



# ELECTROCHEMISTRY & WATER

## ANALYSIS INSTRUMENTS

### BENCHTOP MULTI-PARAMETER INSTRUMENTS "BLACK PEARL 37 SERIES" MODEL TPCD 37



INDIA'S FIRST  
ELECTROCHEMISTRY  
METER WITH

- "30 Sec" measurement
- "6 Click" Calibration
- European technology



#### TPCD-37

pH	-2 ....20 pH
mV	±2000 mV
Conductivity	0 .... 2000 mS/cm
Resistivity	0 .... 200 MΩ.cm
Salinity	0 .... 70 ppt
TDS	0 .... 100 g/l
Dissolved Oxygen	0 .... 60 mg/l 0 .... 600%
Air Pressure	600 .... 1300 hPa
Temperature	-5 .... +105°C

The leader in **pH, ORP, Conductivity, TDS, Salinity, Resistivity, Dissolved Oxygen, Temperature** measurement just got better with a completely advanced & highly sophisticated new range of Benchtop Instruments with a European collaboration for the following Parameters:

These Instruments have a list of numerous salient features which make this range incomparable & highly advanced when compared with most of the other meters available in the market & some of which are as follows

• pH • ORP • Conductivity • TDS • Salinity • Resistivity • Dissolved Oxygen • Temp.

- ✓ Direct Printer & PC
- ✓ 3 Year warranty on the Instruments
- ✓ Data logging of up to 12000+ values including Temperature

- ✓ Stability Indicator
- ✓ GLP Report on LCD Screen
- ✓ White backlight for better viewing
- ✓ Robust dust & splash-proof cabinet

Manufactured by:

**TOSHNIWAL INSTRUMENTS MANUFACTURING PVT. LTD.**

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BLACK PEARL TPCD-37

# COMMON FEATURES

## pH

Automatic calibration up to five buffers out of eleven pre-programmed pH buffers.

Reads pH with 0.001 pH resolution.

## mV

Features mV calibration for accurate ORP measurements.

Reads potentials with 0.1 mV resolution.

## Conductivity

Multi-point (1...3) calibration for more linearity. Extended conductivity range; to measure the full range from 0.001  $\mu\text{S/cm}$  to 2000  $\text{mS/cm}$  requires 3 electrodes: 0.1, 1 and 10  $\text{cm}^{-1}$ .

Selectable reference temperature: 20° or 25°C.

Automatic cell constant determination with any of three preprogrammed standards (0.01, 0.1 or 1M KCL.

## Dissolved Oxygen

Operates with a galvanic dissolved oxygen electrode requiring no polarisation time and no zero calibration.

Selectable resolution from 0.01  $\text{mg/l}$  (0.1%) to 0.1  $\text{mg/l}$  (1%).

Manual salinity compensation 0-40 ppt.

Automatic air pressure compensation 600-1300 hPa.

Rapid Air Calibration.

## Temperature

Reads temperatures with 0.1°C resolution.

Manual or automatic temperature compensation.

Calibrates temperature probe for quality measurements.

## Inputs

1 BNC inputs for pH, mV, Conductivity, Dissolved oxygen.

1 Corresponding reference inputs.

1 Corresponding temperature inputs.

1 Voltage DC input for e.g. a mains adaptor.

## Outputs

USB interface for connection to a computer.

RS232 interface for connection to a printer or computer.

## Display

Bright LCD screen for better readability.

White backlight for better viewing.

Stability indicator prompts the user when readings should be taken.

Shows a GLP report on the LCD screen.

The interactive LCD screen provides step by step instructions in the language of your choice (English, Dutch, French, German).

## Data-logging

Storage memory for 12,000+ values including temperature

**\*Cabinet:** Robust dust and splash-proof cabinet.

**\*Special features:** Two-way communication with a printer or computer using RS232 or USB.

## Standard Supply

**Meter + Mains Adaptor + Electrode Stand + ATC**

**+ Instruction Manual + Test Certificate +Warranty Card**

## pH

Range	-2...+20 pH
Resolution	0.001 pH
Accuracy	0.1% $\pm$ 1 Digit
Calibration	1...5 Points
Buffers	11 Pre-programmed
Temperature Compensation	-5...+105°C
ISO-PH	6...8 pH
Slope	80...120%

## mV

Range	$\pm$ 2000 mV
Resolution	0.1 mV
Accuracy	0.1% $\pm$ 1 Digit
Calibration	1 Point

## CONDUCTIVITY

Range	0...2000 $\text{mS/cm}$
Resolution	0.001 $\mu\text{S/cm}$
Accuracy	0.5% F.S. Of Range
Calibration	1...3 Point
Standards	0.01/0.1/1m KCL 3 User Specified
Cell Constant	0.1/1/10 $\text{cm}^{-1} \pm 30\%$
Temperature Compensation	-5...+105°C
Reference Temperature	20° Or 25°C
Temperature Coefficient	Natural Waters (En27888)
Range Lock	✓
Capacitive Compensation	✓

## RESISTIVITY

Range	0...200 M $\Omega\text{cm}$
Resolution	1 $\Omega\text{cm}$

## SALINITY

Range	0...70 ppt
Resolution	0.1 ppt

## TDS

Range	0 ... 100 g/l
Resolution	0.01 $\text{mg/l}$

## DISSOLVED OXYGEN

Range	0...60 $\text{mg/l}$ (0...600%)
Resolution	0.01 $\text{mg/l}$ (0.1%)
Accuracy	1% $\pm$ 1 Digit
Calibration	1 Point
Temperature Compensation	0...50°C
Salinity Compensation	0...40 ppt

## AIR PRESSURE COMPENSATION

Range	600...1300 hpa
Calibration	1 Point

## TEMPERATURE

Range	-5...+105°C
Resolution	0.1°C
Accuracy	0.3°C
Calibration	1 point

## INPUTS

pH/mV	1 BNC, $10^{-12} \Omega$
Conductivity/ Dissolved Oxygen/Ion	
Temperature	White RC Plug, for Pt1000

## CALIBRATION

Reminder	0...999 h
GLP	✓

## DISPLAY

LCD	240x64 pixels each
White Backlight	✓
Hold Function	✓
Selectable Resolution	✓
Real Time Clock	✓

## USB

Interface with computer	1 port
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## RS 232

Baud Rate	1200...115200 b/s
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## DATA-LOGGING

Values	12000+ °C/date/time
Manul or Timed	✓
Interval	1...9999 s

## SECURITY

Identification number	✓
Password protection	✓

## AMBIENT CONDITIONS

Temperature	0...40°C
Humidity	0...95%, non-condensing

## POWER SUPPLY

Mains	210...250 VAC, 50/60 Hz
Low Voltage	9...15 VDC

## DIMENSIONS

WxDxH	26x18x10/4 cm
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## WEIGHT METER

	765 gm
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