

# pH Combination Electrode EMK50

with temperature sensor (article no. 320302)

## Introduction

Follow these instructions when installing, operating, or servicing the product.

## Scope of Application

For standard applications in process and environment technology.

### Water treatment

- Drinking water
- Cooling water
- Well water

## General properties

### Low maintenance

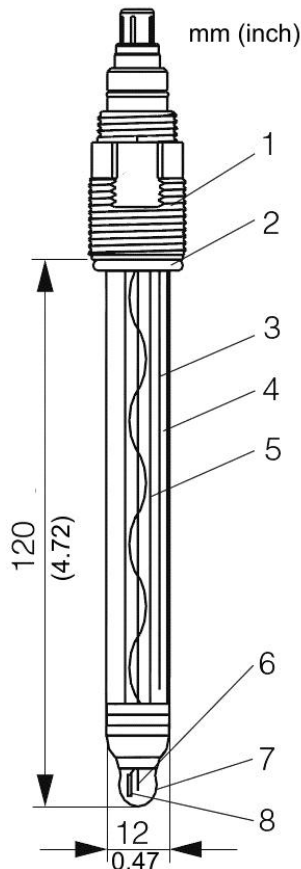
The sterilizable dirt-repellent PTFE ring diaphragm of the electrode prevents blocking and assures long-time stability and accuracy.

### Long service life

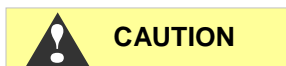
The double junction system of the metal lead offers better protection from electrode poisons and guarantees a considerably longer service life.

### Durability

Depending on the ordered version, the electrode is pressure proof up to 16 bar (232 psi) and can be applied at temperatures of up to 135 °C (275 °F.)



- 1 TOP68 plug-in head, Pg 13.5
- 2 Viton-O-ring with thrust collar
- 3 Ag/AgCl metal lead - reference
- 4 „Advanced Gel“ electrolyte
- 5 Ag/AgCl metal lead - pH
- 6 PTFE diaphragm
- 7 pH glass membrane
- 8 Pt 100 temperature sensor



## Measuring range

pH: 0 ... 14 pH  
 Temperature: 0 ... 135°C (32 ... 275 °F)

## Environment

### Ambient temperature

### Danger of frost damage

Do not use the electrode at temperatures below -15 °C (5 °F).

### Storage temperature

0 ... 50°C (32 ... 122°F)

### Ingress protection

IP68: TOP68 plug-in head, autoclavable up to 135 °C (275 °F), 1 m (3.28 ft) water column, 50 °C (122 °F), 168 h

## Process

Process temperature:	0 ... 135°C (32 ... 275°F)
Process pressure:	16 bar (232 psi)
Conductivity:	min. 50 µS/cm
pH range:	0 ... 14 pH

## Mechanical construction

### Material

Electrode shaft:	process glass
pH membrane glasses:	types A, B, F
Metal lead:	Ag/AgCl
Diaphragm:	ring-shaped Teflon® diaphragm, sterilizable
Temperature sensor:	Pt100
Plug-in head:	Pg 13.5, TOP68 for electrodes with or without temperature sensor, 16 bar (232 psi) triple safety overpressure, Ex

## Approvals

Ex approval:	ATEX II 1G EEX ia IIC T3/T4/T6
Biocompatibility:	Biocompatibility validated according to: ISO 10993-5:1993 USP, current revision

