

Palintest

Water Analysis Technologies



MULTIPARAMETER PHOTOMETERS

POOL AND SPA WASTEWATER DRINKING WATER PROCESS WATER SOIL

Choose your Multiparameter photometer

Features	Photometer 7100	Photometer 7500 Bluetooth®	Photometer 8000
Battery Power	•	•	•
Number of Methods	>100	>100	>100
Sample ID	•	•	•
Frequently Used Test List/Hot Keys	•	•	•
Multiple Date Formats	•	•	•
Automatic Method Set-Up	•	•	•
Timer	•	•	•
Automatic Read on Time Elapse	•	•	•
Date/Time	•	•	•
Backlight with User Control	•	•	•
Accessible Optical Bench for Cleaning	•	•	•
Automatic Cuvette Centering	•	•	•
Numeric/Select Key Interface	•	•	
Connectivity		Bluetooth SMART & USB	RS232/USB
Mains Power		Via USB port	•
Bi-directional serial communication		•	•
User Defined Tests		30	50
CSV Format Data Download		•	•
User Access Control Lock	•	•	•
Result Log		•	•
Drag and Drop Method Update		•	
RS232 Connectivity			•
Barcode reader for Tubetests®			•
Touchscreen interface			•
User Favourite Test List			•
Selectable Data Download		•	•
Memory Capacity	500	500	1000



Photometer 7100

Whether for drinking water, wastewater, effluent, process water or environmental analysis, the Photometer 7100 provides the complete range of test parameters in a waterproof instrument



Simple to use, robust in construction and designed for on-site analysis. Dependable results enable decisions on water quality to be made instantly with confidence.

Features include:

Simple operation with automatic setup for each test. Designed for Palintest reagent systems in Tablet form or liquid based Tubetests® reagents with its adaptive cell holder

Rapid access to frequently used tests from a choice of over 100 parameters/methods



Waterproof to IP67 to protect the instrument in demanding environments

Available as benchtop kit for setting up at a work-station complete with all necessary accessories or in a carry case for portable use with additional spaces for carrying reagent

Technical Specification

Instrument Type	Dual light source photometer offering direct-reading of pre-programmed test calibrations, Absorbance and Transmittance.
Wavelengths	450nm, 500nm, 550nm, 570nm, 600nm, 650nm
Accuracy	± 1.0% T
Display	320 x 240 pixel LCD with backlight and contrast adjustment
User Interface	On-screen prompts available in English, French, Spanish, German, Italian, Turkish and Mandarin (Chinese).
Size (W x L x H) and weight	150 x 250 x 70mm, 975g
IP Rating	IP67
Power Supply	3 x 1.5v 'AA' batteries (typically 40 hours), mains power delivered by USB port
Test Cuvettes	Automatic centering for cylindrical cuvettes from 13 – 20mm OD

Kit contents

		
	PTR 7100 Photometer 7100 Benchtop Kit	PTH 7100 Photometer 7100 Standard Kit
Photometer 7100 Instrument	•	•
Cuvettes	10	8
Cuvette rack	•	•
10ml syringe	•	•
Dilution Tube	•	•
Cuvette Brush	•	•
Crush/stir rod	•	•
Hard Carry Case		•
Transport Carton	•	

Ordering Information

PTH 7100	Photometer 7100 Standard Kit
PTR 7100	Photometer 7100 Benchtop Kit



Photometer Reagents

Photometer tablet reagents are available in two general pack sizes, the Starter Pack (PM code) and the Replacement Pack (AP code).

Name	Range	Starter Pack (50 tests)	Replacement Pack (250 tests)
M – Alkalinity (Alkaphot M™)	0 – 500 mg/l CaCO ₃	PM 250	AP 250
P – Alkalinity (Alkaphot P™)	0 – 500 mg/l CaCO ₃	PM 251	AP 251
Total Alkalinity (Alkaphot®)	0 – 500 mg/l CaCO ₃	PM 188	AP 188
Aluminium	0 – 0.5 mg/l Al	PM 166	AP 166
Ammonia	0 – 1.0 mg/l N	PM 152	AP 152
Bromine	0 – 10 mg/l Br ₂	PM 060	AP 060
Boron	0 – 2.5 mg/l B	PM 190	AP 190 (160 tests)
Calcium Hardness (CalcicoI™)	0 – 500 mg/l CaCO ₃	PM 252	AP 252
Chloride (ChloridoI™)	0 – 50,000 mg/l NaCl	PM 268	AP 268
Chlorine - Free (DPD 1)	0 – 5 mg/l Cl ₂	PM 011	AP 011
Chlorine – Free, extended range (DPD XF)	0 – 10 mg/l Cl ₂	PM 013	AP 013
Chlorine – Free, Combined and Total (DPD 1 and DPD 3)	0 – 5 mg/l Cl ₂	PM 031	AP 031
Chlorine – Free, Combined and Total, extended range (DPD XF and DPD XT)	0 – 10 mg/l Cl ₂	PM 033	AP 033
Chlorine – Total (DPD 4)	0 – 5 mg/l Cl ₂	PM 041	AP 041
Chlorine – Total (DPD 3 only)	0 – 5 mg/l Cl ₂	-	AP 031/1
Chlorine – Total, extended range (DPD XT only)	0 – 10 mg/l Cl ₂	-	AP 033/1
Chlorine HR	0 – 250 mg/l Cl ₂	PM 162	AP 162
Chlorine Dioxide and Chlorite (DPD method)	0 – 10 mg/l ClO ₂	PM 052	AP 052
Chlorine Dioxide LR (Lissamine Green B method)	0 - 2.5 mg/l ClO ₂	PM 064	AP 064
Chlorine Dioxide HR (Lissamine Green B method)	2.5 - 20 mg/l ClO ₂	PM 065	AP 065



Name	Range	Starter Pack (50 tests)	Replacement Pack (250 tests)
Chromium VI (Chromicol™)	0 - 1.0 mg/l Cr	PM 281	AP 281
Colour	10 - 500 Hazen Units/ 10 - 500 mg/l PtCo	PM 269	-
Copper – Free, Combined and Total (Coppercol®)	0 - 5 mg/l Cu	PM 186	AP 186
Copper - Free	0 - 5 mg/l Cu	-	AP 187
Cyanuric Acid	0 - 200 mg/l CNA	PM 087	AP 087
DEHA	0 - 500 ppb DEHA	PM 275	AP 275
Fluoride	0 - 1.5 mg/l F	PM 179	AP 179 (200 tests)
Hardness – Total (Hardicol®)	0 - 500 mg/l CaCO ₃	PM 254	AP 254
Hydrazine	0 - 0.5 mg/l N ₂ H ₂	PM 103 (30 tests)	AP 103 (150 tests)
Hydrogen Peroxide LR	0 - 2 mg/l H ₂ O ₂	PM 104	AP 104
Hydrogen Peroxide HR	0 - 100 mg/l H ₂ O ₂	PM 105	AP 105
Iron LR	0 - 1 mg/l Fe	-	AP 155
Iron MR	0 - 5 mg/l Fe	PM 292	AP 292
Iron HR	0 - 10 mg/l Fe	PM 156	AP 156
Magnesium Hardness (Magnecol®)	0 - 500 mg/l CaCO ₃	PM 193	AP 193
Manganese	0 - 0.03 mg/l Mn	PM 173	AP 173
Manganese HR	0 - 5 mg/l Mn	PM 174	AP 174
Molybdate LR	0 - 20 mg/l MoO ₄	PM 258	AP 258 (200 tests)
Molybdate HR	0 - 100 mg/l MoO ₄	PM 175	AP 175
Nickel (Nickeltest™)	0 - 10 mg/l Ni	PM 284	AP 284
Nitrate (Nitratest™)	0 - 20 mg/l N	PM 163	AP 163
Nitrite (Nitricol®)	0 - 0.5 mg/l N	PM 109	AP 109
Nitrite (Nitriphot)	0 - 1500 mg/l NaNO ₂	PM 260	AP 260
Organophosphonate (OP)	0 - 20 mg/l PO ₄	PM 262	AP 262
Ozone (DPD method)	0 - 2 mg/l O ₃	PM 056	AP 056
pH Phenol Red	pH 6.5 - 8.5	PM 130	AP 130
Phenol (Phenoltest™)	0 - 5 mg/l C ₆ H ₅ OH	PM 287	AP 287 (200 tests)
PHMB (PHMB-PHOT)	0 - 100 mg/l active biocide	PM 272	AP 272
Phosphate LR	0 - 4 mg/l PO ₄	PM 177	AP 177 (200 tests)
Phosphate HR	0 - 100 mg/l PO ₄	PM 114	AP 114
Potassium	0 - 12 mg/l K	PM 189	AP 189
Silica	0 - 4 mg/l SiO ₂	PM 181	AP 181 (200 tests)
Silica HR	0 - 150 mg/l SiO ₂	PM 290	AP 290 (200 tests)
Sulphate	0 - 200 mg/l SO ₄	PM 154	AP 154
Sulphide	0 - 0.5 mg/l S	PM 168	AP 168 (200 tests)
Sulphite (Sulphitest™)	0 - 500 mg/l Na ₂ SO ₃	PM 266	AP 266
Zinc	0 - 4 mg/l Zn	PM 148	AP 148

Liquid Reagents

Description	Range	Part Code (30 tests)
Dissolved Oxygen 0.8	0 - 0.8 mg/l O ₂	PL 553
Dissolved Oxygen 0.8	0 - 2.0 mg/l O ₂	PL 503
Dissolved Oxygen 2.0	0 - 20 mg/l O ₂	PL 513
Chlorine - Free (equivalent to DPD 1)	0 - 5 mg/l Cl ₂	AT 015*
Chlorine - Total (equivalent to DPD 3) Must be used in conjunction with AT 015	0 - 5 mg/l Cl ₂	AT 035*
Chlorine – Free and Total (equivalent to DPD 1 & DPD 3)	0 - 5 mg/l Cl ₂	AT 016*

* = 1200 tests + = 100 tests

Tubetests®

For ultimate convenience the Palintest range of Tubetests® reagents offer pre-dispensed reagents for minimal handling with barcoded reagent labelling for ease of use in wastewater applications.



For wastewater parameters such as Chemical Oxygen Demand (COD), nutrients and Heavy Metals the Tubetests® range provides the solution – literally.

Features include:

16mm OD tubes for improved resolution – larger diameter tubes are more sensitive in the lower part of the measuring range

Full range of accessory heater blocks, tube racks, workplace mats and pipettes to provide the complete solution for Tubetests® analysis

Barcoded reagent labels for automatic test selection on the Photometer 8000 – including automatic blanking for COD testing

Available in packs of 25 tests, the Tubetests® range of reagents supports the activities of any effluent monitoring laboratory. Add any multiparameter photometer to your heater block and reagents for a complete wastewater analysis system.

Tubetests® Reagents

Mercury Free for Low Chloride Samples	Range	Part Code
COD/150	0 – 150 mg/I O ₂	PL 450
COD/400	0 – 400 mg/I O ₂	PL 452
COD/1000	0 – 1000 mg/I O ₂	PL 453
COD/2000	0 – 2000 mg/I O ₂	PL 454
COD/20000	0 – 20000 mg/I O ₂	PL 456
Containing Mercury for Moderate Chloride Samples	Range	Part Code
COD/150/M	0 – 150 mg/I O ₂	PL 460
COD/400/M	0 – 400 mg/I O ₂	PL 462
COD/1000/M	0 – 1000 mg/I O ₂	PL 463
COD/2000/M	0 – 2000 mg/I O ₂	PL 464
COD/20000/M	0 – 20000 mg/I O ₂	PL 466

Containing Mercury for High Chloride Samples	Range	Part Code
COD/150/2M	0 – 150 mg/I O ₂	PL 461
COD/1000/2M	0 – 1000 mg/I O ₂	PL 468
COD/2000/2M	0 – 2000 mg/I O ₂	PL 465
COD/20000/2M	0 – 20000 mg/I O ₂	PL 467
COD Standard Solutions (COD Concentration)	Nominal COD Concentration	Part Code
COD Standard Solution, 125ml	80 mg/l	PL 470
COD Standard Solution, 125ml	250 mg/l	PL 472
COD Standard Solution, 125ml	800 mg/l	PL 474
COD Standard Solution, 125ml	10000 mg/l	PL 476
Nutrients	Range	Part Code
Ammonia 15N, Nessler Method	0 – 15 mg/I N	PL 420
Ammonia 50N, Nessler Method	0 – 50 mg/I N	PL 424
Ammonia 100N, Nessler Method	0 – 100 mg/I N	PL 425
Ammonia 12N/50N, Indophenol Method	0 – 12 mg/I N 0 – 50 mg/I N	PL 400
Nitrate 30N	0 – 30 mg/I N 0 – 150 mg/I NO ₃	PL 404
Total Nitrogen 30N (use with PL 404)	0 – 30 mg/I N	PL 408
Phosphate 12P	0 – 12 mg/I P	PL 412
Total Phosphorus 12P	0 – 12 mg/I P	PL 416
Heavy Metals	Range	Part Code
Chromium VI (Cr ⁶⁺)	0 – 10 mg/I Cr	PL 440
Total Chromium	0 – 10 mg/I Cr	PL 436
Copper	0 – 20 mg/I Cu	PL 427
Iron	0 – 25 mg/I Fe	PL 434
Nickel	0 – 20 mg/I Ni	PL 430
Zinc	0 – 7 mg/I Zn 0 – 35 mg/I Zn	PL 442

Accessories



Many of the Tubetests® methods require digestion, Palintest offer a range of accessories to support the digestion process.

The Tubetests® Premium Heater Block (PT 592 pictured) with a Photometer 8000 and Tubetests® Rack. See palintest.com for more information on the accessories options.