

# The corresponding sensor for any application:

## Application recommendations for pH and ORP electrodes

The table provides an orientation to the large variety of our electrodes. The listed electrodes give an example for similar measuring models, i.e. variation only regarding the connecting system or the integrated temperature sensor. The electrode BlueLine 11 pH for instance also represents the versions 12 pH, 14 pH, 15 pH, 17 pH, 18 pH and 19 pH. Regarding the ScienceLine and IoLine pH electrodes there is special attention to be drawn to the versions N 62 and H 62 as well as to IL-pH-A120MF and IL-pH-H120MF; these models are also available with larger shaft lengths.

An extension of length under the same application conditions delivers faster and more stable measuring results; additionally it enables a longer lifespan of the electrode. The higher electrolyte stand along with the increased electrolyte outflow reduces unwanted diffusion potentials on the diaphragm and rinses it free.

Some applications may require other electrode recommendations due to certain operation conditions, as identical applications can differ fundamentally with varying concentrations and temperatures. Please also note the material resistance of the sensor towards the measuring media. The recommended and additional sensors with the corresponding technical data are stated on the following pages of our catalogue. Please contact us via telephone, fax or email whenever you cannot find your application or have any queries regarding certain operation conditions.



# ... and conductivity cells

Electrode series		IoLine	pH measuring ScienceLine										BlueLine				ORP ScienceLine				BL*				Conductivity ScienceLine																	
Application area	Sensor example		IL-pH-A120MF	IL-pH-H120MF	IL-Micro-pH-A	IL-SP-pH-A	A 157	A 7780	H 62	H 64	N 1048 A	L 32	L 39	L 6880	L 8280	N 62	N 64	N 6000 A	N 6003	11 pH	22 pH	13 pH	16 pH	21 pH	27 pH	Ag 6280	Pt 62	Pt 6140	Pt 8280	Pt 5900 A	31 RX	32 RX	LF 213 T	LF 313 T	LF 313 T NFTC	LF 413 T	LF 613 T	LF 713 T				
	Application																																									
Chemistry	Etching and degreasing baths	■	■					■	■						■	■				■	■					■				■									■			
	Bleach and dyeing solutions	■	■					■	■							■	■				■	■					■				■									■		
	Cutting oil emulsions	■													■	■	■				■	■					■				■									■		
	Cyanide detoxification	■	■					■	■							■	■				■	■					■				■									■		
	Dispersion paint	■	■					■	■							■	■				■	■					■				■									■		
	Emulsions, water-based	■	■					■	■						■	■					■	■					■				■					■				■		
	Emulsions, partly water-based	■																																						■		
	Paint/varnish, water-soluble	■	■					■	■							■	■				■	■					■				■									■		
	Fixing bath	■	■					■	■							■	■				■	■					■				■										■	
	Varnish, water-based	■	■					■	■							■	■				■	■					■				■										■	
	Varnish, partly water-based	■																																							■	
	Lye, extreme		■					■	■							■	■				■	■					■				■										■	
	Oil/water-emulsions	■														■	■				■	■					■				■										■	
	Organic percentile high	■														■	■				■	■					■				■										■	
	Paper extract	■	■					■	■							■	■				■	■					■				■											■
	Acid, extreme	■	■					■	■							■	■				■	■					■				■											■
	Sulphide containing liquid	■	■													■	■				■	■					■				■											■
	Suspension, water-based	■	■						■	■						■	■				■	■					■				■											■
	Ink	■	■					■	■							■	■				■	■					■				■											■
Viscose samples	■								■																																■	
Field measurements	Beck	■					■								■	■				■	■					■				■										■		
	Ground water	■					■								■	■				■	■					■				■											■	
	Lake water	■					■								■	■				■	■					■				■											■	
	Seawater	■					■								■	■				■	■					■				■											■	
	Rain water	■					■								■	■				■	■					■				■											■	
Drinks production	Beer	■					■								■	■				■	■					■				■											■	
	Fruit juice	■					■								■	■				■	■					■				■											■	
	Vegetable juice	■					■								■	■				■	■					■				■											■	
	Lemonades/soda	■					■								■	■				■	■					■				■											■	
	Mineral water	■					■								■	■				■	■					■				■											■	
	Juice	■					■								■	■				■	■					■				■											■	
	Spirits	■					■								■	■				■	■					■				■											■	
	Wine	■					■								■	■				■	■					■				■											■	

\* BL = BlueLine

# Further application recommendations for pH

Electrode series		pH measuring ScienceLine														ORP ScienceLine				Conductivity ScienceLine																			
Application area	Sensor example	pH measuring ScienceLine														ORP ScienceLine				Conductivity ScienceLine																			
		IoLine	BlueLine							ORP ScienceLine							BL*			Conductivity ScienceLine																			
Application		IL-pH-A120MF	IL-pH-H120MF	IL-Micro-pH-A	IL-SP-pH-A	A 157	A 7780	H 62	H 64	N 1048 A	L 32	L 39	L 6880	L 8280	N 62	N 64	N 6000 A	N 6003	11 pH	22 pH	13 pH	16 pH	21 pH	27 pH	Ag 6280	Pt 62	Pt 6140	Pt 8280	Pt 5900 A	31 RX	32 RX	LF 213 T	LF 313 T	LF 313 T NFTC	LF 413 T	LF 613 T	LF 713 T		
Cosmetics	Creme																																						
	Hair dye																																						
	Hair gel																																						
	Hair mousse																																						
	Lotions																																						
	Make-up																																						
	Mouth wash																																						
	Shaving foam																																						
	Sun lotion																																						
	Tooth paste																																						
Agriculture	Ground (extract/slug)																																						
	Fertilizer solution																																						
	Vegetables																																						
	Liquid manure																																						
Food production	Bread/dough/pastry																																						
	Vinegar																																						
	Grease																																						
	Fish																																						
	Meat																																						
	Honey																																						
	Margarine																																						
	Coffee extract																																						
	Jam/marmelade																																						
	Mayonnaise																																						
	Sausage																																						
Dairy	Butter																																						
	Yoghurt																																						
	Cheese																																						
	Milk																																						
	Cream																																						
Surface	Skin																																						
	Leather																																						
	Paper																																						
	Textiles																																						

\* BL = BlueLine

# ... ORP electrodes and conductivity cells

Electrode series		IoLine	pH measuring ScienceLine							BlueLine		ORP ScienceLine				BL*		Conductivity ScienceLine																						
Application area	Sensor example	IL-pH-A120MF IL-pH-H120MF IL-Micro-pH-A IL-SP-pH-A	A 157	A 7780	H 62	H 64	N 1048 A	L 32	L 39	L 6880	L 8280	N 62	N 64	N 6000 A	N 6003	11 pH	22 pH	13 pH	16 pH	21 pH	27 pH	Ag 6280	Pt 62	Pt 6140	Pt 8280	Pt 5900 A	31 RX	32 RX	LF 213 T	LF 313 T	LF 313 T NFTC	LF 413 T	LF 613 T	LF 713 T						
Pharmacy, biology, biotechnology, medicine, microbiology	Agar-agar gel																																							
	Enzyme solution																																							
	Infusion solutions																																							
	Small vessels/sample quantity																																							
	Bacteria cultures																																							
	Gastric juice																																							
	NMR tubes																																							
	Precision measurement																																							
	Protein containing liquid																																							
	Serum																																							
	Tris puffer																																							
	Urine																																							
	Vials																																							
Technical	Cooling water																																							
	Lye, hot																																							
	Acid, hot																																							
Washing agents	Detergents																																							
	Disinfectant																																							
	Cleaning agent																																							
	Soap solution																																							
	Dishwashing liquid																																							
	Tenside solution																																							
Water	Waste water, general																																							
	Aquarium water																																							
	Demineralization/ion exchanger																																							
	pH values, extreme																																							
	Media containing low ions																																							
	Boiler feed water																																							
	Condensate																																							
	Purity water																																							
	Salt solution																																							
	Drinking water																																							
	Drops																																							

\* BL = BlueLine