

ELECTROCHEMISTRY & WATER

ANALYSIS INSTRUMENTS

PORTABLE MULTI-PARAMETER INSTRUMENTS "BLACK PEARL 27 SERIES" MODEL TMULTI-27

OTHER MODELS

TP 27, TD 27, TPC 27, TPI 27, TPCD 27



INDIA'S FIRST
ELECTROCHEMISTRY
METER WITH

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



TMULTI-27

pH	-220 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
Ion	0.01 ng/l 100 g/l
Temperature	-5 +105°C

The leader in **pH, ORP, Conductivity, TDS, Salinity, Resistivity, Dissolved Oxygen, Ion, 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 • ION • 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.

P.O. Gagwana – 305023, Distt. Ajmer (Raj.) INDIA., Phone : +91-145-2971131/2/3

Customer Care: +91-9829 112345 Email: info@toshcon.com / support@toshcon.com

REGD. OFFICE: 401, Manish Chamber, Sonawala Cross Lane, Goregaon (E), Mumbai-400063

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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 mS/cm requires 3 electrodes: 0.1, 1 and 10 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 mg/l (0.1%) to 0.1 mg/l (1%).

Manual salinity compensation 0-40 ppt.

Automatic air pressure compensation 600-1300 hPa.

Rapid Air Calibration.

ION

Direct concentration measurement. Ion mode is easily calibrated with

any 2...5 standards and a blank correction.

Useable with Ion Selective Electrodes like F^- , Cl^- , NO_3^- , NH_4^+ , Br^- , I^- , CN^- , Ca^{++} etc.

Stores calibration curves for up to 9 different electrodes.

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 and ION.

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 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 MQcm
Resolution	1 $\Omega\cdot\text{cm}$

SALINITY

Range	0...70 ppt
Resolution	0.1 ppt

TDS

Range	0 ... 100 g/l
Resolution	0.01 mg/l

DISSOLVED OXYGEN

Range	0...60 mg/l (0...600%)
Resolution	0.01 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

ION

Range	0.01 ng/l ...100 g/l
Resolution	3 digits
Accuracy	0.5% \pm 1 digit
Calibration	2...5 points + blank

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

BATTERY RECHARGEABLE

	4 x 1.2V, AA, NiMH
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DIMENSIONS

WxDxH	25x12x5 cm
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WEIGHT METER

	635 gm
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