

FLS pH 800

RYTON BODY FLAT SURFACE ELECTRODE



The new pH electrodes line 870 combines a tough ryton body with auto-cleaning flat pH surface and with a reliable Pt1000 for an accurate measurement in dirty liquid as well as in aggressive solutions. In addition a wide junction improves performances in presence of suspended solids. The new 870 electrodes allow a direct installation by their 3/4" threaded included in the body: in-line installation using the threads on the electrode bottom or submersible installation using the threads on the electrode head. Availability of specific versions for special applications as: horizontal mounting (-HM), low conductive samples (-LC), aggressive solutions (HF<2%)/ low values of pH (-HF).

APPLICATIONS

- Processing and Manufacturing industry
- Chemical processing
- Water treatment processes
- Cooling processes
- Heating processes

MAIN FEATURES

- Temperature sensor combined
- Flat surface electrodes
- Tough Ryton body
- Double threaded body for in line and submersion installation
- Double junction technology
- HM option for horizontal mounting
- HF option for liquids with HF (max 2%)
- LC option for liquid with a conductivity lower than 100µS/cm



TECHNICAL DATA

General

- Operating Range:
 - pH Electrodes : 0-14 pH (0-12,3 pH without Na⁺ error)
- Pipe Size Range: DN15 to DN100 (0.5" to 4")
- Zero voltage point new electrode performances: 7.00pH ± 0.2pH
- Efficiency new electrode performances: > 97% @ 25°C (77°F)
- Response time new electrode performances:
 - pH: < 6 sec for 95% of signal change
- Reference
 - type: sealed double junction
 - electrolyte: Solidified Gel 3.5M KCl 0.1M KCl for LC electrode version / solidified gel KCl 3.5M
 - secondary junction: Nylon filament
 - wire: Ag/AgCl.
- Process Connection:
 - 3/4" NPT threaded body for submersion or in-line installation"
- Max Working pressure/ working temperature:
 - 6,7bar@75°C (100psi@170°F)
 - 5,7bar@81°C (85psi@180°F)
 - 3,3bar@100°C (50 psi@212°F)

- Wetted materials:
 - body: PPS (Ryton®), HDPE, pH Glass, leaded glass
 - reference Junction: porous HDPE
 - sensing surface: glass membrane

Standards & Approvals

- Manufactured under ISO 9001
- Manufactured under ISO 14001
- CE
- EAC

Specific for pH.800							
Model	Body	Junction material/type	Reference solution	Sensing surface	O-ring	Connection	Max working pressure @ working temperature
PH870CDTC	Ryton	HDPE porous/ D.J.	3,5M KCl	Flat glass membrane	-	5 mt (16,5 ft) cable	75°C(170°F)/6,7 bar (100psi), 80°C(180°F)/5,5bar (85psi), 100°C(212°F)/3,3bar (50 psi)
PH870CDTCHM	Ryton	HDPE porous/ D.J.	3,5M KCl	Flat glass membrane	-	5 mt (16,5 ft) cable	75°C(170°F)/6,7 bar (100 psi), 80°C(180°F)/5,5bar (85 psi), 100°C(212°F)/3,3bar (50 psi)
PH870CDTCLC	Ryton	HDPE porous/ D.J.	0,1M KCl	Flat glass membrane	-	5 mt (16,5 ft) cable	75°C(170°F)/6,7 bar (100 psi), 80°C(180°F)/5,5bar (85 psi), 100°C(212°F)/3,3bar (50 psi)
PH870CDTCHF	Ryton	HDPE porous/ D.J.	3,5M KCl	Flat glass membrane	-	5 mt (16,5 ft) cable	75°C(170°F)/6,7 bar (100 psi), 80°C(180°F)/5,5bar (85 psi), 100°C(212°F)/3,3bar (50 psi)

DIMENSIONS



- 1 Cable: 5 m (16,5 ft)
- 2 Ryton body
- 3 Flat pH glass
- 4 Porous HDPE junction
- 5 Temperature sensor inside pH stem
- 6 3/4" NPT threads
- 7 Wrench flat

ORDERING DATA

PH870CDTCXX Ryton Body Flat Surface Electrodes						
Part No.	Description / Name	Applications/ Operative Range	Cable (sold separately)	Connection	Installation	Weight (gr.)
PH870CDTC	Ryton double junction flat surface pH electrode with Pt1000	0-14 pH (0-12,3 pH without Na+ error)	Not required	5 mt (16,5 ft)	3/4" NPT	250
PH870CDTCHM	Ryton double junction flat surface pH electrode with Pt1000	0-14 pH (0-12,3 pH without Na+ error)/ Horizontal mounting	Not required	5 mt (16,5 ft)	3/4" NPT	250
PH870CDTCLC	Ryton double junction flat surface pH electrode with Pt1000	0-14 pH (0-12,3 pH without Na+ error)/ Low conductivity (10 μS/cm<conductivity<100μS/cm)	Not required	5 mt (16,5 ft)	3/4" NPT	250
PH870CDTCHF	Ryton double junction flat surface pH electrode with Pt1000	0-14 pH (0-12,3 pH without Na+ error)/ Presence of HF (max 2%)	Not required	5 mt (16,5 ft)	3/4" NPT	250