

# FLS pH/ORP 200

Epoxy body bulb electrode



# FLS PH/ORP 200

This line of FLS electrodes has been designed to provide a cost-effective solution for in-line or immersion monitoring with a wide field of application. Single and double coupling models are available, as well as models with or without BNC connection on the electrode. A pH option with built-in temperature sensor is also available for the Automatic Temperature Compensation (ATC) function. These electrodes with an epoxy resin body are suitable for numerous applications, thanks to the high chemical resistance of the material. For a cost-effective in-line installation, a simple reusable electrode holder can be used while the coupling with the 1/2" or 3/4" extension allows immersion installation. A special model is designed for installation on FLS T adapters and for FLS clamp saddles with only the addition of a union nut.

## EPOXY BODY BULB ELECTRODE

### APPLICATIONS

- Water treatment
- Neutralisation systems
- Water quality monitoring
- Swimming pools and spas
- Aquaculture
- Agriculture and fertilizers
- Process control

### MAIN CHARACTERISTICS

- Epoxy resin body
- Single or double coupling technology
- High reference gel volume
- Quick and easy installation system
- BNC or cable connection
- Model with combined temperature sensor
- Special models on request
- Cost-effective adapters

### TECHNICAL DATA

#### General Information

#### Operating range:

- Electrodes for pH: 0–14 pH (0–12.3 pH without Na+ error)
- Electrodes for ORP: ±2000 mV

#### Temperature compensation device (for TC models):

Pt1000

#### Pipe size range: from DN15 to DN100 (da 0,5" a 4")

**Value at 0 mV of the new electrodes:** 7,00 pH ±0,2 pH

**New electrode efficiency:** > 97% at 25 °C (77 °F)

#### Response time of new electrodes:

- pH: 2 s for 95% signal change
- ORP: depends on the application

#### Reference solution:

- Electrolyte: 3.5 M KCl solidified gel for single junction versions
- KCl-KNO3 for double junction versions

#### Connection to the process:

- In-line installation with: 1/2", 3/4" or PG13,5 threaded adapter
- FLS installation fittings submersible installation

#### Max operating pressure/temperature:

- 7 bar (100 psi) at 25°C (77°F)
- 1 bar (14,5 psi) at 65°C (149°F)

#### Materials in contact with liquids:

- Body: epoxy resin
- O-ring joint: silicone
- Junction: Pellon®
- Detection surface: glass membrane (pH) or platinum (ORP)

**O-ring:** NBR (PH222 CD, PH223 CD, ORP222 CD, ORP223 CD)

#### Standards & Approvals

Manufactured under ISO 9001  
 Manufactured under ISO 14001  
 CE  
 EAC

# PRODUCT CODES



## PH2XX

Bulb pH Electrodes with epoxy body

Code	Features	Applications/ Operative Range	Reference solution	Cable***	Connection	O-ring	Installation	Weight (gr.)
PH200C	Nylon/Single junction	0-14 pH**	KCl 3,5 M	Not required	5m (16,5 ft.) Cable	-	EG50P EG75P MK150200 MIFV20X05 MIMC20X05	200
PH222CD	Nylon/Double junction	0-14 pH**	KCl 3,5 M / KNO3 sat.	CN 653 CN 653 TC1	Twist-lock (BNC)	silicone	EG50P EG75P MIFV20X05 MIMC20X05	90
PH223CD	Nylon/Double junction	0-14 pH**	KCl 3,5 M / KNO3 sat.	CN 653	Twist-lock (BNC)	silicone	With F3.SP2.4 plus FLS adaptors	100
PH222CDTC	Nylon/Double junction	0-14 pH** with Pt100 included	KCl 3,5 M / KNO3 sat	Not required	5m (16,5 ft.) Cable	-	EG50P EG75P MK150200 MIFV20X05 MIMC20X05	220

\*\* (0-12,3 pH without Na<sup>+</sup> error)

\*\*\* (Sold separately)

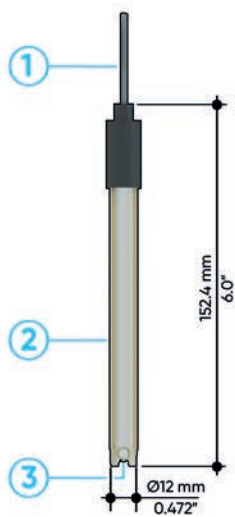
## ORP2XX

Bulb ORP Electrodes with epoxy body

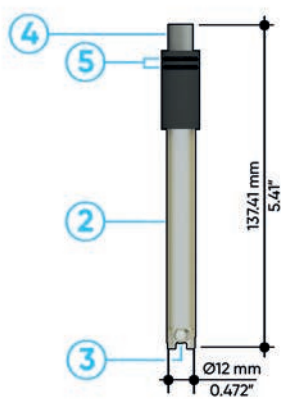
Code	Features	Applications/ Operative Range	Reference solution	Cable**	Connection	O-ring	Installation	Weight (gr.)
ORP200C	Nylon/Single junction	± 2000 mV	KCl 3,5 M	Not required	5m (16,5 ft.) Cable	-	EG50P EG75P MK150200 MIFV20X05 MIMC20X05	200
ORP222CD	Nylon/Double junction	± 2000 mV	KCl 3,5 M / KNO3 sat.	CN 653	Twist-lock (BNC)	silicone	EG50P EG75P MIFV20X05 MIMC20X05	90
ORP223CD	Nylon/Double junction	± 2000 mV	KCl 3,5 M / KNO3 sat	CN 653	Twist-lock (BNC)	silicone	With adapter F3.SP2.4 plus FLS adapter	100

\*\* (Sold separately)

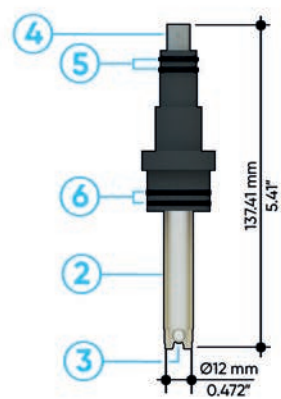
# TECHNICAL DRAWINGS



**A**



**B**



**C**

- A** PH200C PH222CDTC ORP200C
- B** PH222CD ORP222CD
- C** PH223CD ORP223CD

- 1** Cable: 5 mt (6,5 ft.)
- 2** Epoxy resin body
- 3** pH glass bulb

- 4** BNC connector
- 5** Buna-N O-rings
- 6** FKM O-rings