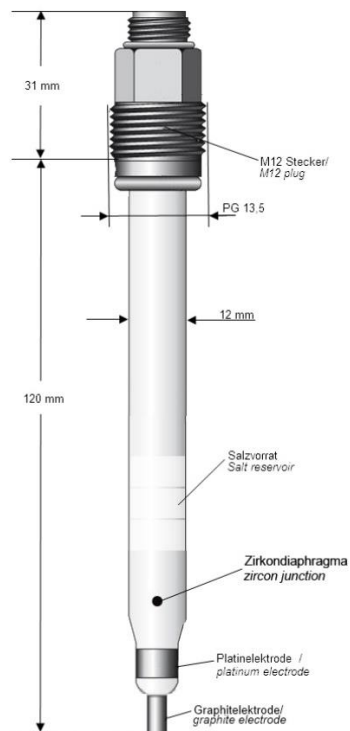
|   |  |
|---|--|
| Diaphragma /<br>Junction                          | Zirkon 1mm /<br>Zircon 1mm   |
| Schaftmaterial /<br>Shaft material                | Glas /<br>Glass  |
| Schaftlänge /<br>Shaft length                     | 80 mm / 120 mm / 155 mm / 170 mm   |
| Schaftdurchmesser /<br>Shaft diameter             | 12 mm  |
| Elektrodenmaterial /<br>Electrode material        | Platinring, Platinkuppe, Goldring, 2 Goldringe oder 2 Platinringe,<br>Grafitstab /<br><br>Platinum ring, Platinum cap, Gold ring, 2 Goldrings or 2 Platinum<br>rings, Graphite pin                   |
| Bezugssystem /<br>Reference system                | Ag, AgCl, Tepoxgel 3mol KCl /<br>Ag / AgCl, Tepox gel 3mol KCl   |
| Mechanischer Anschluss /<br>Process connection    | S8-Stecker (PG 13,5 - drehbar), M12-Stecker (PG 13,5 - drehbar),<br>Flansch (PG 13,5 – drehbar) /<br><br>S8-plug (PG 13.5 - swivel), M12-plug (PG 13.5 - swivel),<br>male Socket ((PG 13.5 - swivel) |
| Elektrischer Anschluss /<br>Electrical connection | 2-polig / 3-polig / 5-polig / Festkabel<br>2-poles / 3-poles / 5-poles / fixed pflug   |

## 1.3.4 Mechanical drawing



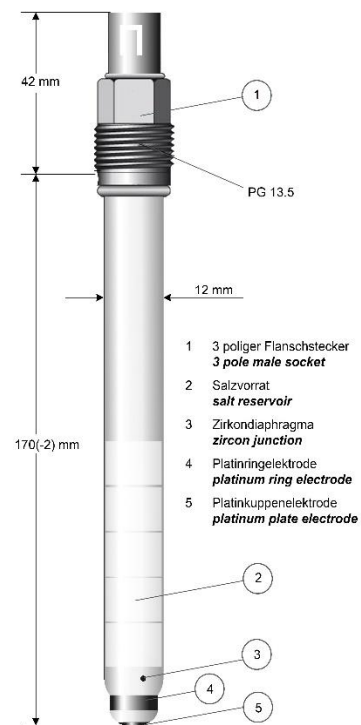
Art. No.: S24134145K

Order code: 237613500



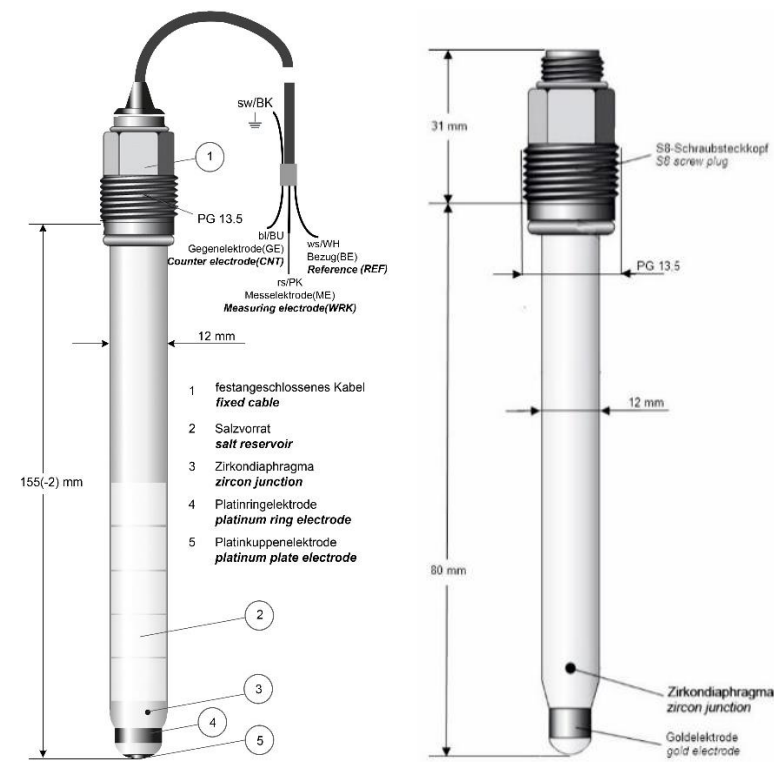
Art. No.: S24135150K

Order code: 237813500



Art. No.: S24135155K

Order code: 237913990



Art. No.: S24135156K

Art. No.: S24135288K

Order code: 23791379K016

Order code: 237513110



Male-socket

S8-plug

M12-plug

## 1.3.5 Order information

|   | <b>Artikel Nr./<br/>Article No.</b> | <b>Beschreibung/<br/>Description</b>  |
|---|-------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                           | 237                                 | Zirkon® DIS Pool  |
| <b>Elektrodenmaterial /<br/>Electroden material</b> | 2                                   | Platinring /<br><i>Platinum ring</i>  |
|   | 5                                   | Goldring /<br><i>Gold ring</i>  |
|   | 6                                   | 2 Goldringe /<br><i>2 Gold ring</i>   |
|   | 7                                   | 2 Platinringe /<br><i>2 Platinum ring</i>   |
|   | 8                                   | Platinring - Graphitstift /<br><i>Platinum ring- Graphite pin</i>                                       |
|   | 9                                   | Sonderanfertigung /<br><i>Special</i>   |
| <b>Diaphragma /<br/>Junction</b>                    | 0                                   | Kein /<br><i>None</i>   |
|   | 1                                   | Zirkon 1 mm /<br><i>Zircon 1 mm</i>   |
|   | 9                                   | Sonderanfertigung /<br><i>Special</i>   |
| <b>Elektrolyt /<br/>Electrolyte</b>                 | 0                                   | Kein /<br><i>None</i>   |
|   | 3                                   | Tepoxgel - gesättigt KCl mit<br>Salzvorrat /<br><i>Tepox gel - saturated KCl with salt<br/>resevoir</i> |
|   | 9                                   | Sonderanfertigung /<br><i>Special</i>   |

|                                   |   |   |
|-----------------------------------|---|---|
| <b>Anschluss /<br/>Connection</b> | 1 | S8-Stecker (PG 13,5 - drehbar) /<br><i>S8-plug (swivel PG 13.5)</i>         |
|                                   | 5 | M12-Stecker (PG 13,5 - drehbar) /<br><i>M12-plug (swivel PG 13.5)</i>       |
|                                   | 7 | Festangeschlossenes Kabel /<br><i>Fixed cable</i>                           |
|                                   | 9 | Sonderanfertigung /<br><i>Special</i>                                       |
| <b>Länge /<br/>Length</b>         | 0 | 120 mm  |
|                                   | 1 | 80 mm   |
|                                   | 9 | Sonderlänge /<br><i>Special length</i>                                      |
| <b>Sonstiges /<br/>Special</b>    | 0 | Kein /<br>None  |
|                                   | K | Kabellänge /<br>Cable length  |
|                                   |   | Beispiel:<br>1 Meter = K01, 10 Meter = K10<br>Example: 1 m =K01, 10 m = K10 |
|                                   | 9 | Sonderanfertigung /<br><i>Special</i>                                       |




---

**Notes!**

If possible, choose items listed under „storage versions“ or „assembly versions“ for your orders. We will have to technically inspect and approve a free combination of individual key features.

Prices on request.

---

**1.3.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|-----------------------|---|
| S24135145K                           | 237613500             | DIS-sensor: 2 gold rings, Zircon junction<br>1 mm, saturated KCL, M12-plug (swivel<br>PG 13.5), 120 mm                                |
| S24135150K                           | 237813500             | DIS-sensor for brine water: Zircon junction<br>1 mm, Platinum ring, Graphit pin, saturated.<br>KCl, M12-plug (swivel PG 13.5), 120 mm |
| S24135155K                           | 237913990             | DIS-sensor: 1 Platinum ring and plate, Zircon<br>junction 1 mm, saturated KCl, male socket<br>(swivel PG13.5), 170 mm                 |
| S24135156K                           | 23791379K016          | DIS-Sensor: 1 Platinum ring and plate, Zircon<br>junction 1 mm, saturated. KCl, 1.6 m fixed<br>cable (swivel PG 13.5), 155 mm         |
| S24135288K                           | 237513110             | DIS-sensor: 1 Gold ring, Zirkon junction<br>1 mm, saturated. KCl, S8-plug<br>(swivel PG 13.5), 80 mm                                  |



## 1.4 Zirkon® pH Universal

### 1.4.1 Description



Art. No.:S24131100K

Order Code: 201012320



Art. No.: S24131110K

Order Code: 201012100



Art. No.:S24132111K

Order Code: 201112600



Art. No.: S24132650K

Order Code: 201012103



Art. No.: S24132665K

Order Code: 201912703K01DIN/Banane

The sensor of the Zirkon® pH series are highly sophisticated sensors with a high value for money ratio. They are used in many applications e.g. industrial, process and waste water. We use our high performance AH glass with low alkaline error and a broad temperature range.

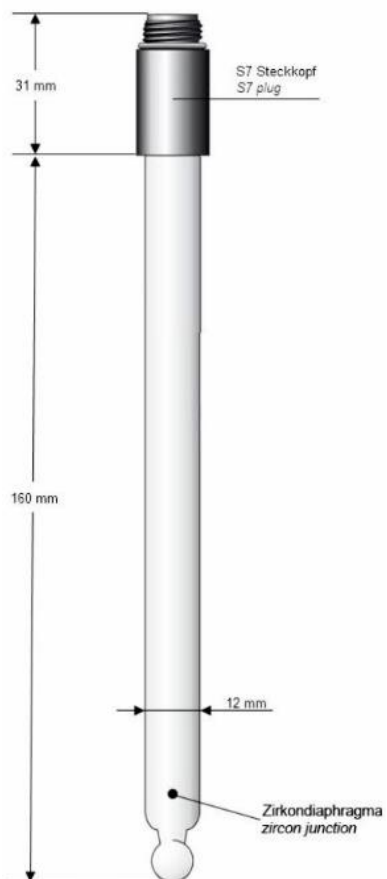
We use a high class zircon junction which increases the sensor life expectancy and our low maintenance Tepox gel. As reference system we use a cartridge system which results for a constant measurement especially in applications with high temperature fluctuations.

#### Benefits

- Low maintenance by gel filling
- High precision by use of high alkaline high temperature glass
- Made in Germany

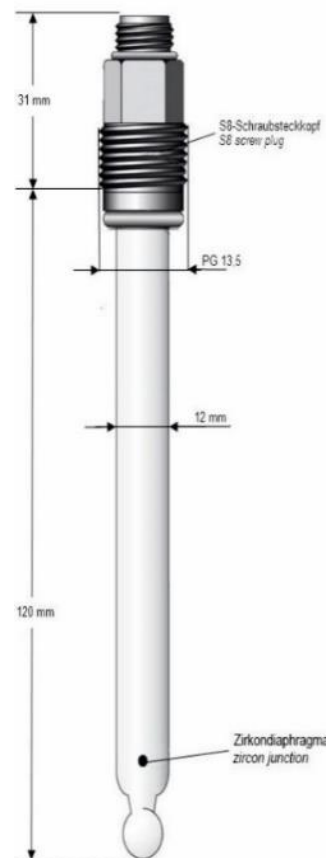


## 1.4.3 Mechanical drawing



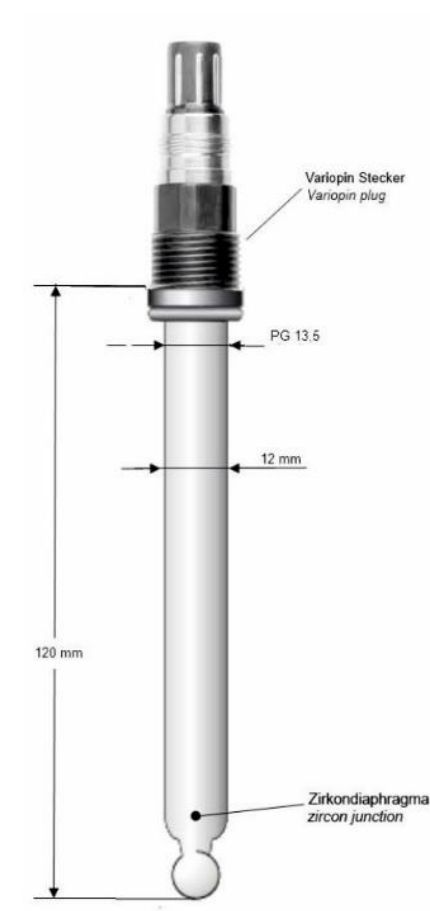
Art. No.: S24131100K

Order Code: 201012320



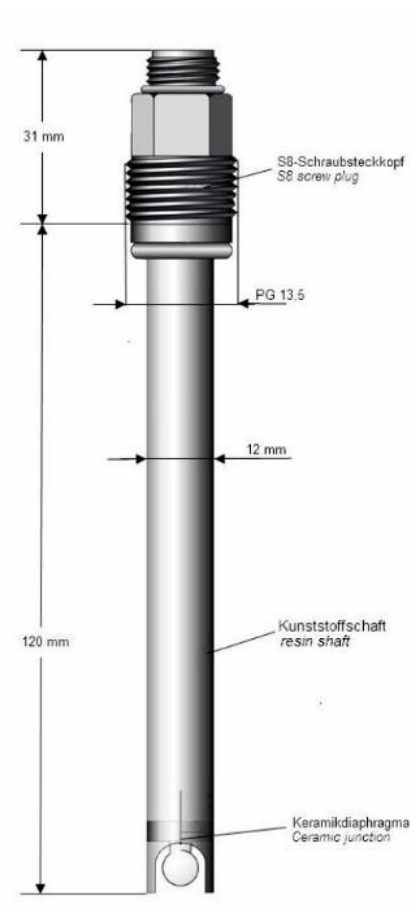
Art. No.: S24131110K

Order Code: 201012100



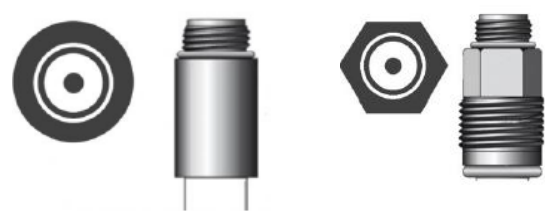
Art. No.: S24132111K

Order Code: 201112600



Art. No.: S24132650K

Order Code: 201012103



S7-plug

S8-plug



Variopin

## 1.4.4 Order information

|  | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>   |
|--|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                        | 201                                  | Zirkon® pH Universal  |
| <b>Temperatursensor /<br/>Temperature sensor</b> | 0                                    | Kein /<br>None  |
|  | 1                                    | Pt 100  |
|  | 2                                    | Pt 1000   |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Diaphragma /<br/>Junction</b>                 | 1                                    | Zirkon 1 mm /<br>Zircon 1 mm  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Elektrolyt /<br/>Elektrolyte</b>              | 2                                    | Texogel 3mol KCl /<br>Tepox gel 3mol KCl  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Anschluss /<br/>Connection</b>                | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (swivel PG 13.5)                      |
|  | 3                                    | S7-Stecker /<br>S7-plug   |
|  | 6                                    | VP-Variopin-Stecker<br>(PG 13,5 - drehbar) /<br>VP-Variopin-plug (swivel PG 13.5) |
|  | 7                                    | Festangeschlossenes Kabel /<br>Fixed cable  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Länge /<br/>Length</b>                        | 0                                    | 120 mm  |
|  | 2                                    | 160 mm  |
|  | 4                                    | 225 mm  |
|  | 9                                    | Sonderlänge /<br>Special length   |

**Sonstiges /  
Special**

|   |   |
|---|---|
| 0 | Kein /<br><i>None</i>   |
| 3 | Kunststoffschaft /<br><i>Resin-shaft</i>  |
| K | Kabellänge /<br><i>Cable length</i>   |
|   | Beispiel:<br>1 Meter = K01, 10 Meter = K10<br><i>Example: 1 m = K01, 10 m = K10</i> |
| 9 | Sonderanfertigung /<br><i>Special</i>   |



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**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

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**1.4.5 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|-----------------------|---|
| S24131100K                           | 201012320             | pH sensor: Zircon junction 1mm, Tepox gel<br>3mol KCl, S7-plug , 160 mm                                   |
| S24131110K                           | 201012100             | pH sensor: Zircon junction 1 mm, Tepox gel<br>3mol KCl, S8-plug (swivel PG 13.5), 120 mm                  |
| S24132111K                           | 201112600             | pH sensor: Zircon junction 1 mm, Pt 100,<br>Tepox gel 3mol KCl, Variopin plug (swivel<br>PG 13.5), 120 mm |
| S24132650K                           | 201012103             | pH sensor: Zircon junction 1mm, Tepox gel<br>3mol KCl, S8-plug (swivel PG13.5), 120 mm<br>resin shaft     |



## 1.5 Zirkon® pH Pure

### 1.5.1 Description



Art. No.: S24132010K

Order Code: 202061320



Art. No.: S24132070K

Order Code: 202041320

The sensors of the Zirkon® pH Pure are highly sophisticated sensors with a high value for money ratio. They are used in ion poor media. We use our high performance AH glass with low alkaline error and a broad temperature range. We use different materials like zircon or glass sleeve as junction. The junction and the electrolyte are determine the salt output and therefore the measurement quality in ion poor media. As electrolyte we use our 3M KCl - this is refillable. As reference system we use a cartridge system which results in a constant measurement especially in applications with high temperature fluctuations.

### 1.5.2 Applications



Cooling Water



Process Water



Drinking Water /  
Beverages



Waste Water  
Treatment

### 1.5.3 Technical data

**Messparameter / Measuring parameter**

pH-Wert /  
*pH-value* pH 0.. 14

### Prozessbedingungen / Ambient conditions

Druck /  
Pressure

S7: < 1 bar drucklos  
PG 13,5 lose: < 1 bar drucklos  
KCI Druckaufsatz: <6 bar bei 20 °C  
Glasschliff : < 1 bar drucklos/

S7: *bar pressureless*  
PG 13.5 loose: < 1 bar pressureless  
KCI pressure attachment: < 6 bar at 20 °C / 68 °F  
Glass sleeve: <1 bar pressureless

|                                 |   |
|---------------------------------|---|
| Leitfähigkeit /<br>Conductivity | 3 x Zircon 1 mm: > 50 μS/cm<br>Glassschliff: > 20 μS/cm/<br><br>3 x Zircon 1 mm: > 50 μS/cm<br>Glass sleeve: > 20 μS/cm |
|---------------------------------|---|

Temperatur /  
Temperature

### Konstruktiver Aufbau / Mechanical construction

|                                 |  |
|---------------------------------|--|
| Diaphragma /<br><i>Junction</i> | 3x Zirkon 1 mm, Glasschliff /<br>3x Zircon 1mm, glass sleeve |
|---------------------------------|--|

Schaftmaterial / *Shaft material* Glas / *Glass*

Schaftlänge /  
*Shaft length* 120 mm, 160 mm, 225 mm

|   |                       |
|---|-----------------------|
| Elektrodenmaterial /<br><i>Electrode material</i> | AH-Glas /<br>AH-Glass |
|---|-----------------------|

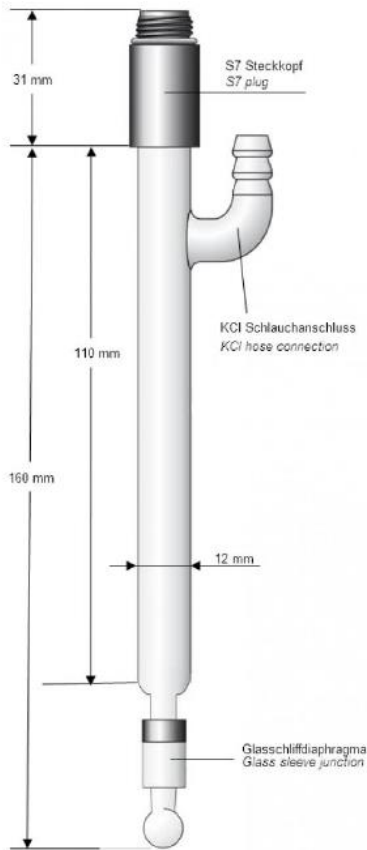
|                                    |   |
|------------------------------------|---|
| Bezugssystem /<br>Reference system | Ag, AgCl, 3mol KCl-flüssig /<br>Ag, AgCl, 3mol KCl-liquid |
|------------------------------------|---|

Innenpuffer / *Internal buffer* pH 7

**Konstruktiver Aufbau / *Mechanical construction***

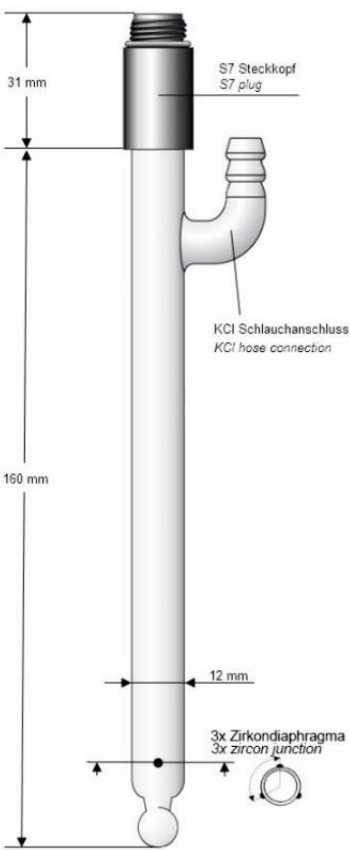
|  |   |
|--|---|
| Mechanischer Anschluss /<br><i>Process connection</i>    | S8-Stecker (PG 13,5 - drehbar), S7-Stecker,<br>Variopin (PG 13,5 - drehbar, festangeschlossenes Kabel /<br><br><i>S8-plug (swivel PG 13.5), S7-plug, Variopin (swivel PG 13.5),<br/>fixed cable</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 2- oder 8- polig /<br><i>2- or 8- poles</i>   |
| Temperatursensor /<br>Temperature sensor                 | Kein, Pt100, Pt1000 /<br><i>None, Pt100, Pt1000</i>   |

1.5.4 Mechanical drawing



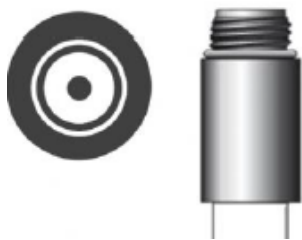
Art. No.: S24132010K

Order Code: 202061320



Art. No.: S24132070K

Order Code: 202041320



S7-plug



S8-plug



Variopin

**1.5.5 Order information**

|  | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>  |
|--|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>                        | 202                                  | Zirkon® pH Pure  |
| <b>Temperatursensor /<br/>Temperature sensor</b> | 0                                    | Kein /<br>None   |
|  | 1                                    | Pt100  |
|  | 2                                    | Pt1000   |
|  | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Diaphragma /<br/>Junction</b>                 | 4                                    | Zirkon 3 x 1 mm /<br>Zircon 3 x 1 mm   |
|  | 6                                    | Glasschliff (nur KCl flüssig)<br>Glass sleeve (only KCl liquid)                    |
|  | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Elektrolyt /<br/>Electrolyte</b>              | 1                                    | 3mol KCl-flüssig /<br>3mol KCl-liquid  |
|  | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Anschluss /<br/>Connection</b>                | 0                                    | Kein /<br>None   |
|  | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (swivel PG 13.5)                       |
|  | 3                                    | S7 Stecker /<br>S7 plug  |
|  | 6                                    | VP-Variopin-Stecker<br>(PG 13,5 - drehbar) /<br>VP-Variopin-pflug (swivel PG 13.5) |
|  | 7                                    | Festangeschlossenes Kabel /<br>Fixed cable   |
|  | 9                                    | Sonderanfertigung /<br>Special   |

|                               |   |  |
|-------------------------------|---|--|
| <b>Länge /<br/>Length</b>     | 0 | 120 mm   |
|                               | 2 | 160 mm   |
|                               | 4 | 225 mm   |
|                               | 9 | Sonderlänge /<br><i>Special length</i>   |
| <b>Sonstige /<br/>Special</b> | 0 | Kein /<br><i>None</i>  |
|                               | 4 | KCI-Druckaufsatz /<br><i>KCI-Pressure attachment</i>   |
|                               | K | Kabellänge /<br><i>Cable length</i><br><br>Beispiel:<br>1 Meter = K01, 10 Meter = K10<br><i>Example: 1 m = K01, 10 m = K10</i> |
|                               | 9 | Sonderanfertigung /<br><i>Special</i>  |




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**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

---

**1.5.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|--------------------------------------|-----------------------|--|
| S2432010K                            | 202061320             | pH sensor for low-ion media, shaft length:<br>160 mm, S7 plug, Glass sleeve junction       |
| 24132070K                            | 202041320             | pH sensor for low-ion media, shaft length:<br>160 mm, S7 plug,<br>Zirkon junction 3 x 1 mm |



## 1.6 Zirkon® pH Process

### 1.6.1 Description



Art. No.: S24131117K

Order Code: 203285600



Art. No.: S24132120K

Order Code: 203072100



Art. No.: S24132121K

Order Code: 203172600



Art. No.: S24132140K

Order Code: 203032320



Art. No.: S24132150K

Order Code: 203032100



Art. No.: S24132810K

Order Code: 203085100

The sensors of the Zirkon® pH Process series are highly sophisticated sensors with a high value for money ratio. They are used in applications like process and waste water. We use our high performance AH glass with low alkaline error and a broad temperature range. We use different materials like ceramic, platinum or PTFE as junction. The junction is among other things responsible for the salt output and the dirt resistance. As electrolyte we use our low maintenance Topax gel. As reference system we use a cartridge system which results in a constant measurement even in applications with high temperature fluctuations. Sensors are Made in Germany.

**Benefits**

- Low maintenance by gel or solid filling
- Dirt resistant by premium-quality junctions
- Made in Germany

**1.6.2 Applications**

Cooling Water



Process Water

Waste Water  
Treatment

### 1.6.3 Technical data

**Messparameter / Measuring parameter**

pH-Wert / *pH-value* pH 0.. 14

### Prozessbedingungen / Ambient conditions

|          |  |
|----------|--|
| Druck /  | PG-Stecker: < 10 bar bei 20 °C               |
| Pressure | PG-Stecker 13,5 lose: < 1 bar bei 20 °C      |
|          | PTFE: < 10 bar bei 20 °C                     |
|          | Loch: < 1 bar drucklos                       |
|          | Platin: < 2 bar bei 20 °C /                  |
|          | <br>PG-Plug: < 10 bar at 20 °C / 68 °F       |
|          | PG-Plug 13.5 loose: < 1 bar at 20 °C / 68 °F |
|          | PTFE: < 10 bar at 20 °C / 68 °F              |
|          | Hole: < 1 bar pressureless                   |
|          | Platinum: < 2 bar bei 20 °C / 68 °F          |

Leitfähigkeit /  
Conductivity 150  $\mu\text{S}/\text{cm}$ 

Temperatur /  
Temperature

### Konstruktiver Aufbau / Mechanical construction

|                          |  |
|--------------------------|--|
| Diaphragma /<br>Junction | Platin, PTFE, Loch, Zirkon 1 mm /<br>Platinum, PTFE, Hole, Zircon 1 mm |
|--------------------------|--|

Schaftmaterial /                      Glas /  
*Shaft material*                      *Glass*

|               |   |
|---------------|---|
| Schaftlänge / | 120 mm, 160 mm, 220 mm (Doppelkammer), 225 mm / |
| Shaft length  | 120 mm, 160 mm, 220 mm (double chamber), 225 mm |

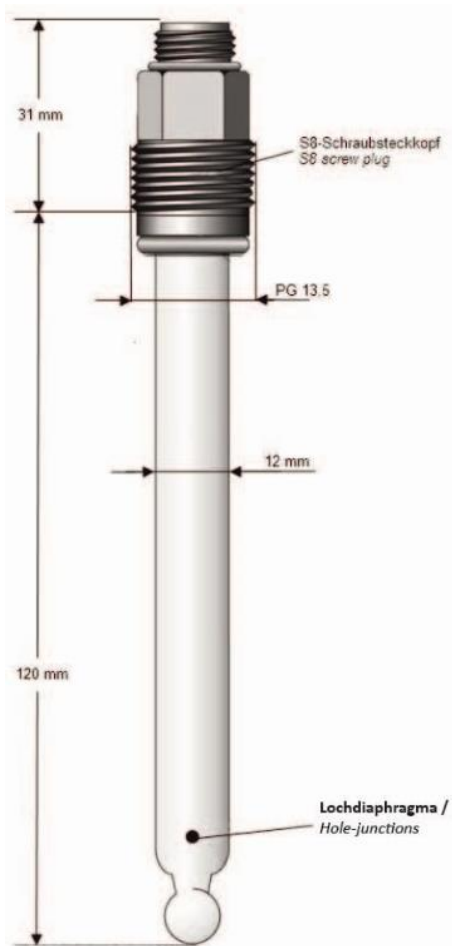
|   |                             |
|---|-----------------------------|
| Elektrodenmaterial /<br><i>Electrode material</i> | AH-Glas/<br><i>AH-Glass</i> |
|---|-----------------------------|

|                                    |   |
|------------------------------------|---|
| Bezugssystem /<br>Reference system | Ag / AgCl / Tepoxgel 3mol KCl, Ag / AgCl / Festelektrolyt /<br>3mol KCl flüssig / |
|------------------------------------|---|

*Ag / AgCl / Tepox gel 3mol KCl, Ag / AgCl / Solid electrolyte, 3mol KCl liquid*

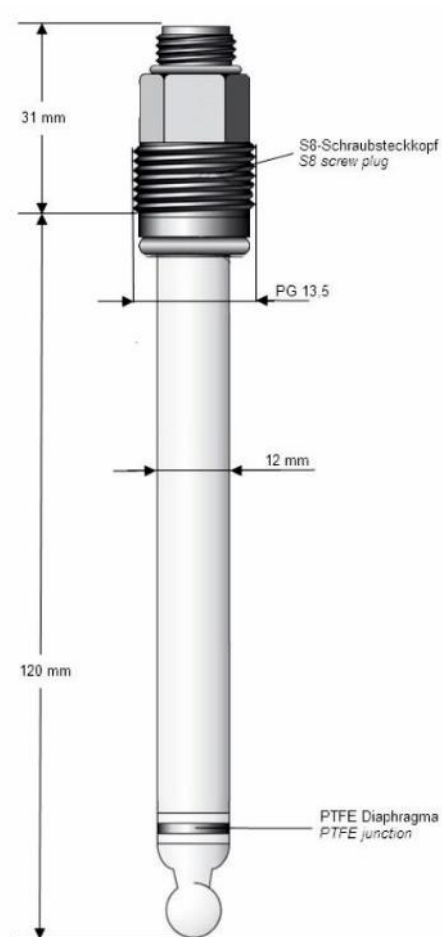
**Konstruktiver Aufbau / Mechanical construction**

|  |  |
|--|--|
| Mechanischer Anschluss /<br><i>Process connection</i>    | S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin<br>(PG 13,5 - drehbar), festangeschlossenes Kabel /<br><br><i>S8-plug (swivel PG 13.5), S7-plug, Variopin<br/>(swivel PG 13.5), fixed cable</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 2- oder 8-polig /<br><i>2- or 8-poles</i>  |
| Temperatursensor /<br><i>Temperature sensor</i>          | Kein, Pt100, Pt1000 /<br><i>None, Pt100, Pt1000</i>  |

**1.6.4 Mechanical drawing**

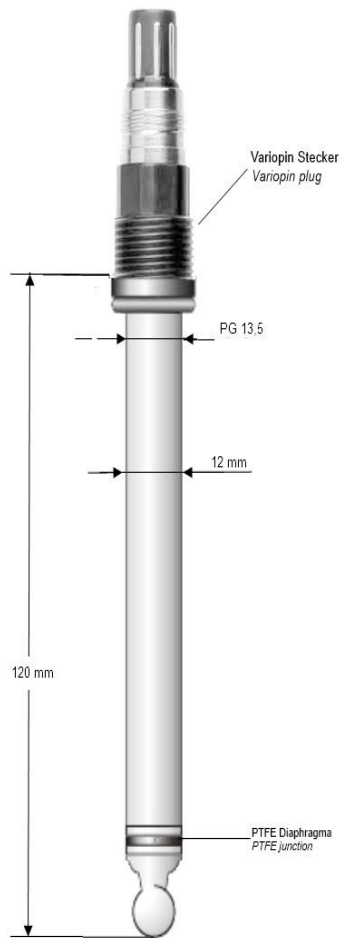
Art. No.: S24131117K

Order Code: 203285600



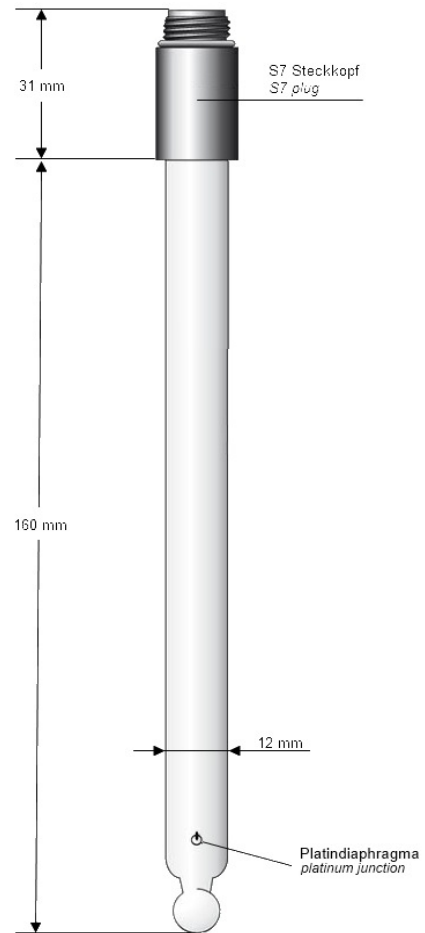
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Order Code: 203072100



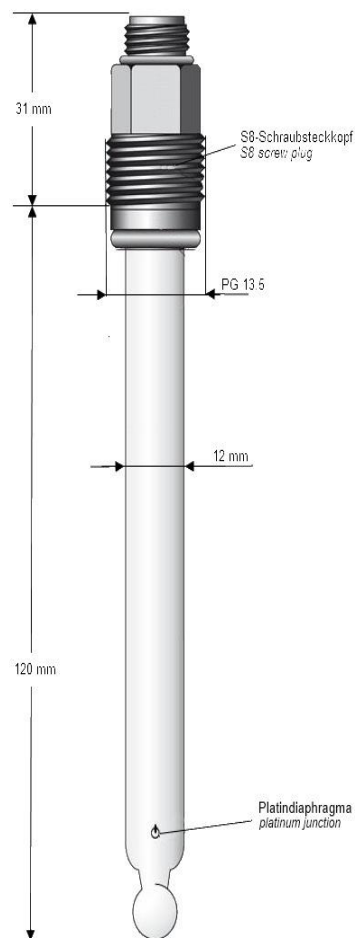
Art. No.: S24132121K

Order Code: 203172600



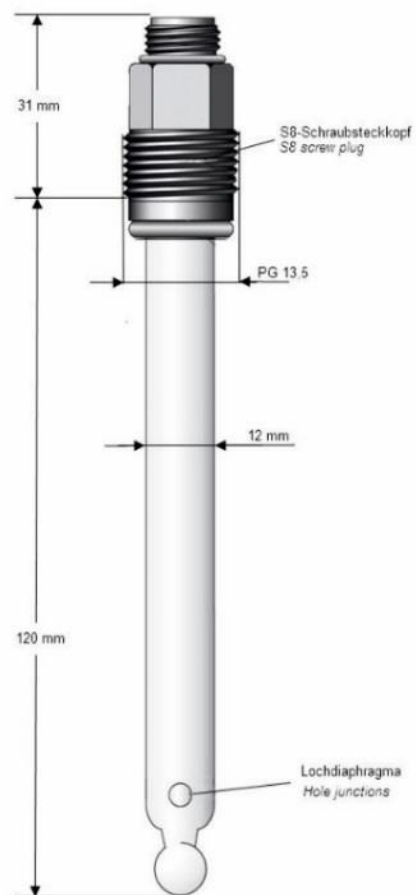
Art. No.: S24132140K

Order Code: 203032320



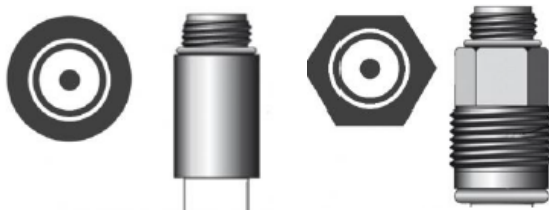
Art. No.: S24132150K

Order Code: 203032100



Art. No.: S24132810K

Order Code: 203085100



S7-plug

S8-plug



Variopin



Zircon



PTFE



Hole



Platinum



## 1.6.5 Order information

|  | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>   |
|--|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                        | 203                                  | Zirkon® pH Process  |
| <b>Temperatursensor /<br/>Temperature sensor</b> | 0                                    | Kein /<br>None  |
|  | 1                                    | Pt100   |
|  | 2                                    | Pt1000  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Diaphragma /<br/>Junction</b>                 | 1                                    | Zirkon 1 mm /<br>Zircon 1mm   |
|  | 3                                    | Platin /<br>Platinum  |
|  | 7                                    | PTFE  |
|  | 8                                    | Loch /<br>Hole  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Elektrolyt /<br/>Electrolyte</b>              | 2                                    | Tepoxgel 3mol KCl /<br>Tepox gel 3mol KCl   |
|  | 5                                    | Festelektrolyt /<br>Solide electrolyte  |
|  | 3                                    | Tepoxgel - gestättigt KCl mit<br>Salzvorrat /<br>Tepox gel - saturated KCl with salt<br>reservoir |
|  | 8                                    | Doppelkammer (3mol KCl - flüssig) /<br>Double chambre (3mol KCl - liquid)                         |
|  | 9                                    | Sonderanfertigung /<br>Special  |

|                                   |   |  |
|-----------------------------------|---|--|
| <b>Anschluss /<br/>Connection</b> | 1 | S8-Stecker (PG 13,5 - drehbar) /<br><i>S8-plug (swivel PG 13.5)</i>                      |
|                                   | 2 | S8 (PG 13,5) für aggressive Medien /<br><i>S8 (PG 13.5) plug for aggressive media</i>    |
|                                   | 3 | S7-Stecker /<br><i>S7-plug</i>   |
|                                   | 6 | VP-Variopin-Stecker<br>(PG 13,5 - drehbar) /<br><i>VP-Variopin-plug (swivel PG 13.5)</i> |
|                                   | 7 | Festangeschlossenes Kabel /<br><i>Fixed cable</i>  |
|                                   | 9 | Sonderanfertigung /<br><i>Special</i>  |
| <b>Länge /<br/>Length</b>         | 0 | 120 mm   |
|                                   | 2 | 160 mm   |
|                                   | 3 | 240 mm   |
|                                   | 4 | 225 mm   |
|                                   | 9 | Sonderlänge /<br><i>Special length</i>   |
| <b>Sonstiges /<br/>Special</b>    | K | Kabellänge /<br>Cable length   |
|                                   |   | Beispiel:<br>1 Meter = K01, 10 Meter = K10<br><i>Example: 1 m = K01, 10 m = K10</i>      |
|                                   | 9 | Special  |
|                                   | 0 | None   |
|                                   |   |  |

**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

**1.6.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|-----------------------|---|
| S24131117K                           | 203285600             | pH sensor: 2x hole junction, solid gel SPMA, Variopin plug (swivel PG 13.5), 120 mm, PT1000 |
| S24132120K                           | 203072100             | pH sensor: PTFE junction, Tepox gel 3mol KCl /, S8 plug (swivel PG 13.5), 120 mm            |
| S24132121K                           | 203172600             | pH sensor: Pt100, PTFE junction, Tepox gel 3mol KCl /, Variopin (swivel PG 13.5), 120 mm    |
| S24132140K                           | 203032320             | pH sensor: Platinum junction, Tepox gel 3mol KCl /, S7-plug, 160 mm                         |
| S24132150K                           | 203032100             | pH sensor: Platinum junction, Tepox gel 3mol KCl, S8-plug (swivel PG13.5), 120 mm           |
| S24132810K                           | 203085100             | pH sensor: Hole junction, solid electrolyte, S8-plug (swivel plug), 120 mm                  |

## 1.7 Zirkon® pH Process Refill

### 1.7.1 Description



Art. No.: S24132040K

Order Code: 204011320



Art. No.: S24132050K

Order Code: 204031320

The sensors of the Zirkon® pH Process series are highly sophisticated sensors with a high value for money ratio. They are used in applications like process and waste water. We use our high performance AH glass with low alkaline error and a broad temperature range. We use different materials like zircon, platinum or PTFE as junction. The junction and the electrolyte determine the salt output and the dirt resistance. As electrolyte we use our 3M KCl - this is refillable. As reference system we use a cartridge system which results in a constant measurement especially in applications with high temperature fluctuations. Sensores – Made in Germany.

**Benefits**

- Long life expectancy by refillable reference electrode
- High precision by use of high alkaline high temperature glass

**1.7.2 Applications**

Cooling Water



Process Water

Drinking Water /  
BeveragesWaste Water  
Treatment

### 1.7.3 Technical data

#### Messparameter / *Measuring parameter*

pH-Wert / *pH-value*                      pH 0.. 14

#### Prozessbedingungen / *Ambient conditions*

Druck / *Pressure*                      PG-Stecker: < 2 bar bei 20 °  
    PG-Stecker 13.5 lose: < 1 bar bei 20 °C  
    KCL-Druckaufsatz: < 6 bar at 20 °C /  
    *PG-plug: < 2 bar at 20 °C / 68 °F*  
    *PG 13.5 loose: < 1 bar at 20 °C / 68 °F*  
    *KCL pressure attachment: < 6 bar at 20 °C / 68 °F*

Leitfähigkeit / *Conductivity*                      150 µS/cm

Temperatur / *Temperature*                      -5.. +100 °C / 23.. 212 °F

#### Konstruktiver Aufbau / *Mechanical construction*

Diaphragma / *Junction*                      Zirkon 1 mm, Platinium, PTFE /  
    *Zircon 1 mm, Platinum, PTFE*

Schaftmaterial / *Shaft material*                      Glas /  
    *Glass*

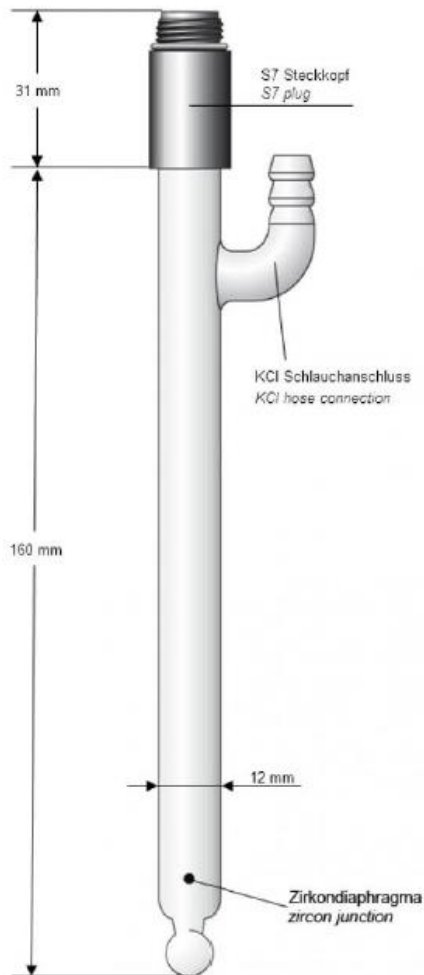
Schaftlänge / *Shaft length*                      120 mm, 160 mm, 220 mm (Doppelkammer), 225 mm /  
    *120 mm, 160 mm, 220 mm (double chamber), 225 mm*

Elektrodenmaterial / *Electrode material*                      AH-Glas /  
    *AH-Glass*

Bezugssystem / *Reference system*                      Ag / AgCl / Tepox gel 3mol KCl / Ag / AgCl / Festelektrolyt,  
    Ag / AgCl / Tepoxgel 3mol KCl flüssig /  
    *Ag / AgCl / Tepox gel 3mol KCl / Ag / AgCl / Solid electrolyte,*  
    *Ag / AgCl / Tepox gel 3mol KCl liquid*

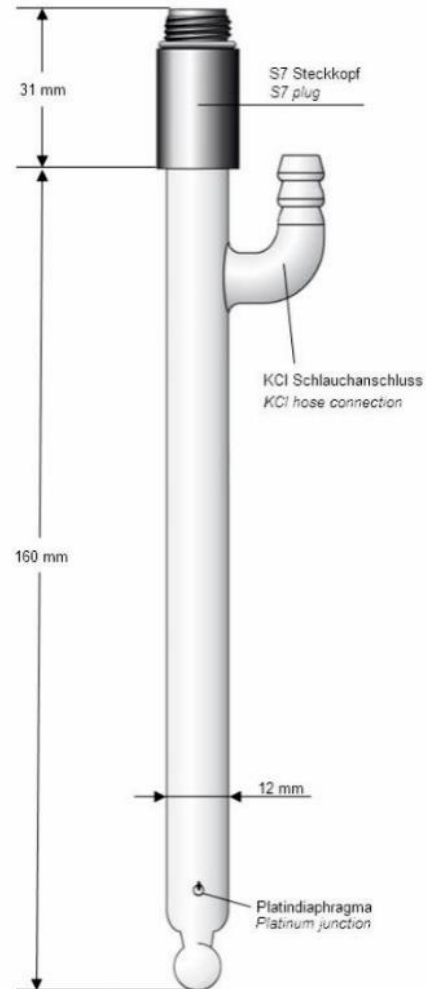
**Konstruktiver Aufbau / Mechanical construction**

|  |  |
|--|--|
| Mechanischer Anschluss /<br><i>Process connection</i>    | S8-Stecker (PG 13,5 - drehbar), S7-Stecker,<br>Variopin (PG 13,5 - drehbar), festangeschlossenes Kabel /<br><br><i>S8-plug (swivel PG 13.5), S7-plug, Variopin (swivel PG 13.5),<br/>fixed cable</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 2- oder 8-polig /<br><i>2- or 8-poles</i>  |
| Temperatursensor /<br><i>Temperature sensor</i>          | Kein, Pt100, Pt1000 /<br><i>None, Pt100, Pt1000</i>  |

**1.7.4 Mechanical drawing**

Art. No.: S24132040K

Order Code: 204011320



Art. No.: S24132050K

Order Code: 204031320





S7-plug



Pressure attachment with S8-plug



Variopin



PTFE



Zircon



Platinum

## 1.7.5 Order information

|  | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>   |
|--|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                        | 204                                  | Zirkon® pH Process Refill   |
| <b>Temperatursensor /<br/>Temperature sensor</b> | 0                                    | Kein /<br>None  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Diaphragma /<br/>Junction</b>                 | 1                                    | Zirkon 1 mm /<br>Zircon 1 mm  |
|  | 3                                    | Platin /<br>Platinum  |
|  | 7                                    | PTFE  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Elektrolyt /<br/>Electrolyte</b>              | 1                                    | 3mol KCl flüssig<br>3mol KCl liquid   |
|  | 7                                    | Doppelkammer (3mol KCl flüssig - 3mol KCl<br>flüssig) /<br>Double chamber (3mol KCl liquid - 3mol KCl liquid) |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Anschluss /<br/>Connection</b>                | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (swivel PG 13.5)  |
|  | 3                                    | S7-Stecker /<br>S7-plug   |
|  | 6                                    | VP-Variopin-Stecker (PG 13,5 - drehbar) /<br>VP-Variopin-plug (swivel PG 13.5)                                |
|  | 7                                    | Festangeschlossenes Kabel /<br>Fixed cable  |
|  | 9                                    | Sonderanfertigung /<br>Special  |

|                                |   |  |
|--------------------------------|---|--|
| <b>Länge /<br/>Length</b>      | 0 | 120 mm   |
|                                | 2 | 160 mm   |
|                                | 4 | 225 mm   |
|                                | 9 | Sonderlänge /<br><i>Special length</i>   |
| <b>Sonstiges /<br/>Special</b> | 0 | Kein /<br><i>None</i>  |
|                                | 1 | 2 Innenpuffer/<br><i>2 Internal buffer</i>   |
|                                | 2 | K <sub>2</sub> SO <sub>4</sub> als Brückenelektrolyt /<br><i>K<sub>2</sub>SO<sub>4</sub> as bridge electrolyte</i> |
|                                | 4 | KCl-Druckaufsatz /<br><i>KCl Pressure attachment</i>   |
|                                | K | Kabellänge /<br><i>Cable length</i>  |
|                                |   | Beispiel:<br>1 Meter = K01, 10 Meter = K10<br><i>Example:</i><br>1 Meter = K01, 10 meter = K10                     |
|                                | 9 | Sonderanfertigung / <i>Special</i>   |

**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

**1.7.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|--------------------------------------|-----------------------|--|
| S24132040K                           | 204011320             | Zirkon® pH Process Refill, shaft length:<br>160 mm, Ceramic junction, S7-plug  |
| S24132050K                           | 204031320             | Zirkon® pH Process Refill, shaft length:<br>160 mm, Platinum junction, S7-plug |

## 1.8 Zirkon® pH Fluoride

### 1.8.1 Description



Art. No.: S24132300K

Order Code: 205011320



Art. No.: S24132420K

Order Code: 205072100



Art. No. S24132400K

Order Code: 205012320

Sensors of the series Zirkon® pH Fluoride are developed for the application in fluoride containing media. The special glass is resistant up to 500 mg/l fluoride. The sensors are mainly used in the semiconductor industry. The sensor design such as like reference electrode and junction are mainly determined by the water characteristics.

**Benefits**

- Fluoride resistant
- Low maintenance by gel filling / Long life expectancy by refillable reference electrode
- Made in Germany

**1.8.2 Applications**

Fluoride Containing Media

### 1.8.3 Technical data

**Messparameter / Measuring parameter**

pH-Wert /  
*pH-value* pH 1.. 11

### Prozessbedingungen / Ambient conditions

Druck /  
Pressure

PG-Stecker: < 10 bar bei 20 °  
PG 13.5 lose: < 1 bar bei 20 °C  
KCI-Druckaufsatz: < 6 bar bei 20 °C  
PTFE: < 10 bar bei 20 °C  
Loch: < 1 bar drucklos  
Zirkon < 2 bar bei 20 °C  
Platin: < 2 bar bei 20 °C /

*PG- plug: < 10 bar at 20 °C / 68 °F  
PG 13.5 loose: < 1 bar at 20 °C / 68 °F  
KCI-pressure attachment: < 6 bar bei 20 °C / 68 °F  
PTFE: < 10 bar at 20 °C / 68 °F  
Hole. < 1 bar pressureless  
Zircon: < 2 bar at 20 °C / 68 °F  
Platinum. < 2 bar at 20 °C / 68 °F*

|  |  |
|--|--|
| Leitfähigkeit /<br><i>Conductivity</i> | 3M KCl: > 50 $\mu\text{S}/\text{cm}$<br>Tepoxgel: > 150 $\mu\text{S}/\text{cm}$          |
|  | 3M KCl: > 50 $\mu\text{S}/\text{cm}$<br><i>Tepox gel</i> : > 150 $\mu\text{S}/\text{cm}$ |

Temperatur / 0.. +60 °C / 32.. 140 °F  
Temperature

### Konstruktiver Aufbau / Mechanical construction

|                                 |  |
|---------------------------------|--|
| Diaphragma /<br><i>Junction</i> | Zirkon 1 mm, PTFE; Platin, Loch /<br>Zirkon 1 mm, PTFE, Platin, Loch |
|---------------------------------|--|

Schaftmaterial /                      Glas /  
*Shaft material*                      *Glass*

|                                      |  |
|--------------------------------------|--|
| Schaftlänge /<br><i>Shaft length</i> | 120 mm, 160 mm, 220 mm (Doppelkammer), 225 mm /<br>120 mm, 160 mm, 220 mm (double chamber), 225 mm |
|--------------------------------------|--|

|   |                                |
|---|--------------------------------|
| Elektrodenmaterial /<br><i>Electrode material</i> | S-Glas-Kugel /<br>S-Glass-ball |
|---|--------------------------------|

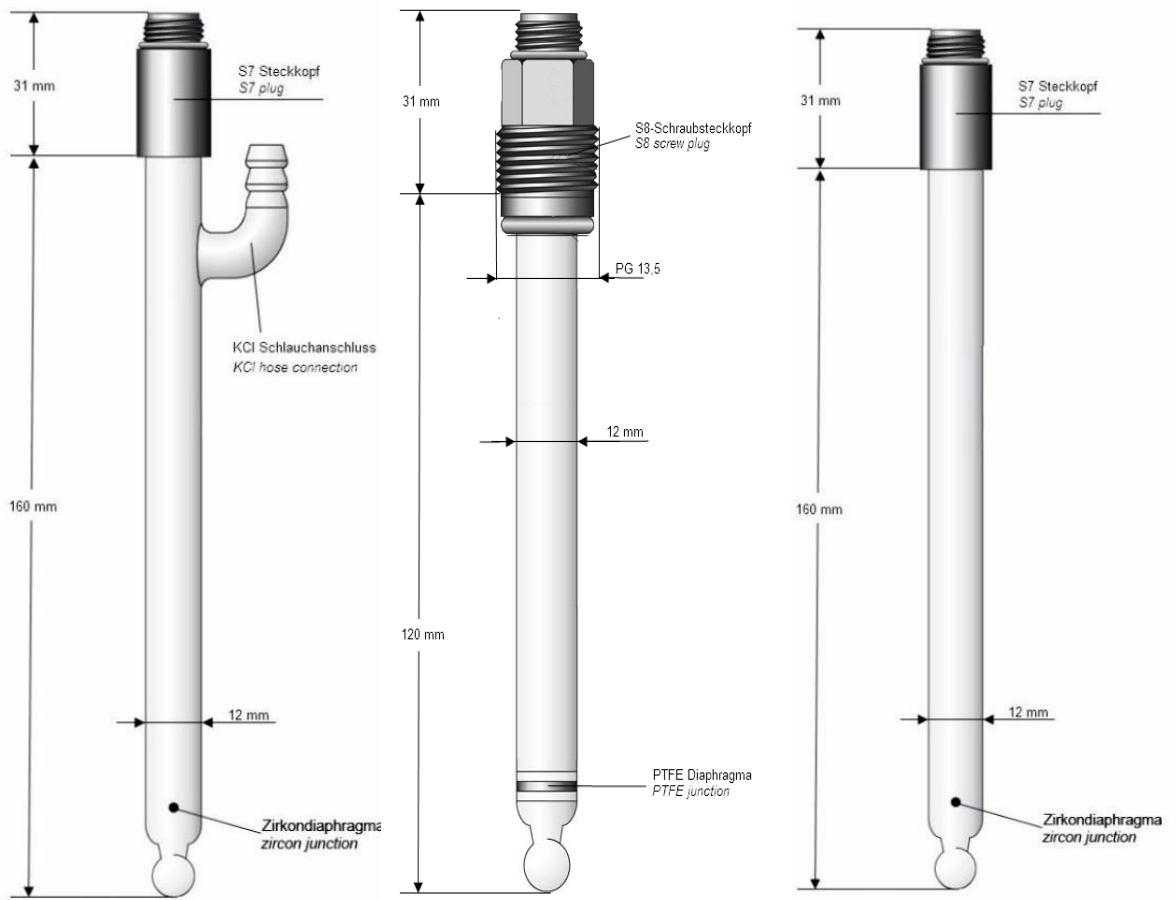
|                  |   |
|------------------|---|
| Bezugssystem /   | Ag / AgCl / Tepoxgel 3mol KCl / AgAgCl / Festelektrolyt /   |
| Reference system | Ag / AgCl / Tepox gel 3mol KCl / AgAgCl / Solid electrolyte |

**Konstruktiver Aufbau / *Mechanical construction***

|  |  |
|--|--|
| Innenpuffer /<br><i>Internal buffer</i>                  | pH 7   |
| Mechanischer Anschluss /<br><i>Process connection</i>    | S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin<br>(PG 13,5 - drehbar), festangeschlossenes Kabel /<br><br><i>S8-plug (swivel PG 13.5), S7-plug, Variopin<br/>(swivel PG 13.5), fixed cable</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 2- oder 8-polig /<br><i>2- or 8- poles</i>   |
| Temperatursensor /<br><i>Temperature sensor</i>          | Kein, Pt100, Pt1000 /<br><i>None, Pt100, Pt1000</i>  |



1.8.4 Mechanical drawing



Art. No.: S24132300K

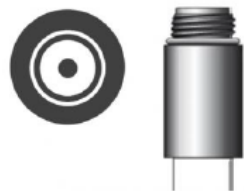
Order Code: 205011320

Art. No.: S24132420K

Order Code: 205072100

Art. No.: S24132400K

Order Code: 205012320



S7-plug



S8-plug



Variopin



PTFE



Hole

## 1.8.5 Order information

|  | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>   |
|--|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                        | 205                                  | Zirkon® pH Fluoride   |
| <b>Temperatursensor /<br/>Temperature sensor</b> | 0                                    | Kein /<br>None  |
|  | 1                                    | Pt100   |
|  | 2                                    | Pt1000  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Diaphragma /<br/>Junction</b>                 | 1                                    | Zirkon 1 mm /<br>Zircon 1 mm  |
|  | 3                                    | Platin /<br>Platinum  |
|  | 7                                    | PTFE  |
|  | 8                                    | Loch /<br>Hole  |
|  | 9                                    | Sonderanfertigung /<br>Special  |
| <b>Elektrolyt /<br/>Electrolyte</b>              | 1                                    | 3mol KCl flüssig /<br>3mol KCl liquid   |
|  | 2                                    | Tepoxgel 3mol KCl /<br>Tepox gel 3mol KCl   |
|  | 3                                    | Tepoxgel - gesättigt KCl mit<br>Salzvorrat/<br>Tepox gel - saturated KCl with salt<br>reservoir |
|  | 9                                    | Sonderanfertigung /<br>Special  |

|                                   |   |   |
|-----------------------------------|---|---|
| <b>Anschluss /<br/>Connection</b> | 1 | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (swivel PG 13.5)                      |
|                                   | 3 | S7-Stecker /<br>S7-plug   |
|                                   | 6 | VP Variopin Stecker<br>(PG 13,5 - drehbar) /<br>VP Variopin plug (swivel PG 13.5) |
|                                   | 7 | Festangeschlossenes Kabel /<br>Fixed cable  |
|                                   | 9 | Sonderanfertigung /<br>Special  |
| <b>Länge /<br/>Length</b>         | 0 | 120 mm  |
|                                   | 2 | 160 mm  |
|                                   | 4 | 225 mm  |
|                                   | 9 | Sonderlänge /<br>Special length   |
| <b>Sonstiges /<br/>Special</b>    | 0 | None /<br>None  |
|                                   | 1 | 2 Innenpuffer /<br>2 Internal buffer  |
|                                   | 4 | KCI-Druckaufsatz /<br>KCI-pressure attachment                                     |
|                                   | K | Kabellänge /<br>Cable length  |
|                                   | 9 | Sonderanfertigung /<br>Special  |

**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

**1.8.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|-----------------------|---|
| S24132300K                           | 205011320             | pH sensor: Zircon junction 1 mm, Tepox gel<br>3mol KCl, S7-plug, 160 mm           |
| S24132420K                           | 205072100             | pH sensor: PTFE junction, Tepox gel 3mol<br>KCl, S8-plug (swivel PG 13.5), 120 mm |
| S24132400K                           | 205012320             | pH sensor: Zircon junction 1 mm, Tepox gel<br>3mol KCl, S7-plug, 160 mm           |

## 1.9 Zirkon® pH Coating

### 1.9.1 Description



Art. No. S24132320K

Order Code: 206051320

Sensors of the Zirkon® pH Coating series are developed for the use in lacquer and coatings. They are used in paint and coating industry. Crucial for the measurement in coatings is the contamination of the junction. This mainly determines the life expectancy of the sensor. In case of the Zirkon pH coating sensors the projecting junction can be protected with a membrane or a hole is used in combination with solid electrolyte instead of a junction.

**Benefits**

- Junction protectable
- Fluoride resistant
- According to DIN 55659 for pH measurement in electrophoretic dip painting

**1.9.2 Applications**

Fluoride Containing Media



Laboratory

### 1.9.3 Technical data

#### Messparameter / Measuring parameter

pH-Wert / 1.00.. 11.00  
*pH-value*

#### Prozessbedingungen / Ambient conditions

Druck. / PG 13,5 lose: < 1 bar bei 20 °C  
*Pressure* KCl Druckaufsatz: < 6 bar bei 20 °C  
 Lochdiaphragma: < 1 bar bei 20 °C /  
 PG 13.5 loose: < 1 bar at 20 °C / 68 °F  
 KCl pressure attachment: < 6 bar at 20 °C / 68 °F  
 Hole junction: < 1 bar at 20 °C / 68 °F

Leitfähigkeit / 3mol KCl: > 50 µS/cm  
*Conductivity* Tepoxgel: > 150 µS/cm /  
 3mol KCl: > 50 µS/cm  
 Tepox gel: > 150 µS/cm

Temperatur / 0.. +60 °C / 32.. 140 °F  
*Temperature*

#### Konstruktiver Aufbau / Mechanical construction

Diaphragma / Zirkon 1 mm (15 mm vorstehend), Loch /  
*Junction* Zircon 1 mm (15 mm projecting), Hole

Schaftmaterial / Glas /  
*Shaft material* Glass

Schaftlänge / 120 mm, 160 mm, 240 mm  
*Shaft length*

Elektrodenmaterial / S-Glas Kugel /  
*Electrode material* S-Glass-ball

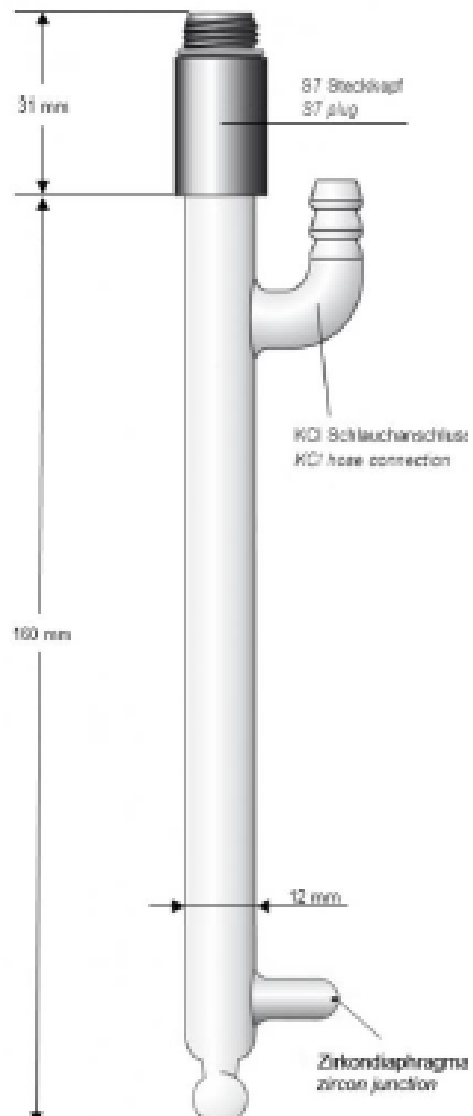
Bezugssystem / Ag / AgCl / Tepox gel 3mol KCl / Festelektrolyt  
*Reference system* Ag / AgCl / Tepox gel 3mol KCl / Solid electrolyte

**Konstruktiver Aufbau / *Mechanical construction***

|  |  |
|--|--|
| Innenpuffer /<br><i>Internal buffer</i>                  | pH 7   |
| Mechanischer Anschluss /<br><i>Process connection</i>    | S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin<br>(PG 13,5 - drehbar), festangeschlossenes Kabel /<br><br><i>S8-plug (swivel PG 13.5), S7-plug, Variopin<br/>(swivel PG 13.5), fixed cable</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 2-polig /<br><i>2-poles</i>  |
| Temperatursensor /<br><i>Temperature sensor</i>          | Kein /<br><i>None</i>  |

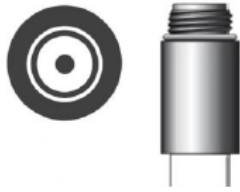


### 1.9.4 Mechanical drawing



Art. No.: S24132320K

Order Code: 206051320



S7-plug



S8-plug



Hole



Zircon

## 1.9.5 Order information

|  | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>                                |
|--|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>                        | 206                                  | Zirkon® pH Coating   |
| <b>Temperatursensor /<br/>Temperature sensor</b> | 0                                    | Kein /<br>None   |
|  | 9                                    | Sonderanfertigung /<br>Special                                       |
| <b>Diaphragma /<br/>Junction</b>                 | 5                                    | Zirkon 1 mm, (15 mm vorstehend) /<br>Zircon 1 mm, (15 mm projecting) |
|  | 8                                    | Loch /<br>Hole   |
|  | 9                                    | Sonderanfertigung /<br>Special                                       |
| <b>Elektrolyt /<br/>Electrolyte</b>              | 1                                    | 3mol KCl flüssig /<br>3mol KCl liquid                                |
|  | 5                                    | Festelektrolyt /<br>Solide electrolyte                               |
|  | 9                                    | Sonderanfertigung /<br>Special                                       |
| <b>Anschluss /<br/>Connection</b>                | 0                                    | Kein /<br>None   |
|  | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (swivel PG 13.5)         |
|  | 3                                    | S7-Stecker /<br>S7-plug  |
|  | 9                                    | Sonderanfertigung /<br>Special                                       |
| <b>Länge /<br/>Length</b>                        | 0                                    | 120 mm   |
|  | 2                                    | 160 mm   |
|  | 4                                    | 225 mm   |
|  | 9                                    | Sonderlänge /<br>Special length                                      |

**Sonstiges /  
Special**

|   |  |
|---|--|
| 0 | Kein /<br>None   |
| 4 | KCI-Druckaufsatz /<br><i>KCI-pressure attachment</i>   |
| K | Kabellänge /<br><i>Cable length</i><br><br>Beispiel:<br>1 Meter = K01, 10 Meter = K10<br><i>Example: 1 m = K01, 10 m = K10</i> |
| 9 | Sonderanfertigung /<br><i>Special</i>  |



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**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

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**1.9.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|-----------------------|---|
| S24132320K                           | 206051320             | pH sensor: Zircon junction (15 mm projecting),<br>Tepox gel 3mol KCl, S7-plug, 160 mm |

## 1.10 Zirkon® pH Pool

### 1.10.1 Description



Art. No.: S24132700K

Order Code: 207013100

Zirkon® pH Pool sensors are electrodes for pH measurement in swimming pool applications. The sensor is gel filled with a salt reservoir. It is not refillable requires little maintenance. The 1 mm junction and the salt reservoir increase the expected lifetime.

**Benefits**

- Low maintenance
- Higher life expectancy by KCl reservoir

**1.10.2 Applications**

Pool & Spa

**1.10.3 Technical data****Messparameter / Measuring parameter**

pH-Wert / 0.00.. 14.00  
pH-value

**Prozessbedingungen / Ambient conditions**

Druck / < 2 bar bei 20 °C /  
Pressure < 2 bar at 20 °C / 68 °F

Leitfähigkeit / > 150 µS/cm  
Conductivity

Temperatur/ -5.. +70 °C / 23..158 °F  
Temperature

**Konstruktiver Aufbau / Mechanical construction**

Diaphragma / Zirkon 1 mm /  
Junction Zircon 1 mm

Schaftmaterial / Glas /  
Shaft material Glass

Schaftlänge / 120 mm  
Shaft length

Elektrodenmaterial / LT-Glas-Kugel /  
Electrode material LT-Glass ball

Bezugssystem / Ag / AgCl / gesättigt KCl /  
Reference system Ag / AgCl / saturated KCl

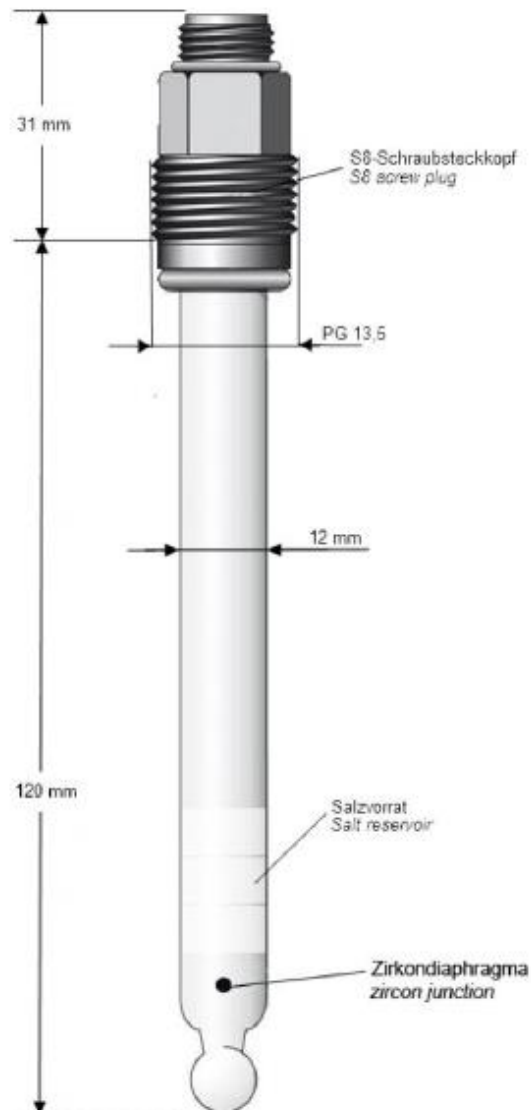
Innenpuffer / pH 7  
Internal buffer

Mechanischer Anschluss / S8-Stecker (13,5 - drehbar)  
Process connection S8 -plug (swivel PG 13.5)

Elektrischer Anschluss / 2-polig /  
Electrical connection 2-poles

Temperatursensor / Kein /  
Temperature sensor None



**1.10.4 Mechanical drawing**

Art. No.: S24132700K

Order Code: 207013100

**1.10.5 Order information**

|   | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>  |
|---|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>                       | 207                                  | Zirkon® pH Pool  |
| <b>Temperatursensor/<br/>Temperature sensor</b> | 0                                    | Kein /<br>None   |
| <b>Diaphragma /<br/>Junction</b>                | 1                                    | Zirkon 1 mm /<br>Zircon 1 mm   |
|   | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Elektrolyt /<br/>Electrolyte</b>             | 3                                    | Tepoxgel - gesättigt KCl mit Salzvorrat<br>Tepox gel - saturated KCl with salt reservoir |
|   | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Anschluss /<br/>Connection</b>               | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (swivel PG 13.5)                             |
|   | 7                                    | Festangeschlossenes Kabel /<br>Fixed cable   |
|   | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Länge /<br/>Length</b>                       | 0                                    | 120 mm   |
|   | 9                                    | Sonderlänge /<br>Special length  |

**Sonstiges /  
Special**

0      Kein /  
         None

K      Kabellänge /  
         Cable lenght

Beispiel:  
1 Meter = K01, 10 Meter = K10  
Example:  
1 Meter = K01, 10 meter = K10

9      Sonderanfertigung /  
         Special



---

**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

---

**1.10.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>                                     |
|--------------------------------------|-----------------------|---|
| S24132700K                           | 207013100             | pH sensor: Zircon junction 1 mm, saturated KCl, S8- plug (swivel PG 13.5) |

## 1.11 Zirkon® pH Process HT

### 1.11.1 Description



Art. No. S24132122K

Order Code: 208075100

Sensors of the series Zirkon® pH Process HT are specialists for professional fielding in high temperature application. They are used in processes with higher permanent temperature (up to maximum 135 °C) and sterilisable application. Optionally a temperature probe can be added.

**Benefits**

- Temperature stable up to max. 135 °C / 275 °F
- Low maintenance
- Made in Germany

**1.11.2 Applications**

Cooling Water



Process Water

Hight  
temperature  
applicationSterilisable  
application

### 1.11.3 Technical data

#### Messparameter / Measuring parameter

pH-Wert / 0.00.. 14.00  
*pH-value*

#### Prozessbedingungen / Ambient conditions

Druck / PG-Stecker: < 10 bar bei 20 °  
*Pressure* PG 13,5 lose: < 1 bar bei 20 °C  
 KCl-Druckaufsatz: < 6 bar bei 20 °C /  
  
*PG-plug: < 10 bar at 20 °C / 68 °F*  
*PG 13.5 loose: < 1 bar at 20 °C / 68 °F*  
*KCl-pressure attachment: < 6 bar bei 20 °C / 68 °F*

Druck / PTFE: <10 bar bei 20 °C  
*Pressure* Zirkon: <2 bar bei 20 °C  
  
*PTFE: <10 bar at 20 °C / 68 °F*  
*Zircon: <2 bar at 20 °C / 68 °F*

Leitfähigkeit / > 150 µS/cm /  
*Conductivity*

Temperatur / -5.. +135 °C / 23..275°F  
*Temperature*

#### Konstruktiver Aufbau / Mechanical construction

Diaphragma / PTFE, Zirkon /  
*Junction* PTFE, Zircon

Schaftmaterial / Glas /  
*Shaft material* Glass

Schaftlänge / 120 mm, 225 mm  
*Shaft length*

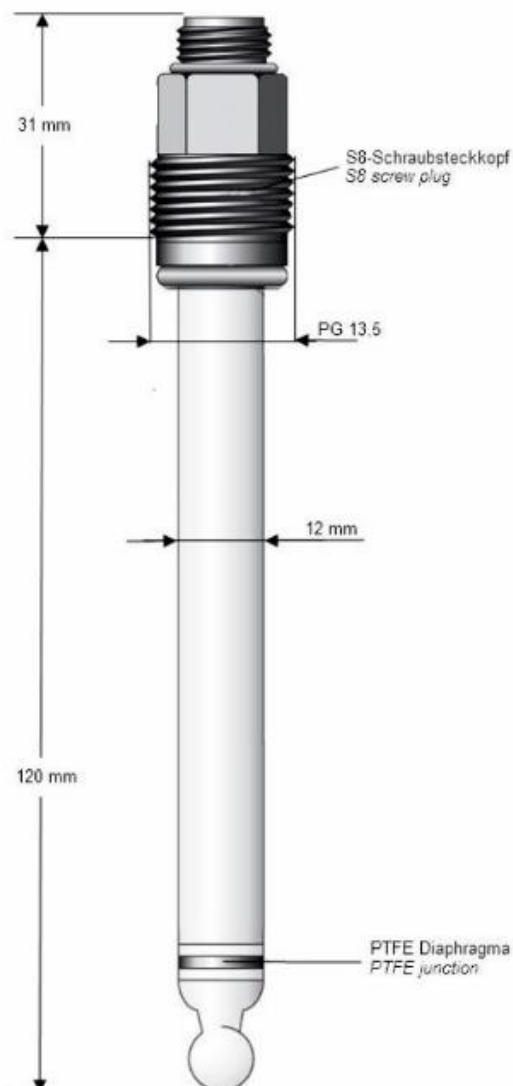
Schaftdurchmesser / 12 mm  
*Shaft Diameter*

**Konstruktiver Aufbau / *Mechanical construction***

|  |  |
|--|--|
| Elektrodenmaterial /<br><i>Electrode material</i>        | AH-Glas /<br><i>AH-Glass</i>   |
| Bezugssystem /<br><i>Reference system</i>                | Ag / AgCl / Festlelektrolyt /<br><i>Ag / AgCl / Solide electrolyte</i>   |
| Innenpuffer /<br><i>Internal buffer</i>                  | pH 7   |
| Mechanischer Anschluss /<br><i>Process connection</i>    | S8-Stecker (PG 13,5 - drehbar) / Variopin (PG 13,5 - drehbar),<br>festangeschlossenes Kabel /<br><i>S8-plug (swivel PG 13.5) / Variopin (swivel PG 13.5) / fixed cable</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 8-polig /<br><i>8-poles</i>  |
| Temperatursensor /<br><i>Temperature sensor</i>          | Kein, Pt100, Pt1000 /<br><i>None, Pt100, Pt1000</i>  |



#### 1.11.4 Mechanical drawing



Art. No.: S24132122K

Order Code: 208075100

## 1.11.5 Order information

|  | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>  |
|--|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>                        | 208                                  | Zirkon® pH Process HT  |
| <b>Temperatursensor /<br/>Temperature sensor</b> | 0                                    | Kein /<br>None   |
|  | 1                                    | Pt100  |
|  | 2                                    | Pt1000   |
|  | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Diaphragma /<br/>Junction</b>                 | 0                                    | Kein /<br>None   |
|  | 2                                    | Zirkon 1 mm /<br>Zircon 1 mm   |
|  | 7                                    | PTFE   |
|  | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Elektrolyt /<br/>Electrolyte</b>              | 5                                    | Festelektrolyt /<br>Solide electrolyte   |
| <b>Anschluss /<br/>Connection</b>                | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (swivel PG 13.5)                   |
|  | 6                                    | VP-Variopin-Stecker (PG 13,5 - drehbar) /<br>VP-Variopin-plug (swivel PG 13.5) |
|  | 7                                    | Festangeschlossenes Kabel /<br>Fixed cable                                     |
|  | 9                                    | Sonderanfertigung /<br>Special   |
| <b>Länge /<br/>Length</b>                        | 0                                    | 120 mm   |
|  | 4                                    | 225 mm   |
|  | 9                                    | Sonderlänge /<br>Special length  |

**Sonstiges /  
Special**

0

Kein /  
None

K

Kabellänge /  
Cable lenght

Beispiel:

1 Meter = K01, 10 Meter = K10

Example:

1 Meter = K01, 10 meter = K10

9

Sonderanfertigung /  
Special



Note!

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

**1.11.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>                                     |
|--------------------------------------|-----------------------|---|
| S24132122K                           | 208075100             | pH sensor: PTFE junction, solid electrolyte,<br>S8-plug (PG 13.5), 120 mm |

## 1.12 Zirkon® pH Wide Body

### 1.12.1 Description



*Zirkon® pH Wide Body*



Kuntze sensors stand for quality and are manufactured by our own production. Made in Germany.

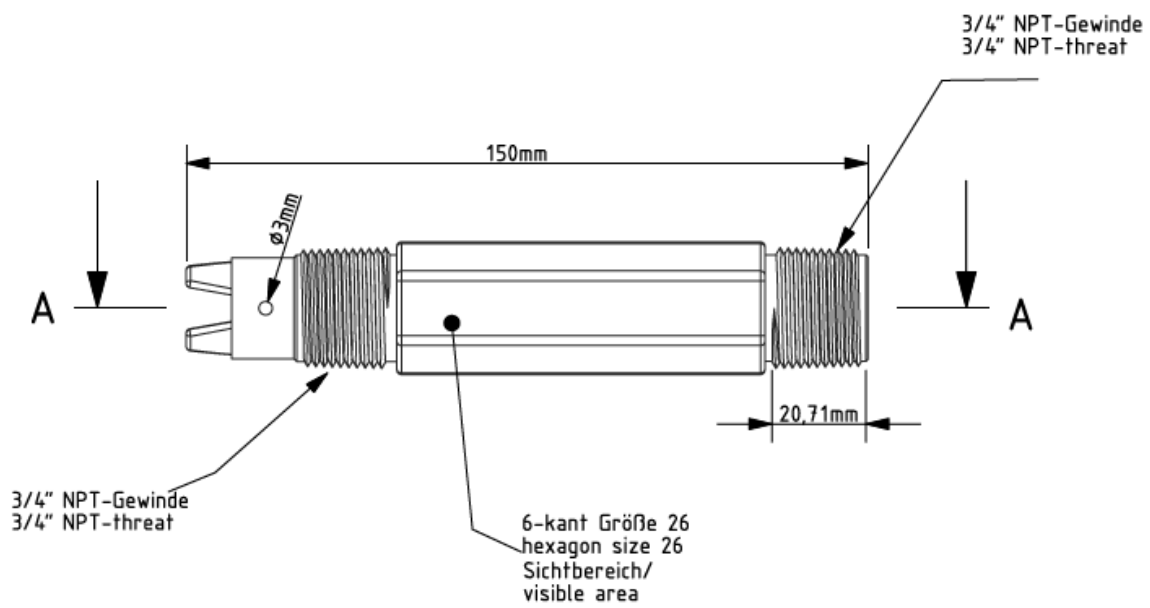
#### Application

- Flotation
- Leaching
- Neutralization
- Outlet monitoring

#### Benefitz

- Annular junction, designed to withstand tough industrial applications
- Threaded connection 3/4" NPT top and bottom for easy installation
- Protection guard against electrode damage
- Rugged Ryton® shaft for demanding chemical environments
- Optional: Molded sensor cable with BNC plug application
- Optional: Built in Pt1000 / Pt100 / NTC 30 kΩ sensor for temperature compensation
- Solution ground for stable measurements in demanding application
- Optional: Molded sensor cable suitable for submersion application

## 1.12.2 Mechanical drawing

*Zirkon® pH Wide Body*

### 1.12.3 Technical data

#### Messparameter / Measuring parameter

pH-Wert / 0... 14  
*pH-value*

#### Umgebungsbedingungen / Process conditions

Druck / < 10 bar bei 20 °C /  
*Pressure* < 10 bar at 20 °C / 68 °F

Leitfähigkeit / 50 µS/cm  
*Conductivity*

Temperatur / -5.. +100 °C / 23..212 °F  
*Temperature*

#### Konstruktiver Aufbau / Mechanical construction

Diaphragma / PTFE  
*Junction*

Schaftmaterial / Ryton®  
*Shaft material*

Schaftlänge / 150 mm mit Schutzkorb /  
*Shaft length* 150 mm with protective guard

Schaftdurchmesser / Sechskant 26 mm /  
*Shaft diameter* Hexagon 26 mm

Elektrodenmaterial / AH-Glas /  
*Electrode material* AH-Glass

Bezugssystem / Ag / AgCl / Festelektrolyt  
*Reference system* Ag / AgCl / Solid electrolyte

Mechanischer Anschluss / ¾" NPT  
*Process connection*

Elektrischer Anschluss / S8 (2-polig), Variopin (8-polig), Festkabel, Festkabel mit BNC  
*Electrical connection* Stecker /

*S8 (2-poles), Variophon (8-poles), Fixed cable, Fixed cable with BNC plug*

**Konstruktiver Aufbau / *Mechanical construction***

|   |   |
|---|---|
| Temperatursensor /<br><i>Temperature sensor</i> | Kein, Pt1000 / Pt100, NTC 30 k $\Omega$<br><i>None, Pt1000 / Pt100, NTC 30 k<math>\Omega</math></i> |
|---|---|

|   |       |
|---|-------|
| Eintauchtiefe /<br><i>Immersion depth</i> | 25 mm |
|---|-------|

|   |          |
|---|----------|
| Potentialausgleich /<br><i>Potential compensation</i> | Optional |
|---|----------|



## 1.12.4 Order information

|   | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>       |
|---|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>   | 209                                  | Zirkon® pH Wide Body                        |
| <b>Schutzkorb /<br/>Protective guard</b>                            | 0                                    | Nein /<br>None                              |
|   | 1                                    | Mit /<br>With                               |
| <b>Messelektrode /<br/>Measuring electrode</b>                      | 1                                    | AH-Glas, Halbkugel /<br>AH-Glass, Half dome |
| <b>Temperaturfühler /<br/>Temperature sensor</b>                    | 0                                    | Kein<br>None                                |
|   | 1                                    | Pt100                                       |
|   | 2                                    | Pt1000                                      |
|   | 3                                    | NTC 30 kΩ                                   |
|   | 9                                    | Sonderanfertigung /<br>Special              |
| <b>Potentialausgleich /<br/>Solution ground</b>                     | 0                                    | Nein /<br>None                              |
|   | 1                                    | Integriert /<br>Build in                    |
| <b>Brückenelektrolyt /<br/>Electrolyte<br/>(connect to process)</b> | 0                                    | Tepoxgel 3mol KCl/<br>Tepox gel 3mol KCl    |
|   | 9                                    | Sonderanfertigung /<br>Special              |

|                                |     |   |
|--------------------------------|-----|---|
| <b>Anschluss /<br/>Connect</b> | 1   | S8 (2-polige) Schraubverbindung<br>(nur Temperatursensor 0, Potentialausgleich 0) /<br><br><i>S8 (2-poles) screw connection<br/>(temperature sensor 0, solution ground 0 only)</i>    |
|                                | 2   | VP Variopin Stecker (8-polig) /<br>VP Variopin plug (8-poles)   |
|                                | 3   | Festangeschlossenes Kabel 3 mm mit BNC<br>(nur Temperatursensor 0, Potentialausgleich 0) /<br><br><i>Fixed cable 3 mm with BNC<br/>(temperature sensor 0, solution ground 0 only)</i> |
|                                | 4   | Festangeschlossenes Kabel 7,5 mm Koax +<br>3 Litzen + Außenschirm, Adernendhülsen /<br><br><i>Fixed cable 7.5 mm with ferrules<br/>3 litz + external screen, cable end sleeves</i>    |
|                                | 9   | Sonderanfertigung /<br><i>Special</i>   |
| <b>Sonstiges /<br/>Special</b> | 0   | Nein /<br><i>None</i>   |
|                                | K06 | 6 m Festkabel /<br><i>Fixed cable length 6 m</i>  |
|                                | 9   | Sonderanfertigung /<br><i>Special</i>   |




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Note!

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

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**1.12.5 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|--------------------------------------|-----------------------|--|
| S24136110K                           | 2091100010            | Zirkon® pH Wide Body:<br>With protection guard, AH-Glass,<br>2-poles connection for S8 cable               |
| S24136111K                           | 209110003K06          | Zirkon® pH Wide Body:<br>With protection guard, AH-Glass, Fixed cable<br>3 mm with BNC, length 6 m         |
| S24136112K                           | 2091120020            | Zirkon® pH Wide Body:<br>With protection guard, AH-Glass, Pt1000,<br>Variopin-plug (8-poles)               |
| S24136113K                           | 209112004K06          | Zirkon® pH Wide Body:<br>With protection guard, AH-Glass, Pt1000,<br>Fixed cable with ferrules, length 6 m |

### 1.13 Zirkon® Rx Universal

#### 1.13.1 Description



Art. No.: S24135110K

Order Code: 211512320



Art. No.: S24135120K

Order Code: 211512100



Art. No.: S24135210K

Order Code: 211312320



Art. No.: S24135220K

Order Code: 211312100

The ORP sensors Zirkon® Rx allow ORP measurements in almost every kind of medium. They require little maintenance by the gel filling and the electrode assembly or the big electrode surface.

#### Benefits

- Low maintenance by gel filling
- Made in Germany

### 1.13.2 Applications



| Cooling Water | Process Water | Drinking Water /<br>Beverages | Waste Water<br>Treatment |
|---------------|---------------|-------------------------------|--------------------------|
|               |               |                               |                          |

### 1.13.3 Technical data

**Messparameter / Measuring parameter**Redoxpotential / *ORP* -1500.. +1500 mV

### Umgebungsbedingungen / Ambient conditions

Druck / *Pressure*

PG-Stecker: < 2 bar bei 20 °C  
PG-Stecker 13,5 lose: < 1 bar drucklos

*PG-Plug: < 2 bar at 20 °C / 68 °F*  
*PG-Plug 13.5 lose: < 1 bar pressureless*

Temperatur /  
*Temperature* -5.. +70 °C / 23..158 °F

### Konstruktiver Aufbau / Mechanical construction

Diaphragma /  
*Junction*                      Zirkon 1 mm /  
   *Zircon 1 mm*

Schaftmaterial /                      Glas /  
*Shaft material*                        *Glass*

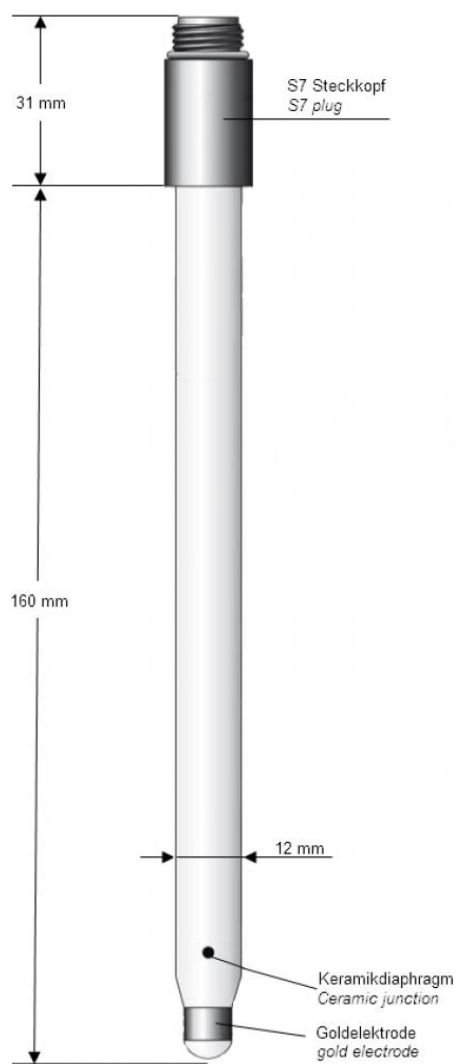
Schaftlänge /  
Shaft length 120 mm, 160 mm

|   |  |
|---|--|
| Elektrodenmaterial /<br><i>Electrode material</i> | Goldkuppe, Platinring, Platinkuppe, Goldring /<br><i>Gold plate, Patinum ring, Platinum plate, Gold ring</i> |
|---|--|

|                                    |   |
|------------------------------------|---|
| Bezugssystem /<br>Reference system | Ag / AgCl / Tepoxgel 3mol KCl /<br>Ag / AgCl / Tepox gel 3mol KCl |
|------------------------------------|---|

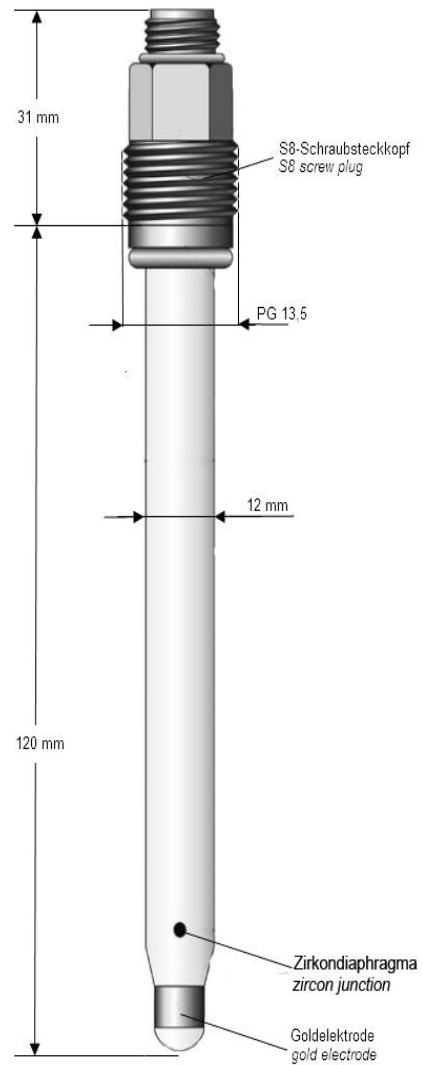
Mechanischer Anschluss /  
Process connection

|                              |                |
|------------------------------|----------------|
| Elektrischer Anschluss /     | 2-polig /      |
| <i>Electrical connection</i> | <i>2-poles</i> |

**1.13.4 Mechanical drawing**

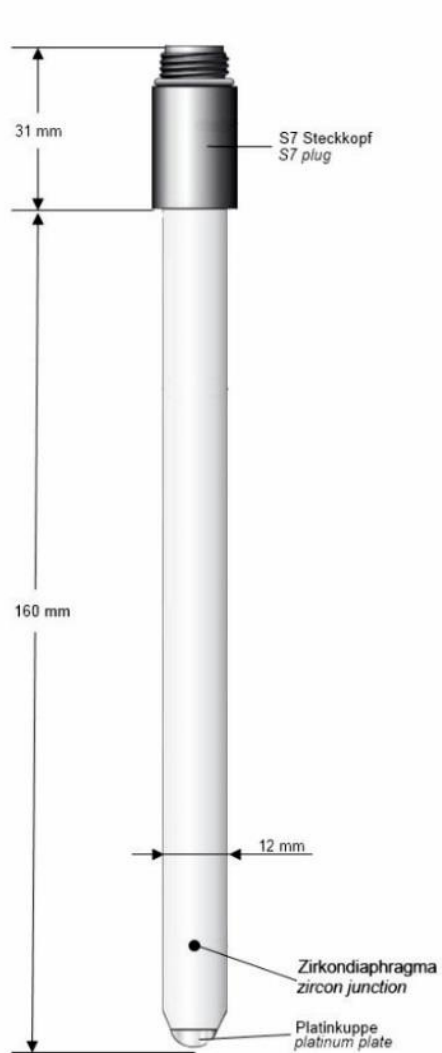
Art. No.: S24135110K

Order Code: 211512320



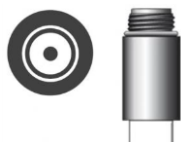
Art. No.: S24135120K

Order Code: 211512100

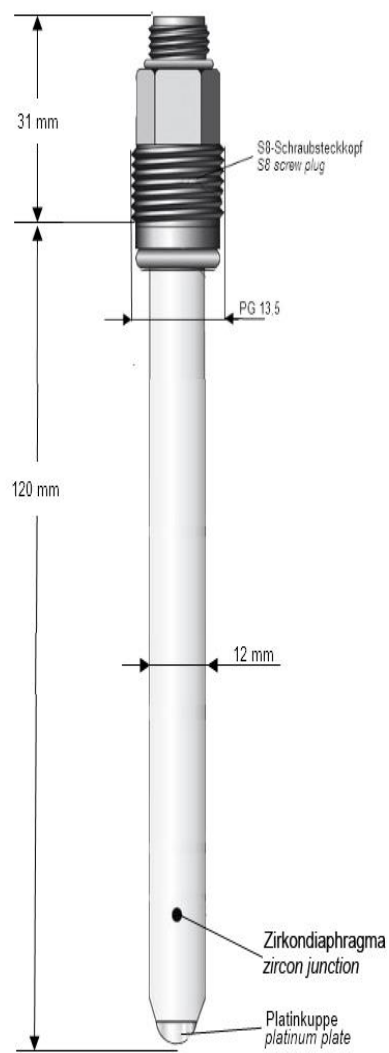


Art. No.: S24135210K

Order Code: 211312320



S7-plug



Art. No.: S24135220K

Order Code: 211312100



S8-plug



## 1.13.5 Order information

|   | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>                               |
|---|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                         | 211                                  | Zirkon® Rx  |
| <b>Elektrodenmaterial/<br/>Electrode material</b> | 1                                    | Goldkuppe<br><i>Gold plate</i>                                      |
|   | 2                                    | Platinring<br><i>Platinum ring</i>                                  |
|   | 3                                    | Platinkuppe<br><i>Platinum plate</i>                                |
|   | 5                                    | Goldring<br><i>Gold ring</i>  |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>                               |
| <b>Diaphragma /<br/>Junction</b>                  | 1                                    | Zirkon 1 mm /<br><i>Zircon 1 mm</i>                                 |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>                               |
| <b>Elektrolyt /<br/>Electrolyte</b>               | 2                                    | Tepoxgel 3mol KCl<br><i>Tepox gel 3mol KCl</i>                      |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>                               |
| <b>Anschluss /<br/>Connection</b>                 | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br><i>S8-plug (swivel PG 13.5)</i> |
|   | 3                                    | S7 Stecker<br><i>S7 plug</i>  |
|   | 7                                    | Festangeschlossenes Kabel /<br><i>Fixed Cable</i>                   |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>                               |

|                                |   |  |
|--------------------------------|---|--|
| <b>Länge /<br/>Length</b>      | 0 | 120 mm   |
|                                | 2 | 160 mm   |
|                                | 4 | 225 mm   |
|                                | 9 | Sonderlänge /<br><i>Special length</i>   |
| <b>Sonstiges /<br/>Special</b> | 0 | Kein /<br><i>None</i>  |
|                                | K | Kabellänge /<br><i>Cable length</i>  |
|                                |   | Beispiel:<br>1 Meter = K01, 10 Meter = K10<br><i>Example:</i><br>1 Meter = K01, 10 meter = K10 |
|                                | 9 | Sonderanfertigung /<br><i>Special</i>  |




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Note!

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

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**1.13.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ/<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|----------------------|---|
| S24135110K                           | 211512320            | ORP sensor: Gold ring Tepox gel 3mol KCl, Zircon junction 1 mm, S7-plug, 160 mm                       |
| S24135120K                           | 211512100            | ORP sensor: Gold ring Tepox gel 3mol KCl, Zircon junction 1 mm, S8-plug (swivel PG 13.5), 120 mm      |
| S24135210K                           | 211312320            | ORP sensor: Platinum cap, Tepox gel 3mol KCl, Zircon junction 1 mm, S7-plug, 160 mm                   |
| S24135220K                           | 211312100            | ORP sensor: Platinum cap, Tepox gel 3mol KCl , Zircon junction 1 mm, S8-plug (swivel PG 13.5), 120 mm |

## 1.14 Zirkon® Rx Process

### 1.14.1 Description



Art. No.: S24135135K

Order Code: 213512210

The Zirkon® Rx Process sensors are have special chemical resistant materials meant for aggressive media. The sensors are equipped with gold or platinum rings for ORP measurement. The sensors are gel filled, non-refillable and require little maintenance.

#### Benefits

- Usable for aggressive media
- Low maintenance by gel filling
- Made in Germany

### 1.14.2 Applications



Cooling Water



Process Water



Disinfection

Waste Water  
Treatment

### 1.14.3 Technical data

#### Messparameter / Measuring parameter

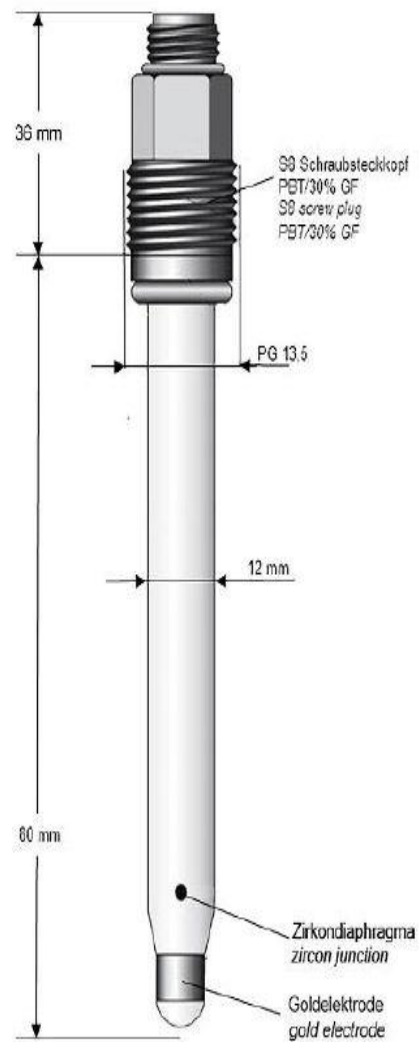
Redoxpotential /  
ORP -1500.. +1500 mV

#### Umgebungsbedingungen / Ambient conditions

Temperatur /  
Temperature -5.. +70 °C / 23..158 °F

#### Konstruktiver Aufbau / Mechanical construction

|   |  |
|---|--|
| Diaphragma /<br>Junction                          | Zirkon 1 mm, Platin, PTFE, Loch /<br>Zircon 1 mm, Platinum, PTFE, Hole                                 |
| Schaftmaterial /<br>Shaft material                | Glas /<br>Glass  |
| Schaftlänge /<br>Shaft length                     | 80 mm, 120 mm, 160 mm, 225 mm  |
| Elektrodenmaterial /<br>Electrode material        | Goldkuppe, Platinring, Platinkuppe, Goldring /<br>Gold plate, Platinum ring, Platinum plate, Gold ring |
| Bezugssystem /<br>Reference system                | Ag / AgCl / Texogel 3mol KCl / Festelektrolyt /<br>Ag / AgCl / Texo gel 3mol KCl / Solid electrolyte   |
| Mechanischer Anschluss /<br>Process connection    | S8-Stecker für aggressive Medien (PG 13,5) /<br>S8-plug for aggressive media (PG 13.5)                 |
| Elektrischer Anschluss /<br>Electrical connection | 2-polig /<br>2-poles   |

**1.14.4 Mechanical drawing**

Art. No.: S24135135K

Order Code: 213512210

**1.14.5 Order information**

|   | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>  |
|---|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>                         | 213                                  | Zirkon® Rx Process   |
| <b>Elektrodenmaterial/<br/>Electrode material</b> | 1                                    | Goldkuppe<br><i>Gold plate</i>   |
|   | 2                                    | Platinring<br><i>Platinum ring</i>   |
|   | 3                                    | Platinkuppe<br><i>Platinum plate</i>   |
|   | 4                                    | Gold- und Platinring<br><i>Gold- and Platinum ring</i>                                     |
|   | 5                                    | Goldring /<br><i>Goldring</i>  |
|   | 9                                    | Sonderanfertigung/<br><i>Special</i>   |
| <b>Diaphragma /<br/>Junction</b>                  | 0                                    | Kein /<br><i>None</i>  |
|   | 1                                    | Zirkon 1 mm /<br><i>Zircon 1 mm</i>  |
|   | 3                                    | Platin<br><i>Platinum</i>  |
|   | 7                                    | PFTE   |
|   | 8                                    | Loch<br><i>Hole</i>  |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>  |
| <b>Anschluss /<br/>Connection</b>                 | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br><i>S8-plug (swivel PG 13.5)</i>                        |
|   | 2                                    | S8-Stecker (PG 13,5) für aggressive Medien<br><i>S8-plug (PG13.5) for aggressive media</i> |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>  |

|                                |   |  |
|--------------------------------|---|--|
| <b>Länge /<br/>Length</b>      | 0 | 120 mm   |
|                                | 2 | 160 mm   |
|                                | 4 | 225 mm   |
|                                | 9 | Sonderlänge /<br><i>Special length</i>   |
| <b>Sonstiges /<br/>Special</b> | 0 | Kein /<br><i>None</i>  |
|                                | K | Kabellänge /<br><i>Cable length</i>  |
|                                |   | Beispiel:<br>1 Meter = K01, 10 Meter = K10<br><i>Example:</i><br>1 Meter = K01, 10 meter = K10 |
|                                | 9 | Sonderanfertigung /<br><i>Special</i>  |

**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**



**1.14.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|-----------------------|---|
| S24135135K                           | 213512210             | ORP sensor: Gold ring, Zircon junction 1 mm,<br>Tepox gel 3mol KCl, S8-plug PBT/30 % GF,<br>80 mm |

## 1.15 Zirkon® Rx Process Refill

### 1.15.1 Description



Art. No.: S24135200K

Order Code: 214311320

Zirkon® Rx Process Refill are refillable sensors for ORP measurement. The sensors have a high blocking resistance and are usable over a broad temperature range in nearly any kind of process water.

**Benefits**

- Long lifetime by refillable reference electrode
- Broad temperature range
- Made in Germany

**1.15.2 Applications**

Cooling Water



Process Water

Waste Water  
Treatment

**1.15.3 Technical data****Messparameter / Measuring parameter**

Redoxpotential / -1500.. +1500 mV  
*ORP*

**Umgebungsbedingungen / Ambient conditions**

Druck / PG-Stecker: < 2 bar bei 20 °C  
*Pressure* PG-Stecker 13,5 lose: < 1 bar drucklos  
 KCl Druckaufsatz: < 6 bar bei 20 °C  
  
*PG-Plug: < 2 bar at 20 °C / 68 °F*  
*PG-Plug13.5 lose: < 1 bar pressureless*  
*KCl pressure attachment: < 6 bar bei 20 °C / 68 °F*

Temperatur / -5.. +100 °C / 23..212 °F  
*Temperature*

**Konstruktiver Aufbau / Mechanical construction**

Diaphragma / Zirkon 1 mm / Platin  
*Junction* *Zircon 1 mm / Platinum*

Schaftmaterial / Glas /  
*Shaft material* *Glass*

Schaftlänge / 120 mm, 225 mm, 160 mm  
*Shaft length*

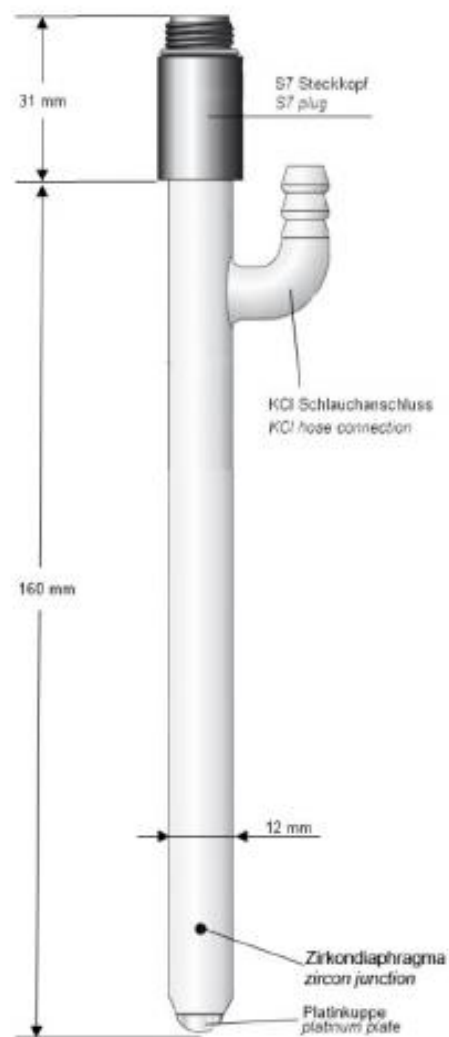
Schaftsdurchmesser / 12 mm  
*Shaft diameter*

Elektrodenmaterial / Platinring, Platinkuppe, Goldring, Goldkuppe/  
*Electrode material* *Platinum ring, Platinum plate, Gold ring, Platinum plate*

Bezugssystem / Ag / AgCl / Tepoxgel 3mol KCl /  
*Reference system* *Ag / AgCl / Tepox gel 3mol KCl*

Mechanischer Anschluss / S7-Stecker / S8-Stecker (PG 13,5 - drehbar),  
*Process connection* *festangeschlossenes Kabel /*  
  
*S7-plug, S8-plug (swivel PG 13.5), fixed cable*

Elektrischer Anschluss / 2-polig /  
*Electrical connection* *2-poles*

**1.15.4 Mechanical drawing**

Art. No.: S24135200K

Order Code: 214311320



S7-plug



S8-plug

**1.15.5 Order information**

|  | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>                         |
|--|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>                          | 214                                  | Zirkon® Rx Process Refill                                     |
| <b>Elektrodenmaterial /<br/>Electrode material</b> | 1                                    | Goldkuppe /<br>Gold plate                                     |
|  | 2                                    | Platinring /<br>Platinum ring                                 |
|  | 3                                    | Platinkuppe /<br>Platinum plate                               |
|  | 4                                    | Gold- und Platinring /<br>Gold- and Platinum ring             |
|  | 5                                    | Goldring /<br>Gold ring                                       |
|  | 9                                    | Sonderanfertigung /<br>Special                                |
| <b>Diphagma /<br/>Junction</b>                     | 1                                    | Zirkon 1 mm /<br>Zircon 1 mm                                  |
|  | 3                                    | Platin /<br>Platinum  |
|  | 6                                    | Glasschliff nur KCl-flüssig /<br>Glass sleeve only KCl liquid |
|  | 7                                    | PTFE  |
|  | 8                                    | Loch /<br>Hole  |
|  | 9                                    | Sonderanfertigung /<br>Special                                |
| <b>Elektrolyt /<br/>Electrolyte</b>                | 1                                    | 3mol KCl flüssig /<br>3mol KCl liquid                         |
|  | 9                                    | Sonderanfertigung /<br>Special                                |

|                                   |   |  |
|-----------------------------------|---|--|
| <b>Anschluss /<br/>Connection</b> | 1 | S8-Stecker (PG13,5 - drehbar) /<br>S8-plug (swivel PG 13.5 - swivel)                 |
|                                   | 3 | S7-Stecker /<br>S7-plug  |
|                                   | 7 | Festangeschlossenes Kabel /<br>Fixed Cable   |
|                                   | 9 | Sonderlänge /<br>Special   |
| <b>Länge /<br/>Length</b>         | 0 | 120 mm   |
|                                   | 2 | 160 mm   |
|                                   | 4 | 225 mm   |
|                                   | 9 | Sonderlänge /<br>Special length  |
| <b>Sonstiges /<br/>Special</b>    | 0 | Kein /<br>None   |
|                                   | K | Kabellänge /<br>Cable length   |
|                                   |   | Beispiel: 1 meter = K01, 10 Meter = K10<br>Example:<br>1 Meter = K01, 10 meter = K10 |
|                                   | 4 | KCI-Druckaufsatz /<br>KCI-pressure attachment  |
|                                   | 9 | Sonderanfertigung /<br>Special   |




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**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

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**1.15.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>   |
|--------------------------------------|-----------------------|---|
| S24135200K                           | 214311320             | ORP sensor: Platinum plate, Zircon junction<br>1 mm, 3mol KCl liquid refillable, S7-plug,<br>160 mm |



## 1.16 Zirkon® Rx Pool

### 1.16.1 Description



Art. No.: S24135285K

Order Code: 217313100



Art. No.: S24134010K

Order Code: 217300100

Zirkon® Rx Pool sensors are sensors for ORP measurement in swimming pool applications. The sensors are gel filled with salt reservoir, not refillable and require little maintenance. The 1 mm junction and the salt reservoir increase the expected lifetime.

**Benefits**

- Low maintenance
- Higher life expectancy by KCl reservoir
- Made in Germany

**1.16.2 Applications**

Pool & Spa

**1.16.3 Technical data****Messparameter / Measuring parameter**

Redoxpotential / -1500.. +1500 mV  
*ORP*

**Umgebungsbedingungen / Ambient conditions**

Temperatur / -5.. +70 °C / 23..158 °F  
*Temperature*

**Konstruktiver Aufbau / Mechanical construction**

Diaphragma / Kein , Zirkon 1 mm /  
*Junction* *None, Zircon 1 mm*

Schaftmaterial / Glas /  
*Shaft material* *Glass*

Schaftlänge / 120 mm  
*Shaft length*

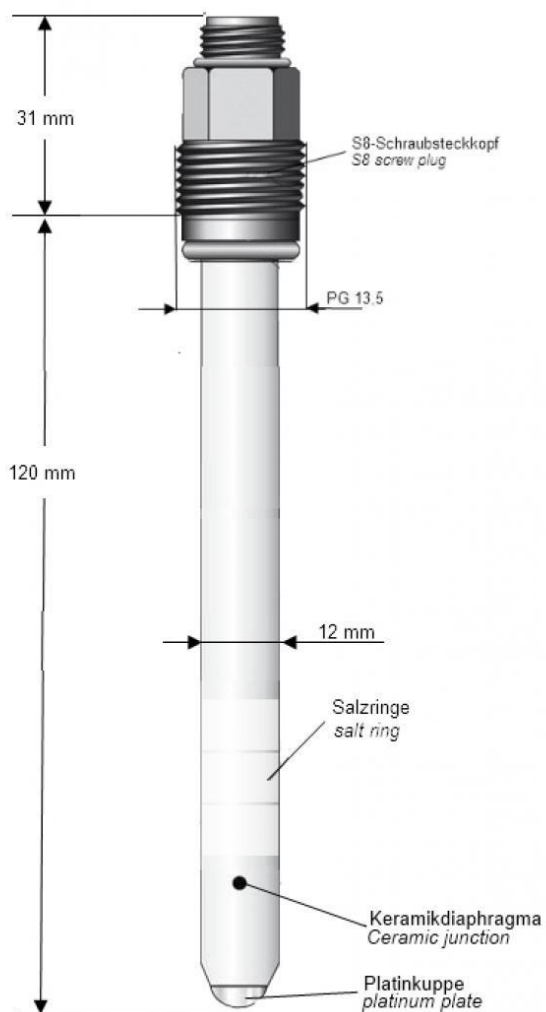
Elektrodenmaterial / Platinkuppe /  
*Electrode material* *Platinum plate*

Bezugssystem / Kein, Ag / AgCl / KCl gesättigt /  
*Reference system* *None, Ag / AgCl / KCl saturated*

Mechanischer Anschluss / S8-Stecker (PG 13,5 - drehbar), festangeschlossenes Kabel /  
*Process connection* *S8-plug (swivel PG 13.5), fixed cable*

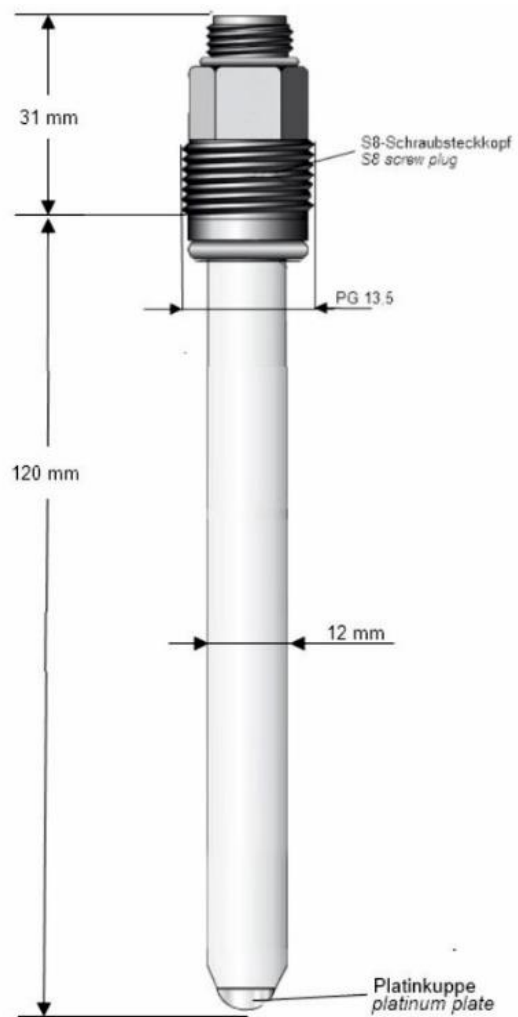
Elektrischer Anschluss / 2-polig /  
*Electrical connection* *2-poles*

## 1.16.4 Mechanical drawing



Art. No.: S24135285K

Order Code: 217313100



Art. No.: S24134010K

Order Code: 217300100



S8-plug

## 1.16.5 Order information

|   | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>  |
|---|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>                         | 217                                  | Zirkon® Rx Pool  |
| <b>Elektrodenmaterial/<br/>Electrode material</b> | 3                                    | Platinkuppe<br><i>Platinum plate</i>   |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>  |
| <b>Diaphragma /<br/>Junction</b>                  | 0                                    | Kein<br><i>None</i>  |
|   | 1                                    | Zirkon 1 mm<br><i>Zircon 1mm</i>   |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>  |
| <b>Elektrolyt /<br/>Electrolyte</b>               | 3                                    | Tepoxgel - gesättigte KCl mit Salzvorrat /<br><i>Tepox gel - saturated KCl with salt reservoir</i> |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>  |
| <b>Anschluss /<br/>Connection</b>                 | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br><i>S8-plug (swivel PG 13.5)</i>                                |
|   | 7                                    | Festangeschlossenes Kabel /<br><i>Fixed Cable</i>  |
|   | 9                                    | Sonderanfertigung /<br><i>Special</i>  |
| <b>Länge /<br/>Length</b>                         | 0                                    | 120 mm   |
|   | 9                                    | Sonderlänge /<br><i>Special length</i>   |

**Sonstiges /  
Special**

0

Kein /  
None

K

Kabellänge /  
Cable length

Beispiel:

1 Meter = K01, 10 Meter = K10

Example:

1 Meter = K01, 10 meter = K10

9

Sonderanfertigung /  
Special

---

Note!

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

---

**1.16.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|--------------------------------------|-----------------------|--|
| S24135285K                           | 217313100             | ORP sensor: Platinum plate, Zircon junction<br>1 mm, KCl-saturated, S8-plug rotatable<br>swivel PG 13.5), 120 mm |
| S24134010K                           | 217300100             | ORP electrode: Platinum plate, S8-plug<br>rotatable (swivel PG 13.5), 120 mm                                     |

## 1.17 Zirkon® Redox Wide Body

### 1.17.1 Description



*Zirkon® Redox Wide Body*

Kuntze sensors stand for quality and are manufactured by our own production. Made in Germany.

#### Application

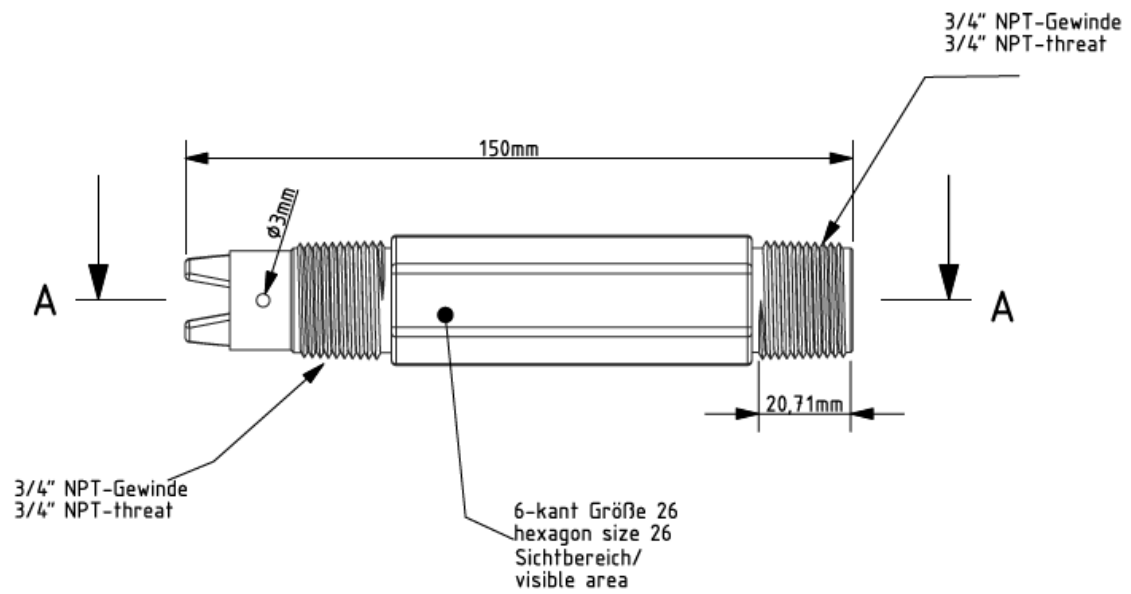
- Flotation
- Leaching
- Neutralization
- Outlet monitoring

#### Benefits

- Annular junction, designed to withstand tough industrial applications
- Threaded connection 3/4" NPT top and bottom for easy installation
- Protection guard against electrode damage
- Rugged Ryton® shaft for demanding chemical environments
- Optional: Built in, Pt1000 / Pt100 / NTC 30K sensor for temperature compensation
- Optional: Solution ground for stable measurements in demanding application
- Optional: Molded sensor cable with BNC plug application



## 1.17.2 Mechanical drawing



Zirkon® Redox Wide Body

**1.17.3 Technical data****Messparameter / Measuring parameter**

Redoxpotential / -1500... +1500 mV  
*OPR*

**Umgebungsbedingungen / Process conditions**

Druck / < 10 bar bei 20 °C /  
*Pressure* < 10 bar at 20 °C / 68 °F

Leitfähigkeit / 50 µS/cm  
*Conductivity*

Temperatur / -5.. +110 °C / 23..230 °F  
*Temperature*

**Konstruktiver Aufbau / Mechanical construction**

Diaphragma / PTFE  
*Junction*

Schaftmaterial / Ryton®  
*Shaft materials*

Schaftlänge / 150 mm mit Schutzkorb /  
*Shaft lenght* 150 mm with protective guard

Schaftdurchmesser / Sechskant 26 mm /  
*Shaft diameter* Hexagon 26 mm

Elektrodenmaterial / Platinkuppe /  
*Electrode material* Platinum Plate

Bezugssystem / Ag / AgCl / Festelektrolyt /  
*Reference system* Ag / AgCl / Solid electrolyte

Mechanischer Anschluss / ¾" NPT  
*Process connection*

Elektrischer Anschluss / S8 (2-polig), Variopin (8-polig), Festkabel 6 m,  
*Electrical connection* Festkabel mit BNC-Stecker /  
 S8 (2-poles), Variopin (8-poles), fixed cable 6 m,  
 fixed cable with BNC-plug

Temperatursensor / Nein , Pt100, Pt1000, NTC 30 kΩ /  
*Temperature sensor* None, Pt1000, NTC 30 kΩ

Eintauchtiefe / 25 mm  
*Immersion depth*

Potentialausgleich / Optional  
*Potential compensation*

## 1.17.4 Order information

|   | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>    |
|---|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>                         | 219                                  | Zirkon® Redox Wide Body                  |
| <b>Schutzkorb /<br/>Protective guard</b>          | 0                                    | Nein /<br>None                           |
|   | 1                                    | Mit /<br>With                            |
| <b>Messelektrode /<br/>Measuring electrode</b>    | 1                                    | Platinkuppe /<br>Platinum plate          |
| <b>Temperaturfühler /<br/>Temperature sensor</b>  | 0                                    | Kein<br>None                             |
|   | 1                                    | Pt100                                    |
|   | 2                                    | Pt1000                                   |
|   | 3                                    | NTC 30 kΩ                                |
|   | 9                                    | Sonderanfertigung /<br>Special           |
| <b>Potentialausgleich /<br/>Solution ground</b>   | 0                                    | Nein /<br>None                           |
|   | 1                                    | Built in                                 |
| <b>Brückenelektrolyt /<br/>Contact to process</b> | 0                                    | Tepoxgel 3mol KCl/<br>Tepox gel 3mol KCl |
|   | 1                                    | Integriert /<br>Build in                 |

|                                |     |   |
|--------------------------------|-----|---|
| <b>Anschluss /<br/>Connect</b> | 1   | S8 (2-polige) Schraubverbindung<br>(nur Temperatursensor 0, Potentialausgleich 0) /<br><i>S8 (2-poles) screw connection<br/>(temperature sensor 0, solution ground 0 only)</i>      |
|                                | 2   | VP Variopin Stecker (8 polig) /<br><i>VP Variopin plug (8 poles)</i>  |
|                                | 3   | Festangeschlossenes Kabel 3 mm mit BN<br>nur Temperatursensor 0, Potentialausgleich 0) /<br><br><i>Fixed cable 3 mm with BNC (temperature sensor<br/>0, solution ground 0 only)</i> |
|                                | 4   | Festangeschlossenes Kabel 7,5 mm Koax +<br>3 Litzen + Außenschirm, Adernendhülsen /<br><br><i>Fixed cable 7.5 mm coax + 3 litz wires + outer<br/>shield, wire end sleeves</i>       |
|                                | 9   | Sonderanfertigung /<br><i>Special</i>   |
| <b>Sonstiges /<br/>Special</b> | 0   | Nein /<br><i>None</i>   |
|                                | K06 | 6 m Festkabel /<br><i>Fixed cable length 6 m</i>  |
|                                | 9   | Sonderanfertigung /<br><i>Special</i>   |

**Note!**

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

**1.17.5 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|--------------------------------------|-----------------------|--|
| S24136511K                           | 2191100010            | Zirkon® Redox Wide Body:<br>With protection guard, Platinum plate, 2-poles<br>connection for S8-cable  |
| S24136512K                           | 219110003K06          | Zirkon® Redox Wide Body:<br>With protection guard, Platinum plate, fixed<br>cable 3 mm with BNC, length 6 m                                      |
| S24136513K                           | 219112104K06          | Zirkon® Redox Wide Body:<br>With protection guard, Platinum plate, Pt1000,<br>built in solution ground, fixed cable with<br>ferrules, length 6 m |

## 1.18 Zirkon® REF

### 1.18.1 Description



Art. No.: S24133100K

Order Code: 221B12320



Art. No.: S24133110K

Order Code: 221B12100

Zirkon® Ref are reference electrodes. They are used as reference point for other electrodes with relative potentials e.g. in pH or ORP measurement. The gel filled sensors need lower maintenance and are used in standard application.

**Benefits**

- Low maintenance by gel filling
- Made in Germany

**1.18.2 Applications**

Process Water



Waste Water Treatment

**1.18.3 Technical data****Umgebungsbedingungen / Ambient conditions**

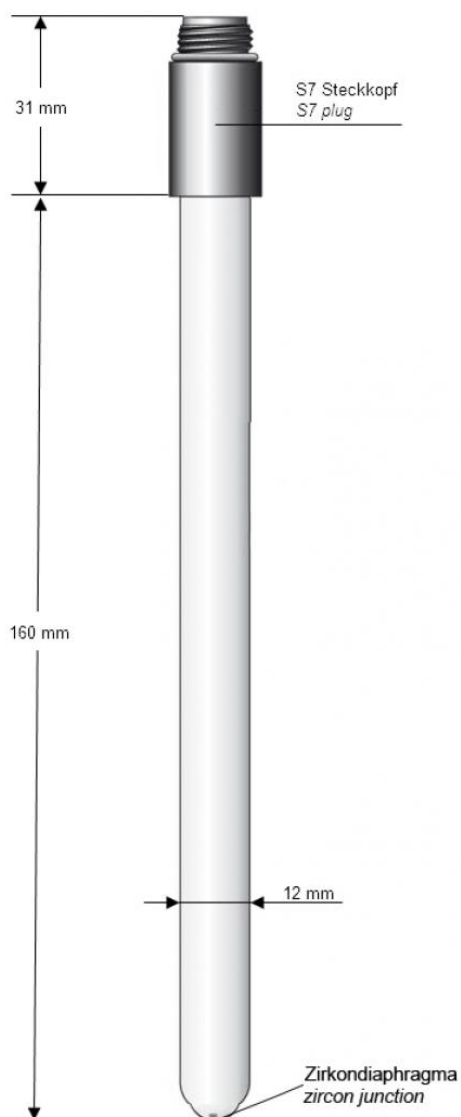
|                                    |   |
|------------------------------------|---|
| Druck /<br><i>Pressure</i>         | PG-Stecker: < 2 bar bei 20 °C<br>PG 13,5 lose: < 1 bar drucklos /<br><br><i>PG-plug: &lt; 2 bar at 20 °C / 68 °F</i><br><i>PG 13.5 loose: &lt; 1 bar pressureless</i> |
| Temperatur /<br><i>Temperature</i> | -5.. +70 °C / 23..158 °F  |

**Konstruktiver Aufbau / Mechanical construction**

|  |  |
|--|--|
| Diaphragma /<br><i>Junction</i>                          | Zirkon 1 mm, Platin /<br><i>Zircon 1 mm, Platinum</i>  |
| Schaftmaterial /<br><i>Shaft material</i>                | Glas /<br><i>Glass</i>   |
| Schaftlänge /<br><i>Shaft length</i>                     | 120 mm, 160 mm, 225 mm   |
| Bezugssystem /<br><i>Reference system</i>                | Tepoxgel 3mol KCl /<br><i>Tepox gel 3mol KCl</i>   |
| Mechanischer Anschluss /<br><i>Process connection</i>    | S8-Stecker (PG 3,5 - drehbar), S7-Stecker, Festkabel/<br><i>S8-plug (swivel PG 13.5), S7-plug, fixed cable</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 2-polig /<br><i>2-poles</i>  |

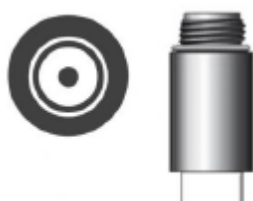


## 1.18.4 Mechanical drawing

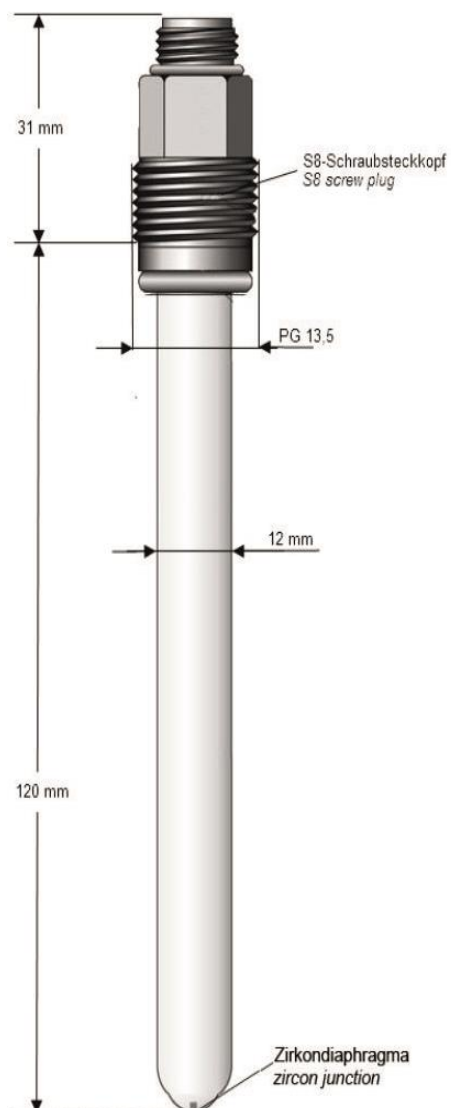


Art. No.: S24133100K

Order Code: 221B12320



S7-plug



Art. No.: S24133110K

Order Code: 221B12100



S8-plug

## 1.18.5 Order information

|                                     | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>                          |
|-------------------------------------|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>           | 221                                  | Zirkon® REF  |
| <b>Typ /<br/>Type</b>               | B                                    | Bezug /<br>Reference   |
| <b>Diaphragma /<br/>Junction</b>    | 1                                    | Zirkon 1 mm /<br>Zircon 1 mm                                   |
|                                     | 3                                    | Platin /<br>Platinum   |
|                                     | 9                                    | Sonderanfertigung /<br>Special                                 |
| <b>Elektrolyt /<br/>Electrolyte</b> | 2                                    | Tepoxgel 3mol KCl/<br>Tepox gel 3mol KCl                       |
|                                     | 9                                    | Sonderanfertigung /<br>Special                                 |
| <b>Anschluss /<br/>Connection</b>   | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (PG 13.5 - swivel) |
|                                     | 3                                    | S7-Stecker<br>S7-plug  |
|                                     | 9                                    | Sonderanfertigung /<br>Special                                 |
| <b>Länge /<br/>Length</b>           | 0                                    | 120 mm   |
|                                     | 2                                    | 160 mm   |
|                                     | 4                                    | 225 mm   |
|                                     | 9                                    | Sonderlänge /<br>Special length                                |

**Sonstiges /  
Special**

|   |   |
|---|---|
| 0 | Kein /<br>None                          |
| 1 | Diaphragma zweifach /<br>Junction twice |
| 9 | Sonderanfertigung /<br>Special          |



---

Note!

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

---

**1.18.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|--------------------------------------|-----------------------|--|
| S24133100K                           | 221B12320             | Reference electrode: Zircon junction 1 mm,<br>Tepox gel 3mol KCl, S7-plug, 160 mm                    |
| S24133110K                           | 221B12100             | Reference electrode: Zircon junction 1 mm,<br>Tepox gel 3mol KCl, S8-plug (swivel PG13.5),<br>120 mm |

## 1.19 Zirkon® REF Process Refill

### 1.19.1 Description



Art. No.: S4133000K

Order Code: 224B11320



Art. No.: S24133800K

Order Code: 224E10000



Art. No.: S24133830K

Order Code: 224E30001

Zirkon® Ref Refill are refillable reference electrodes. They are used as a reference point for other electrodes with relative potentials e.g. in pH or ORP measurements. The liquid filled sensor is mainly used in waste water. For highly polluted measuring media the electrolyte bridges are recommended, because the reference electrode will not be in contact with the measuring media.

**Benefits**

- Long life time by refill
- Sensor protection via electrolyte bridge
- Made in Germany

**1.19.2 Applications**

Process Water



Waste Water Treatment



Ultra Pure Water

### 1.19.3 Technical data

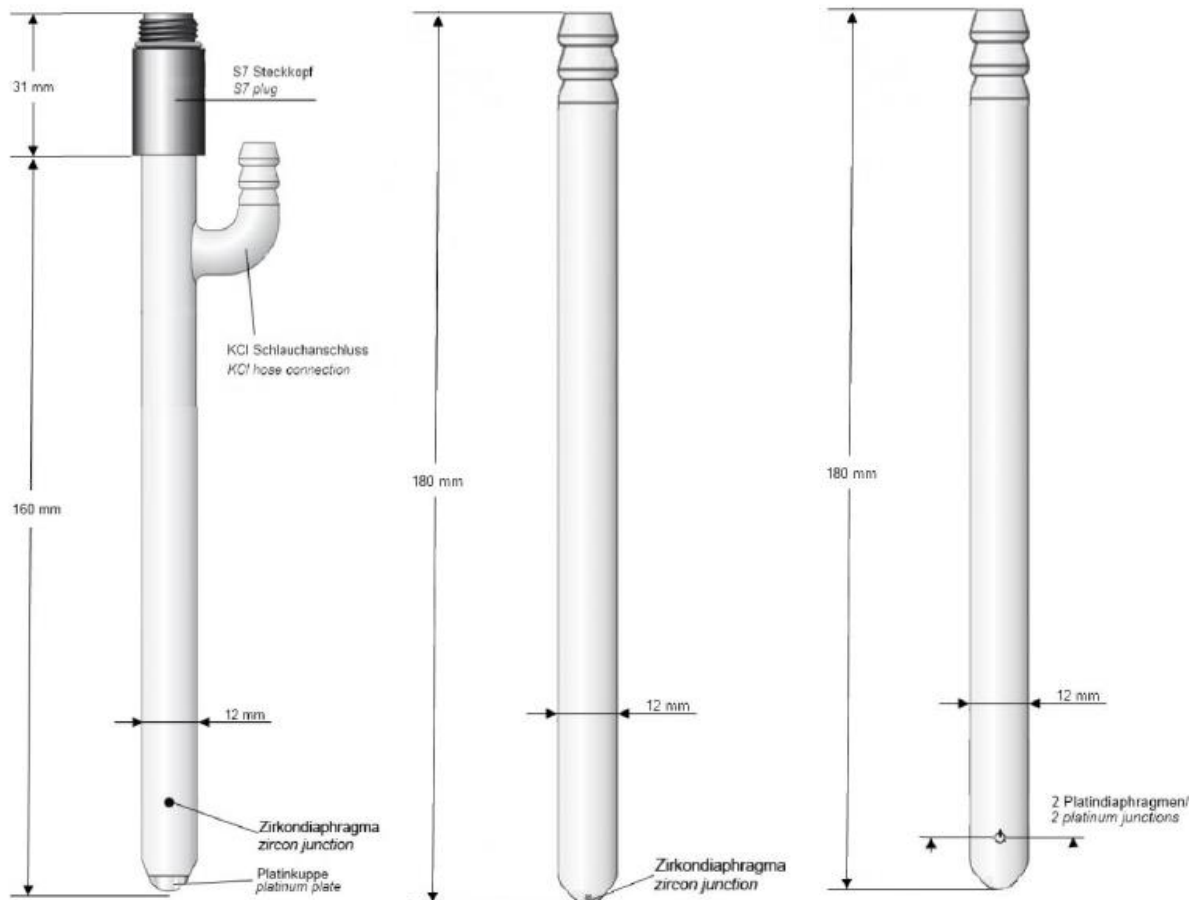
#### Umgebungsbedingungen / *Ambient conditions*

|  |  |
|--|--|
| Druck /<br><i>Pressure</i>             | PG 13,5 lose: <1 bar at 20 °C<br>KCl Druckaufsatz: < 6 bar at 20 °C /<br><br><i>PG 13.5 loose: &lt;1 bar at 20 °C / 68 °F</i><br><i>KCl pressure attachment: &lt; 6 bar at 20 °C / 68 °F</i> |
| Leitfähigkeit /<br><i>Conductivity</i> | Platindiaphragma: < 50 µS/cm<br>Zirkondiaphragma: < 50 µS/cm /<br><br><i>Platinum junction: &lt; 50 µS/cm</i><br><i>Zirkon junction: &gt; 50 µS/cm</i>                                       |
| Temperatur /<br><i>Temperature</i>     | -5.. +100 °C / 23..212 °F  |

#### Konstruktiver / *Mechanical construction*

|  |   |
|--|---|
| Diaphragma /<br><i>Junction</i>                          | Zirkon 1 mm, Platin /<br><i>Zircon 1 mm, Platinum</i>   |
| Schaftmaterial /<br><i>Shaft material</i>                | Glas,<br><i>Glass</i>   |
| Schaftlänge /<br><i>Shaft length</i>                     | 160 mm, 180 mm  |
| Bezugssystem /<br><i>Reference system</i>                | Kein, 3mol KCl flüssig /<br><i>None, 3mol KCl liquid</i>  |
| Mechanischer Anschluss /<br><i>Process connection</i>    | Kein, S7-Stecker, S8-Stecker (PG-Stecker 13,5)<br><i>None, S7-plug, S8-plug (swivel PG 13.5 )</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | Kein, 2-polig<br><i>None, 2-poles</i>   |

## 1.19.4 Mechanical drawing



Art. No.: S4133000K

Order Code: 224B11320

Art. No.: S24133800K

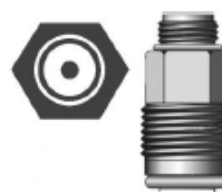
Order Code: 224E10000

Art. No.: S24133830K

Order Code: 24E30001



S7-plug



S8-plug



## 1.19.5 Order information

|                                     | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>                               |
|-------------------------------------|--------------------------------------|---|
| <b>Gruppe /<br/>Group</b>           | 224                                  | Zirkon® REF Process Refill  |
| <b>Typ /<br/>Type</b>               | B                                    | Bezug /<br>Reference  |
|                                     | E                                    | Elektrolytbrücke<br><i>Electrolyte bridge</i>                       |
| <b>Diaphragma /<br/>Junction</b>    | 1                                    | Zirkon 1 mm<br><i>Zircon 1 mm</i>                                   |
|                                     | 3                                    | Platin<br><i>Platinum</i>   |
|                                     | 9                                    | Sonderanfertigung /<br><i>Special</i>                               |
| <b>Elektrolyt /<br/>Electrolyte</b> | 0                                    | Keine /<br><i>None</i>  |
|                                     | 1                                    | 3mol KCl flüssig /<br><i>3mol KCl liquid</i>                        |
|                                     | 2                                    | Tepoxgel 3 mol KCl<br><i>Tepox gel 3mol KCl</i>                     |
|                                     | 9                                    | Sonderanfertigung /<br><i>Special</i>                               |
| <b>Anschluss /<br/>Connection</b>   | 0                                    | Kein /<br><i>None</i>   |
|                                     | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br><i>S8-plug (swivel PG 13.5)</i> |
|                                     | 3                                    | S7-Stecker /<br><i>S7-plug</i>                                      |
|                                     | 9                                    | Sonderanfertigung /<br><i>Special</i>                               |

**Länge /  
Length**

0 120 mm

2 160 mm

4 225 mm

9 Sonderlänge /  
*Special length***Sonstiges /  
Special**0 Kein /  
*None*1 Diaphragma zweifach /  
*Junction twice*4 KCI-Druckaufsatz  
*KCI-pressure attachment*9 Sonderanfertigung /  
*Special*

Note!

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

**1.19.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|--------------------------------------|-----------------------|--|
| S24133000K                           | 224B21320             | Reference electrode: Zircon junction 1 mm,<br>Tepox gel 3mol KCl liquid, S7-plug |
| S24133800K                           | 224E10000             | Electrolyte bridge: Zircon junction 1mm  |
| S24133830K                           | 224E30001             | Electrolyte bridge: 2 x Platinum junction  |

## 1.20 Zirkon® Temperatur

### 1.20.1 Description



Art. No.: S24137000K

Order information: 271100320



Art. No.: S24137011K

Order information: 271100100



Art. No.: S24137012

Order information: 271200100

Zirkon® T are high quality temperature sensors based on the resistance change of platinum wire as a function of temperature. They are specially designed to give fast response, with a  $t_{90}$  of 15 seconds.

**Benefits**

- Fast response -  $t_{90} = 15 \text{ sec}$
- Chemical resistant
- Pt100 and Pt1000 available

**1.20.2 Applications**

Process Water

Drinking Water /  
Beverages

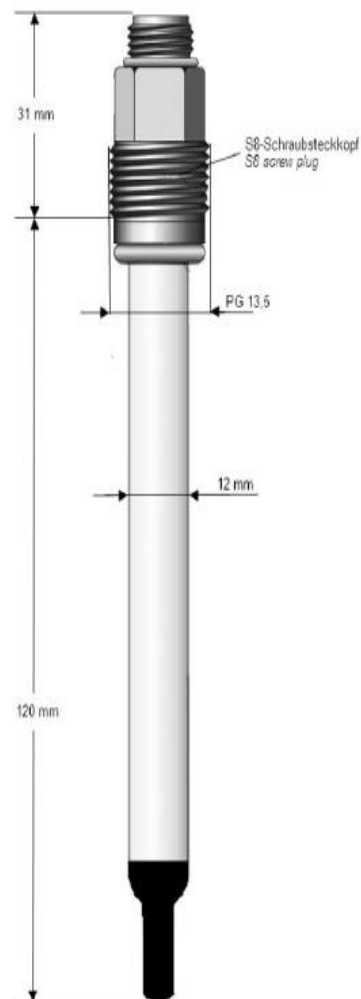
Laboratory

**1.20.3 Technical data****Umgebungsbedingungen / *Process conditions***

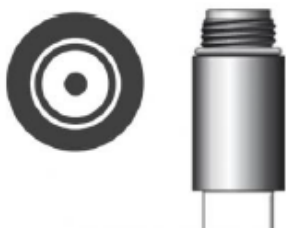
|                                    |   |
|------------------------------------|---|
| Druck /<br><i>Pressure</i>         | >10 bar bei 20 °C /<br>>10 bar at 20 °C / 68 °F |
| Temperatur /<br><i>Temperature</i> | -20.. +130 °C / -4..266°F                       |

**Konstruktiver Aufbau / *Mechanical construction***

|  |  |
|--|--|
| Schaftmaterial /<br><i>Shaftmaterial</i>                 | Glas /<br><i>Glass</i>   |
| Schaftlänge /<br><i>Shaft length</i>                     | 120 mm, 160 mm   |
| Mechanischer Anschluss /<br><i>Process connection</i>    | S7-Stecker, S8-Stecker (PG 13,5 - drehbar),<br>Variopin (PG 13,5 - drehbar) /<br><br><i>S7-plug, S8-plug (swivel PG 13.5),<br/>Variopin (swivel PG 13.5)</i> |
| Elektrischer Anschluss /<br><i>Electrical connection</i> | 2-polig /<br><i>2-poles</i>  |
| Temperatursensor/<br><i>Temperature sensor</i>           | Pt100, Pt1000  |

**1.20.4 Mechanical Drawing**

Art. No.: S24137011K / S24137012K  
Order information: 271100100 / 271200100



S7-plug



S8-plug



Variopin

**1.20.5 Order information**

|   | <b>Artikel Nr. /<br/>Article No.</b> | <b>Beschreibung /<br/>Description</b>                          |
|---|--------------------------------------|--|
| <b>Gruppe /<br/>Group</b>                       | 271                                  | Zirkon® Temperatur   |
| <b>Temperatursenor /<br/>Temperature sensor</b> | 100                                  | Pt100  |
|   | 200                                  | Pt1000   |
| <b>Anschluss /<br/>Connection</b>               | 0                                    | Kein /<br>None   |
|   | 1                                    | S8-Stecker (PG 13,5 - drehbar) /<br>S8-plug (PG 13.5 - swivel) |
|   | 3                                    | S7-Stecker /<br>S7-Plug  |
|   | 7                                    | Festangeschlossenes Kabel /<br>Fixed cable                     |
|   | 9                                    | Sonderanfertigung /<br>Special                                 |
| <b>Länge /<br/>Length</b>                       | 0                                    | 120 mm   |
|   | 2                                    | 160 mm   |
|   | 4                                    | 225 mm   |
|   | 9                                    | Sonderlänge /<br>Special length                                |
| <b>Sonstiges /<br/>Special</b>                  | 0                                    | Kein /<br>None   |




---

Note!

If possible, choose items listed under "storage versions" or "assembly versions" for your orders. We will have to technically inspect and approve a free combination of individual key features.

**Price on request.**

---



**1.20.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>                          |
|--------------------------------------|-----------------------|--|
| S24137000K                           | 271100320             | Temperature sensor: Pt100, S7-plug,<br>160 mm                  |
| S24137011K                           | 271100100             | Temperature sensor: Pt100, S8-plug<br>(swivel PG 13.5), 120 mm |
| S24137012K                           | 271200100             | Temperature sensor: Pt100, S8-plug<br>(swivel PG 13,5), 120 mm |

## 1.21 Zirkon® Gas

### 1.21.1 Description



Zirkon® Gas Cl<sub>2</sub>

Art. No: S29111001K



Zirkon® Gas O<sub>3</sub>

Art. No: S29111002K



Zirkon® Gas ClO<sub>2</sub>

Art. No: S29111011K

Kuntze Gas Sensors are amperometric sensors for the detection of chlorine gas. The matching fitting Ne GSH allows for an easy installation of the gas sensor.

#### Benefits

- Short response times
- High reliability
- Simple start-up due to printed calibration value

### 1.21.2 Applications



Ambient Air Monitoring



Warehouse Exhaust Air

### 1.21.3 Technical data

#### Messparameter Zirkon® Gas Cl<sub>2</sub> - S29111001K / Measuring parameters Zirkon® Gas Cl<sub>2</sub> - S29111001K

Chlor / Chlorine 0.. 20 ppm\*  
\*Der Messbereich des Geräts kann abweichen. /  
Range of measurement device can deviate.

#### Prozessbedingungen / Process conditions

|   |   |
|---|---|
| Ansprechzeit (T <sub>90</sub> ) /<br>Response time (T <sub>90</sub> ) | < 60 s  |
| Temperatur /<br>Temperature   | -20..40 °C /<br>-4..104 °F  |
| Luftfeuchtigkeit /<br>Humidity  | 15.. 90 % rH (nicht kondensierend / <i>uncondensing</i> )   |
| Lagerdauer /<br>Storage period  | Max. 6 Monate in Container, bei +4.. 10 °C /<br>Max. 6 months in container, at +4... 10 °C / 39.2.. 50 °F |
| Einfluss der Feuchtigkeit /<br>Influence of humidity                  | Kein Effekt auf den Nullpunkt /<br>No effect on the zero point  |
| Luftdruck /<br>Air pressure   | 800-1200 hPa  |

#### Querempfindlichkeit Chlorgas-Sensor bei 20 °C / Cross-sensitivity Chlorine gas at 20 °C

| Gas  | Konzentration /<br>Concentration | Abgelesener Wert /<br>Measured value |
|--|----------------------------------|--------------------------------------|
| Kohlenmonoxid /<br>Carbon monoxide   | 100 ppm                          | 0 ppm                                |
| Wasserstoff /<br>Hydrogen  | 3000 ppm                         | 0 ppm                                |
| Schwefelwasserstoff (H <sub>2</sub> S)* /<br>Hydrogen sulfide (H <sub>2</sub> S) * | 20 ppm                           | ND                                   |
| Isopropanol /<br>Isopropanol   | 600 ppm                          | 0 ppm                                |

| <b>Gas</b>          | <b>Konzentration /<br/>Concentration</b> | <b>Abgelesener Wert /<br/>Measured value</b> |
|---------------------|--|--|
| Chlor /<br>Chlorine | 1 ppm                                    | 2 ppm  |
| Ozon /<br>Ozone     | 0.25 ppm                                 | 0.3 ppm                                      |

\* Kontakt zu H<sub>2</sub>S vergiftet den Sensor, anschließender Kontakt mit Chlor reaktiviert den Sensor. /

\* *Contact to H<sub>2</sub>S poisons the sensor, followed by contact with chlorine reactivates the sensor.*



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**Note!**

The influencing factor can vary from sensor to sensor and over the life span of the individual sensor. No claim to completeness of the data, the sensors can potentially exhibit cross sensitivity to other gases.

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### 1.21.4 Technical data

#### Messparameter Zirkon® Gas O<sub>3</sub> - S29111002K / Measuring parameters Zirkon® Gas O<sub>3</sub> - S29111002K

Ozon / Ozone 0.. 1 ppm\*  
\*Der Messbereich des Geräts kann abweichen. /  
Range of measurement device can deviate.

#### Prozessbedingungen / Process conditions

|   |   |
|---|---|
| Ansprechzeit (T <sub>90</sub> ) /<br>Response time (T <sub>90</sub> ) | < 60 s  |
| Temperatur /<br>Temperature   | -20..40 °C /<br>-4..104 °F  |
| Luftfeuchtigkeit /<br>Humidity  | 15.. 90 % rH (nicht kondensierend / <i>uncondensing</i> )   |
| Lagerdauer /<br>Storage period  | Max. 6 Monate in Container, bei +4.. 10 °C /<br>Max. 6 months in container, at +4... 10 °C / 39.2.. 50 °F |
| Einfluss der Feuchtigkeit /<br>Influence of humidity                  | Kein Effekt auf den Nullpunkt /<br>No effect on the zero point  |
| Luftdruck /<br>Air pressure   | 800-1200 hPa  |

#### Querempfindlichkeit Ozon Gas Sensor bei 20 °C / Cross sensitivity Ozone gas sensor at 20 °C

| Gas   | Konzentration /<br>Concentration | Abgelesener Wert /<br>Measured value |
|---|----------------------------------|--------------------------------------|
| Kohlenmonoxid /<br>Carbon monoxide  | 100 ppm                          | 0 ppm                                |
| Chlordioxid /<br>Chlorine dioxide   | 1 ppm                            | 1.5 ppm                              |
| Wasserstoff /<br>Hydrogen   | 3000 ppm                         | 0 ppm                                |
| Stickstoffdioxid /<br>Nitrogen dioxide  | 10 ppm                           | 6 ppm                                |
| Schwefelwasserstoff (H <sub>2</sub> S) *<br>Hydrogen sulfide (H <sub>2</sub> S) * | 20 ppm                           | ND                                   |

| <b>Gas</b>                          | <b>Konzentration /<br/>Concentration</b> | <b>Abgelesener Wert /<br/>Measured value</b> |
|-------------------------------------|--|--|
| Isopropanol /<br><i>Isopropanol</i> | 600 ppm                                  | 0 ppm  |
| Chlor /<br><i>Chlorine</i>          | 1 ppm                                    | 1.2 ppm                                      |

\* Kontakt zu H<sub>2</sub>S vergiftet den Sensor, anschließender Kontakt mit Chlor reaktiviert den Sensor. /

\* *Contact to H<sub>2</sub>S poisons the sensor, subsequent contact with chlorine reactivates the sensor.*



---

**Note!**

The influencing factor can vary from sensor to sensor and over the life span of the individual sensor. No claim to completeness of the data, the sensor can potentially exhibit cross sensitivity to other gases.

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### 1.21.5 Technical data

#### Messparameter Zirkon® Gas ClO<sub>2</sub> - S29111011K / Measuring parameters Zirkon® Gas ClO<sub>2</sub> - S29111011K

Chlordioxid / *Chlorine dioxide* 0.. 1 ppm\*  
\*Der Messbereich des Geräts kann abweichen. /  
Range of measurement device can deviate.

#### Prozessbedingungen / *Process conditions*

Ansprechzeit (T<sub>90</sub>) /  
*Response time (T<sub>90</sub>)* < 90 s

Temperatur/  
*Temperature* -20..40 °C /  
-4..104 °F

Luftfeuchtigkeit/  
*Humidity* 15.. 90 % rH (nicht kondensierend / *uncondensing*)

Lagerdauer /  
*Storage period* Max. 6 Monate in Container, bei +4.. 10 °C /  
Max. 6 months in container, at +4... 10 °C / 39.2.. 50 °F

Einfluss der Feuchtigkeit/  
*Influence of humidity* Kein Effekt auf den Nullpunkt /  
No effect on the zero point

Luftdruck /  
*Air pressure* 800-1200 hPa

#### Querempfindlichkeit Chlordioxid Gas Sensor bei 20 °C / Cross sensitivity Chlorine dioxide gas sensor at 20 °C

| Gas  | Konzentration /<br>Concentration | Abgelesener Wert /<br>Measured value |
|--|----------------------------------|--------------------------------------|
| Kohlenmonoxid /<br>Carbon monoxide   | 100 ppm                          | 0 ppm                                |
| Wasserstoff /<br>Hydrogen  | 3000 ppm                         | 0 ppm                                |
| Stickstoffdioxid /<br>Nitrogen dioxide   | 10 ppm                           | 6 ppm                                |
| Schwefelwasserstoff (H <sub>2</sub> S)*<br>Hydrogen sulfide (H <sub>2</sub> S) * | 20 ppm                           | ND                                   |

| <b>Gas</b>                          | <b>Konzentration /<br/>Concentration</b> | <b>Abgelesener Wert /<br/>Measured value</b> |
|-------------------------------------|--|--|
| Isopropanol /<br><i>Isopropanol</i> | 600 ppm                                  | 0 ppm  |
| Chlor /<br><i>Chlorine</i>          | 1 ppm                                    | 0.6 ppm                                      |
| Ozon /<br><i>Ozone</i>              | 0.25 ppm                                 | 0.7 ppm                                      |

\* Kontakt zu H<sub>2</sub>S vergiftet den Sensor, anschließender Kontakt mit Chlor reaktiviert den Sensor. /

\* *Contact to H<sub>2</sub>S poisons the sensor, subsequent contact with chlorine reactivates the sensor.*



---

**Note!**

The influencing factor can vary from sensor to sensor and over the life span of the individual sensor. No claim to completeness of the data, the sensor can potentially exhibit cross sensitivity to other gases.

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**1.21.6 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b>        | <b>Beschreibung /<br/>Description</b> |
|--------------------------------------|------------------------------|---------------------------------------|
| S29111001K                           | Zirkon® Gas Cl <sub>2</sub>  | Sensor for measuring Chlorine gas     |
| S29111002K                           | Zirkon® Gas O <sub>3</sub>   | Sensor for measuring Ozone            |
| S29111011K                           | Zirkon® Gas ClO <sub>2</sub> | Sensor for measuring Chlorine dioxide |

## 1.22 Zirkon® Conductivity LE44 Pt

### 1.22.1 Description



LE44 PT



LE44 PT 4SCR

2-electrode conductivity sensor for electrical conductivity with integrated temperature sensor Pt100. The sensor is available as flow version with male thread 3/4" and 4-pole angular plug connector (Hirschmann) for electrical connection or as immersion version with 10 m fixed cable and 1/2" male thread. For both cases the electrodes are made of stainless steel (concentric electrodes, material number 1.4571). In case of the flow version the head is PVDF and for the immersion version it is PP.

### 1.22.2 Applications



Cooling Water



Drinking Water /  
Beverages



Process Water

### 1.22.3 Technical data

#### Messparameter / Measuring range

|                             |   |
|-----------------------------|---|
| Leitfähigkeit (konduktiv) / | 0,000.. 2,000 $\mu\text{S} / \text{cm}$ ( $c= 0,05 / \text{cm}$ ) |
| Conductivity (conductive)   | 0,00.. 20,00 $\mu\text{S} / \text{cm}$ ( $c= 0,05 / \text{cm}$ )  |
|                             | 0,0.. 200,0 $\mu\text{S} / \text{cm}$ ( $c= 0,05 / \text{cm}$ )   |
|                             | 0,000.. 2,000 $\text{mS} / \text{cm}$ ( $c= 0,20 / \text{cm}$ )   |
|                             | 0,00.. 20,00 $\text{mS} / \text{cm}$ ( $c= 1,00 / \text{cm}$ )    |

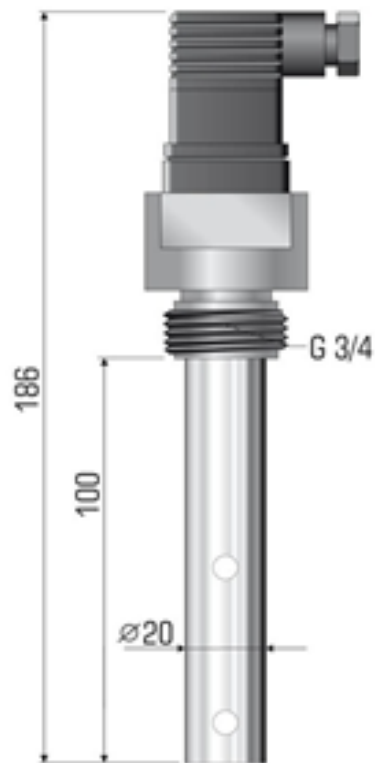
#### Prozessbedingungen / Process conditions

|              |   |
|--------------|---|
| Druck /      | 16 bar bei 25 °C /                          |
| Pressure     | 16 bar at 25 °C / 232 psi at 77 °F          |
| Temperatur / | Steckeranschluss 0.. +135 °C /              |
| Temperature  | Kabelanschluss 0.. +90 °C /                 |
|              | Plug connection: 0.. +135 °C / 32.. 275 °F, |
|              | Cable Connection: 0.. +90 °C / 32.. 194 °F  |

#### Konstruktiver Aufbau / Mechanical construction

|                          |   |
|--------------------------|---|
| Schaftmaterial /         | PVDF - Steckervariante, PP – Kabelvariante /  |
| Shaft material           | Plug version: PVDF, cable version: PP         |
| Elektrodenmaterial /     | Edelstahl 1.4571 /                            |
| Electrode material       | Stainless steel 1.4571                        |
| Mechanischer Anschluss / | $\frac{3}{4}$ " Außengewinde, Steckerversion, |
| Process connection       | $\frac{1}{2}$ " Außengewinde, Kabelversion /  |
|                          | Plug version: $\frac{3}{4}$ " male thread,    |
|                          | Cable version: $\frac{1}{2}$ " male thread    |
| Elektrischer Anschluss / | 4 poliger Winkelstecker (Hirschmann),         |
| Electrical connection    | 10 m fest angeschlossenes Kabel /             |
|                          | 4-poles angular plug (Hirschmann),            |
|                          | 10 m connected cable                          |
| Temperatursensor /       | Pt100   |
| Temperature sensor       |   |

## 1.22.4 Mechanical drawing



LE44 PT



LE44 PT 4SCR

**1.22.5 Storage version**

| <b>Artikel. Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b> | <b>Beschreibung /<br/>Description</b>  |
|---------------------------------------|-----------------------|--|
| 26125252K                             | LE44 Pt, c=0,05       | Conductive conductivity sensor<br>(0.. 2; 0.. 20; 0.. 200 $\mu$ S/cm)                          |
| 26125253K                             | LE44 Pt, c=0,20       | Conductive conductivity sensor<br>(0.. 2 mS/cm)  |
| 26125254K                             | LE44 Pt, c=1,00       | Conductive conductivity sensor<br>(0.. 20 mS/cm)   |
| 26125255K                             | LE44 Pt 4SCR, c=0,20  | Conductive conductivity sensor (0.. 2 mS/cm)<br>with 10 m fixed cable                          |
| 26125256K                             | LE44 Pt 4SCR, c=1,00  | Conductive conductivity sensor<br>(0.. 20 mS/cm) with 10 m fixed cable                         |
| 26125257K                             | LE44 Pt 4SCR, c=0,05  | Conductive conductivity sensor<br>(0.. 2; 0.. 20; 0.. 200 $\mu$ S/cm) with 10 m fixed<br>cable |

## 1.23 Zirkon® Conductivity IL 15

### 1.23.1 Description



IL 15

Zirkon® Conductivity IL 15 is a sensor for the inductive conductivity measurement in Polypropylene (PP) with two internal, circular measuring coils. The sensor is delivered with 6 m cable and internal temperature sensor.

#### Benefits

- Corrosion resistant
- Dirt resistant
- Small and robust construction

### 1.23.2 Applications



Cooling Water

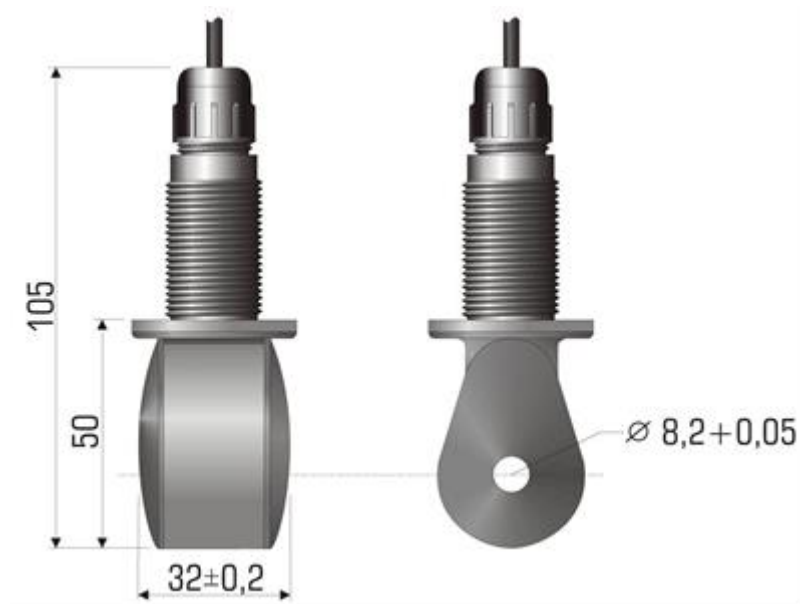


Drinking Water /  
Beverages



Process Water

### 1.23.3 Mechanical drawing



IL 15

### 1.23.4 Technical data

#### Messparameter / Measuring range

|                            |                     |
|----------------------------|---------------------|
| Leitfähigkeit (induktiv) / | 0.000.. 2.000 mS/cm |
| Conductivity (inductive)   | 0.00.. 20.00 mS/cm  |
|                            | 0.0.. 200.0 mS/cm   |
|                            | 0.. 2000 mS/cm      |

#### Umgebungsbedingungen / Process conditions

|              |                           |
|--------------|---------------------------|
| Druck /      | 10 bar (bei 20 °C) /      |
| Pressure     | 10 bar (at 20 °C / 68 °F) |
| Temperatur / | < 90 °C / < 194 °F        |
| Temperature  |                           |

#### Konstruktiver Aufbau / Mechanical construction

|                          |                     |
|--------------------------|---------------------|
| Schaftmaterial /         | PP                  |
| Shaft material           |                     |
| Mechanischer Anschluss / | G1/2 Außengewinde / |
| Process connection       | G1/2 male thread    |
| Temperatursensor /       | NTC                 |
| Temperature sensor       |                     |

**1.23.5 Storage version**

| <b>Artikel Nr. /<br/>Article No.</b> | <b>Typ /<br/>Type</b>         | <b>Beschreibung /<br/>Description</b>          |
|--------------------------------------|-------------------------------|--|
| 26164025K                            | Zirkon® Conductivity<br>IL 15 | Inductive conductivity sensor, 6 m fixed cable |



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