

Model OPS471 ISFET Solid State pH Electrode



**For use in food and
beverage processing,
biopharmaceutical
production and chemical
process monitoring**



**Non-glass pH electrode with ceramic diaphragm,
double chamber gel filled reference system and
integral PT1000 RTD temperature element.**

- Non-glass wetted parts
- Durable metal oxide semiconductor can withstand SIP temperatures up to 135°C (275°F)
- 3A and EHEDG approved for cleanability
- Fast responding sensor operates with minimal ORP interference or sodium ion error
- Gel electrolyte and ceramic diaphragm deliver high performance and low maintenance
- 12mm design allows for modular installation in fixed or retractable housings
- NEMA 6 rated detachable cable system provides the convenience of a quick connect with the reliability of a fixed cable
- Resistant to breakage
- Each electrode is serialized and performance tested at the factory
- FM and ATEX approval for applications in hazardous areas

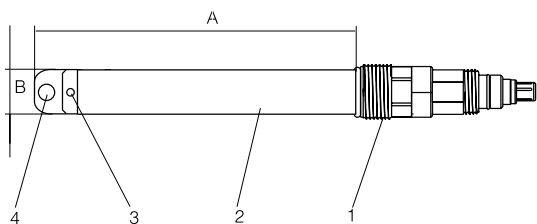


Specifications

Measurement range	0 - 14 pH
Maximum measurement error	± 0.2 pH
Pressure range	0 - 10 bar (0 -145 psig)
Temperature range	- 15 to 135°C (5 - 275°F)
Minimum conductivity	10 µS/cm
Electrolyte	3 mol KCl Gel, AgCl-free
Response time (@ 25°C / 77°F)	98% of reading in 30 seconds

Approvals

Ex approval FM / CSA	FM Cl. I, Div. 1, Groups A, B, C, D CSA Cl. I, Div. 1, Groups A, B, C, D
Ex approval ATEX	Device group II, Category 1G Explosion protection EEx ia IIC T4/T6



- 1 NEMA 6 waterproof connector
- 2 Sensor shaft
- 3 Reference electrode
- 4 ISFET chip
- 5 Seal (EPDM)

"A" DIMENSION		"B" DIMENSION	
4.72"	120 mm	0.47"	12 mm
8.86"	225 mm	0.47"	12 mm
14.17"	360 mm	0.47"	12 mm
16.73"	425 mm	0.47"	12 mm

OPS471	ESB	1	(select from below for complete order code)
Insertion Length			
2	120mm		
4	225mm		
5	360mm		
6	425mm		

Cables

Shielded pH Cable with NEMA 6 Waterproof Connector, Stripped and Tinned Ends

OPK12-NPA1A	1.5 Meter
OPK12-NQA1A	3 Meter
OPK12-NAA1A	5 Meter
OPK12-NBA1A	10 Meter
OPK12-NCA1A	15 Meter
OPK12-NDA1A	20 Meter

Shielded pH Cable with NEMA 6 Waterproof Connector, BNC and Tinned Ends

OPK12B-NPA1A	1.5 Meter
OPK12B-NQA1A	3 Meter
OPK12B-NAA1A	5 Meter
OPK12B-NBA1A	10 Meter
OPK12B-NCA1A	15 Meter
OPK12B-NDA1A	20 Meter

Calibration Solutions

OPY21	NIST Traceable pH Calibration Solution, 4.00 pH , 1000mL
OPY23	NIST Traceable pH Calibration Solution, 7.00 pH , 1000mL

Installation Housings

OPA442, 640	Fixed Housing
B60x	In-line Hygienic
OPA475	Hygienic Retractable
OPA450, 471, 472, 473	Industrial Retractable
OPA111	Industrial Submersible



Model 800/802



OPA 475

Dimensions

Order Code

Accessories