



sartorius

Electrodes, Cells, Sensors & Accessories  
Superior sensors. Precise results.



turning science into solutions

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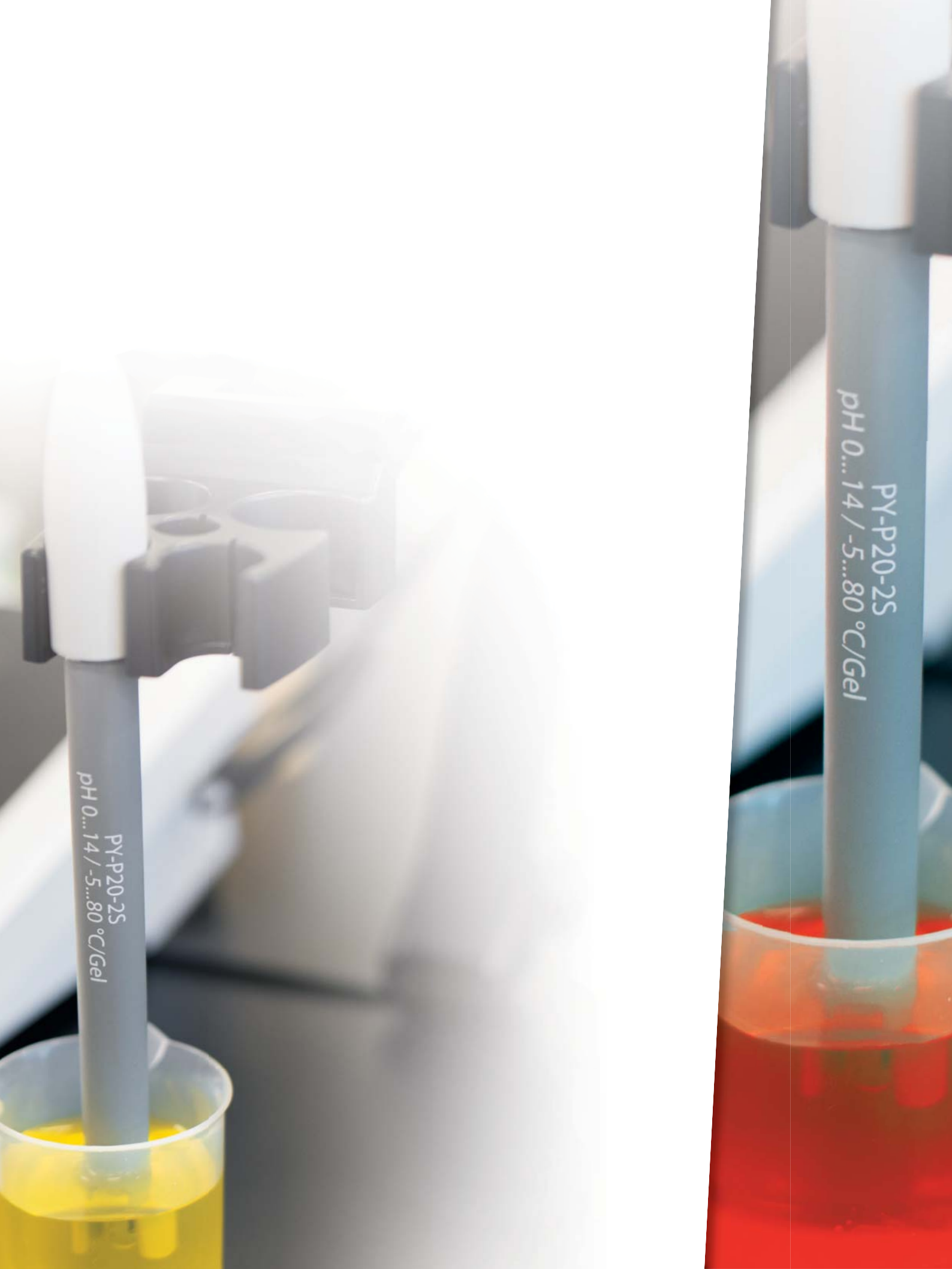
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## Superior Sensors – Precise Results

Electrochemical analysis is one of the most frequent and demanding tasks in daily lab routines. Sartorius understands that measurements will differ based on compositions, temperatures, conductivities and viscosities of samples and it is these different conditions that set our electrodes apart from the rest. Whether for ultrapure water, jam, wine, TRIS Buffers, or drinking water, Sartorius has the right superior and dependable electrode for your sample types and application workflows.





PY-P20-25  
pH 0...14 / -5...80 °C/Gel

PY-P20-25  
pH 0...14 / -5...80 °C/Gel



Patented Inert Platinum Reference Junctions



Easy Refill ports offer less evaporation



Removable Flushable Air Cap – eliminates clogs

## Superior Construction, Materials & Design

### Features

- ▶ Unique platinum junction and refill port slider and evaporate gate for easier refilling and less evaporation of the electrolyte with air flush cap system prevents clogs from forming.
- ▶ Integrated and non-integrated temperature sensor ATC or with ATC with universal BNC connectors.
- ▶ TRIS Compatible and Impervious models available for Biological applications.

### Benefits

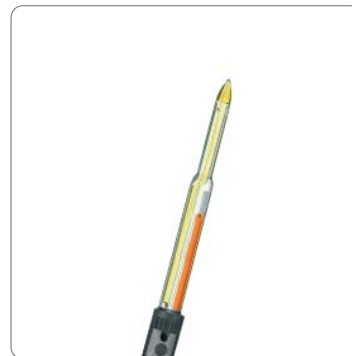
- ▶ The widest selection of choice. Now with the GoldLINE and PlatinumLINE electrodes, Sartorius will meet any and all of your unique sample types and application requirements.
- ▶ The highest quality materials result in better precision and accuracy. The low resistance type A glass membranes are a perfect example of where quality materials interact with samples with less interference.



Micro – Small Minimal Sample Volumes PY-P29-2S



Spear Tip & Flat Tip non aqueous samples PY-P28-2S

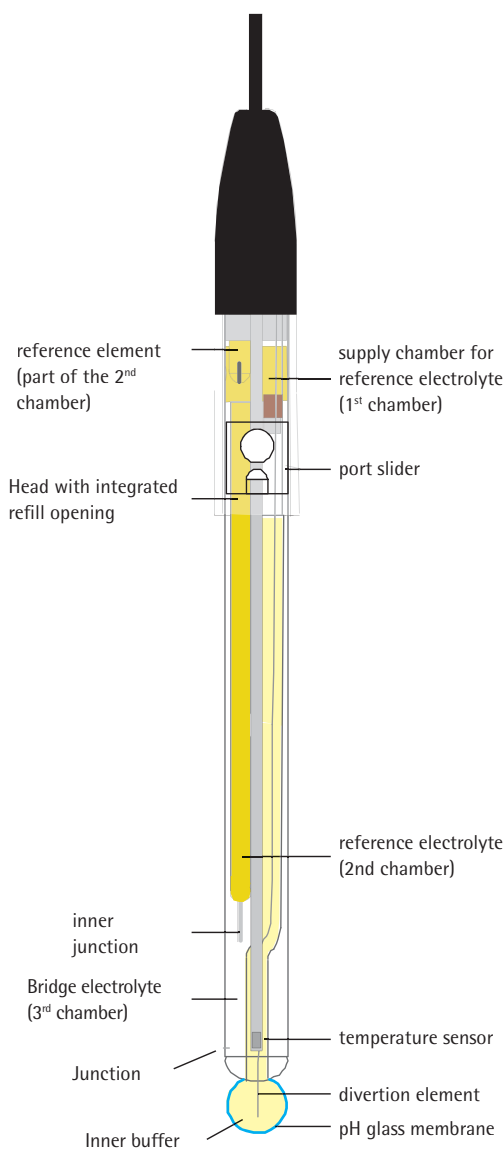


Biologicals where TRIS Buffer are used PY-P30-2S

## Up your performance and accuracy with GoldLINE

The unique three-chamber reference system is more stable with a metal-free iodide | iodine reference system compared to our excellent Ag/AgCl reference system found in our PlatinumLINE series. GoldLINE not only offers unbeatable stability and faster response times but higher accuracy and precision. Accelerated performance is attributed to the advanced patented reference technologies and superior glass and reference materials & construction. The GoldLINE is a superior sensor that gives precise results allowing for independence from sample contamination with minimal temperature influences.

- ▶ Patented junction and three-chamber systems set sensors apart from the rest. Reduce and eliminate metal ion contamination and chelation. Minimizes damage to sensors elongating the life of the electrodes, saving time and money as well as increased productivity to mitigate faulty measurements.
- ▶ GoldLINE electrodes have a lower temperature sensitivity, reducing the drastic influences temperature variants can have on pH measurement, thus producing more precise results.
- ▶ Exchangeable bridge electrolyte enables one to match the internal electrolyte to their sample for better measurements.
- ▶ Speed and response time is quicker due to stability of reference exchange, system and damping of temperature influences and the reduction of metal or precipitant contamination that can occur with other electrodes.
- ▶ Smart ID sensor versions are a reliable and accurate measurement through automatic electrode recognition between sensor and meter. They provide unique identification for each sensor for traceability. ID sensor can be used on multiple instruments without having to recalibrate. It stores the last calibration of the sensor and completes the documentation trail between sensor and meter for the highest GLP practices. Electrode includes model, serial number with date, time and measurement values.



## General Specifications

	New Part Number MDM Name	Description	Head Length (mm)	Shaft Length (mm)	Diameter (mm)	Fixed Cable Length (m)	Reference Junction	Reference System
• M	PY-P28-2S	GoldLINE pH/ATC pharma grade electrode	50	170	12	1	Pt	iodine   iodide
• L	PY-P29-2S	GoldLINE pH/ATC micro electrode for minimal sample volumes	50	200 (70/130)	(12/5)	1	Pt	iodine   iodide
• N	PY-P30-2S	GoldLINE pH/ATC spear electrode for solid samples	50	120 (50/70)	(12/8)	1	Ceramic	iodine   iodide
• M	PY-P31-2S	GoldLINE pH/ATC pharma grade electrode w/ID sense	50	170	12	1	Pt	iodine   iodide
• A	PY-P10-2S	PlatinumLINE General pH/ATC electrode	50	120	12	1	Ceramic	Ag   AgCl
• B	PY-P11-2S	PlatinumLINE High Performance pH/ATC electrode	50	120	12	1	Pt	Ag   AgCl
• B	PY-P12-2S	PlatinumLINE High Performance pH electrode	50	120	12	1	Pt	Ag   AgCl
• C	PY-P20-2S	PlatinumLINE Low Maintenance pH/ATC electrode	50	120	12	1	Ceramic	Ag   AgCl
• C	PY-P21-2S	PlatinumLINE Low Maintenance pH electrode	50	120	12	1	Ceramic	Ag   AgCl
• D	PY-P22-2S	PlatinumLINE pH micro electrode for minimal sample volumes	50	120 (20/90)	(12/8)	1	Pt	Ag   AgCl
• E	PY-P23-2S	PlatinumLINE pH flat surface for non-aqueous samples	50	120	12	1	Circular	Ag   AgCl
• F	PY-P24-2S	PlatinumLINE pH electrode low ionic samples	50	170	12	1	Grounded Joint	Ag   AgCl
• K	PY-P27-2S	PlatinumLINE pH spear electrode for meat & cheeses	50	90 (25/65)	(15/5)	1	Hole	Ag   AgCl
	PY-P25-2S	EconoLINE pH/ATC electrode	30	120	12	1	Ceramic	Ag   AgCl
	PY-P26-2S	EconoLINE pH electrode	40	120	12	1	Ceramic	Ag   AgCl
J	PY-T01-2S	Automatic Temperature Compensator ATC Probe	75	100	12	1	NA	Ag   AgCl
G	PY-R01-2S	ORP Redox electrode	50	120	12	1	Disk	Ag   AgCl

	New Part Number MDM Name	Description	Head Length (mm)	Shaft Length (mm)	Diameter (mm)	Fixed Cable Length (m)	Cell Constant cm-1	Measuring System
	PY-CL1-2S	Conductivity cell, 0.84 cm, 2-band	42	120	15,3	1.5	0.84 ± 1.5 %	2 × Graphite Poles
	PY-C01-2S	Conductivity cell, 0.5 cm, 4-band	50	120	15	1	0.5 nominal ± 20%	4 Pt Bands
H	PY-C02-2S	Conductivity cell, 1.0 cm, 4-band	50	120	15	1	1.0 nominal ± 20%	4 Pt Bands
H	PY-C03-2S	Conductivity cell, 10.0 cm, 4-band	50	120	15	1	10.0 nominal ± 20%	4 Pt Bands
H	PY-C12-2S	Conductivity multi-range cell	42	120	15,3	1.5	0.475 ± 1.5%	4 × Graphite Rings
I	PY-C13-2S	Conductivity multi-range cell with w/ID sense	42	120	15,3	1.5	0.475 ± 1.5%	4 × Graphite Rings
H	PY-PC1-2S	Multi-sense Con./pH/ATC, 1.0 cm	50	120	12	1	1.0 nominal ± 20%	Ceramic, Ag   AgCl + 2 Pt Bands
	PY-D01-2S	Dissolved Oxygen Probe (Galvanic)	42.5	145	15,25	1.5	NA	Galvanic
	PY-D02-2S	Dissolved Oxygen Probe (Galvanic) w/ID sense	42.5	145	15,25	1.5	NA	Galvanic



- GoldLINE: Iodine | Iodide Reference, Zero point 7.00+/-0.25, pH range = 0 to 14, temp range -5 to 100°C
- PlatinumLINE: Ag | AgCl Reference, Zero point 7.00+/-0.3, pH range = 0 to 14, temp range -5 to 100°C Glass/ -5 to 80°C Epoxy

Liquid Electrolyte Refillable	Gel Polymer Electrolyte Non Refill	Body Shaft Material	Membrane Glass	Glass Resistance	Integrate ATC Temp	Connector (pH/ATC temp)	Sensing Tip Shape	ID Sensor	Work with TRIS Buffers
3M KCl		Glass	A	200 MΩ	NTC 10 KΩ	BNC   2.5 mm plug	Sphere		TRIS Impervious
3M KCl		Glass	A	400 MΩ	NTC 10 KΩ	BNC   2.5 mm plug	Cylindrical		TRIS Impervious
	Polymer	Glass	A	400 MΩ	NTC 10 KΩ	BNC   2.5 mm plug	Spear		TRIS Impervious
3M KCl		Glass	A	200 MΩ	NTC 10 KΩ	BNC   2.5 mm plug	Sphere		TRIS Impervious
3M KCl		Epoxy	A	400 MΩ	NTC 10 KΩ	BNC   2.5 mm plug	Cylindrical w/tabs		
3M KCl		Glass	A	200 MΩ	NTC 10 KΩ	BNC   2.5 mm plug	Concical – Break resistant reinforced		TRIS Compatible
3M KCl		Glass	A	400 MΩ	NTC 10 KΩ	BNC	Concical – Break resistant reinforced		TRIS Compatible
	Polymer	Noryl Epoxy	A	400 MΩ		BNC   2.5 mm plug	Cylindrical w/tabs		
	Polymer	Noryl Epoxy	A	200 MΩ		BNC	Cylindrical w/tabs		
3M KCl		Glass	A	200 MΩ		BNC	Cylindrical		
	Polymer	Glass	A	200 MΩ		BNC	Flat		
3M KCl		Glass	A	200 MΩ		BNC	Angular Sleeve		
		Noryl Epoxy	A	200 MΩ		BNC	Spear		
	3M KCl	Polysulfone Plastic	A	200 MΩ		BNC	Cylindrical		
	3M KCl	Polysulfone Plastic	A	200 MΩ	NTC 10 KΩ	BNC   2.5 mm plug	Cylindrical		
		Stainless Steel	A	200 MΩ	NTC 10 KΩ	BNC   2.5 mm plug	Rod		
3M KCl		Glass	A	200 MΩ		BNC	Platinum Disk 4 mm		
		<b>Body Shaft Material</b>	<b>Sensor</b>	<b>Glass Resistance</b>	<b>Integrate ATC Temp</b>	<b>Connector</b>	<b>Sensing Tip Shape</b>	<b>ID Sensor</b>	
		Epoxy	Sensor		NTC 30 KΩ	8 pin	Oval flow thru – 2 pole		
		Epoxy	Pt	200 MΩ	NTC 30 KΩ	8 pin	Cylindrical		
		Epoxy	Pt	200 MΩ	NTC 30 KΩ	8 pin	Cylindrical		
		Epoxy	Pt	200 MΩ	NTC 30 KΩ	8 pin	Cylindrical		
		Epoxy	Graphite		NTC 30 KΩ	8 pin	Oval flow thru – target config.		
		Epoxy	Graphite		NTC 30 KΩ	8 pin	Oval flow thru – target config.		
		Epoxy	Pt		NTC 30 KΩ	BNC   8-pin	Cylindrical		
		POM	NTC	30 KΩ		8 pin	Flat		
		POM	NTC	30 KΩ		8 pin	Flat		

#### Accessories

PY-B250-2S	Buffer Set 4,7,10 250 mL
PY-B1L-2S	Buffer Set 4,7,10 1000 mL
YCC-PRO-2S	1.5M RS-232 Cable
PY-A02-2S	Basic Meter Arm
PY-A03-2S	Pro Meter Arm
PY-A04-2S	Dissolved Oxygen Probe Maintenance kit
PY-E50-2S	50 ml 3 mol/l KCl
USB Cable	1.5M USB Cable
PY-A01	Spill Proof, Break Resistant Electrode Storage Vessel

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