

# Sensors for pH Measurement

Chem

Energy

Pharm

Food



## SE 545 pH Sensor

**Glass-free pH sensor using ISFET technology, unbreakable, low-maintenance**

Glass-free sensor in hygienic design.

The sensor is EHEDG-tested, complies with the 3-A standards and consists of FDA-compatible materials. It is sterilizable and autoclavable. Suitable for hazardous-area applications with PH 3400X-035 module (Protos).

### Applications

Food, pharmaceutical, and biotech industries

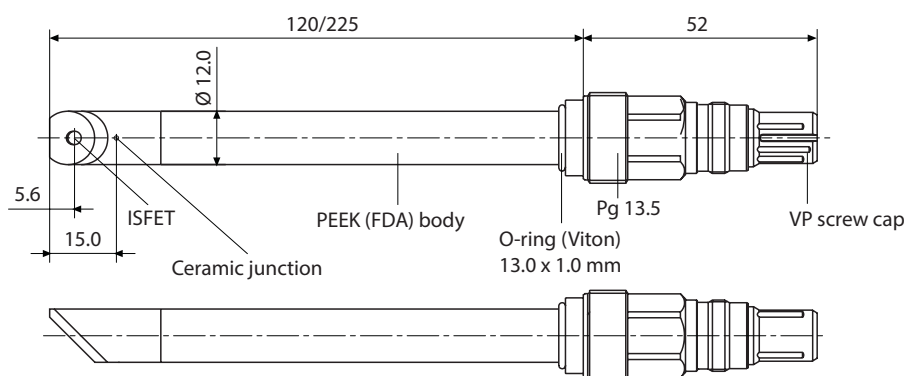
### Facts

- ISFET technology
- Virtually unbreakable
- Hygienic, EHEDG-certified, conforming to 3-A
- FDA-approved materials
- Low maintenance, no refilling of electrolyte
- Integrated temperature detector
- Steam-sterilizable
- Autoclavable
- VP screw cap

### Specifications

pH:	2 ... 12
Temperature:	0 ... 80 °C (130 °C for sterilization)
Pressure:	0 ... 6 bars at 80 °C
Sensor material:	ISFET (ion-sensitive field-effect transistor)
Reference system:	Ag/AgCl, gel electrolyte
Temperature detector:	Pt 1000
Hygienic design:	EHEDG-tested; to 3-A Sanitary Standards
Process-wetted material:	PEEK, FDA-approved (21CFR177.2415) EPDM elastomeres, FDA-approved (21CFR177.2600)
Junction:	Ceramic (1 x)
Immersion depth:	120 mm/225 mm
Process adaptation:	Pg 13.5
Sensor cap:	VP (VarioPin)

### Dimension Drawing



<b>Product Range</b>		<b>Order No.</b>
SE 545 pH sensor	Length 120 mm	SE 545/1
	Length 225 mm	SE 545/2
<b>Accessories</b>		<b>Order No.</b>
VP6-ST/ISFET cable incl. amplifier (max. temp. 70 °C) for Protos PH 3400-032 module or Stratos Pro	3 m	ZU 0582
	10 m	ZU 0583
VP cable for Protos-PH 3400-035 module (hazardous-area operation with Protos PH 3400X-035 module possible)	3 m	ZU 0313
	5 m	ZU 0314
	10 m	ZU 0315
	20 m	ZU 0584
<b>Buffer Solutions (20 °C)</b>		<b>Quantity</b>
pH value 2.00 ± 0.02	250 ml	CS-P0200/250
	250 ml	CS-P0400/250
pH value 4.00 ± 0.02	1000 ml	CS-P0400/1000
	3000 ml	CS-P0400/1000
	250 ml	CS-P0700/250
pH value 7.00 ± 0.02	1000 ml	CS-P0700/1000
	3000 ml	CS-P0700/1000
	250 ml	CS-P0900/250
pH value 9.00 ± 0.02	1000 ml	CS-P0900/1000
	3000 ml	CS-P0900/1000
	250 ml	CS-P1200/250
pH value 12.00 ± 0.05	250 ml	CS-P1200/250
Equipotential bonding electrode	Platinum; for monitoring the reference system of the pH sensor or for simultaneous ORP measurement	ZU 0073