



SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



pH / ORP Electrodes (Semi Industrial)



pH Electrode “G Series”

1. pH Range : 0 - 14
2. Operating Temp. : -5 to 80°C
3. No. of Junctions : Double
4. Membrane Glass : Green (Fast response)
5. Pressure : Up to 6 Bar at 25°C
6. Reference System : Ag/ AgCl
7. Reference Electrolyte: HGel+
8. Diaphragm, Nos. : Ceramic, 2
9. Shape of Membrane : Spherical
10. Shaft Material : Plastic

ORP Electrode “R Series”

1. ORP range : ±2000 mV
2. Operating Temp. : -5 to 80°C
3. No. of Junctions : Double
4. Pressure : Upto 6 Bar at 25° C
5. Reference System : Ag/ AgCl
6. Reference Electrolyte: HGel+
7. Diaphragm, Nos. : Ceramic, 2
8. Shape of Membrane : Platinum: Spiral / Disc Gold: Disc / Rod
9. Shaft Material : Plastic





SLE SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



pH / ORP Electrodes (Industrial)



- High Performance
- High Temp.

ORP Electrode MQJI

- | | |
|----------------------|------------------------------|
| 1. ORP Range | : ±2000 mV |
| 2. Operating Temp. | : -5 to 100°C |
| 3. No. of Junctions | : Double |
| 4. Pressure | : Up to 6 Bar at 25°C |
| 5. Reference System | : Ag/AgCl |
| 6. Diaphragm | : Teflon, Additional Ceramic |
| 7. Shape of Membrane | : Spherical |
| 8. Body Material | : Borosilicate |

pH Electrode CAJI

- | | |
|----------------------|------------------------------|
| 1. pH Range | : 0 - 14 |
| 2. Operating Temp. | : -5 to 100°C |
| 3. No. of Junctions | : Double |
| 4. Membrane Glass | : Green (Fast response) |
| 5. Pressure | : Up to 6 Bar at 25°C |
| 6. Reference System | : Ag/AgCl |
| 7. Diaphragm | : Teflon, Additional Ceramic |
| 8. Shape of Membrane | : Spherical |
| 9. Body Material | : Borosilicate |



SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



pH / ORP Electrodes (Industrial)

**pH Electrode
TCHEM**

- 1. pH Range : 0 - 14
- 2. Operating Temp. : -5 to 100°C
- 3. No. of Junctions : Double
- 4. Membrane Glass : Green (Fast response)
- 5. Reference System : Ag/AgCl
- 6. Reference Electrolyte : HGel+ / CLP+
- 7. Diaphragm : **Annular Ceramic,**
Additional Ceramic
- 8. Shape of Membrane : Spherical
- 9. Shaft Material : Glass



- High Performance
- High Temp.

ORP Electrode TRCHEM

- 1. ORP Range : ±2000 mV
- 2. Operating Temp. : -5 to 100°C
- 3. No. of Junctions : Double
- 4. Reference System : Ag/AgCl
- 5. Reference Electrolyte : HGel+ / CLP+
- 6. Diaphragm : **Annular Ceramic,**
Additional Ceramic
- 7. Shape of Membrane : Platinum Disc
- 8. Shaft Material : Glass

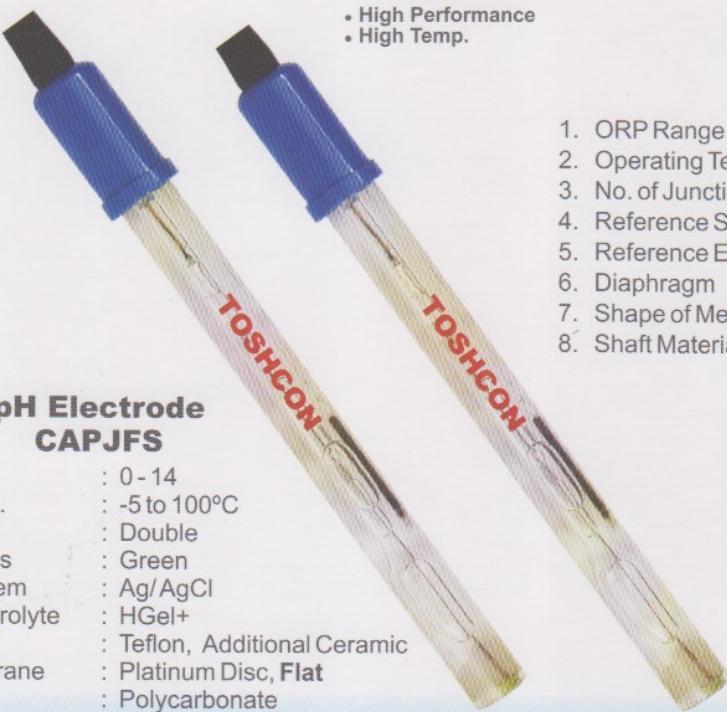


SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



pH / ORP Electrodes (Industrial)



- High Performance
- High Temp.

pH Electrode CAPJFS

- | | |
|--------------------------|------------------------------|
| 1. pH Range | : 0 - 14 |
| 2. Operating Temp. | : -5 to 100°C |
| 3. No. of Junctions | : Double |
| 4. Membrane Glass | : Green |
| 5. Reference System | : Ag/AgCl |
| 6. Reference Electrolyte | : HGel+ |
| 7. Diaphragm | : Teflon, Additional Ceramic |
| 8. Shape of Membrane | : Platinum Disc, Flat |
| 9. Shaft Material | : Polycarbonate |

ORP Electrode MQPJFS

- | | |
|--------------------------|------------------------------|
| 1. ORP Range | : ±2000 mV |
| 2. Operating Temp. | : -5 to 100°C |
| 3. No. of Junctions | : Double |
| 4. Reference System | : Ag/AgCl |
| 5. Reference Electrolyte | : HGel+ |
| 6. Diaphragm | : Teflon, Additional Ceramic |
| 7. Shape of Membrane | : Platinum Disc, Flat |
| 8. Shaft Material | : Polycarbonate |



SLE SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



pH / ORP Electrode (Heavy Industrial)

pH Electrode TPRO

1. pH Range : 0 - 14
2. Operating Temp. : -5 to 100°C
3. No. of Junctions : Double
4. Membrane Glass : Green (Fast response)
5. Pressure : Up to 6 Bar at 25° C
6. Reference System : Ag/AgCl with
Ion Trap technology
7. Reference Electrolyte : CLP+
8. Diaphragm : Dual Teflon
9. Shape of Membrane : Spherical
10. Shaft Material : Borosilicate



- High Performance
- High Temp.
- High Pressure

ORP Electrode TRO

1. ORP range : ±2000 mV
2. Operating Temp. : -5 to 100°C
3. No. of Junctions : Double
4. Pressure : Upto 5 Bar at 25°C
5. Reference System : Ag/ AgCl with
Ion Trap technology
6. Reference Electrolyte : CLP+
7. Diaphragm : Dual Teflon
8. Shape of Membrane : Platinum Spiral / Disc
9. Shaft Material : Borosilicate



SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS

Toshcon®



- High Performance
- High Temp.
- High Pressure

Heavy Industrial pH / ORP Sensor

pH / ORP Sensor T3

- | | |
|--------------------------|--|
| 1. pH/ Redox Range | : 0 - 14 pH / ± 2000mV |
| 2. Temperature Rating | : -5° to 105°C |
| 3. Membrane Glass | : Green / Blue |
| 4. Pressure | : 0-100 PSIG / 6 Bar |
| 5. Temp. Compensation | : Pt100/ Pt1000/ 30K NTC |
| 6. Reference Junction | : Teflon |
| 7. Reference Electrolyte | : Combination of HGEL+ & CLP+ Hard Polymer gel |
| 8. Shaft Material | : Ryton / PVDF |
| 9. Membrane Shape | : Rugged Electrode Tip with Dome shape (pH) / Disc shape (Redox) |

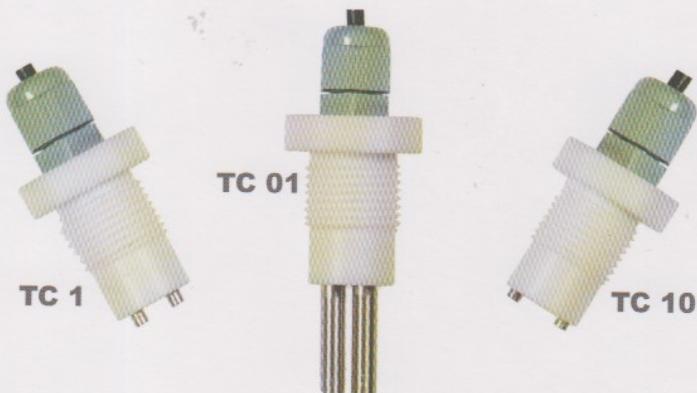


SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS

Toshcon®

**Online
Conductivity Probes**



**Conductivity Probe
TC01, TC1 & TC10**

	<u>0.1 K</u>	<u>1 K</u>	<u>10 K</u>
1. Electrode material	SS316L	SS316L	SS316L
2. Body material	Teflon	Teflon	Teflon
3. Cell Constant	0.1cm ⁻¹	1.0cm ⁻¹	10.0cm ⁻¹
4. Measuring Range	0 - 2 mS	0 - 20 mS	0 - 200 m
5. Sensor Diameter	19mm	19mm	19mm
6. Insertion Length	35mm	15mm	15m
7. Temp. Range	0 to 80°C	0 to 80°C	0 to 80°C
8. Temp. Compensation	Optional	Optional	Optional



SLE SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



Conductivity Cell (Laboratory / Semi Industrial)



- Plastic Body
- General Purpose

Conductivity Cell TCP 01

- | | |
|-----------------------|-------------------------|
| 1. Electrode Material | : Graphite |
| 2. No. of Electrode | : 2 Electrodes |
| 3. Body Material | : Plastic |
| 4. Cell Constant | : 0.1 cm^{-1} |
| 5. Measuring Range | : 0-2 mS |
| 6. Sensor Diameter | : 12 mm |
| 7. Temp. Range | : -5 to 80°C |
| 8. Temp. Compensation | : Inbuilt (Optional) |
| 9. Connector | : BNC & Lugs |
| 10. Pressure | : Upto 6 Bar at 25°C |

Conductivity Cell TCP 1

- | | |
|-----------------------|-----------------------|
| 1. Electrode Material | : Graphite |
| 2. No. of Electrode | : 2 Electrodes |
| 3. Body Material | : Plastic |
| 4. Cell Constant | : 1 cm^{-1} |
| 5. Measuring Range | : 20 mS |
| 6. Sensor Diameter | : 12 mm |
| 7. Temp. Range | : -5 to 80°C |
| 8. Temp. Compensation | : Inbuilt (Optional) |
| 9. Connector | : BNC & Lugs |
| 10. Pressure | : Upto 6 Bar at 25°C |

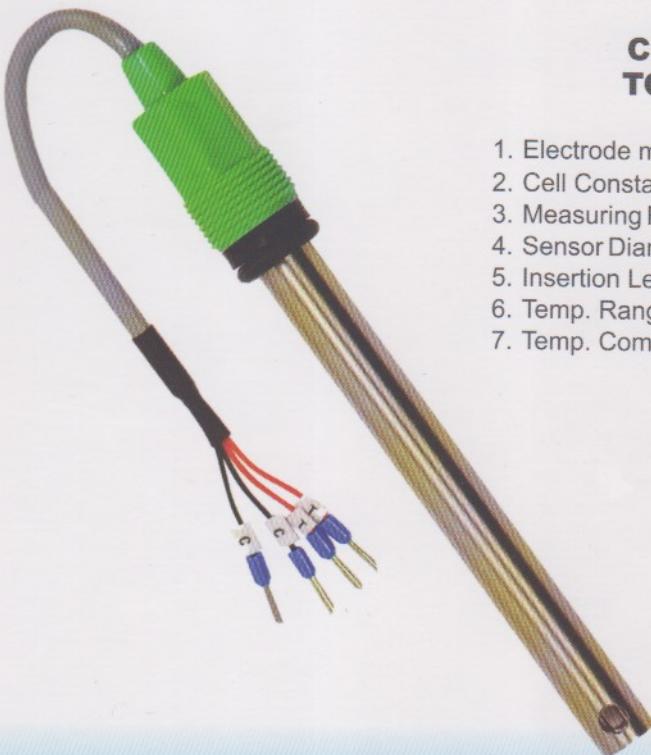


SLE SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS

Toshcon®

Online Conductivity Probes



Conductivity Probe TC-SS-01 & TC-SS-1

	0.1 K	1 K
1. Electrode material	SS316L	SS316L
2. Cell Constant	0.1cm ⁻¹	1.0cm ⁻¹
3. Measuring Range	0 - 2 mS	0 - 20 mS
4. Sensor Diameter	12mm	12mm
5. Insertion Length	120/220mm	120/220mm
6. Temp. Range	0 to 80°C	0 to 80°C
7. Temp. Compensation	Optional	Optional



SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS

Toshcon®

Conductivity Probes (Heavy Industrial)



- High Performance
- High Temp.
- High Pressure

TCI 01 & TCI 10

	<u>0.1 K</u>	<u>10 K</u>
1. Electrode material	SS316L	SS316L
2. Cell Constant	0.1cm ⁻¹	10.0cm ⁻¹
3. Measuring Range	0 - 2 mS	0 - 200 mS
4. Sensor Diameter	19mm	19mm
5. Insertion Length	80mm	80mm
6. Temp. Range	-10 to 150°C	-10 to 150°C



SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS

Toshcon®

Conductivity Probes
(Heavy Industrial)



TCI 001

TCI 1

- High Performance
- High Temp.
- High Pressure

TCI 001 & TCI 1

	<u>0.01 K</u>	<u>1.0 K</u>
1. Electrode material	SS316L	SS316L
2. Cell Constant	0.01cm ⁻¹	1.0cm ⁻¹
3. Measuring Range	0 - 200 µS	0 - 20 mS
4. Sensor Diameter	19mm	19mm
5. Insertion Length	80mm	80mm
6. Temp. Range	-10 to 150°C	-10 to 150°C



SLE SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS

Toshcon®

pH / ORP Electrodes (Laboratory)



- General Purpose
- Glass Body

ORP Electrode MQ 17

1. ORP range : ±2000 mV
2. Operating Temp. : -5 to 70°C
3. No. of Junctions : Single
5. Reference System : Ag/AgCl
6. Shape of Membrane : Platinum Spiral
7. Diaphragm : Ceramic
8. Shaft Material : Glass

pH Electrodes CA 11

1. pH Range : 0 - 14
2. Operating Temp. : -5 to 70°C
3. No. of Junctions : Single
4. Membrane Glass : Blue
5. Reference System : Ag/AgCl
6. Shape of Membrane : Spherical
7. Diaphragm : Ceramic
8. Shaft Material : Glass



SLE SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS

Toshcon®

pH Electrodes (Special Laboratory)

- 5 Point Calibration
- Highly Accurate
- Ultra Pure Water



- Highly Accurate

pH Electrode CAPF 11

- | | |
|--------------------------|-------------------------|
| 1. pH Range | : 0 - 14 |
| 2. Operating Temp. | : -5 to 80°C |
| 3. No. of Junctions | : Single |
| 4. Membrane Glass | : Green (Fast response) |
| 5. Reference System | : SREF+ |
| 6. Reference Electrolyte | : KCl |
| 7. Diaphragm, Nos. | : Ceramic, 2 |
| 8. Shape of Membrane | : Spherical |
| 9. Shaft Material | : Plastic |

pH Electrode CAF GG

- | | |
|--------------------------|-------------------------|
| 1. pH Range | : 0 - 14 |
| 2. Operating Temp. | : -5 to 80°C |
| 3. No. of Junctions | : Single |
| 4. Membrane Glass | : Green (Fast response) |
| 5. Reference System | : SREF+ |
| 6. Reference Electrolyte | : KCl |
| 7. Diaphragm | : Ground Glass |
| 8. Shape of Membrane | : Spherical |
| 9. Shaft Material | : Glass |



SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



pH Electrode

• Micro ml Volume



Micro pH Electrode CAM

- | | |
|--------------------------|---|
| 1. pH Range | : 0 - 14 |
| 2. Operating Temp. | : -5 to 80°C |
| 3. No. of Junctions | : Single |
| 4. Diaphragm | : Ceramic |
| 5. Shape of Membrane | : Spherical |
| 6. Reference System | : SREF+ |
| 7. Reference Electrolyte | : 3M KCl |
| 8. Shaft Material | : Glass |
| 9. Shaft Size | : 60 mm Length x 12 mm Dia &
60 mm Length x 3 mm Dia |

• Small Volume

Semi-Micro pH Electrode CASM	
1. pH Range	: 0 - 14
2. Operating Temp.	: -5 to 80°C
3. No. of Junctions	: Single
4. Membrane Glass	: Green
5. Diaphragm	: Ceramic
6. Shape of Membrane	: Spherical
7. Reference System	: SREF+
8. Reference Electrolyte	: 3M KCl
9. Shaft Material	: Glass
10. Shaft Size	: 80 mm Length x 12 mm Dia & 40 mm Length x 6 mm Dia

Suitable for accurate pH measurement in NMR cells



SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



ION Selective Electrodes TISE-__



ION Selective Electrode TISE-__

- | | |
|-----------------------|--|
| 1. Slope | : (Monovalent) 54 to 59 mV/ decade
(Divalent) 25 to 29 mV/ decade |
| 2. Temp. Range | : 0-50C / 5-50C |
| 3. Length | : 155 mm |
| 4. Diameter | : 12 mm |
| 5. Reference Type | : Single Junction Ag/ AgCl |
| 6. Body Type | : Polymer |
| 7. Reference Junction | : Teflon |

Species	Limits (ppm)
Fluoride (F ⁻)	0.02 to 1,900
Nitrate (NO ₃ ⁻)	0.40 to 62,000
Calcium (Ca ⁺⁺)	0.02 to 4,010
Potassium (K ⁺)	0.04 to 39,000
Ammonium (NH ₄ ⁺)	0.90 to 9,000
Cadmium (Cd ⁺⁺)	0.10 to 11,200
Cyanide (CN ⁻)	0.03 to 260
Chloride (Cl ⁻)	1 to 35,500
Sodium (Na ⁺)	1 to 35,000
etc. etc.	



SLE SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



pH Electrode

• Soil

- Cheese
- Meat / Fish
- Fruits
- Vegetables



pH Electrode CAS

1. pH Range	: 0 - 14
2. Operating Temp.	: -5 to 80°C
3. No. of Junctions	: Double
4. Membrane Glass	: Green
5. Reference Electrolyte	: HGel+
6. Diaphragm	: Teflon
7. Shape of Membrane	: Conical
8. Shaft Material	: Plastic

pH Electrode CAS-K

1. pH Range	: 0 - 14
2. Operating Temp.	: -5 to 80°C
3. No. of Junctions	: Double
4. Membrane Glass	: Green
5. Reference Electrolyte	: HGel+
6. Diaphragm	: Teflon
7. Shape of Membrane	: Conical
8. Sample Consistency	: Solid / Semi-solid
9. Shaft Material	: ABS, Plastic & SS304 (Knife)



SLE SYSTEM LAB EQUIPMENTS

ANALYTICAL & QC.C TEST INSTRUMENTS



pH Electrodes (Laboratory / Process)

• Pure Water

• Ultra Pure Water
• De-Ionized Water



pH Electrodes TPURE-ECO

- | | |
|--------------------------|-----------------|
| 1. pH Range | : 0 - 14 |
| 2. Operating Temp. | : -5 to 80°C |
| 3. No. of Junctions | : Single |
| 4. Membrane Glass | : Blue |
| 5. Reference System | : SREF+ |
| 6. Reference Electrolyte | : HGel+ |
| 7. Diaphragm, Nos. | : Ceramic, 3 |
| 8. Shape of Membrane | : Big Spherical |
| 9. Shaft Material | : Glass |

pH Electrodes TPURE

- | | |
|--------------------------|-------------------|
| 1. pH Range | : 0 - 14 |
| 2. Operating Temp. | : -5 to 80°C |
| 3. No. of Junctions | : Single |
| 4. Membrane Glass | : Blue |
| 5. Reference System | : SREF+ |
| 6. Reference Electrolyte | : 3M KCl |
| 7. Diaphragm, Nos. | : Ground Glass, 1 |
| 8. Shape of Membrane | : Big Spherical |
| 9. Shaft Material | : Glass |



ANALYTICAL & QC.C TEST INSTRUMENTS



Ordering Code

Plastic Body G Series - G
Glass Body CAJ Series - J
Plastic Body Soil CAS - S

Specifications:

S. No.	Parameter	Value
1	pH Range	0-14
2	Resolution	0.1 / 0.01 / 0.001 pH (selectable)
3	Accuracy pH	± 0.03 pH
4	Temperature (On Demand/ Request)	0 – 100°C
5	Calibration	1/2/3/5 Point Calibration (selectable)
6	Connectivity	Bluetooth 5.0 /4.2 (BLE)
7	Range	50 meters
8	Battery (Rechargeable & USB charged)	500 mA, 5 days backup
9	Logging/ Storage	2000 real time storage points 2000 manual storage points
10	Storage Information	pH, Temp., Date & Time, Location (GPS enabled)
11	Clock	Real Time Clock Support
12	Data Storage Interval	2 Sec - 300 Sec (User configurable)
13	Indication	Multi Colour LED <ul style="list-style-type: none">• Red Steady on Reset / Powered On• Red Blinking waiting for connection• Green Blinking connection established• Blue Data Downloading• Dark Pink, Device Charged• Light Yellow Device Charging• Remaining Battery % indication on Phone / Tablet
14	Response	3- 4 sec. (for 90% response)
15	Graphical User Interface (GUI)	Android 5.0 above <ul style="list-style-type: none">• pH Graph & Gauge• Data transfer (Device to App in CSV format)• Device Calibration• Device Settings• Battery Status