JENWAY

Conductivity Meters

The Jenway range of conductivity meters encompasses seven units ranging from basic portable units and waterproof portables, right through to advanced combined pH and conductivity laboratory meters. All the Jenway meters, even the basic ones have automatic standard recognition to ensure the accuracy of results. Additional modes of analysis such as salinity and resistivity are available on selected units and many are compliant with GLP, providing date stamped and downloadable results.

Page 8 - Conductivity Meter Options
Page 9 - Portable Conductivity/TDS Meters
Page 12 - Bench Conductivity/TDS Meters
Page 14 - Combined Conductivity and pH Meters
Page 16 - Accessories and Consumables

Conductivity Meters

Conductivity Meter Options

	470	4150	4200	4510	4520
Type	Portable	Portable	Portable	Bench	Bench
Conductivity range	0 to1999mS	0 to1999mS	0 to1999mS	0 to1999mS	0 to 19.99S
Temperature	✓	✓	✓	✓	✓
Temperature units	°C/°F	°C/°F	°C/°F	°C/°F	°C/°F
TDS	✓	✓	✓	✓	✓
Salinity	-	-	✓	-	✓
Resistivity	-	-	✓	-	✓
No. results stored	32	100	100	32	500
GLP compliant	-	-	✓	-	✓
Outputs	-	-	Interface cradle	Analogue RS232	Analogue RS232 IrDA

Combined Conductivity and pH Meter Options

	430	3540
Type	Portable	Bench
Conductivity range	0 to 199.9mS	0.01µS to 1.999S
Temperature	✓	✓
Temperature units	°C/°F	°C/°F
TDS	✓	✓
Salinity	-	✓
Resistivity	-	✓
mV	-	✓
pH range	0.00 to 14.00	-2.000 to 20.000
Results storage	-	250 in each mode
GLP compliant	-	✓
Outputs	-	Analogue RS232

470

470 Enterprise Conductivity/TDS Meter

- Portable conductivity and TDS meter
- Automatic range selection for optimum resolution
- Automatic or manual calibration
- Storage of up to 32 readings
- 500 hours battery life

The 470 hand held conductivity/TDS meter allows calibration by direct cell constant entry or through the use of standard solutions. The display simultaneously shows temperature compensated conductivity or TDS and temperature. For optimum resolution the best conductivity/TDS range is automatically selected, whilst temperature compensation is achieved using an adjustable temperature coefficient.

Technical Specification

Conductivity	
Range	6 auto-selected from 0 to 1999mS*
Resolution	0.01µS to 1mS*
Accuracy	±0.5% ±2 digits
Cell constant	0.01 to 19.99
Auto standard recognition	10µS, 84µS, 1413µS, 12.88mS
TDS	
Range	6 auto selected from 0 to 1999g/l*
Resolution	0.01mg/l to 1g/l*
Accuracy	±0.5% ±2 digits
EC ratio	0.50 to 0.80
Temperature	
Range	-10 to 105°C
Resolution	0.1°C
Accuracy	±0.5°C
ATC and manual	0 to 100°C
Temperature coefficient	0.00 to 4.00%/°C
Reference temperature	18, 20, 25°C
Connector	Mini DIN
Power	2AA batteries
Size (l x w x d)	175 x 75 x 35mm
Weight	250g

* With k>5

Ordering Information

Part Code	Description
470 201	470 conductivity meter supplied with epoxy conductivity cell K=1 (027 298) and batteries (fitted)
470 271	470 conductivity meter supplied with epoxy conductivity cell K=1 (027 298), batteries (fitted) and free carry case

4150 and 4200 Premier Conductivity /TDS Meters

- Portable and waterproof
- Storage of up to 100 results
- Automatic standard recognition, with manual override
- 1 to 3 point calibration
- User selectable temperature coefficient
- Battery indicator with adjustable auto-switch off feature

The Premier units are housed in sealed cases, which along with the screw-on connectors of the compatible probes ensure the units are fully protected against water ingress. The 4200 has additional resistivity, salinity and pure water options in addition to the standard conductivity, TDS and temperature modes and results can be downloaded or printed via the interface cradle.

4150

Technical Specification

4150 and 4200

Conductivity	
Range	5 auto-selected ranges from 0 to 1999mS
Resolution	0.01µS to 0.1mS
Accuracy	±0.5% ±2 digits
Cell constant	Settable from 0.015 to 19.99
Auto std. recognition	10µS, 1413µS, 12.88mS (with manual override)
TDS	
Range	5 auto-selected ranges from 0 to 199.9g/l
Resolution	0.01mg/l to 0.1g/l
Accuracy	±0.5% ±2 digits
Temperature	
Range	-10 to +105°C
Resolution	0.1°C
Accuracy	±0.5°C
ATC range	0 to 100°C
Temperature coefficient	0.00 to 4.00%/°C
Reference temperature	18, 20 or 25°C
Connector	Waterproof
Power	3 x AA batteries
Size (l x w x d)	200 x 80 x 60mm
Weight	370g

Conductivity Meters

4200

4200 only:

- Additional resistivity and salinity modes
- Fully GLP compliant
- Results can be downloaded or printed using optional interface cradle
- 6 language options: English, French, German, Spanish, Italian and Swedish

4200 only

Resistivity	
Range	0 to 20Mohms
Resolution	0.01Mohms
Accuracy	±0.5% ±2 digits
Salinity	
Range	0 to 99.9g/l
Resolution	0.1g/l
Accuracy	0-35g/l ±1 and 35-99.9 ±3
Clock	24 hour, hours/min/sec or day of month, month and year. Leap year corrected
Outputs	RS232 via interface cradle

Ordering Information

Part Code	Description
553 001	4150 conductivity meter supplied with epoxy bodied conductivity cell/ATC (K=1) (027 233) and batteries
540 001	4200 conductivity meter supplied with epoxy bodied conductivity cell/ATC (K=1) (540 520) and batteries

4510 Bench Conductivity/TDS Meter

- Simultaneous display of conductivity or TDS and temperature
- Automatic selection of range for best resolution
- Calibration by cell constant or standard solutions
- Automatic standard recognition
- Storage of up to 32 results
- Bi-directional RS232 link to printer or PC

The 4510 is easy to use but with the flexibility to meet the broadest range of applications and for those where greater accuracy is required the 4510 has automatic conductivity standard recognition and endpoint detection. Set-up options include cell constant, temperature coefficient and reference temperature. The instrument can store up to 32 readings, which can also be sent to a printer or transferred to computer via DataWay and the RS232 interface.

4510

Technical Specification

Conductivity	
Range	6 auto-selected from 0 to 1999mS*
Resolution	0.01µS to 1mS
Accuracy	±0.5% ±2 digits
Automatic std. recognition	10µS, 84µS, 1413µS, 12.88mS
Cell constant	0.010 to 19.999
TDS	
Range	6 auto-selected from 0-1999g/l*
Resolution	0.01mg/l to 1g/l
Accuracy	±0.5% ±2 digits
EC Ratio	0.50 to 0.80
Temperature	
Range	-10 to 105°C
Resolution	0.1°C
Accuracy	±0.5°C
ATC and manual	0 to 100°C
Temperature coefficient	0.00% to 4.00%
Reference temperature	18, 20 or 25°C
Outputs	Analogue and RS232
Connector	7-pin DIN
Power	9V AC ±10% @ 50/60Hz
Size (l x w x d)	210 x 250 x 55mm
Weight	850g

*With k=10 cell

4510

Ordering Information

Part Code	Description
451 001	4510 conductivity meter supplied with glass conductivity probe with ATC (K=1) (027 013), electrode holder and UK power supply

4520 Bench Conductivity/TDS Meter

- Conductivity, resistivity, TDS and salinity modes
- Special pure water mode for ultra low conductivity measurements
- Storage of 500 results with built in data logger
- Infra-red data link (IrDA) for connection to printer and RS232 link to connect to printer or PC via DataWay software

The 4520 is a high specification laboratory conductivity /resistivity /TDS/salinity and temperature meter that offers additional accuracy with 1, 2 or 3 point conductivity calibration across the wide measurement range of 0 to 19.99S. The dedicated 'pure water' mode ensures the optimum accuracy for this difficult application.

4520

4520

Technical Specification

Conductivity	
Range	6 auto-selected from 0 to 19.99S*
Resolution	0.01µS -0.01S
Accuracy	±0.5% ±2 digits
Automatic std. recognition	10µS, 84µS, 1413µS, 12.88mS
Cell constant	0.010 to 19.999
TDS	6 auto selected ranges
Ranges	0-1999g/l*
Resolution	0.01mg/l -1g/l
Accuracy	±0.5% ±2 digits
EC ratio	0.50 to 0.80
Resistivity	
Range	0-20Mohm
Resolution	0.01Mohm
Accuracy	±0.5% ±2 digits
Salinity	
Range	0-99.9g/l
Resolution	0.1g/l
Accuracy	0-35 ±1g/l, 35-99.9 ±3g/l
Temperature	
Range	-10 to 105°C
Resolution	0.1°C
Accuracy	±0.5°C
ATC and manual	0 to 100°C
Temperature coefficient	0.00% to 4.00%/°C
Reference temperature	18, 20 or 25°C
GLP	Calibration reminder interval, alarm outputs and security code protected data
Outputs	Analogue, RS232 and IrDA interface
Connector	7-pin DIN
Power	9V AC ±10% @ 50/60Hz
Size (l x w x d)	210 x 250 x 55mm
Weight	850g

*With k=10 cell

Ordering Information

Part Code	Description
452 001	4520 conductivity meter supplied with glass conductivity probe with ATC (K=1) (027 013), electrode holder and UK power supply

430 Enterprise Conductivity/pH Meter

- Simultaneous display of pH, conductivity and temperature
- Automatic or manual calibration
- Combined pH, conductivity and temperature probe
- Power on self check routine
- Auto-selecting ranges for both TDS and conductivity modes

The easy to use 430 is designed to readily withstand the rigours of field work, while reliably measuring pH and conductivity. The unit allows the simultaneous readout of pH, conductivity or TDS and temperature with switched ranges for both conductivity and TDS measurements.

430

Technical Specification

pH	
Range	0.00 to 14.00 (1 or 2 point calibration)
Resolution	0.01
Accuracy	±0.02
Auto. buffer recognition	4.00, 7.00, 9.22, 10.00
Conductivity	
Ranges	5 auto-selected from 0 to 199.9mS
Resolution	0.01µS to 0.1mS
Accuracy	±0.5% ±2 digits
Cell constant	0.01 to 19.99
Automatic std recognition	10µS, 84µS, 1413µS, 12.88mS (with manual override)
TDS	
Range	5 auto-selected from 0 to 199.9g/l
Resolution	0.01mg/l to 0.1g/l
Accuracy	±0.5% ±2 digits
EC ratio (TDS)	0.50 to 0.80
Temperature	
Range	-9.9 to 99.9°C
Resolution	0.1°C
Accuracy	±0.5°C
ATC and manual	0 to 99.9°C
Temperature coefficient	0.00 to 4.00%/°C
Reference temperature	18, 20 or 25°C
Connector	mini-DIN
Power	2 AA batteries
Size (l x w x d)	175 x 75 x 35mm
Weight	250g

Ordering Information

Part Code	Description
430 201	430 conductivity/pH meter supplied with combined pH/conductivity probe (430 231), buffer sachets and batteries (fitted)
430 271	430 conductivity/pH meter supplied with combined pH/conductivity probe (430 231), buffer sachets, batteries (fitted) and free carry case

3540 Bench Combined Conductivity/pH Meter

- Simultaneous display of pH and conductivity
- 2 independent channels to prevent interference between probes
- Additional modes for resistivity, salinity, TDS and mV
- Data logger with auto save/print options
- Storage of up to 500 readings (250 for each mode)

The 3540 is ideal for use in all laboratories where pH and conductivity analyses are required. The setup menu gives quick and easy access to the whole range of instrument, pH and conductivity measurement options. Calibration of both channels is automatic, with the option to select 1, 2 or 3 calibration points. The pH channel can also display mV values if required.

3540

3540

Technical Specification

pH	
Range	-2.000 to 20.000
Resolution	0.001/0.01/0.1
Accuracy	±0.003
mV	
Range	±1999.9mV
Resolution	0.1mV
Accuracy	±0.2mV
Conductivity	
Range	Auto-selected from 0.01µS to 1.999S
Resolution	0.01µS to 1mS
Accuracy	±0.5% ±2 digits
Temperature	
Range	-10 to 105°C
Resolution	0.1°C
Accuracy	±0.5°C
ATC and manual	0 to 100°C
Temperature coefficient	0.00 to 4.00%/°C
Reference temperature	18, 20, 25°C
GLP	Calibration reminder interval, operator and sample ID and security coded setup
Outputs	Analogue, RS232 and IrDA interface
Connectors	BNC (pH) and 7-pin DIN (conductivity)
Power	9V AC ±10% @ 50/60Hz
Size (l x w x d)	210 x 250 x 55mm
Weight	850g

Ordering Information

Part Code	Description
354 001	3540 conductivity/pH meter supplied with glass combination pH electrode (924 005), glass conductivity probe (K=1, 027 013), electrode stand and holder, ATC probe (027 500), BNC shorting plug, pH buffers and UK power supply

Conductivity Accessories and Consumables

Conductivity Cells

Ordering Information

Part Code	Description	Unit
027 298	Epoxy bodied conductivity cell, K=1	470
027 801	Epoxy bodied conductivity cell, K=0.1	470
027 802	Epoxy bodied conductivity cell, K=10	470
924 067	Replacement pH electrode	430
430 231	Replacement combined pH/conductivity probe	430
027 233	Epoxy bodied, waterproof, K=1	4150
027 235	Epoxy bodied, waterproof, K=0.1	4150
027 236	Epoxy bodied, waterproof, K=10	4150
027 237	Glass bodied, waterproof, K=1	4150
540 520	Epoxy bodied, waterproof, full range K=1	4200
027 013	Glass bodied, K=1	Bench
027 113	Epoxy bodied, K=0.1	Bench
027 177	Glass bodied, flow-through, K=1	Bench
027 211	Glass free/epoxy, K=0.1	Bench
027 212	Glass free/epoxy, K=1	Bench
027 213	Glass free/epoxy, K=10	Bench
027 900	Ultra-pure water conductivity probe	Bench
027 502	Teflon-coated ATC probe for use with aggressive/ corrosive samples	3540

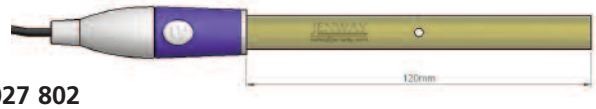
Enterprise Kit

Ordering Information

Part Code	Description
399 241	Enterprise Kit: 370 pH, 470 Conductivity/TDS and 970 DO_2 meters in a customised carry case. Supplied with epoxy combination pH electrode (924 001), ATC probe (027 500), conductivity cell with ATC, K=1 (027 298), DO_2 probe (970 231) buffer sachets, spare membranes, KCl fill solution, zero powder and batteries (fitted)

027 298

027 801



027 802

027 233

027 235

027 236

027 237

027 113

027 177

027 213

027 900

Enterprise Kit

Printer

Standards and Buffers

Ordering Information

Part Code	Description
025 156	12.88mS conductivity standard (500ml)
025 138	1413µS conductivity standard (500ml)
025 164	84µS conductivity standard (500ml)
025 139	10µS conductivity standard (500ml)
025 165	1382ppm TDS calibration standard (500ml)
025 157	200mV redox standard (500ml)
025 158	300mV standard (500ml)
025 159	465mV standard (500ml)

Printers and PC Software

Ordering Information

Part Code	Description
Portable Meter 4200	
543 001	40 column serial printer with interface cable, paper roll (060 287), ribbon (060 288) and UK power adapter (requires interface cradle)
542 001	Interface cradle supplied with interface cable kit (542 009)
Bench Meters 4510, 4520 and 3540	
037 701	Thermal printer with IrDA, complete with roll of paper (037 702), universal power adapter and interface cable for non-IrDA instruments
050 501	DataWay PC Software: includes CD-ROM and interface cable
037 551	RS232 to USB converter for use with computers without serial ports
037 801	9 way serial cable for connection to PC

Miscellaneous

Ordering Information

Part Code	Description
033 269	Carry case (470)
033 174	Carry case (4150 and 4200)
033 268	Carry case (430)
060 406	Dust cover (bench meters)
021 007	Battery (470 and 430)