

Product catalog  
pH / Redox  
valid from 01. January 2023

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202001

**Content**

1.	Systems	5
1.1	Krypton® pR Flow	5
2.	Instruments	12
2.1	Neon® pR	12
3.	Sensors	19
3.1	Zirkon® pH Universal	19
3.2	Zirkon® pH Pure	28
3.3	Zirkon® pH Process	36
3.4	Zirkon® pH Process Refill	46
3.5	Zirkon® pH Fluoride	54
3.6	Zirkon® pH Coating	62
3.7	Zirkon® pH Pool	70
3.8	Zirkon® pH Process HT	77
3.9	Zirkon® pH Wide Body	85
3.10	Zirkon® Rx Universal	95
3.11	Zirkon® Rx Process	105
3.12	Zirkon® Rx Process Refill	112
3.13	Zirkon® Rx Pool	119
3.14	Zirkon® Redox Wide Body	126
3.15	Zirkon® REF	136
3.16	Zirkon® REF Process Refill	143
3.17	Zirkon® Temperatur	150
4.	Assemblies	156
4.1	Assemblies GD 1 V (G) (PP)	156

4.2	Armatur GE 251 PP	160
4.3	Assemblies GE 23/3 PP	164
5.	<b>Handheld Units</b>	<b>168</b>
5.1	Handheld Units PM 6	168
5.2	Handheld Units Radon DIS pH	172
6.	<b>Accessories</b>	<b>175</b>
6.1	Accessories IWA 11.4	175
6.2	Accessories COAX-D-AE-X Cabel	179
6.3	Accessories VP-ST/xm cable	182
6.4	Accessories TRIAX-D-1-X cable	185
6.5	Accessories 2 CORE-D-1-X cable	188
6.6	Accessories pH-Buffer Solution	191
7.	<b>Index</b>	<b>193</b>

## 1. Systems

### 1.1 Krypton® pR Flow

#### 1.1.1 Description



*Krypton® pR Flow*

#### **Single channel water monitoring system**

Controlled and reliable measurements are driven by Kuntze Krypton® systems.

Krypton® pR Flow is used to measure pH, ORP and temperature. The Neon® is a leading edge measurement and control instrument and its range of functions can be tailored according to your application. The entry level version contains input / outputs for measurement and temperature, key operation, a digital input, an alarm relay.

The Neon is expandable through software upgrades and add on modules. It is possible to add up to two additional analogue

outputs, control functions either concentration-based or volume-based, modbus interface and datalogger. The information displayed on the screen can be selected by the user. With multiple installations the same settings within the software can be duplicated in additional instruments using industry standard SD cards. The new Neon® 'Touch' is simplicity in a small package, it has an up to date touch screen to navigate through the Neon® menus easily and intuitively. The Neon® pR can be used for the measurement of pH and ORP.

Kuntze Krypton® pR Flow is delivered fully assembled and ready to use. The water measurement process can be controlled at any time, from any place, on any device via Kuntze's Cloud Connect® service.

All Kuntze products are Made in Germany.

### 1.1.2 Applications



Industrial Water



Drinking Water



Process Water



Cooling Water

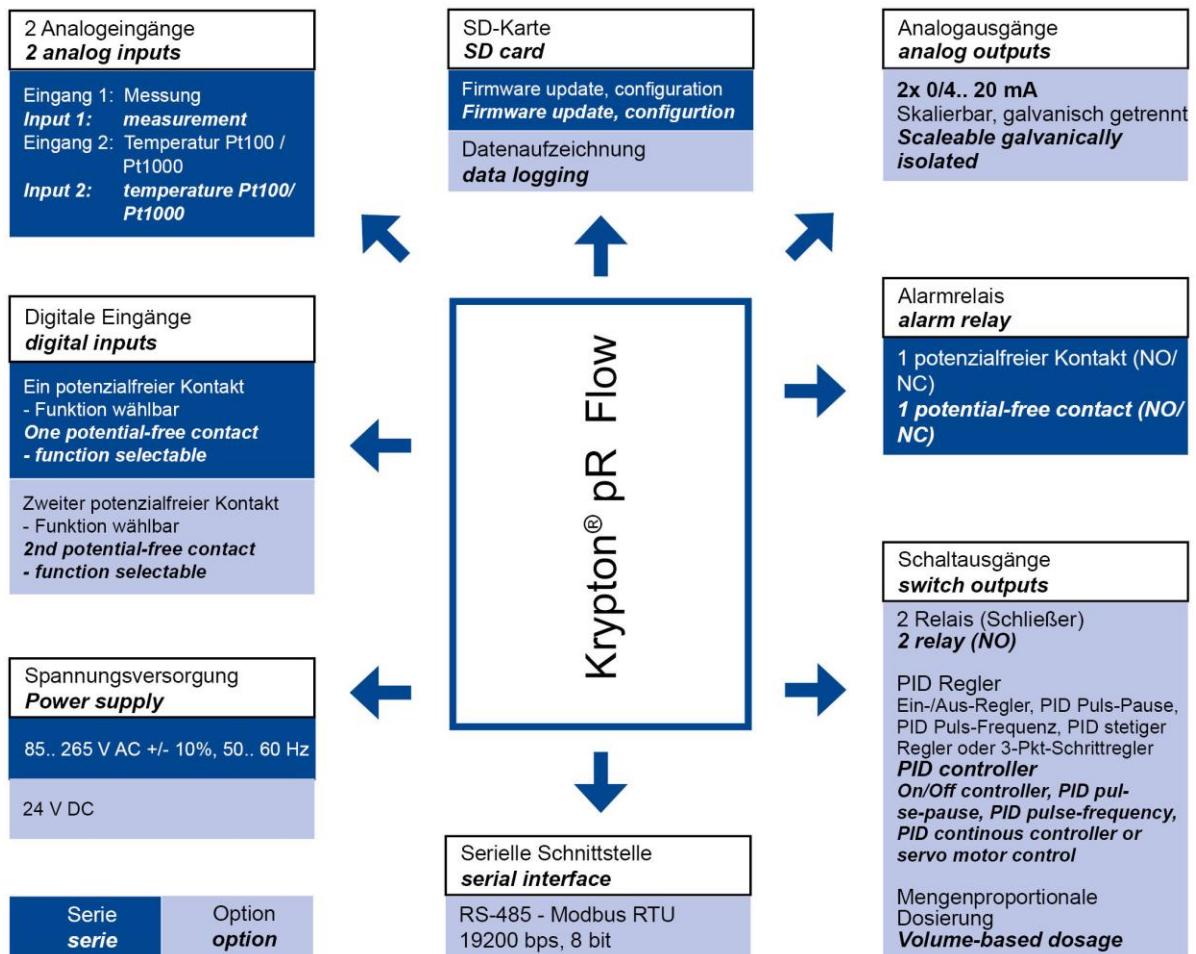


Food &  
Beverage



Waste Water  
Treatment

### 1.1.3 Interface diagram



### 1.1.4 Technical data

#### Measuring range

pH	pH -2.00.. +16.00
Redox	-1500.. + 1500 mV

#### Input characteristic

Temperature measuring range	-30.. +140 °C / 22.. 284 °F
Temperature compensation	No linear (pH)
Digital input	1st as controller stop by external contact. Option: 2nd as controller stop or flow measurement for volume based dosing
Measurement conditions	Pressure: Max. 6 bar (at 20 °C / 68 °F) (or less depending on the sensor)

#### Output characteristics

Alarm relay	1 potential-free N/O contact, max. 250 V, 6 A, 550 VA (insertable)
Output signal	Optionally: 2 x 0/4.. 20 mA (scalable, galvanically isolated) Load: Max. 500 Ohm Registration range: Scalable within the measuring range
Storage media	SD card up to 1 GB - Industry standard
Serial interface	Option: RS 485 Modbus RTU Baud rate: 19200 bps Data format: 8 bit even, 1 Stop Bit

#### Power supply

Line voltage	85.. 265 V AC, +6/-10 %, 40.. 60 Hz; Option: 24 V DC
Power consumption	10 VA

#### Process conditions

Temperature	Storage: -20.. +65 °C / -4.. +149 °F, exception Sensor: 0..+30 °C / 32.. 86 °F Operation: 0.. +50 °C / 32.. 122 °F
Humidity	Max. 90 % rH at 40 °C / 104 °F, non-condensing
Protection class	Wall mounted: IP 65

**Controller**

Control response	Option: on/off controller (adjustable hysteresis) P/PI/ PID controller (pulse-pause, pulse-frequency or continuous output), 3-point controller
Relay	2 relays, each with a potential-free N/O contact, max. 250 V, 6 A, 550 VA
Start delay	0.. 200 sec until controller active
Controller stop	Digital input

**Proportion to volum**

Control mode	Option: Volumed based by flow measurement
Flow measurement	Impuls measurement NPN (by digital input 2)
	Engine speed: 0.030.. 9.999 l/Imp
Relay 1	Potential-free N/O contact, max. 250 V, 6 A, 550 VA (pulse-pause, pulse-frequency)

**Languages**

German, English, Danish, Italian, French, Spanish, Dutch

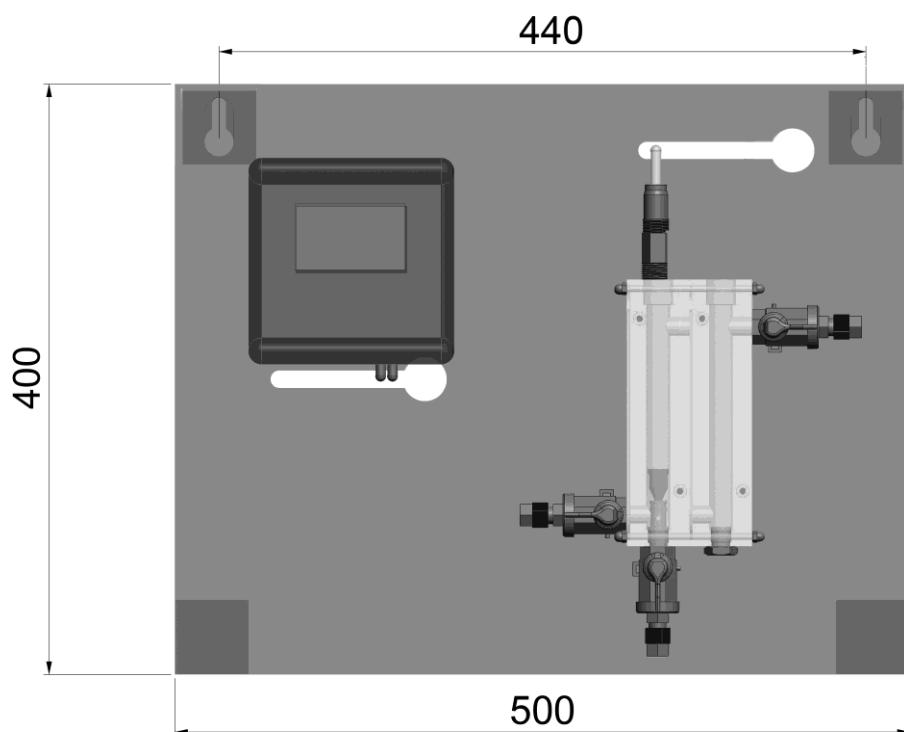
**Certificates and approval**

CE-Symbol	The product meets the requirements of the harmonized European standards and complies with the legal requirements of the EC directives
EMC	EN 61000 6-1 (3) EN 61000 6-2 (4) EN 61326-1

**Design configuration**

Material	Board: PVC; assembly: PVC; Instrument (housing): ABS; Sensors: Glass, PVC / Gold / Platinum
Dimensions	400 x 500 mm
Connection	Cable inlet: 1 x M16, 2 x M12 + optional: 2 x M12, 1 x M16 and 1 x M25 Plug-in terminal: Rigid / flexible 0.14.. 1.5 m <sup>2</sup> Relays / power supply: Rigid / flexible 0.2 - 1 / 0.2 - 1.5 mm <sup>2</sup> Distribution block: 0.5 - 1.5 / 0.5 - 1.5 mm <sup>2</sup> Water hose connection: DN 6/8

### 1.1.5 Mechanical drawing



*Krypton® pR Flow*

### 1.1.6 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Type</b>	70142011K	Krypton® pR Flow
<b>Power supply</b>	Grundtyp	85.. 265 V AC
	19514101K	24 V DC module
<b>Interface</b>	19514300K	RS 485 Modbus RTU
<b>Controller</b>	19514200K	Second digital input
	19514201K	Volume based dosing with 2 relays * * only in combination with 2nd digital input (Art. 19514202K)
<b>Inputs</b>	19514202K	Second digital input
<b>Outputs</b>	19514203K	First mA output
	19514204K	Second mA output
<b>Special functions</b>	19514205K	Datalogging

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Note!

Choose the components you need and that's how your „assembly version“ is designed. We will have to technically inspect and approve a free combination of individual key features.

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## 2. Instruments

### 2.1 Neon® pR

#### 2.1.1 Description



Neon® pR

#### Single channel water monitoring instrument

The Neon® is a leading edge measurement and control instrument and its range of functions can be tailored according to your application. The entry level version contains input / outputs for measurement and temperature, key operation, a digital input, an alarm relay. The Neon® is an expandable through software upgrades and add on modules. It is possible to add up to two additional analogue outputs, control functions either concentration-based or volume-based, modbus interface and Datalogger. The information displayed on the screen can be selected by the user. With multiple installations the same settings within the software can be duplicated in additional instruments using industry standard SD cards. The new Neon® 'Touch' is simplicity in a small package, it has an up to date touch screen to navigate through the Neon® menus easily and intuitively. The Neon® pR can be used for the measurement of pH and ORP.

### 2.1.2 Applications



Industrial Water   Drinking Water   Process Water   Cooling Water

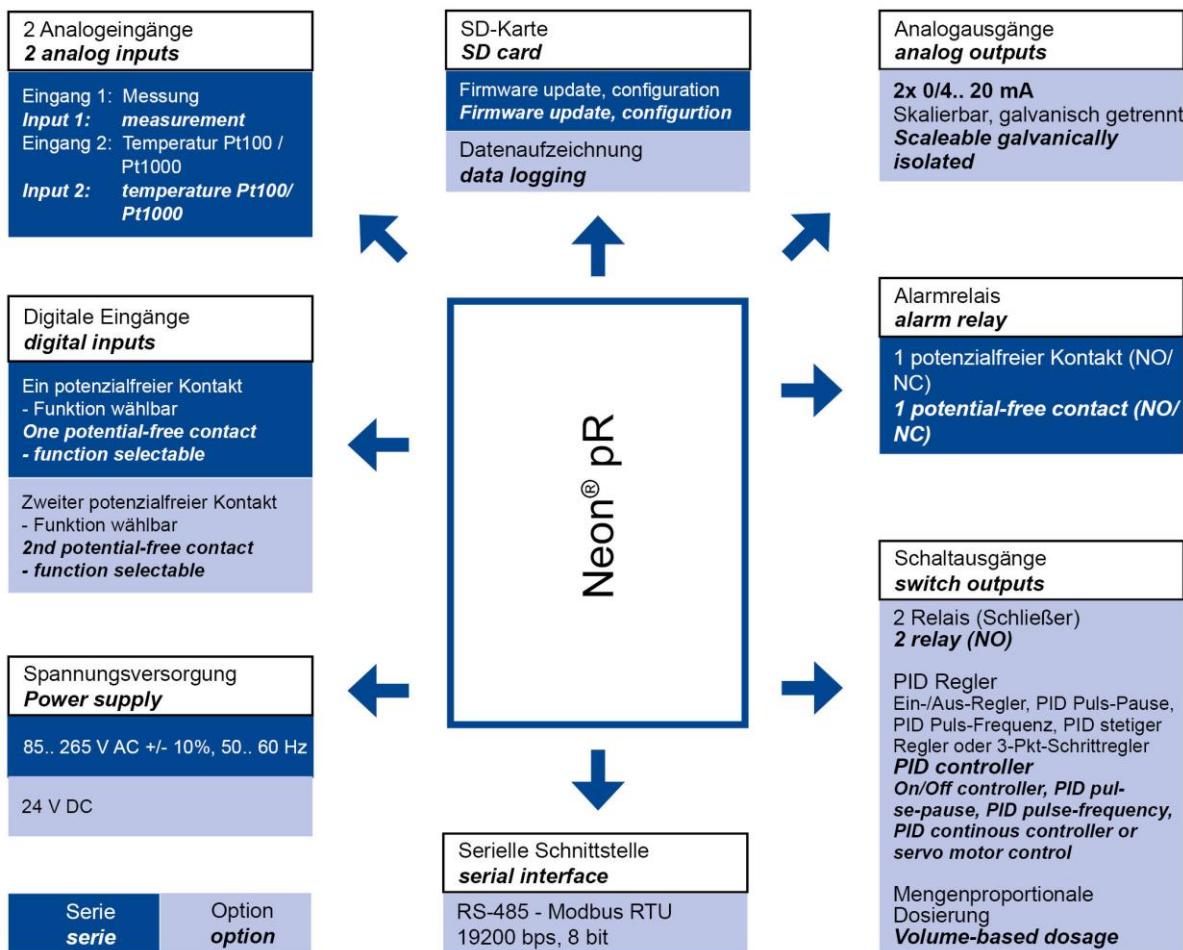


Food &  
Beverage



Waste Water  
Treatment

### 2.1.3 Interface diagram



### 2.1.4 Technical data

#### Measuring range

pH-Wert	pH -2,00.. +16,00
ORP	-1500.. + 1500 mV

#### Input characteristic

Temperature measuring range	-30.. +140 °C / -22..284 °F
Temperature compensation	No linear (pH)
Digital input	1st as controller stop by external contact. Option: 2nd as controller stop or flow measurement for volume based dosing..
Measurement conditions	Pressure: Max. 6 bar (at 20 °C / 68 °F) (or less depending on the sensor)

#### Output characteristics

Alarm relay Output signal	1 potential-free N/O contact, max. 250 V, 6 A, 550 VA (insertable) Optionally: 2 x 0/4.. 20 mA (scalable, galvanically isolated) Load: Max. 500 Ohm Registration range: Scalable within the measuring range
Storage media	SD card up to 1 GB - Industry standard
Serial interface	Option: RS 485 Modbus RTU Baud rate: 19200 bps Data format: 8 bit even, 1 Stop Bit

#### Power supply

Line voltage	85.. 265 V AC, +6/-10 %, 40.. 60 Hz; Option: 24 V DC
Power consumption	10 VA

#### Process conditions

Temperature	Storage: -20.. +65 °C / -4.. +149 °F, exception Sensor: 0..+30 °C / 32.. 86 °F Operation: 0.. +50 °C / 32.. 122 °F
Humidity	Max. 90 % rH at 40 °C / 104 °F, non-condensing
Protection class	Wall mounted: IP 65

**Controller**

Control response	Option: on/off controller (adjustable hysteresis) P/PI/ PID controller (pulse-pause, pulse-frequency or continuous output), 3-point controller
Relay	2 relays, each with a potential-free N/O contact, max. 250 V, 6 A, 550 VA
Start delay	0.. 200 sec until controller active
Controller stop	Digital input

**Proportion to volum**

Control mode	Option: Volumed based by flow measurement
Flow measurement	Impuls measurement NPN (by digital input 2)
	Engine speed: 0.030.. 9.999 l/Imp
Relay 1	Potential-free N/O contact, max. 250 V, 6 A, 550 VA (pulse-pause, pulse-frequency)
Relay 2	Activating circulation pump

**Languages**

German, English, Danish, Italian, French, Spanish, Dutch

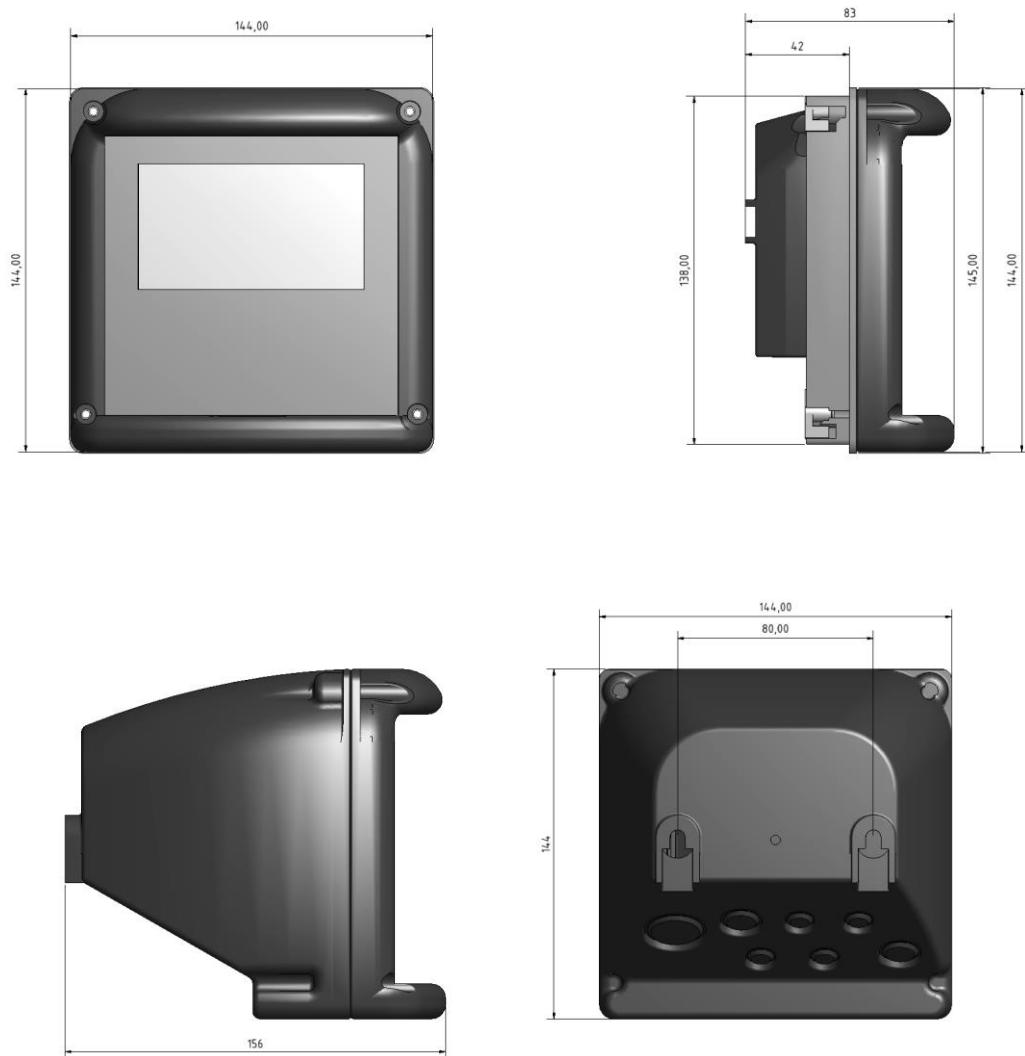
**Certificates and approval**

CE-Symbol	The product meets the requirements of the harmonized European standards and complies with the legal requirements of the EC directives
EMC	EN 61000 6-1 (3) EN 61000 6-2 (4) EN 61326-1

**Design configuration**

Material	Board: PVC; assembly: PVC; Instrument (housing): ABS; Sensors: Glass, PVC / Gold / Platinum
Dimensions	400 x 500 mm
Connection	Cable inlet: 2 x M16, 2 x M12 + Optional: 2 x M12, 1 x M16 and 1 x M25 Plug-in terminal: Rigid / flexible 0.14.. 1.5 m <sup>2</sup> Relays / power supply: Rigid / flexible 0.2 - 1 / 0.2 - 1.5 mm <sup>2</sup> Distribution block: 0.5 - 1.5 / 0.5 - 1.5 mm <sup>2</sup> Water hose connection: DN 6/8

### 2.1.5 Mechanical drawing



Neon® pR

### 2.1.6 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Type</b>	142000K	Neon® pR (1 digitaler Eingang und Alarmrelais)
<b>Power supply</b>	Type	85.. 265 V AC
<b>Interface</b>	19514300K	Modbus RTU
<b>Controller</b>	19514200K	PID with 2 control relays
	19514201K	Volume based dosing with 2 relays * * only in combination with 2nd digital input (Art. 19514202K)
<b>Inputs</b>	19514202K	Second digital input
<b>Outputs</b>	19514203K	First mA output
	19514204K	Second mA output
<b>Special functions</b>	19514205K	Datalogging
<b>Gase</b>	19514000K	Panel-mounting (Front IP 54)
	19514001K	Wall mounting (IP 65)



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#### Note!

Choose the components you need and that's how your „assembly version“ is designed. We will have to technically inspect and approve a free combination of individual key features.

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### 3. Sensors

#### 3.1 Zirkon® pH Universal

##### 3.1.1 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

### 3.1.2 Applications



Industrial Water   Drinking Water   Process Water   Cooling Water



Waste Water  
Treatment

### 3.1.3 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Prozessbedingungen / Ambient conditions**

Druck. / Pressure	PG-Stecker: < 2 bar bei 20 °C Kunstoffschaft: < 1 bar bei 20 °C PG 13,5 lose: < 1 bar bei 20 °C /
	PG-plug: < 2 bar at 20 °C / 68 °F Resin-shaft: < 1 bar at 20 °C / 68 °F PG 13.5 loose: < 1 bar at 20 °C / 68 °F

Leitfähigkeit / Conductivity	>150 µS/cm
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Temperatur / Temperature	-5.. +70 °C / 23..158 °F
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#### **Konstruktiver Aufbau / Mechanical construction**

Diaphragma / Junction	Zirkon 1 mm / Zircon 1 mm
--------------------------	------------------------------

Schaftmaterial / Shaft material	Glas, Kunststoff / Glass, resin
------------------------------------	------------------------------------

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

Elektrodenmaterial / Electrode material	AH-Glas-Kugel / AH Glass-ball
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Bezugssystem / Reference system	Ag, AgCl, Tepoxgel 3mol KCl / Ag, AgCl, Tepox gel 3mol KCl
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Innenpuffer / Internal buffer	pH 7
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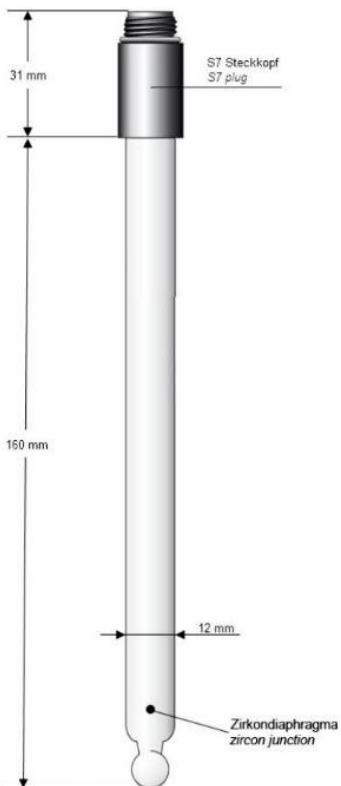
Mechanischer Anschluss / Process connection	S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin (PG 13,5 - drehbar), festangeschlossenes Kabel /
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	8-plug (swivel PG 13.5), S7-plug, Variopin (swivel PG 13.5), fixed cable
--	---

Elektrischer Anschluss / Electrical connection	2- oder 8-polig/ 2- or 8-poles
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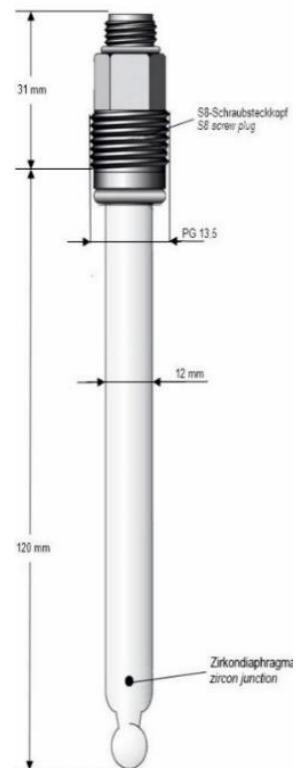
Temperatursensor / Temperature sensor	Kein, Pt 100, Pt 1000 / None, Pt 100, Pt 1000
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### 3.1.4 Mechanical drawing



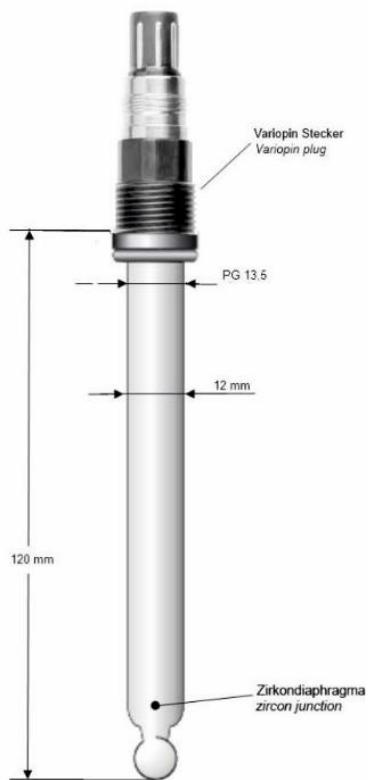
Art. No.: S24131100K

Order Code: 201012320



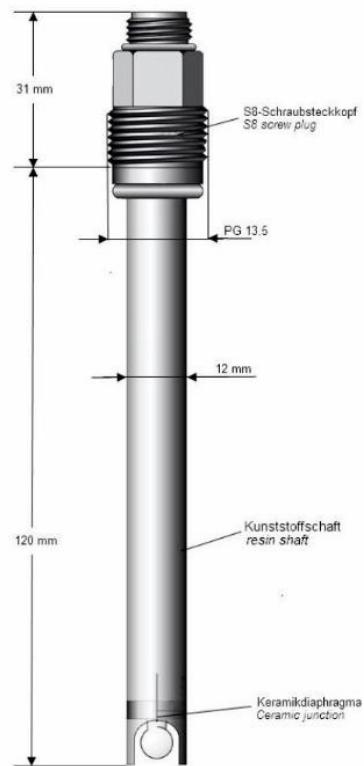
Art. No.: S24131110K

Order Code: 201012100



Art. No.: S24132111K

Order Code: 201112600



Art. No.: S24132650K

Order Code: 201012103



S7-plug



S8-plug



Variopin

### 3.1.5 Order information

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

<b>Sonstiges / Special</b>	0	Kein / <i>None</i>
	3	Kunststoffschacht / <i>Resin-shaft</i>
	K	Kabellänge / <i>Cable length</i>
		Beispiel: 1 Meter = K01, 10 Meter = K10 <i>Example: 1 m = K01, 10 m = K10</i>
	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.**

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### 3.1.6 Storage version

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

## 3.2 Zirkon® pH Pure

### 3.2.1 Description



Art. No.: S24132010K

Order Code: 202061320

Art. No.: S24132061K

Order Code: 202041104

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.

### 3.2.2 Applications



Ultra Pure  
Water

### 3.2.3 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 KCl Druckaufsatz: <6 bar bei 20 °C Glasschliff : < 1 bar drucklos /  <i>S7: bar pressureless PG 13.5 loose: &lt; 1 bar pressureless KCl pressure attachment: &lt; 6 bar at 20 °C / 68 °F Glass sleeve: &lt;1 bar pressureless</i>
---------------------	--

Leitfähigkeit / Conductivity	3 x Zircon 1 mm: > 50 µS/cm Glasschliff: > 20 µS/cm/  <i>3 x Zircon 1 mm: &gt; 50 µS/cm Glass sleeve: &gt; 20 µS/cm</i>
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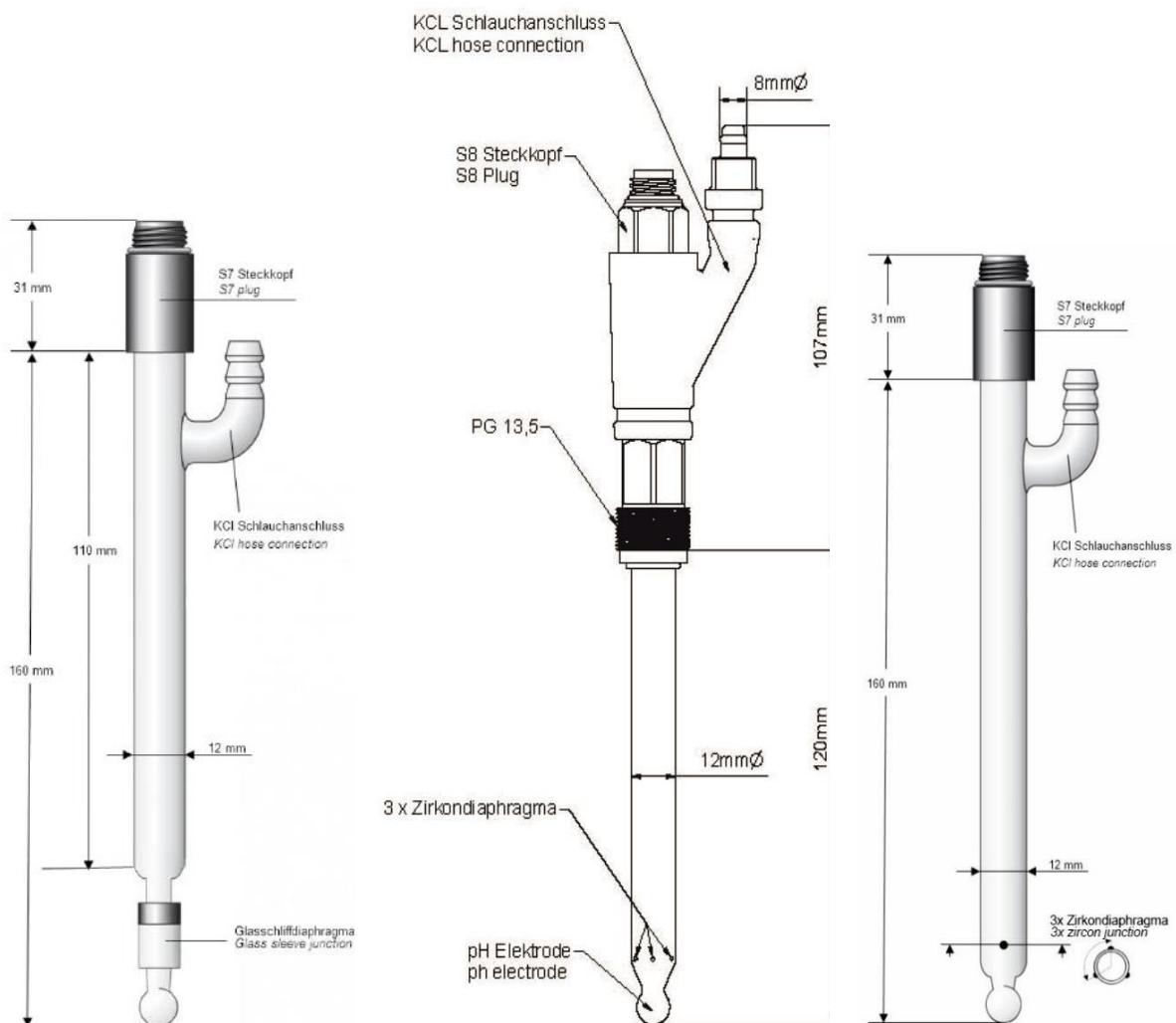
Temperatur / Temperature	-5.. +70 °C / 23..158 °F
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#### Konstruktiver Aufbau / Mechanical construction

Diaphragma / Junction	3x Zirkon 1 mm, Glasschliff / 3x Zircon 1mm, glass sleeve
Schaftmaterial / Shaft material	Glas / Glass
Schaftlänge / Shaft length	120 mm, 160 mm, 225 mm
Elektrodenmaterial / Electrode material	AH-Glas / AH-Glass
Bezugssystem / Reference system	Ag, AgCl, 3mol KCl-flüssig / Ag, AgCl, 3mol KCl-liquid
Innenpuffer / Internal buffer	pH 7
Mechanischer Anschluss / Process connection	S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin (PG 13,5 - drehbar, festangeschlossenes Kabel /  <i>S8-plug (swivel PG 13.5), S7-plug, Variopin (swivel PG 13.5), fixed cable</i>

Elektrischer Anschluss / <i>Electrical connection</i>	2- order 8- polig / 2- or 8- poles
Temperatursensor / Temperature sensor	Kein, Pt 100, Pt 1000 / <i>None, Pt 100, Pt 1000</i>

### 3.2.4 Mechanical drawing



Art. No.: S24132010K

Order Code: 202061320

Art. No.: S24132061K

Order Code: 202041104

Art. No.: S24132070K

Order Code: 202041320



S7-plug



S8-plug



Variopin

### 3.2.5 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Gruppe / Group</b>	202	Zirkon® pH Pure
<b>Temperatursensor / Temperature sensor</b>	0	Kein / <i>None</i>
	1	Pt 100
	2	Pt 1000
	9	Sonderanfertigung / <i>Special</i>
<b>Diaphragma / Junction</b>	4	Zirkon 3 x 1 mm / <i>Zircon 3 x 1 mm</i>
	6	Glasschliff (nur KCl flüssig) <i>Glass sleeve (only KCl liquid)</i>
	9	Sonderanfertigung / <i>Special</i>
<b>Elektrolyt / Elektrolyte</b>	1	3mol KCl-flüssig / <i>3mol KCl-liquid</i>
	9	Sonderanfertigung / <i>Special</i>
<b>Anschluss / Connection</b>	0	Kein / <i>None</i>
	1	S8-Stecker (PG 13,5 - drehbar) / <i>S8-plug (swivel PG 13.5)</i>
	3	S7 Stecker / <i>S7 plug</i>
	6	VP-Variopin-Stecker (PG 13,5 - drehbar) / <i>VP-Variopin-pflug (swivel PG 13.5)</i>
	7	Festangeschlossenes Kabel / <i>Fixed cable</i>
	9	Sonderanfertigung / <i>Special</i>

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

### 3.2.6 Storage version

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

### 3.3 Zirkon® pH Process

#### 3.3.1 Description



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

#### 3.3.2 Applications



Industrial Water



Process Water



Cooling Water



Waste Water Treatment

### 3.3.3 Technical data

#### **Messparameter / Measuring parameter**

pH-Wert /  
pH-value

pH 0.. 14

#### **Prozessbedingungen / Ambient conditions**

Druck /  
Pressure

PG-Stecker: < 10 bar bei 20 °C  
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 /

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 µS/cm

Temperatur /  
Temperature

-5.. +70 °C / 23.. 158 °F

#### **Konstruktiver Aufbau / Mechanical construction**

Diaphragma /  
Junction

Platin, PTFE, Loch, Zirkon 1 mm /  
Platinum, PTFE, Hole, Zircon 1 mm

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 / Tepoxgel 3mol KCl, Ag / AgCl / Festelektrolyt /  
3mol KCl flüssig /

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

**Konstruktiver Aufbau / Mechanical construction**

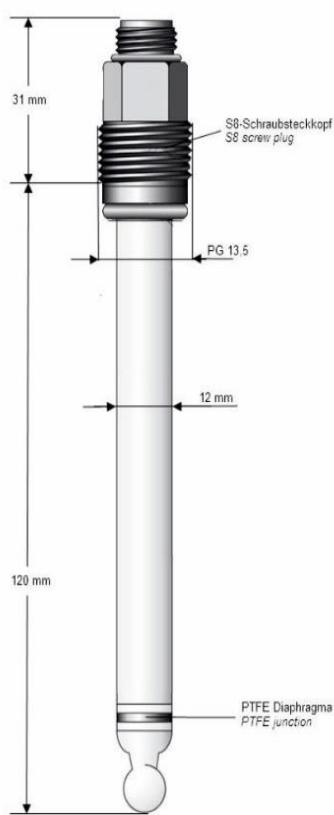
Mechanischer Anschluss /  
*Process connection* S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin  
(PG 13,5 - drehbar), festangeschlossenes Kabel /

*S8-plug (swivel PG 13.5), S7-plug, Variopin  
(swivel PG 13.5), fixed cable*

Elektrischer Anschluss /  
*Electrical connection* 2- oder 8-polig /  
2- or 8-poles

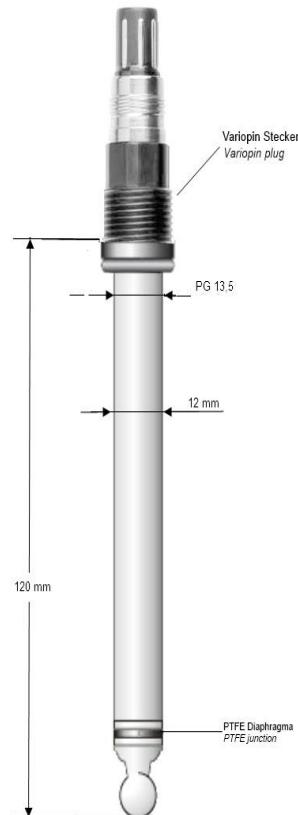
Temperatursensor /  
*Temperature sensor* Kein, Pt 100, Pt 1000 /  
*None, Pt 100, Pt 1000*

### 3.3.4 Mechanical drawing



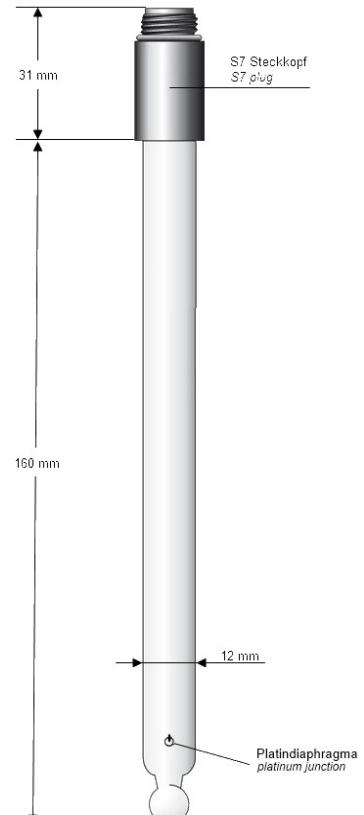
Art. No.: S24132120K

Order Code: 203072100



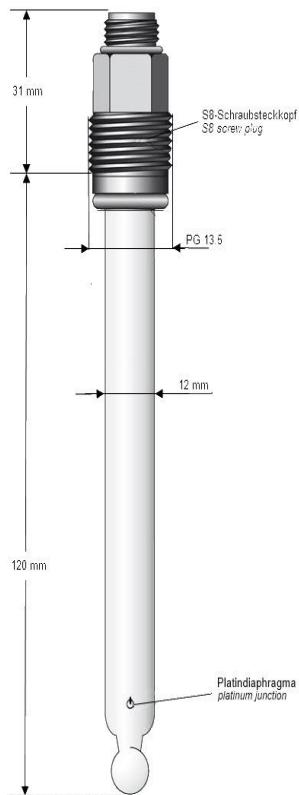
Art. No.: S24132121K

Order Code: 203172600



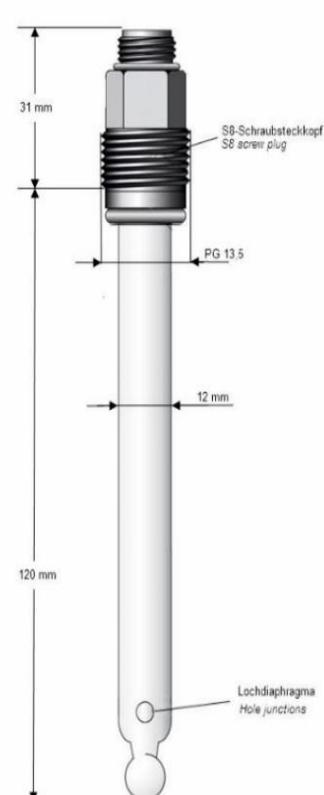
Art. No.: S24132140K

Order Code: 203032320



Art. No.: S24132150K

Order Code: 203032100



Art. No.: S24132810K

Order Code: 203085100



### 3.3.5 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Gruppe / Group</b>	203	Zirkon® pH Process
<b>Temperatursensor / Temperature sensor</b>	0	Kein / None
	1	Pt 100
	2	Pt 1000
	9	Sonderanfertigung / Special
<b>Diaphragma / Junction</b>	1	Zirkon 1 mm / Zircon 1mm
	3	Platin / Platinum
	7	PTFE
	8	Loch / Hole
<b>Elektrolyt / Electrolyte</b>	9	Sonderanfertigung / Special
	2	Tepoxgel 3mol KCl / Tepox gel 3mol KCl
	5	Festelektrolyt / Solide electrolyte
	3	Tepoxgel - gestättigt KCl mit Salzvorrat / Tepox gel - saturated KCl with salt reservoir
	8	Doppelkammer (3mol KCl - flüssig) / Double chambre (3mol KCl - liquid)
	9	Sonderanfertigung / Special

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

### 3.3.6 Storage version

Artikel Nr. / <i>Article No.</i>	Typ / <i>Type</i>	Beschreibung / <i>Description</i>
S24131117K	203285600	pH sensor: 2x hole junction, solid gel SPMA, Variopin plug (swivel PG 13.5), 120 mm, PT 1000
S24132120K	203072100	pH sensor: PTFE junction, Tepox gel 3mol KCl /, S8 plug (swivel PG 13.5), 120 mm
S24132121K	203172600	pH sensor: Pt 100, 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

### 3.4 Zirkon® pH Process Refill

#### 3.4.1 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. Sensors – Made in Germany.

#### Benefits

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

### 3.4.2 Applications



Industrial Water



Drinking Water



Process Water



Cooling Water



Waste Water  
Treatment

### 3.4.3 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Prozessbedingungen / Ambient conditions**

Druck / Pressure PG-Stecker: < 2 bar bei 20 °C  
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, Platinum, 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

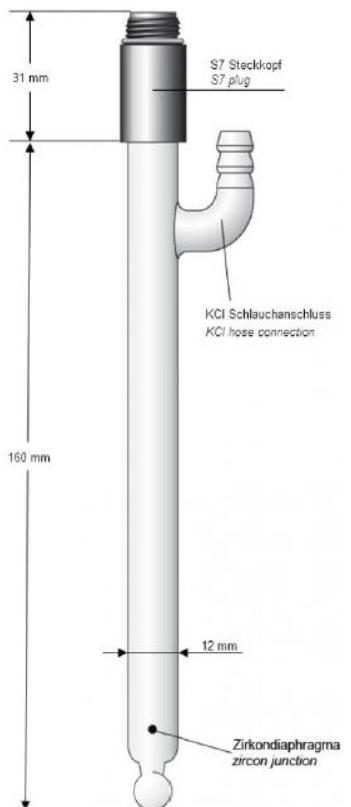
Elektrodenmaterial / Electrode material AH-Glas /  
AH-Glass

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***

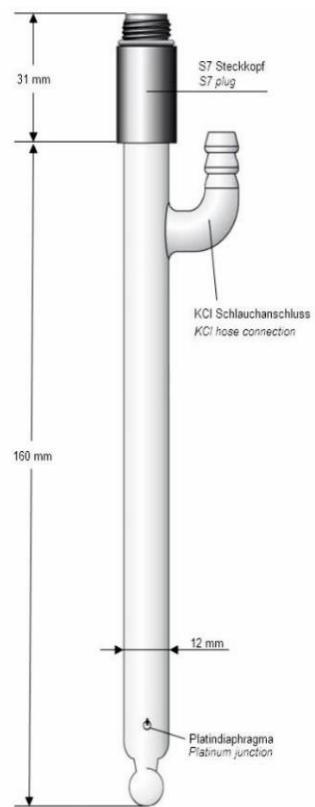
Mechanischer Anschluss / <i>Process connection</i>	S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin (PG 13,5 - drehbar), festangeschlossenes Kabel /  <i>S8-plug (swivel PG 13.5), S7-plug, Variopin (swivel PG 13.5), fixed cable</i>
Elektrischer Anschluss / <i>Electrical connection</i>	2- oder 8-polig / <i>2- or 8-poles</i>
Temperatursensor / <i>Temperature sensor</i>	Kein, Pt 100, Pt 1000 / <i>None, Pt 100, Pt 1000</i>

### 3.4.4 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

### 3.4.5 Order information

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

<b>Länge / Length</b>	0	120 mm
	2	160 mm
	4	225 mm
	9	Sonderlänge / <i>Special length</i>
<b>Sonstiges / Special</b>	0	Kein / <i>None</i>
	1	2 Innenpuffer/ <i>2 Internal buffer</i>
	2	K2SO4 als Brückenelektrolyt / <i>K2SO4 as bridge electrolyte</i>
	4	KCl-Druckaufsatz / <i>KCl Pressure attachment</i>
	K	Kabellänge / <i>Cable length</i>
		Beispiel: 1 Meter = K01, 10 Meter = K10 <i>Example:</i> 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.**

### 3.4.6 Storage version

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

### 3.5 Zirkon® pH Fluoride

#### 3.5.1 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

### 3.5.2 Applications



Industrial Water



Fluoride  
Containing  
Media

### 3.5.3 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Prozessbedingungen / Ambient conditions**

Druck /  
*Pressure* PG-Stecker: < 10 bar bei 20 °C  
 PG 13.5 lose: < 1 bar bei 20 °C  
 KCl-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*  
*KCl-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 /  
*Conductivity* 3M KCl: > 50 µS/cm  
 Tepoxgel: > 150 µS/cm

3M KCl: > 50 µS/cm  
*Tepox gel: > 150 µS/cm*

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

#### **Konstruktiver Aufbau / Mechanical construction**

Diaphragma /  
*Junction* Zirkon 1 mm, PTFE; Platin, Loch /  
 Zircon 1 mm, PTFE, Platinum, Hole

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*

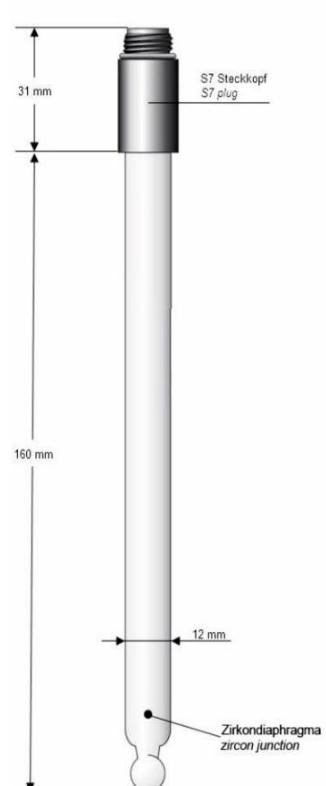
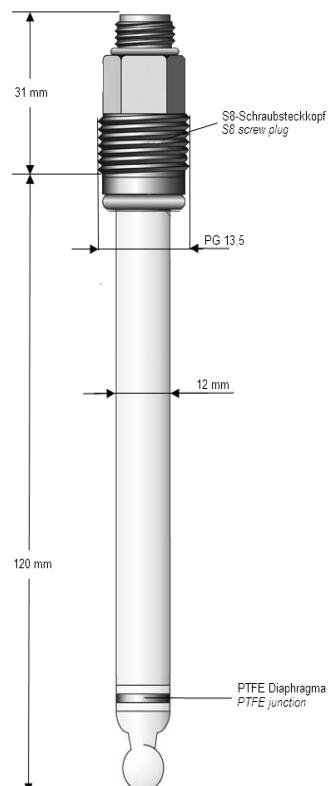
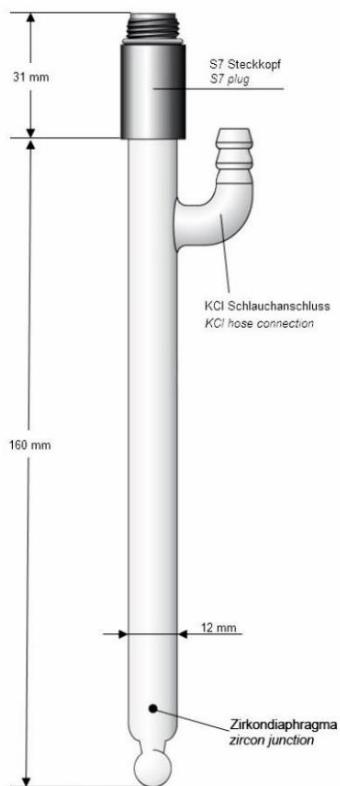
Elektrodenmaterial /  
*Electrode material* S-Glas-Kugel /  
 S-Glass-ball

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

Innenpuffer /  
*Internal buffer* pH 7

Mechanischer Anschluss / <i>Process connection</i>	S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin (PG 13,5 - drehbar), festangeschlossenes Kabel /  <i>S8-plug (swivel PG 13.5), S7-plug, Variopin (swivel PG 13.5), fixed cable</i>
Elektrischer Anschluss / <i>Electrical connection</i>	2- oder 8-polig / 2- or 8- poles
Temperatursensor / <i>Temperature sensor</i>	Kein, Pt 100, Pt 1000 / None, Pt 100, Pt 1000

### 3.5.4 Mechanical drawing



Art. No.: S24132300K

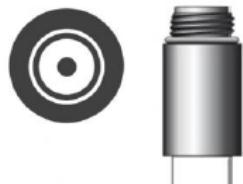
Order Code: 205011320

Art. No.: S24132420K

Order Code: 205072100

Art. No.: S24132400K

Order Code: 205012320



S7-plug



S8-plug



Variopin



PTFE



Hole

### 3.5.5 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Gruppe / Group</b>	205	Zirkon® pH Fluoride
<b>Temperatursensor / Temperature sensor</b>	0	Kein / <i>None</i>
	1	Pt 100
	2	Pt 1000
	9	Sonderanfertigung / <i>Special</i>
<b>Diaphragma / Junction</b>	1	Zirkon 1 mm / <i>Zircon 1 mm</i>
	3	Platin / <i>Platinum</i>
	7	PTFE
	8	Loch / <i>Hole</i>
	9	Sonderanfertigung / <i>Special</i>
<b>Elektrolyt / Electrolyte</b>	1	3mol KCl flüssig / <i>3mol KCl liquid</i>
	2	Tepoxgel 3mol KCl / <i>Tepox gel 3mol KCl</i>
	3	Tepoxgel - gesättigt KCl mit Salzvorrat/ <i>Tepox gel - saturated KCl with salt reervoir</i>
	9	Sonderanfertigung / <i>Special</i>

<b>Anschluss / Connection</b>	1	S8-Stecker (PG 13,5 - drehbar) / S8-plug (swivel PG 13.5)
	3	S7-Stecker / S7-plug
	6	VP Variopin Stecker (PG 13,5 - drehbar) / VP Variopin plug (swivel PG 13.5)
	7	Festangeschlossenes Kabel / <i>Fixed cable</i>
	9	Sonderanfertigung / <i>Special</i>
<b>Länge / Length</b>	0	120 mm
	2	160 mm
	4	225 mm
	9	Sonderlänge / <i>Special length</i>
<b>Sonstiges / Special</b>	0	None / <i>None</i>
	1	2 Innenpuffer / 2 <i>Internal buffer</i>
	4	KCl-Druckaufsatz / <i>KCl-pressure attachment</i>
	K	Kabellänge / <i>Cable length</i>
		Beispiel: 1 Meter = K01, 10 Meter = K10 <i>Example: 1 m = K01, 10 m = K10</i> )
	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.**

### 3.5.6 Storage version

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

### 3.6 Zirkon® pH Coating

#### 3.6.1 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

### 3.6.2 Applications



Industrial Water



Fluoride  
Containing  
Media



Laboratory

### 3.6.3 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Prozessbedingungen / Ambient conditions**

Druck. /  
*Pressure* PG 13,5 lose: < 1 bar bei 20 °C  
 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 /  
*Conductivity* 3mol KCl: > 50 µS/cm  
 Tepoxgel: > 150 µS/cm /  
  
 3mol KCl: > 50 µS/cm  
*Tepox gel: > 150 µS/cm*

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

#### **Konstruktiver Aufbau / Mechanical construction**

Diaphragma / <i>Junction</i>	Zirkon 1 mm (15 mm vorstehend), Loch / <i>Zircon 1 mm (15 mm projecting), Hole</i>
Schaftmaterial / <i>Shaft material</i>	Glas / <i>Glass</i>
Schaftlänge / <i>Shaft length</i>	120 mm, 160 mm, 240 mm
Elektrodenmaterial / <i>Electrode material</i>	S-Glas Kugel / <i>S-Glass-ball</i>
Bezugssystem / <i>Reference system</i>	Ag / AgCl / Tepox gel 3mol KCl / Festelektrolyt <i>Ag / AgCl / Tepox gel 3mol KCl / Solid electrolyte</i>
Innenpuffer / <i>Internal buffer</i>	pH 7
Mechanischer Anschluss / <i>Process connection</i>	S8-Stecker (PG 13,5 - drehbar), S7-Stecker, Variopin <i>(PG 13,5 - swivel), swivel PG 13.5, S7-plug, Variopin (swivel PG 13.5), fixed cable</i>

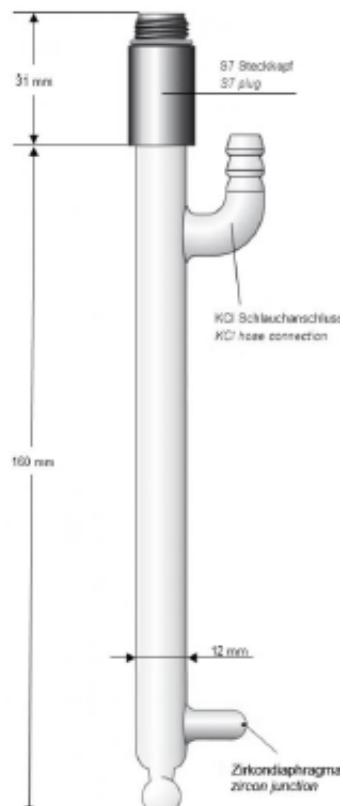
Elektrischer Anschluss /  
*Electrical connection*

2-polig /  
2-poles

Temperatursensor /  
*Temperature sensor*

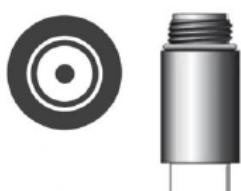
Kein /  
None

### 3.6.4 Mechanical drawing



Art. No.: S24132320K

Order Code: 206051320



S7-plug



S8-pflug



Variopin



Hole



Zircon

### 3.6.5 Order information

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

Sonstiges / <i>Special</i>	0	Kein / None
	4	KCl-Druckaufsatz / <i>KCl-pressure attachment</i>
	K	Kabellänge / <i>Cable length</i>
		Beispiel: 1 Meter = K01, 10 Meter = K10 <i>Example: 1 m = K01, 10 m = K10</i>
	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.**

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### 3.6.6 Storage version

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

### 3.7 Zirkon® pH Pool

#### 3.7.1 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

### 3.7.2 Applications



Pool & Spa

### 3.7.3 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

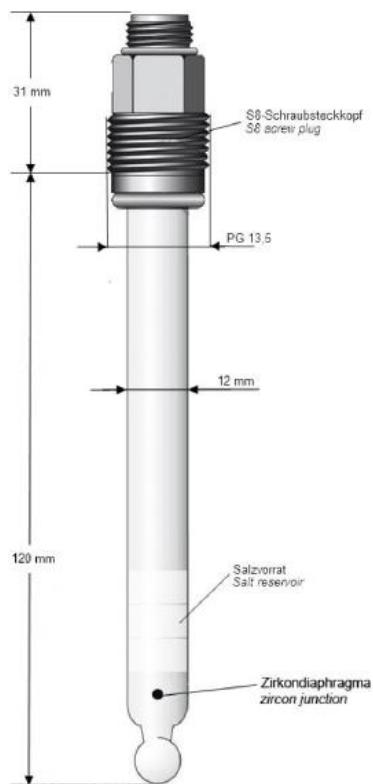
Innenpuffer / pH 7  
Internal buffer

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

### 3.7.4 Mechanical drawing



Art. No.: S24132700K

Order Code: 207013100

### 3.7.5 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Gruppe / Group</b>	207	Zirkon® pH Pool
<b>Temperatursensor/ Temperature sensor</b>	0	Kein / None
<b>Diaphragma / Junction</b>	1	Zirkon 1 mm / Zircon 1 mm
	9	Sonderanfertigung / Special
<b>Elektrolyt / Electrolyte</b>	3	Tepoxgel - gesättigt KCl mit Salzvorrat <i>Tepox gel - saturated KCl with salt reservoir</i>
	9	Sonderanfertigung / Special
<b>Anschluss / Connection</b>	1	S8-Stecker (PG 13,5 - drehbar) / S8-plug (swivel PG 13.5)
	7	Festangeschlossenes Kabel / Fixed cable
	9	Sonderanfertigung / Special
<b>Länge / Length</b>	0	120 mm
	9	Sonderlänge / Special length
<b>Sonstiges / Special</b>	0	Kein / None
	K	Kabellänge / Cable lenght
		Beispiel: 1 Meter = K01, 10 Meter = K10 <i>Example:</i> 1 Meter = K01, 10 meter = K10
	9	Sonderanfertigung / 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.

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**Price on request.**

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### 3.7.6 Storage version

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

### 3.8 Zirkon® pH Process HT

#### 3.8.1 Description



Art. No. S24132122K

Order Code: 208075100



Art. No. S24132133K

Order Code: 208175600

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. Optional a temperature probe can be added.

#### Benefits

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

#### 3.8.2 Applications



Industrial Water



Process Water



Cooling Water



High-temperature



Sterilisable

### 3.8.3 Technical data

#### Messparameter / Measuring parameter

pH-Wert /  
pH-value                    0.00.. 14.00

#### Prozessbedingungen / Ambient conditions

Druck / Pressure	PG-Stecker: < 10 bar bei 20 °C 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 / Pressure	PTFE: <10 bar bei 20 °C Zirkon: <2 bar bei 20 °C  PTFE: <10 bar at 20 °C / 68 °F Zircon: <2 bar at 20 °C / 68 °F
Leitfähigkeit / Conductivity	> 150 µS/cm /
Temperatur / Temperature	-5.. +135 °C / 23..275°F

#### Konstruktiver Aufbau / Mechanical construction

Diaphragma / Junction	PTFE, Zirkon / PTFE, Zircon
Schaftmaterial / Shaft material	Glas / Glass
Schaftlänge / Shaft length	120 mm, 225 mm
Schaftdurchmeser / Shaft Diameter	12 mm
Elektrodenmaterial / Electrode material	AH-Glas / AH-Glass
Bezugssystem / Reference system	Ag / AgCl / Festelektrolyt / Ag / AgCl / Solide electrolyte
Innenpuffer / Internal buffer	pH 7
Mechanischer Anschluss / Process connection	S8-Stecker (PG 13,5 - drehbar) / Variopin (PG 13,5 - drehbar), festangeschlossenes Kabel / S8-plug (swivel PG 13.5) / Variopin (swivel PG 13.5) / fixed cable

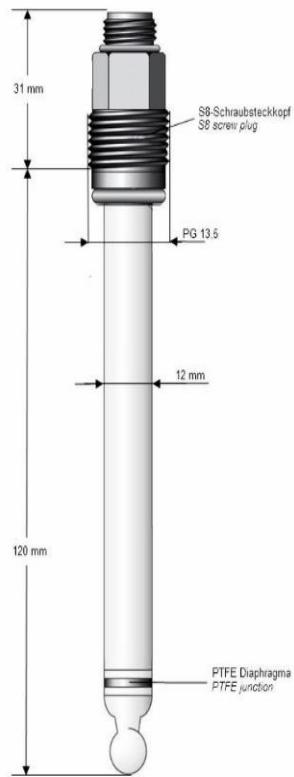
Elektrischer Anschluss /  
*Electrical connection*

2 or 8-polig /  
2 or 8-poles

Temperatursensor /  
*Temperature sensor*

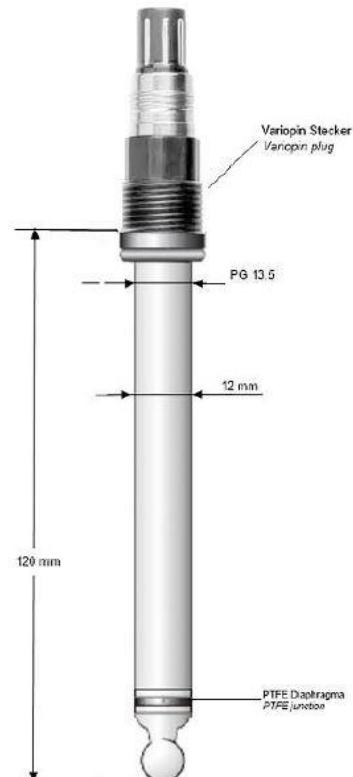
Kein, Pt 100, Pt 1000 /  
*None, Pt 100, Pt 1000*

### 3.8.4 Mechanical drawing



Art. No.: S24132122K

Order Code: 208075100



Art. No.: S24132133K

Order Code: 208175600

### 3.8.5 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Gruppe / Group</b>	208	Zirkon® pH Process HT
<b>Temperatursensor / Temperature sensor</b>	0	Kein / None
	1	Pt 100
	2	Pt 1000
	9	Sonderanfertigung / <i>Special</i>
<b>Diaphragma / Junction</b>	0	Kein / None
	2	Zirkon 1 mm / <i>Zircon 1 mm</i>
	7	PTFE
	9	Sonderanfertigung / <i>Special</i>
<b>Elektrolyt / Electrolyte</b>	5	Festelektrolyt / <i>Solide electrolyte</i>
<b>Anschluss / Connection</b>	1	S8-Stecker (PG 13,5 - drehbar) / <i>S8-plug (swivel PG 13.5)</i>
	6	VP-Variopin-Stecker (PG 13,5 - drehbar) / <i>VP-Variopin-plug (swivel PG 13.5)</i>
	7	Festangeschlossenes Kabel / <i>Fixed cable</i>
	9	Sonderanfertigung / <i>Special</i>
<b>Länge / Length</b>	0	120 mm
	4	225 mm
	9	Sonderlänge / <i>Special length</i>

Sonstiges / <i>Special</i>	0	Kein / <i>None</i>
	K	Kabellänge / <i>Cable lenght</i>
		Beispiel: 1 Meter = K01, 10 Meter = K10 <i>Example:</i> 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.

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**Price on request.**

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### 3.8.6 Storage version

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

### 3.9 Zirkon® pH Wide Body

#### 3.9.1 Description



Art. No: S24136110K

Order Code: 2091100010



Art: S24136111K

Order Code: 209110003K06



Art.: S24136112K

Order Code: 2091120020



Art.: S24136113K

Order Code: 209112004K06

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  $\frac{3}{4}$ " 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 Pt 1000 / Pt 100 / NTC 30 k $\Omega$  sensor for temperature compensation
- Solution ground for stable measurements in demanding application
- Optional: Molded sensor cable suitable for submersion application

### 3.9.2 Applications



Disinfection



Industrial Water



Drinking Water



Process Water



Cooling Water



Food &amp; Beverage



Waste Water Treatment

### 3.9.3 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Umgebungsbedingungen / Process conditions**

Druck / Pressure	< 10 bar bei 20 °C / < 10 bar at 20 °C / 68 °F
Leitfähigkeit / Conductivity	50 µS/cm
Temperatur / Temperature	-5.. +100 °C / 23..212 °F

#### **Konstruktiver Aufbau / Mechanical construction**

Diaphragma / Junction	PTFE
Schaftmaterial / Shaft material	Ryton®
Schaftlänge / Shaft length	150 mm mit Schutzkorb / 150 mm with protective guard
Schaftdurchmesser / Shaft diameter	Sechskant 26 mm / Hexagon 26 mm
Elektrodenmaterial / Electrode material	AH-Glas / AH-Glass
Bezugssystem / Reference system	Ag / AgCl / Festelektrolyt / Ag / AgCl / Solid electrolyte
Mechanischer Anschluss / Process connection	¾“ NPT
Elektrischer Anschluss / Electrical connection	S8 (2-polig), Variopin (8-polig), Festkabel, Festkabel mit BNC Stecker /  S8 (2-poles), Variophin (8-poles), Fixed cable, Fixed cable with BNC plug
Temperatursensor / Temperature sensor	Kein, Pt 1000 / Pt 100, NTC 30 kΩ None, Pt 1000 / Pt 100, NTC 30 kΩ

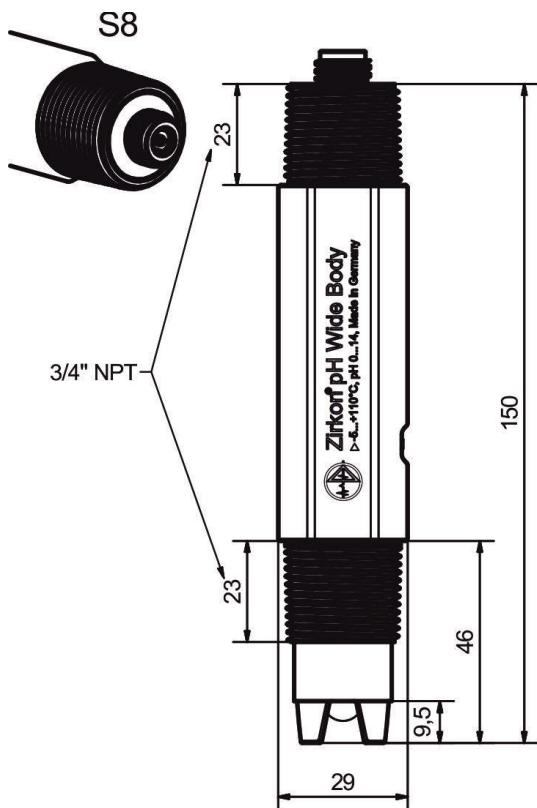
Eintauchtiefe /  
*Immersion depth*

25 mm

Potentialausgleich /  
*Potential compensation*

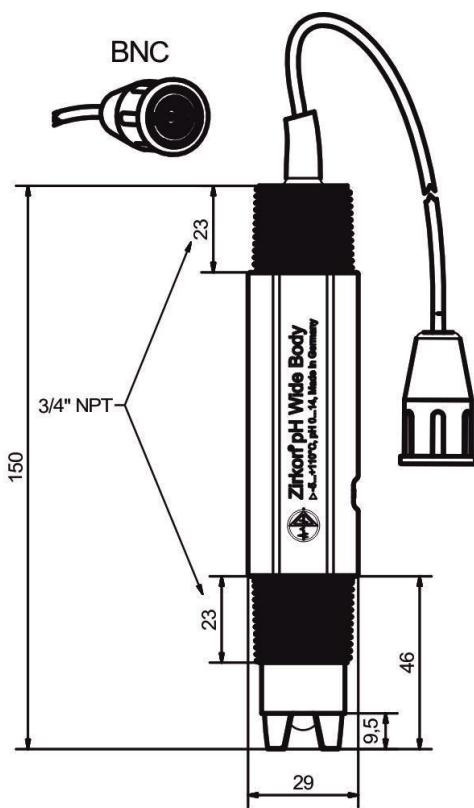
Optional

## 3.9.4 Mechanical drawing



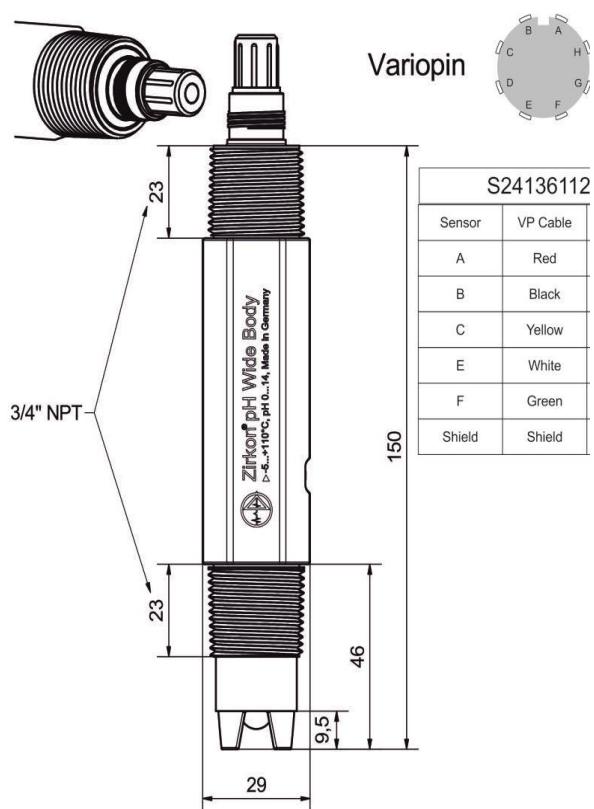
Art. No.: S24136110K

Order Code: 2091100010



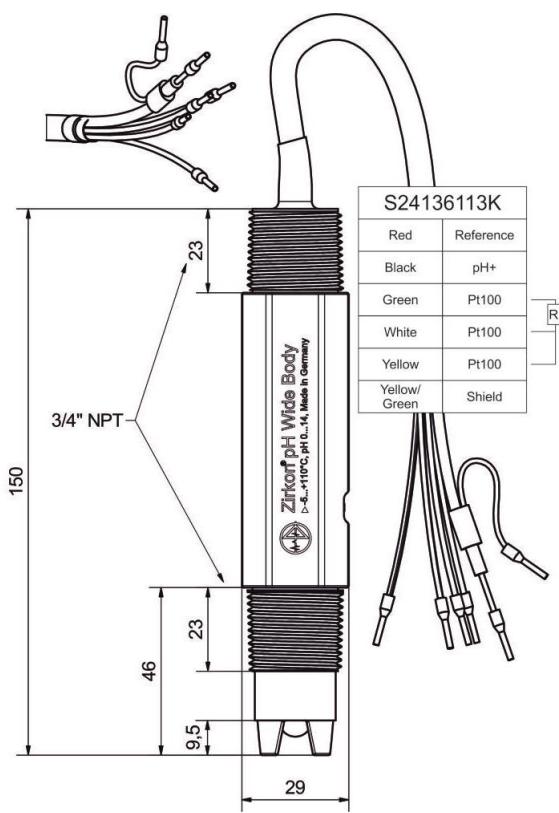
Art. No.: S24136111K

Order Code: 209110003K06



Art. No.: S24136112K

Order Code: 2091120020



Art. No.: S24136113K

Order Code: 209112004K06

### 3.9.5 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Gruppe / Group</b>	209	Zirkon® pH Wide Body
<b>Schutzkorb / Protective guard</b>	0	Nein / <i>None</i>
	1	Mit / <i>With</i>
<b>Messelektrode / Measuring electrode</b>	1	AH-Glas, Halbkugel / <i>AH-Glass, Half dome</i>
<b>Temperaturfühler / Temperature sensor</b>	0	Kein / <i>None</i>
	1	Pt 100
	2	Pt 1000
	3	NTC 30 kΩ
	9	Sonderanfertigung / <i>Special</i>
<b>Potentialausgleich / Solution ground</b>	0	Nein / <i>None</i>
	1	Integriert / <i>Build in</i>
<b>Brückenelektrolyt / Electrolyte (connect to process)</b>	0	Tepoxgel 3mol KCl / <i>Tepox gel 3mol KCl</i>
	9	Sonderanfertigung / <i>Special</i>

<b>Anschluss / Connect</b>	1	S8 (2-polige) Schraubverbindung (nur Temperatursensor 0, Potentialausgleich 0) /  <i>S8 (2-poles) screw connection (temperature sensor 0, solution ground 0 only)</i>
	2	VP Variopin Stecker (8-polig) / <i>VP Variopin plug (8-poles)</i>
	3	Festangeschlossenes Kabel 3 mm mit BNC (nur Temperatursensor 0, Potentialausgleich 0) /  <i>Fixed cable 3 mm with BNC (temperature sensor 0, solution ground 0 only)</i>
	4	Festangeschlossenes Kabel 7,5 mm Koax + 3 Litzen + Außenschirm, Adernendhülsen /  <i>Fixed cable 7.5 mm with ferrules 3 litz + external screen, cable end sleeves</i>
	9	Sonderanfertigung / <i>Special</i>
<b>Sonstiges / Special</b>	0	Nein / <i>None</i>
	K06	6 m Festkabel / <i>Fixed cable length 6 m</i>
	9	Sonderanfertigung / <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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### 3.9.6 Storage version

Artikel Nr. / <i>Article No.</i>	Typ / <i>Type</i>	Beschreibung / <i>Description</i>
S24136110K	2091100010	Zirkon® pH Wide Body: With protection guard, AH-Glass, 2-poles connection for S8 cable
S24136111K	209110003K06	Zirkon® pH Wide Body: With protection guard, AH-Glass, Fixed cable 3 mm with BNC, length 6 m
S24136112K	2091120020	Zirkon® pH Wide Body: With protection guard, AH-Glass, Pt 1000, Variopin-plug (8-poles)
S24136113K	209112004K06	Zirkon® pH Wide Body: With protection guard, AH-Glass, Pt 1000, Fixed cable with ferrules, length 6 m

### 3.10 Zirkon® Rx Universal

#### 3.10.1 Description



Art. No.: S24135110K

Order Code: 211512320



Art. No.: S24135115K

Order Code: 211112100



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

### 3.10.2 Applications



Industrial Water   Drinking Water   Process Water   Cooling Water



Waste Water  
Treatment

### 3.10.3 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Umgebungsbedingungen / Ambient conditions**

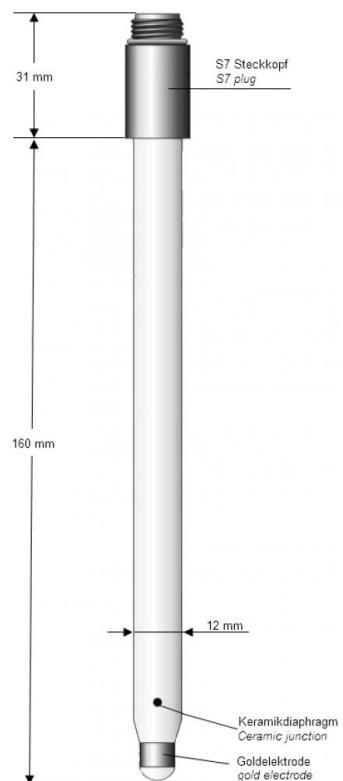
Druck /  
*Pressure* PG-Stecker: < 2 bar bei 20 °C  
PG-Stecker 13,5 lose: < 1 bar drucklos  
  
PG-Plug: < 2 bar at 20 °C / 68 °F  
PG-Plug 13.5 lose: < 1 bar pressureless

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

#### **Konstruktiver Aufbau / Mechanical construction**

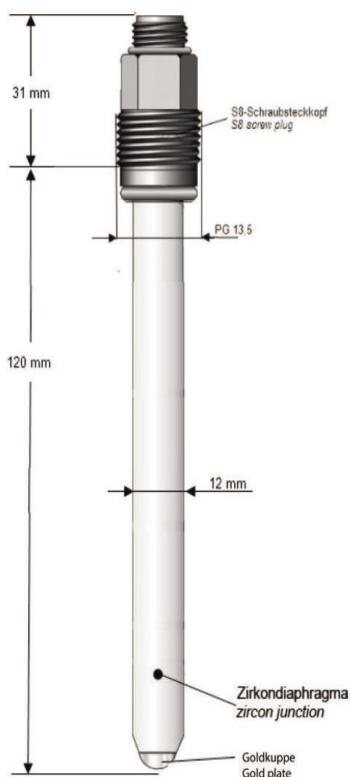
Diaphragma / <i>Junction</i>	Zirkon 1 mm / <i>Zircon 1 mm</i>
Schaftmaterial / <i>Shaft material</i>	Glas / <i>Glass</i>
Schaftlänge / <i>Shaft length</i>	120 mm, 160 mm
Elektrodenmaterial / <i>Electrode material</i>	Goldkuppe, Platinring, Platinkuppe, Goldring / <i>Gold plate, Platinum ring, Platinum plate, Gold ring</i>
Bezugssystem / <i>Reference system</i>	Ag / AgCl / Tepoxgel 3mol KCl / <i>Ag / AgCl / Tepox gel 3mol KCl</i>
Mechanischer Anschluss / <i>Process connection</i>	S8-Stecker (PG 13,5 - drehbar), S7-Stecker, festangeschlossen / <i>S8-plug (swivel PG 13.5), S7-plug, fixed cable</i>
Elektrischer Anschluss / <i>Electrical connection</i>	2-polig / <i>2-poles</i>

### 3.10.4 Mechanical drawing



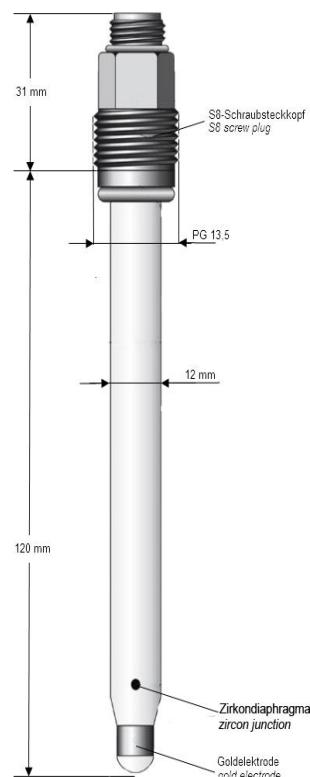
Art. No.: S24135110K

Order Code: 211512320



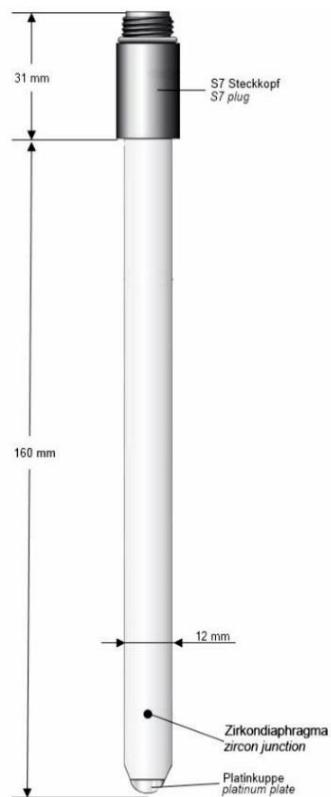
Art. No.: S24135115K

Order Code: 211112100



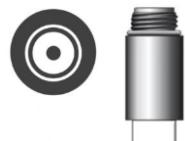
Art. No.: S24135120K

Order Code: 211512100

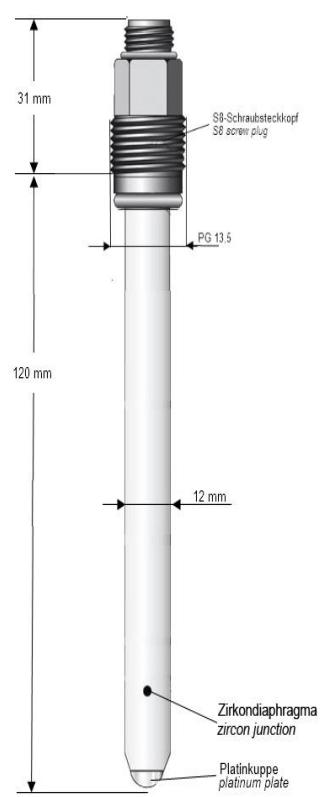


Art. No.: S24135210K

Order Code: 211312320



S7-plug



Art. No.: S24135220K

Order Code: 211312100



S8-plug

### 3.10.5 Order information

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

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



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**Note!**

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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.

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**Price on request.**

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### 3.10.6 Storage version

<b>Artikel Nr. / Article No.</b>	<b>Typ/ Type</b>	<b>Beschreibung / 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

### 3.11 Zirkon® Rx Process

#### 3.11.1 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

#### 3.11.2 Applications



Disinfection



Industrial Water



Process Water



Cooling Water



Waste Water  
Treatment

### 3.11.3 Technical data

#### **Messparameter / Measuring parameter**

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

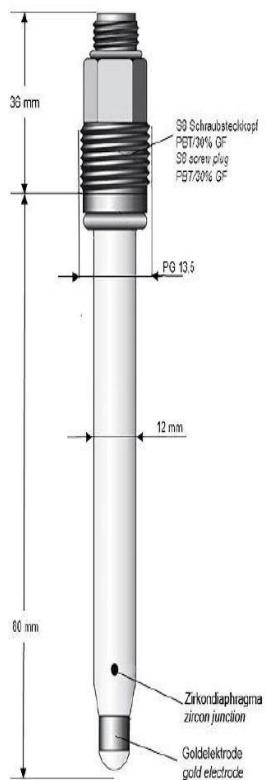
#### **Umgebungsbedingungen / Ambient conditions**

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

#### **Konstruktiver Aufbau / Mechanical construction**

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

### 3.11.4 Mechanical drawing



Art. No.: S24135135K

Order Code: 213512210

### 3.11.5 Order information

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

<b>Länge / Length</b>	0	120 mm
	2	160 mm
	4	225 mm
	9	Sonderlänge / <i>Special length</i>

<b>Sonstiges / Special</b>	0	Kein / <i>None</i>
	K	Kabellänge / <i>Cable length</i>

Beispiel:

1 Meter = K01, 10 Meter = K10

*Example:*

1 Meter = K01, 10 meter = K10

9	Sonderanfertigung / <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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### 3.11.6 Storage version

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

### 3.12 Zirkon® Rx Process Refill

#### 3.12.1 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

### 3.12.2 Applications



Industrial Water



Process Water



Cooling Water



Waste Water  
Treatment

### 3.12.3 Technical data

#### Messparameter / Measuring parameter

Redoxpotential /  
ORP -1500.. +1500 mV

#### Umgebungsbedingungen / Ambient conditions

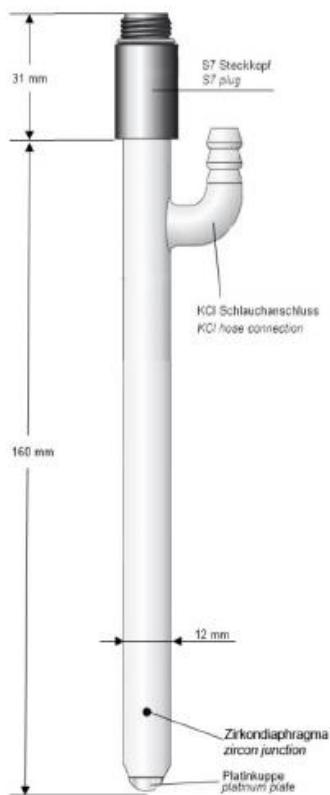
Druck / Pressure	PG-Stecker: < 2 bar bei 20 °C PG-Stecker 13,5 lose: < 1 bar drucklos KCl Druckaufsatz: < 6 bar bei 20 °C /  PG-Plug: < 2 bar at 20 °C / 68 °F PG-Plug 13.5 lose: < 1 bar pressureless KCl pressure attachment: < 6 bar bei 20 °C / 68 °F
---------------------	--

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

#### Konstruktiver Aufbau / Mechanical construction

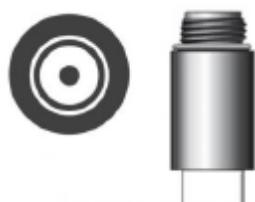
Diaphragma / Junction	Zirkon 1 mm / Platin Zircon 1 mm / Platinum
Schaftmaterial / Shaft material	Glas / Glass
Schaftlänge / Shaft length	120 mm, 225 mm, 160 mm
Schaftsdurchmesser / Shaft diameter	12 mm
Elektrodenmaterial / Electrode material	Platinring, Platinkuppe, Goldring, Goldkuppe / Platinum ring, Platinum plate, Gold ring, Platinum plate
Bezugssystem / Reference system	Ag / AgCl / Tepoxgel 3mol KCl / Ag / AgCl / Tepox gel 3mol KCl
Mechanischer Anschluss / Process connection	S7-Stecker / S8-Stecker (PG 13,5 - drehbar), festangeschlossenes Kabel /  S7-plug, S8-plug (swivel PG 13.5), fixed cable
Elektrischer Anschluss / Electrical connection	2-polig / 2-poles

### 3.12.4 Mechanical drawing



Art. No.: S24135200K

Order Code: 214311320



S7-plug



S8-plug

### 3.12.5 Order information

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

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

**3.12.6 Storage version**

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

### 3.13 Zirkon® Rx Pool

#### 3.13.1 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

### 3.13.2 Applications



Pool & Spa

### 3.13.3 Technical data

#### Messparameter / *Measuring parameter*

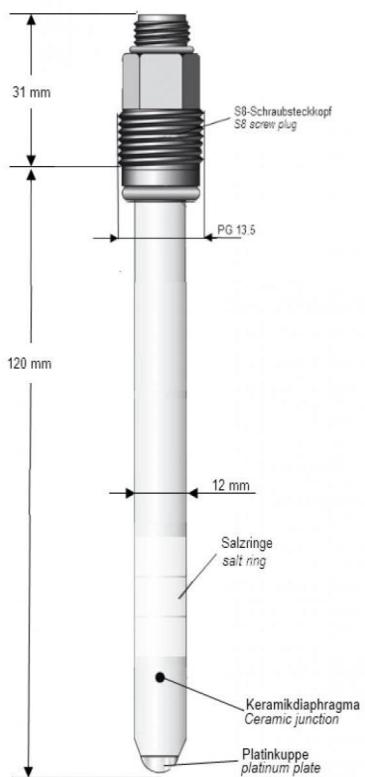
Redoxpotential / -1500.. +1500 mV  
*ORP*

#### Umgebungsbedingungen / *Ambient conditions*

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

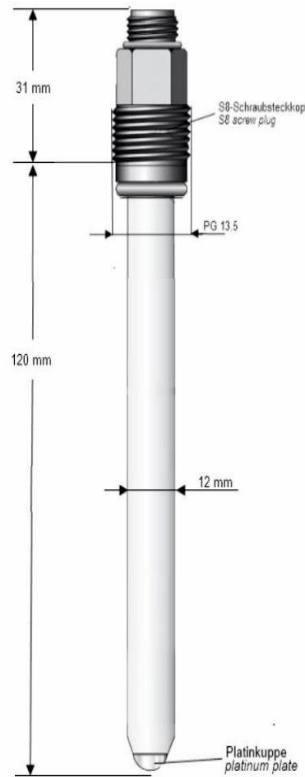
#### Konstruktiver Aufbau / *Mechanical construction*

Diaphragma / <i>Junction</i>	Kein , Zirkon 1 mm / <i>None, Zircon 1 mm</i>
Schaftmaterial / <i>Shaft material</i>	Glas / <i>Glass</i>
Schaftlänge / <i>Shaft length</i>	120 mm
Elektrodenmateriial / <i>Electrode material</i>	Platinkuppe / <i>Platinum plate</i>
Bezugssystem / <i>Reference system</i>	Kein, Ag / AgCl / KCl gesättigt / <i>None, Ag / AgCl / KCl saturated</i>
Mechanischer Anschluss / <i>Process connection</i>	S8-Stecker (PG 13,5 - drehbar), festangeschlossenes Kabel / <i>S8-plug (swivel PG 13.5), fixed cable</i>
Elektrischer Anschluss / <i>Electrical connection</i>	2-polig / <i>2-poles</i>

**3.13.4 Mechanical drawing**

Art. No.: S24135285K

Order Code: 217313100



Art. No.: S24134010K

Order Code: 217300100



S8-plug

### 3.13.5 Order information

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

<b>Sonstiges / Special</b>	0	Kein / <i>None</i>
	K	Kabellänge / <i>Cable length</i>
		<b>Beispiel:</b> 1 Meter = K01, 10 Meter = K10 <i>Example:</i> 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.

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**Price on request.**

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**3.13.6 Storage version**

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

### 3.14 Zirkon® Redox Wide Body

#### 3.14.1 Description



Art. No.: S24136511K

Order Code: 2191100010

Art. No.: S24136512K

Order Code: 219110003K06



Art. No.: S24136513K

Order Code: 219112104K06

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  $\frac{3}{4}$ " NPT top and bottom for easy installation
- Protection guard against electrode damage
- Rugged Ryton® shaft for demanding chemical environments
- Optional: Built in, Pt 1000 / Pt 100 / NTC 30K sensor for temperature compensation
- Optional: Solution ground for stable measurements in demanding application
- Optional: Molded sensor cable with BNC plug application

### 3.14.2 Applications



Disinfection



Industrial Water



Drinking Water



Process Water



Cooling Water

Food &  
BeverageWaste Water  
Treatment

### 3.14.3 Technical data

#### **Messparameter / Measuring parameter**

Redoxpotential /  
OPR                    -1500... +1500 mV

#### **Umgebungsbedingungen / Process conditions**

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

Leitfähigkeit /  
Conductivity          50 µS/cm

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

#### **Konstruktiver Aufbau / Mechanical construction**

Diaphragma /  
Junction              PTFE

Schaftmaterial /  
Shaft materials       Ryton®

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

Schaftdurchmesser /  
Shaft diameter        Sechskant 26 mm /  
                            Hexagon 26 mm

Elektrodenmaterial /  
Electrode material    Platinikuppe /  
                            Platinum Plate

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

Mechanischer Anschluss /  
Process connection    ¾“ NPT

Elektrischer Anschluss /  
Electrical connection   S8 (2-polig), Variopin (8-polig), Festkabel 6 m,  
                            Festkabel mit BNC-Stecker /

S8 (2-poles), Variopin (8-poles), fixed cable 6 m,  
fixed cable with BNC-plug

Temperatursensor /  
Temperature sensor

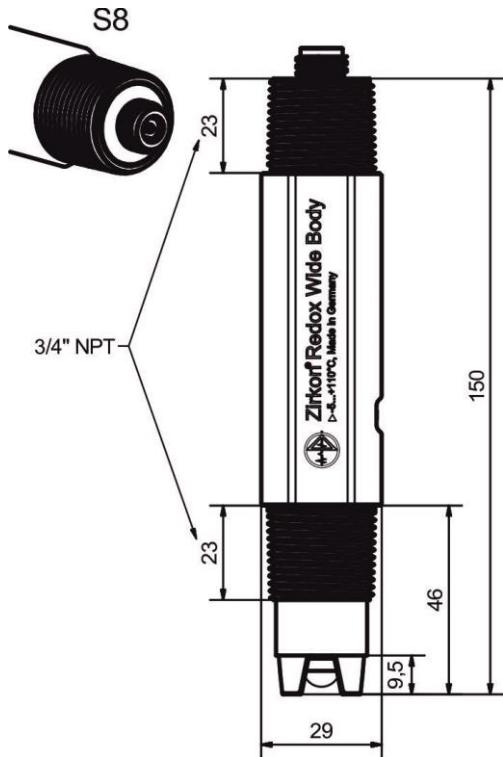
Nein , Pt 100, Pt 1000, NTC 30 kΩ /  
*None*, Pt 1000, NTC 30 kΩ

Eintauchtiefe /  
*Immersion depth*

25 mm

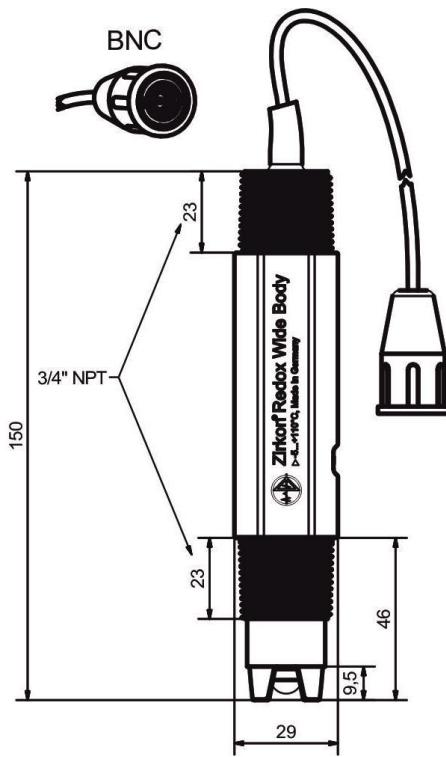
Potentialausgleich /  
Potential compensation

Optional

**3.14.4 Mechanical drawing**

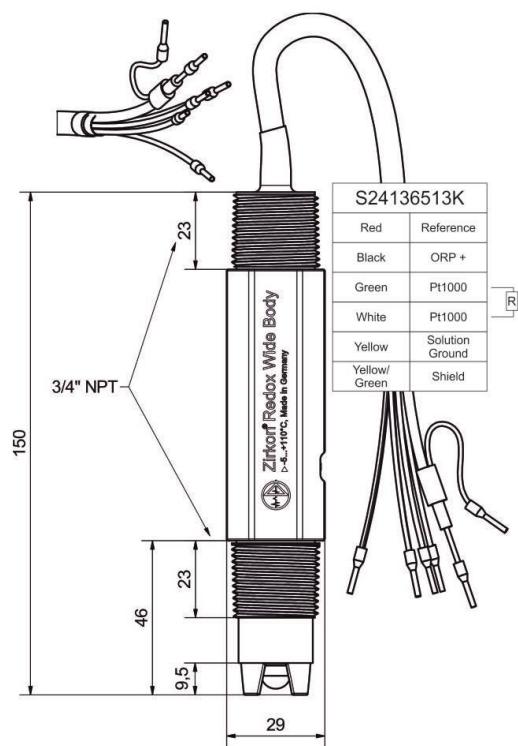
Art. No.: S24136511K

Order Code: 2191100010



Art. No.: S24136512K

Order Code: 219110003K06



Art. No.: S24136513K

Order Code: 219112104K06

### 3.14.5 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Gruppe / Group</b>	219	Zirkon® Redox Wide Body
<b>Schutzkorb / Protective guard</b>	0	Nein / None
	1	Mit / With
<b>Messelektrode / Measuring electrode</b>	1	Platinkuppe / Platinum plate
<b>Temperaturfühler / Temperature sensor</b>	0	Kein / None
	1	Pt 100
	2	Pt 1000
	3	NTC 30 kΩ
	9	Sonderanfertigung / Special
<b>Potentialausgleich / Solution ground</b>	0	Nein / None
	1	Integriert / Built in
<b>Brückenelektrolyt / Contact to process</b>	0	Tepoxgel 3mol KCl / Tepox gel 3mol KCl
	1	Integriert / Build in

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

### 3.14.6 Storage version

<b>Artikel Nr. / Article No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
S24136511K	2191100010	Zirkon® Redox Wide Body: With protection guard, Platinum plate, 2-poles connection for S8-cable
S24136512K	219110003K06	Zirkon® Redox Wide Body: With protection guard, Platinum plate, fixed cable 3 mm with BNC, length 6 m
S24136513K	219112104K06	Zirkon® Redox Wide Body: With protection guard, Platinum plate, Pt 1000, built in solution ground, fixed cable with ferrules, length 6 m

### 3.15 Zirkon® REF

#### 3.15.1 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

### 3.15.2 Applications



Industrial Water



Process Water  
Waste Water  
Treatment



### 3.15.3 Technical data

#### Umgebungsbedingungen / *Ambient conditions*

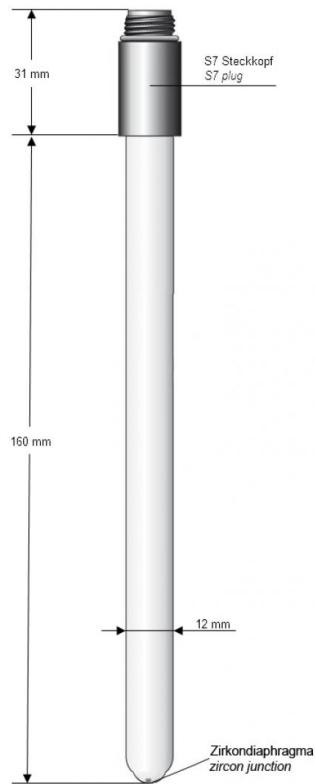
Druck /  
*Pressure* PG-Stecker: < 2 bar bei 20 °C  
PG 13,5 lose: < 1 bar drucklos /  
  
*PG-plug: < 2 bar at 20 °C / 68 °F*  
*PG 13.5 loose: < 1 bar pressureless*

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

#### Konstruktiver Aufbau / *Mechanical construction*

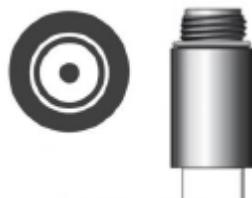
Diaphragma / <i>Junction</i>	Zirkon 1 mm, Platin / <i>Zircon 1 mm, Platinum</i>
Schaftmaterial / <i>Shaft material</i>	Glas / <i>Glass</i>
Schaftlänge / <i>Shaft length</i>	120 mm, 160 mm, 225 mm
Bezugssystem / <i>Reference system</i>	Tepoxgel 3mol KCl / <i>Tepox gel 3mol KCl</i>
Mechanischer Anschluss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

### 3.15.4 Mechanical drawing

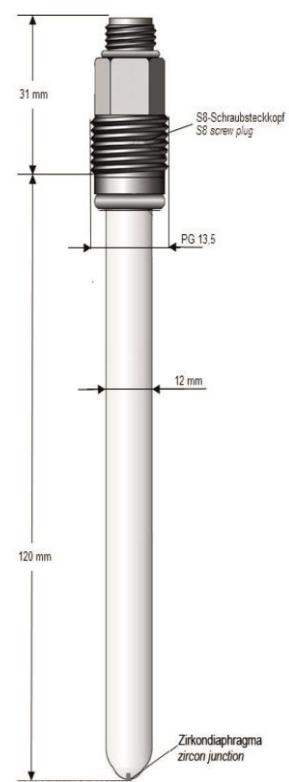


Art. No.: S24133100K

Order Code: 221B12320



S7-plug



Art. No.: S24133110K

Order Code: 221B12100



S8-plug

### 3.15.5 Order information

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

Sonstiges / <i>Special</i>	0	Kein / <i>None</i>
	1	Diaphragma zweifach / <i>Junction twice</i>
	9	Sonderanfertigung / <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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**3.15.6 Storage version**

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

### 3.16 Zirkon® REF Process Refill

#### 3.16.1 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

#### 3.16.2 Applications



Industrial Water



Process Water



Waste Water  
Treatment



Ultra Pure  
Water

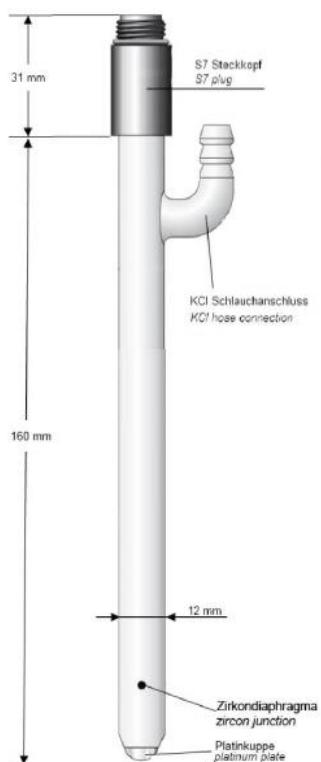
### 3.16.3 Technical data

#### Umgebungsbedingungen / *Ambient conditions*

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

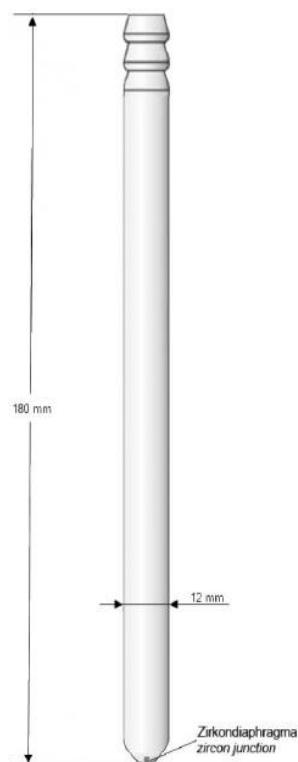
#### Konstruktiver / *Mechanical construction*

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

**3.16.4 Mechanical drawing**

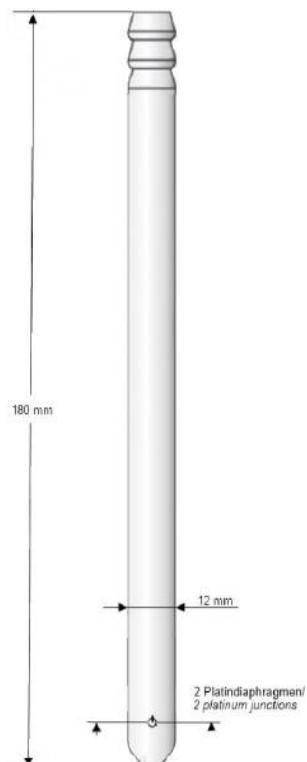
Art. No.: S4133000K

Order Code: 224B11320



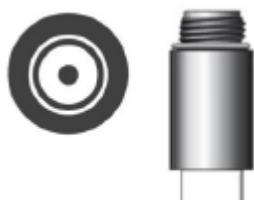
Art. No.: S24133800K

Order Code: 224E10000



Art. No.: S24133830K

Order Code: 24E30001



S7-plug



S8-plug

### 3.16.5 Order information

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

<b>Länge / Length</b>	0	120 mm
	2	160 mm
	4	225 mm
	9	Sonderlänge / <i>Special length</i>
<b>Sonstiges / Special</b>	0	Kein / <i>None</i>
	1	Diaphragma zweifach / <i>Junction twice</i>
	4	KCl-Druckaufsatz / <i>KCl-pressure attachement</i>
	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.**

**3.16.6 Storage version**

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

### 3.17 Zirkon® Temperatur

#### 3.17.1 Description



Art. No.: S24137000K

Art. No.: S24137011K

Art. No.: S24137012

Order Code: 271100320

Order Code: 271100100

Order Code: 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<sub>90</sub> of 15 seconds.

#### Benefits

- Fast response - t<sub>90</sub> = 15 sec
- Chemical resistant
- Pt 100 and Pt 1000 available

### 3.17.2 Applications



Drinking Water



Process Water



Laboratory

### 3.17.3 Technical data

#### Umgebungsbedingungen / *Process conditions*

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

Temperatur / *Temperature* -20.. +130 °C / -4..266°F

#### Konstruktiver Aufbau / *Mechanical construction*

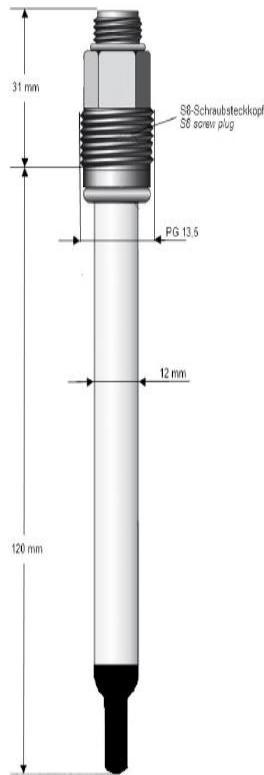
Schaftmaterial / *Schaftmaterial* Glas /  
Glass

Schaftlänge / *Shaft length* 120 mm, 160 mm

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

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

Temperatursensor / *Temperature sensor* Pt 100, Pt 1000

**3.17.4 Mechanical Drawing**

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



S7-plug



S8-plug



Variopin

### 3.17.5 Order information

	<b>Artikel Nr. / Article No.</b>	<b>Beschreibung / Description</b>
<b>Gruppe / Group</b>	271	Zirkon® Temperatur
<b>Temperatursenor / Temperature sensor</b>	100	Pt 100
	200	Pt 1000
<b>Anschluss / Connection</b>	0	Kein / None
	1	S8-Stecker (PG 13,5 - drehbar) / S8-plug (PG 13.5 - swivel)
	3	S7-Stecker / S7-Plug
	7	Festangeschlossenes Kabel / Fixed cable
	9	Sonderanfertigung / Special
<b>Länge / Length</b>	0	120 mm
	2	160 mm
	4	225 mm
	9	Sonderlänge / Special length
<b>Sonstiges / Special</b>	0	Kein / 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.**

### 3.17.6 Storage version

<b>Artikel Nr. / Article No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
S24137000K	271100320	Temperature sensor: Pt 100, S7-plug, 160 mm
S24137011K	271100100	Temperature sensor: Pt 100, S8-plug (swivel PG 13.5), 120 mm
S24137012K	271200100	Temperature sensor: Pt 100, S8-plug (swivel PG 13,5), 120 mm

## 4. Assemblies

### 4.1 Assemblies GD 1 V (G) (PP)

#### 4.1.1 Description



Assemblies: GD 1V(G) (PP)

Flow assembly for installation of one pH or ORP sensor in pipes with adhesive coupling or pipe coupling DN 25 with 1" female thread. Available in PVC and PP.

#### Benefits

- Easy to dismantle
- Ideal for sensors with thread PG 13.5
- Easy mounting by bonding or 1" female thread

#### 4.1.2 Technical data

##### Prozessbedingungen / *Ambient conditions*

Druck /  
Pressure                                   PVC: 16 bar (bei 20 °C) PP: 10 bar (bei 20 °C) /  
   PVC: 16 bar (at 20 °C / 68 °F) PP: 10 bar (at 20 °C / 68 °F)

Temperatur /  
Temperature                               Max 40 °C / 104 °F (PVC),  
   Max. 90 °C / 194 °F (PP)

##### Konstruktiver Aufbau / *Mechanical construction*

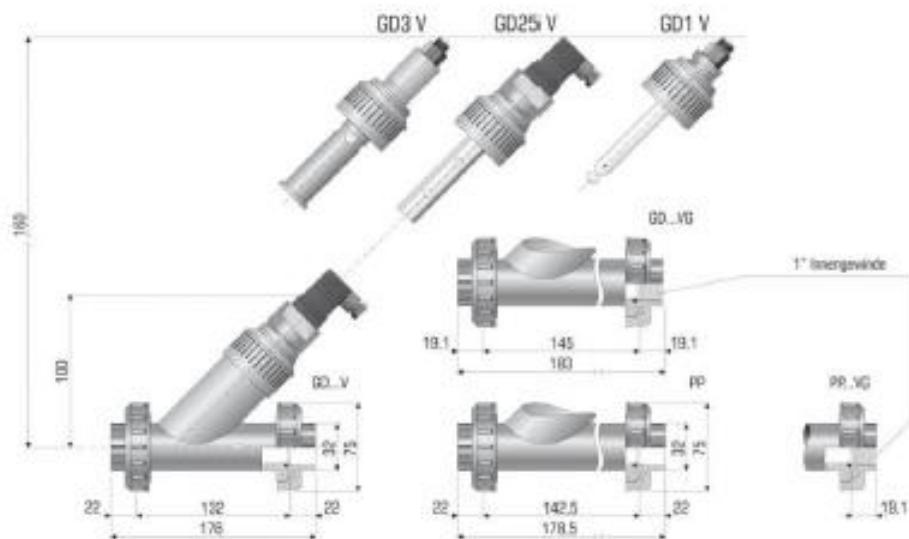
Werkstoff /  
Material                                   PVC, PP

Maße /  
Dimensions                               Siehe Maßzeichnung /  
   See dimension drawing

Einbau /  
Installation                              GD 1 V: Muffen (DN 25) zum Einkleben GD 1 VG (PP): Muffen  
   (DN 25) mit 1" Innengewinde /

*GD 1 V: adhesive coupling GD 1 VG (PP): pipe coupling DN 25  
with 1" female thread*

### 4.1.3 Mechanical drawing



Assemblies: GC 1 V(G) (PP)

#### 4.1.4 Order information

Artikel No. / Article No.	Typ / Type	Beschreibung / <i>Description</i>
36604261K	GD 1 V	Adhesive coupling (DN 25), PVC
36604263K	GD 1 VG	Pipe coupling (DN 25) with 1" internal thread, PVC
36604265K	GD 1 V PP	Pipe coupling (DN 25) with 1" internal thread, PP

## 4.2 Armatur GE 251 PP

### 4.2.1 Description



Assemblies: GE 251 PP

Art. No.: 36511020K

Order information: GE 251 PP

Immersion assembly for installation of one pH or ORP sensor

#### Benefits

- With protective cage to protect the sensor
- Fitting head with M16 cable gland
- Easy access to sensor
- Fastening with pipe clamps

#### 4.2.2 Technical data

##### **Umgebungsbedingungen / Ambient conditions**

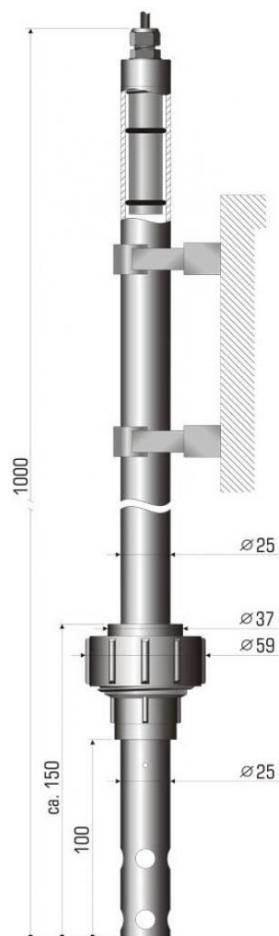
Temperatur / Max. 90 °C / 194 °F  
*Temperature*

##### **Konstruktiver Aufbau / Mechanical construction**

Werkstoff / PP  
*Material*

Maße / Siehe Maßzeichnung /  
*Dimensions* See *dimensional drawing*

### 4.2.3 Mechanical drawing



Assemblies: GE 251 PP

Art. No.: 36511020K

Order information: GE 251 PP

#### 4.2.4 Storage version

Artikel No. / <i>Article No.</i>	Typ / <i>Type</i>	Beschreibung / <i>Description</i>
36511020K	GE 251 PP	Immersion assembly for one pH or ORP sensor

### 4.3 Assemblies GE 23/3 PP

#### 4.3.1 Description



Assemblies: GE 23/3 PP

Art. No.: 36510012K

Order information: GE 23/3 PP

Immersion assembly for max. 3 sensors (pH, ORP and/or temperature sensors) in tanks or basins.

#### Benefits

- Protection of the sensors by protective cage
- Easy fastening by pipe clamps or angle braket
- Installation set for KCl-vessel available

### 4.3.2 Technical data

#### Umgebungsbedingungen / *Ambient conditions*

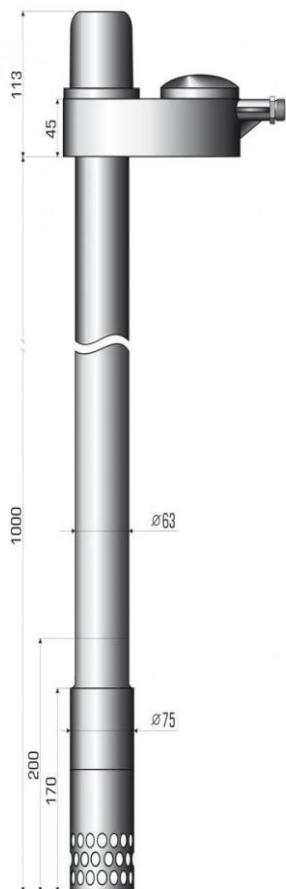
Temperatur / Max. 90 °C / 194 °F  
*Temperature*

#### Konstruktiver Aufbau / *Mechanical construction*

Werkstoff / PP  
*Material*

Maße / Siehe Maßzeichnung /  
*Dimensions* See *dimension drawing*

### 4.3.3 Mechanical drawing



Assemblies: GE 23/3 PP

Art. No.: 36510012K

Order information: GE 23/3 PP

#### 4.3.4 Order information

Artikel No. / <i>Article No.</i>	Typ / <i>Type</i>	Beschreibung / <i>Description</i>
36510012K	GE 23/3 PP	For max. 3 sensors, PP

## 5. Handheld Units

### 5.1 Handheld Units PM 6

#### 5.1.1 Description



Handheld Units: PM 6 Set

Art. No.: 65512510K  
Order information: PM 6

All-purpose portable measuring instrument for measurement of pH, ORP and temperature. Connection of pH and ORP combination electrodes with and without Pt 100 is possible. Handheld instrument, sensor and pH 4 and pH 7 buffer solution each 50 mL in a portable case are included in delivery.

#### Particular characteristics

- Automatic or manual temperature compensation
- Automatic power shut-off
- Double display for measured value and temperature
- Power supply by battery or rechargeable
- Easy and safe handling by 6 soft keys
- Low battery indication
- With fold away support

#### Benefits

- Automatic or manual temperature compensation
- Test of electrode quality
- Min/ max value memory, hold function

### 5.1.2 Technical data

#### Messparameter / Measuring parameter

pH-Wert / <i>pH value</i>	0.. 14 pH
Redoxpotential / <i>ORP</i>	-1999.. +1999 mV
Temperatur / <i>Temperature</i>	-100.. +250 °C / -148..482 °F

#### Hilfsenergie / Power supply

Netzwerkanschluss / <i>Line voltage</i>	Über 10-12 V (Netzteil nicht im Lieferumfang enthalten) / <i>Via 10-12 V (power unit not included in delivery)</i>
Stromversorgung / <i>Power supply</i>	9V Blockbatterie / <i>9V battery</i>
Stromverbrauch / <i>Power consumption</i>	Ca. 3 mA / <i>Approx. 3 mA</i>

#### Umgebungsbedingungen / Ambient conditions

Umgebungstemperatur / <i>Ambient temperature</i>	Betrieb: 0 .. 50° C, Lagerung: -20 °C .. 70 °C / <i>Operation: 0 .. 50 °C (32..122 °F), storage:-20.. 70 °C (-4..158 °F)</i>
Luftfeuchte / <i>Relative humidity</i>	Max. 90% rH bei 40 °C (nicht-kondensierend) / <i>Max. 90% rH at 40 °C / 104 °F (non-condensing)</i>
Schutzart / <i>Protection class</i>	IP 65

#### Konstruktiver Aufbau / Mechanical construction

Werkstoff / <i>Material</i>	PP
Maße / <i>Dimensions</i>	Siehe Maßzeichnung / <i>See dimension drawing</i>

#### Anschlüsse / Connections

Sensor / <i>Sensors</i>	BNC-Buchse (ph/Redox) Mini-DIN-Buchse (T) / <i>BNC plug (pH/ORP) female mini DIN plug (T)</i>
----------------------------	--

**Zertifikate und Zulassungen / Certificates and approvals**

CE-Zeichen /  
CE-Symbol

Konformitätserklärung: Das Produkt entspricht allen geltenden europäischen Vorschriften und erfüllt damit die gesetzlichen Vorgaben der EG-Richtlinien. Der Hersteller bestätigt die erfolgreiche Prüfung des Produkts durch die Anbringung des CE-Zeichens /

*Declaration of conformity: The product meets the requirements of the harmonized European standards. It thus complies with the legal requirements of the EC directives. The manufacturer confirms successful testing of the product by affixing the CE symbol.*

### 5.1.3 Order information

<b>Artikel No. / Article No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
65512510K	Handheld Units PM 6	Complete set measuring instrument with sensor (Zirkon pH 201012103), cable and each 50 ml buffer solution pH 4 and pH 7 including portable case

## 5.2 Handheld Units Radon DIS pH

### 5.2.1 Description



*Handheld Units: Radon DIS pH*

Art. No.: 190201K

Order information: Radon DIS pH

The Radon photometer is used for measuring of Chlorine, Chlorine dioxide, Ozone, Hydrogen peroxide and pH. Accurate and consistent results are obtained quickly. Delivery contents is everything needed to measure Chlorine, Chlorine dioxide and Ozone. The delivery content contains everything needed for measuring Chlorine, Chlorine dioxide and Ozone.

#### Benefits

- Comfortable by method memory
- Automatic switch-off
- Waterproof according to IP68

### 5.2.2 Technical data

#### **Messparameter / Measuring parameter**

Freies Chlor / <i>Free chlorine</i>	0.01.. 6.00 mg/l
Chlordioxid / <i>Chlorine dioxide</i>	0.01.. 6.00 mg/l
Ozon / <i>Ozone</i>	0.01.. 4.00 mg/l
Wasserstoffperoxid / <i>Hydrogen Peroxide</i>	1.. 50 mg/l
ph-Wert / pH-value	6.5.. 8.4 pH

#### **Eingangskenngröße / Input characteristics**

Genauigkeit / <i>Accuracy</i>	3 % FS (T= 20 ..25 °C / T= 68..77 °F)
----------------------------------	---------------------------------------

#### **Hilfsenergie / Energy supply**

Stromversorgung / <i>Electrical power supply</i>	4 Microbatterien (AAA/LR 03) / 4 batteries (AAA/LR 03)
---	---

#### **Umgebungsbedingungen / Ambient conditions**

Umgebungstemperatur / <i>Ambient temperature</i>	5 ..40 °C / 41..104 °F
Luftfeuchte / <i>Humidity</i>	30 - 90 % (nicht kondensierend) / 30 - 90 % ( <i>non condensing</i> )
Schutzart / <i>Protection class</i>	IP 68

#### **Zertifikate und Zulassungen / Certificates and approvals**

EC-Zeichen / <i>CE-Symbol</i>	Konformitätserklärung: Das Produkt entspricht allen geltenden europäischen Vorschriften und erfüllt damit die gesetzlichen Vorgaben der EG-Richtlinien. Der Hersteller bestätigt die erfolgreiche Prüfung des Produkts durch die Anbringung des CE-Zeichens. /  <i>Declaration of conformity: The product meets the requirements of the harmonized European standards. It thus complies with the legal requirements of the EC directives. The manufacturer confirms successful testing of the product by affixing the CE symbol.</i>
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**5.2.3 Order information**

<b>Artikel No. / Article No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
190201K	Radon DIS pH	Fotometer Chlorine, Chlorine dioxide, Ozone, Hydrogen peroxide and pH value

## 6. Accessories

### 6.1 Accessories IWA 11.4

#### 6.1.1 Description



Accessories: IWA 11.4

Art. No.: 47890101K

Order information: IWA 11.4

Impedance converter - for longer distances between electrode and measuring instrument or under unfavorable installation conditions.

#### Benefits

- converts the high-impedance signal into a less sensitive low-impedance signal
- Connection between IWA and measuring instrument is possible with standard cable (up to 1000 m)
- Screened PVC housing

### 6.1.2 Applications



Drinking Water



Process Water



Waste Water  
Treatment

### 6.1.3 Technical data

#### Eingangskenngröße / *Input characteristics*

Eingangswiderstand /                    $10^{12}$  Ohm  
*Input resistor*

#### Ausgangskenngröße / *Output characteristics*

Ausgangswiderstand /                   1 kOhm  
*Output resistor*

#### Hilfsenergie / *Power supply*

Spannungsversorgung /               +/- 5 .. 15 V  
*Voltage supply*

#### Umgebungsbedingung / *Ambient conditions*

Umgebungstemperatur /               Max. 50 °C / 122 °F  
*Ambient conditions*

**6.1.4 Storage version**

<b>Artikel No. / Article No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
47890101K	IWA 11.4	Impedance converter

## 6.2 Accessories COAX-D-AE-X Cabel

### 6.2.1 Description



Accessories: For example: COAX-D-AE-X

Art. No.: 44136007K

Order information: COAX-D-AE-X

Single screened cable for connecting pH- and ORP sensors,  
available in 3, 5 and 10.

#### Benefits

- Low-noise
- Singled screened
- Electrode connector
- Wire end ferrules
- Integrated semiconductor layer for antistatic protection

### 6.2.2 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Umgebungsbedingungen / Ambient conditions**

Umgebungstemperatur / -20 .. + 70 °C / 4..158 °F  
*Ambient temperature*

#### **Konstruktiver Aufbau / Mechanical construction**

Werkstoff / PVC  
*Material*

### 6.2.3 Order information

<b>Artikel No. / Article-No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
44136007K	COAX-D-AE-3	Connection cable for pH and ORP sensors, 3 m
44136009K	COAX-D-AE-5	Connection cable for pH and ORP sensors, 5 m
44136011K	COAX-D-AE-10	Connection cable for pH and ORP sensors, 10 m

### 6.3 Accessories VP-ST/xm cable

#### 6.3.1 Description



Accessories: VP-ST/xm

Art. No.: 44135003K

Order information: VP-ST/xm

6 pole screened cable for connecting pH sensors with temperature probe, available in 3, 5 and 10 m.

#### Benefits

- Low-noise
- Screened
- Electrode connector

### 6.3.2 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Umgebungsbedingungen / Ambient conditions**

Umgebungstemperatur / -20 .. + 70 °C / 4..158 °F  
*Ambient temperature*

#### **Konstruktiver Aufbau / Mechanical construction**

Werkstoff / PVC  
*Material*

**6.3.3 Order information**

<b>Artikel No. / Article No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
44135003K	VP-ST/3m	Connection cable for pH sensor with integrated temperature sensor, 3 m
44135005K	VP-ST/5m	Connection cable for pH sensor with integrated temperature sensor, 5 m
44135015K	VP-ST/10m	Connection cable for pH sensor with integrated temperature sensor, 10 m

## 6.4 Accessories TRIAX-D-1-X cable

### 6.4.1 Description

Dual screened cable for connecting pH sensors, available in 3 and 5 m.

#### Benefits

- Low-noise
- Dual screened
- Electrode connector
- Integrated semiconductor layer for antistatic protection

### 6.4.2 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Umgebungsbedingungen / Ambient conditions**

Umgebungstemperatur / -20 .. + 70 °C / 4..158 °F  
*Ambient temperature*

#### **Konstruktiver Aufbau / Mechanical construction**

Werkstoff / PVC  
*Material*

#### 6.4.3 Order information

Artikel Nr. / <i>Article No.</i>	Typ / <i>Type</i>	Beschreibung / <i>Description</i>
44136120K	TRIAX-D-1-3	Double screened connection cable for pH sensors, 3 m
44136125K	TRIAX-D-1-5	Double screened connection cable for pH sensors, 5 m

## 6.5 Accessories 2 CORE-D-1-X cable

### 6.5.1 Description

Cable for connecting temperature sensors,  
available in 3, 5 and 10 m.

#### Benefits

- Low cable capacitance
- Screened
- Electrode connector

### 6.5.2 Technical data

#### **Messparameter / Measuring parameter**

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

#### **Umgebungsbedingungen / Ambient conditions**

Umgebungstemperatur / -20 .. + 70 °C / 4..158 °F  
*Ambient temperature*

#### **Konstruktiver Aufbau / Mechanical construction**

Werkstoff / PVC  
*Material*

**6.5.3 Order information**

<b>Artikel No. / Article No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
44136066K	2CORE-D-1-5	Connection cable for Pt 100 sensors, 5 m
44136071K	2CORE-D-1-3	Connection cable for Pt 100 sensors, 3 m
44136081K	2CORE-D-1-10	Connection cable for Pt 100 sensors, 10 m

## 6.6 Accessories pH-Buffer Solution

### 6.6.1 Description

The slope of pH sensors changes over the time (depending on the measuring media). We recommend a regular calibration with our buffer solutions. We offer 1000 ml packages of pH 2, pH 3.56, pH 4, pH 7, and pH 9.22, and 50 ml packages of pH 4, and pH 7.

#### Benefits

- For calibration of pH sensors

**6.6.2 Order information**

<b>Artikel No. / Article No.</b>	<b>Typ / Type</b>	<b>Beschreibung / Description</b>
95212000K	pH 2 - cal	Buffer solution pH 2, 1000 ml
95212001K	pH 7 - cal	Buffer solution pH 7, 1000 ml
95212003K	pH 3,56 - cal	Buffer solution pH 3.56, 1000 ml
5212004K	pH 9,22 -cal	Buffer solution pH 9.22, 1000 ml
95212007K	pH 4 - cal	Buffer solution pH 4, 1000 ml
95212009K	pH 7 - cal	Buffer solution pH 7, 50 ml
95212010K	pH 4 - cal	Buffer solution pH 4, 50 ml

## 7. Index

### A

Accessories 2 CORE-D-1-X cable 188  
Accessories COAX-D-AE-X Cabel 197  
Accessories IWA 11.4 175  
Accessories pH-Buffer Solution 191  
Accessories TRIAX-D-1-X cable 185  
Accessories VP-ST/xm cable 182  
Armatur GE 251 PP 160  
Assemblies GD 1 V 156  
Assemblies GE 23/3 PP 164

### H

Handheld Units PM 6 168  
Handheld Units Radon DIS pH 172

### K

Krypton® pR Flow 5

### N

Neon® 5  
Neon® pR 12

### P

pR 5

### Z

Zirkon® pH Coating 62  
Zirkon® pH Fluoride 54  
Zirkon® pH Pool 70  
Zirkon® pH Process 36  
Zirkon® pH Process HT 77  
Zirkon® pH Process Refill 46  
Zirkon® pH Pure 28  
Zirkon® pH Universal 19  
Zirkon® pH Wide Body 85  
Zirkon® Redox Wide Body 126  
Zirkon® REF 136  
Zirkon® REF Process Refill 143  
Zirkon® Rx 95  
Zirkon® Rx Pool 119  
Zirkon® Rx Process 105  
Zirkon® Rx Process Refill 112  
Zirkon® Temperatur 150







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