

BENCHTOP

MULTI-PARAMETER INSTRUMENTS "37 SERIES"

MODEL TP 37, TD 37, TPC 37, TPCD 37, TPI 37 & TMULTI 37

•pH •ORP •ION •Conductivity •TDS •Salinity •Resistivity •Dissolved Oxygen •Air Pressure •Temp.



TMULTI 37

pH	-2 ... 20 pH
mV	±2000 mV
Ion	0.01 ng/l ... 100 g/l
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

TP 37

pH	-2 ... 20 pH
ORP	±2000 mV
Temperature	-5 ... 105°C

TD 37

Dissolved Oxygen	0 ... 60 mg/l 0 ... 600%
Temperature	-5 ... 105°C

TPC 37

pH	-2 ... 20 pH
ORP	±2000 mV
Conductivity	0 ... 2000 mS/cm
TDS	0 ... 100 g/l
Salinity	0 ... 70 ppt
Resistivity	0 ... 200 MΩ cm
Temperature	-5 ... 105°C

TPCD 37

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

TPI 37

pH	-2 ... 20 pH
mV	±2000 mV
ION	0.01 ng/l ... 100 g/l
Temperature	-5 ... +105°C

COMMON FEATURES:

• **pH**

Multi-point (1...5) calibration for more linearity.
Selectable resolution from 0.001pH to 0.1 pH.
Automatic calibration with any of eleven pre-programmed and five user specified pH buffers.
pH electrodes with any zero point (Eo) between ±999 mV.

• **mV**

Features mV calibration for accurate ORP measurements.
Selectable resolution from 0.1 mV to 1 mV.

• **Ion (in TPI 37 & TMULTI 37)***

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⁻, NO₃⁻, NH₃, NH₄⁺, Br⁻, I⁻, CN⁻, Ca⁺⁺ etc.
Stores calibration curves for up to 9 different electrodes.

• **Conductivity (in TPC 37, TPCD 37 & TMULTI 37)***

Multi-point (1...3) calibration for more linearity.
Extended conductivity range; to measure the full range from 0.001 μS/cm to 2000 mS/cm requires 3 electrodes: 0.1, 1 and 10 cm².
Selectable reference temperature: 20° or 25°C.
Automatically selects correct range and frequency.
Automatic cell constant determination with any of three preprogrammed standards (0.01, 0.1 or 1M KCl).
Allows to lock the initial conductivity range to avoid non-linear titration curves.

Accurate low conductivity measurements by eliminating the capacitive component of the electrode and its cable (avoid the use of long cables!).

• **Dissolved Oxygen (in TD 37, TPCD 37 & TMULTI 37)****

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

TOSHWIHAL INSTRUMENTS MANUFACTURING PVT. LTD.,

An ISO 9001:2015 Company

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BENCHTOP

MULTI-PARAMETER INSTRUMENTS "37 SERIES"

MODEL TP 37, TD 37, TPC 37, TPCD 37, TPI 37 & TMULTI 37

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.

•Temperature

Reads temperatures with 0.1°C resolution.

Manual or automatic temperature compensation.

Calibrates temperature probe for quality measurements.

•Inputs

One BNC inputs for pH, mV, Ion, dissolved oxygen & conductivity.

One corresponding reference inputs.

Two corresponding temperature inputs.

Low 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.

•Data-logging

Stores up to 12000 values including temperature, time and date.

Allows to mix data from all ranges in the same table.

A powerful data acquisition software for PC is available optionally.

•Cabinet

Robust dust and splash-proof cabinet.

•Display

A large bright LCD screen with white backlight enables to view for better readability.

Stability indicator prompts the user when readings should be taken.

Hold function allows to freeze the display for convenient reading or recording.

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

Real-time clock displays time and date.

Shows a GLP report on the LCD screen.

•Special features

Calibration reminder 0....999h

Programmable identification number for use with a printer or computer.

Mains operation with programmable

Two-way communication with a printer or computer using RS232 or USB.

Password protection prevents any unauthorised access to the instrument.

Optional 12V car adaptor.

•GLP

All procedures for a "Good Laboratory Practice" are on board.

Standard Supply: Meter + Mains Adaptor + Instruction Manual + Test Certificate + Warranty Card + ATC

Essential & Optional Accessories including Electrodes on Order

For more details kindly contact:

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Specifications for TP37, TD37, TPC37, TPCD37, TPI37 & TMULTI 37 with difference marked in Blue coloured text in bracket & *s

pH	Range	-2 ... +20 pH	
	Resolution	0.001 pH	
	Accuracy	0.1% ± 1 digit	
	Calibration	1... 5 points	
	Buffers	11 pre-programmed 5 user specified	
	Temperature Compensation	-5 ... +105°C	
	ISO-pH	6... 8 pH	
mV	Slope	80... 120%	
	Zero Point (Eo)	±999 mV	
	Range	± 2000 mV	
	Resolution	0.1 mV	
	Accuracy	0.1% ± 1 digit	
	Calibration	1 point	
	ION* (in TPI37 & TMULTI 37)	Range	0.01 ng/l... 100 g/l
CONDUCTIVITY	Resolution	3 digits	
	Accuracy	0.5% ± 1 digit	
	Calibration	2... 5 points + blank	
	Range	0... 2000 mS/cm	
	Resolution	0.001 µS/cm	
	Accuracy	0.5% f.s. of range	
	Calibration	1... 3 points	
	Standards	0.01/0.1/1M KCl 3 user specified	
	Cell Constant	0.1/1/10 cm ⁻¹ ± 30%	
	Temperature Compensation	-5 ... +105°C	
RESISTIVITY	Reference Temperature	20°C or 25°C	
	Temperature Coefficient	natural waters (EN27888)	
	Range Lock	✓	
	Capacitive Compensation	✓	
	Range	0... 200 MΩ.cm	
	Resolution	1 Ω.cm	
	SALINITY	Range	0... 70 ppt
	Resolution	0.1 ppt	
	TDS	Range	0... 100 g/l
	Resolution	0.01 mg/l	
DISSOLVED OXYGEN (in TD37, TPCD 37 & TMULTI 37)**	Range	0... 60mg/l (0... 600%)	
	Resolution	0.01 mg/l (0.1%)	
	Accuracy	1% ± 1 digit	
	Calibration	1 point	
	Temperature Compensation	0... 50°C	
	Salinity Compensation	0... 40 ppt	
	Air Pressure Compensation	600... 1300 hPa	
TEMPERATURE	Range	-5... +105°C	
	Resolution	0.1°C	
	Accuracy	0.3°C	
	Calibration	1 point	
AIR PRESSURE (in TPCD 37 & TMULTI 37)**	Range	600... 1300 hPa	
	Calibration	1 point	
	INPUTS	Measurement	1 BNC, 10 ² Ω
CALIBRATION	Temperature	2 banana, for Pt1000 or NTC 30 KΩ	
	Reminder	0... 999 h	
	GLP	✓	
DISPLAY	LCD	240x64 pixels	
	White Backlight	✓	
	Hold Function	✓	
	Selectable Resolution	✓	
	Real Time Clock	✓	
	USB	Interface with computer	✓
RS232	Baud Rate	1200... 115200 b/s	
	DATA-LOGGING	Values	12000 + °C/date/time
SECURITY	Modes	all (9)	
	Manual or Timed	✓	
	Interval	1... 9999 s	
	Identification number	✓	
AMBIENT CONDITIONS	Password protection	✓	
	Temperature	0... 40°C	
	Humidity	0... 95% non-condensing	
POWER SUPPLY	Mains	210... 250VAC, 50/60Hz	
	Low Voltage	9... 15 VDC	
DIMENSIONS	WxDxH	26x18x10/4 cm	
	WEIGHT	Meter	765 gms

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