

# FLS pH/ORP 400 GLASS BODY BULB ELECTRODES



This FLS line of pH/ORP electrodes with glass body has been designed to fit a wide range of applications. Different type of junctions guarantee to find the proper solution in according with application needs: version with open junction for a fast response time, version with ceramic junction useful for high pressure application. Moreover it's available a version with a special barriered single junction which combine the typical short response time of standard single junction and the contamination protection of reference solution typical of double junction. A dedicated version for high temperature application is present in our range. Version with outline cable or with head connection (S7) are available also.

## APPLICATIONS

- Water treatment
- Neutralization systems
- Water quality monitoring
- Process control
- Agriculture and fertilizing systems
- Plating plant and tannery
- Cooling towers and scrubbers

## MAIN FEATURES

- Glass body
- Cost effective electrodes
- Sensors suitable for extreme applications
- Installation easy and cheap
- Innovative reference solutions
- Cheap adaptors for installations
- Special versions available on request



## TECHNICAL DATA

### General

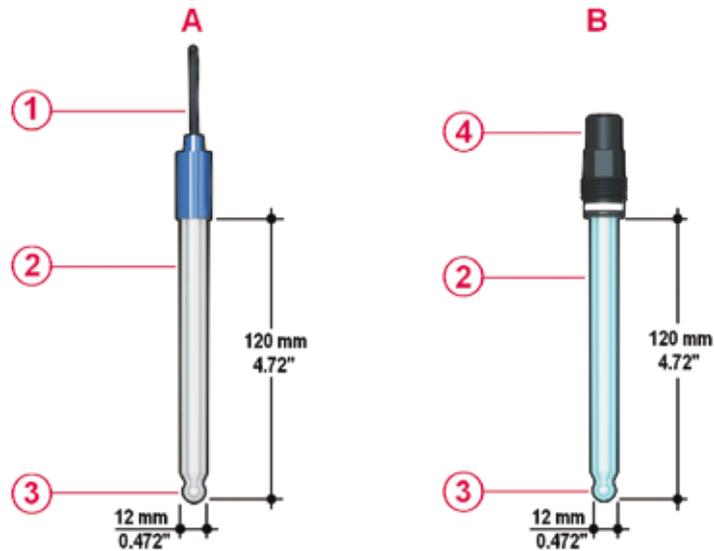
- Operating range:
  - pH electrodes: 0 - 14 pH (0 - 12.3 pH without Na+ error)
  - ORP electrodes:  $\pm 1000$  mV
- Pipe size range: DN15 to DN100 (0.5" to 4")
- Zero point voltage point new electrode performances: 7pH  $\pm$  0.2pH
- Efficiency new electrode performances: > 97% @ 25°C (77°F)
- Response time new electrode performances:
  - pH: 2 sec for 95% of signal change
  - ORP: application dependent
- Reference:
  - electrolyte: 3M KCl polymeric gel (different substrates in according with model)
- Process connection:
  - in-line installation with: PG13,5
- Max working pressure/ working temperature:
  - 6 bar (90psi) @ 130°C (266°F) (PH435CD)
  - 10 bar (145psi) @ 80°C (175°F) (PH430CD)
  - 6 bar (90psi) @ 60°C (140°F) (PH425C, ORP425C)
- Wetted materials:
  - body: glass
  - junction: Open (PH435CD), Ceramic (PH430CD), Open (PH425C, ORP425C)
  - sensing surface: glass membrane (pH); platinum (ORP)

### Standards & Approvals

- Manufactured under ISO 9001
- Manufactured under ISO 14001
- CE
- GOST R

Specific for pH-ORP.400							
Model	Body	Junction material/type	Reference solution	Sensing surface	O-ring	Connection	Max working pressure @ working temperature
PH435CD	glass	Open/Double junction	KCl 3M	Glass type H	Silicone	S7	6bar @ 130°C/ (85psi @ 266°F)
PH430CD	glass	Ceramic/Double junction	KCl 3M	Glass type H	Silicone	S7	10bar @ 80°C/ (145psi @ 176°F)
ORP430CD	glass	Ceramic/Double junction	KCl 3M	Glass type H	Silicone	S7	10bar @ 80°C/ (145psi @ 176°F)
PH425C	glass	Open/Single junction	KCl 3M	Glass type H	Silicone	5 mt. (16.5 ft.) Cable	6bar @ 60°C/ (87psi @ 140°F)
ORP425C	glass	Open/Single junction	KCl 3M	Glass type H	Silicone	5 mt. (16.5 ft.) Cable	6bar @ 60°C/ (87psi @ 140°F)

## DIMENSIONS



A PH425 C, ORP425 C  
B PH435 CD, PH430 CD, ORP430 CD

1 Cable: 5mt  
2 Glass body  
3 pH glass bulb  
4 S7

## ORDERING DATA

pH4XX Bulb pH Electrodes with glass body						
Part No.	Description /Name	Applications/ Operative Range	Cable (sold separately)	Connection	Installation	Weight (gr.)
PH425C	Combination pH/Reference electrode	0 - 14 pH (0 - 12.3 pH without Na <sup>+</sup> error)	Not Required	5 mt (16.5 ft)	GEG135	200
PH430CD	Double Junction combination pH/Reference electrode	0 - 14 pH (0 - 12.3 pH without Na <sup>+</sup> error)	CE5S7	S7	GEG135, GEG135SE	200
PH435CD	Double Junction combination pH/Reference electrode	For high temperature/0 - 14 pH (0 - 12.3 pH without Na <sup>+</sup> error)	CE5S7	S7	GEG135, GEG135SE	200

ORP4XX Bulb ORP Electrodes with glass body						
Part No.	Description /Name	Applications/ Operative Range	Cable (sold separately)	Connection	Installation	Weight (gr.)
ORP425C	Combination ORP/Reference electrode	± 1000 mV	Not Required	5 mt (16.5 ft)	GEG135	200
ORP430CD	Double Junction combination ORP/Reference electrode	± 1000 mV	CE5S7	S7	GEG135, GEG135SE	200