

Kemio
A Palintest Product

Protecting
public health

Palintest
Water Analysis Technologies



Introducing Kemio™

Kemio™ uses a sophisticated electrochemical technique, powered by Palintest's patented single-use sensor technology, to test for chemicals and heavy metals in water.

It is widely used by public authorities, water utilities and water management organisations, and the food and beverage industry to protect the public and the environment and ensure compliance with regulations.

Kemio's single-use sensors generate an electrical current by reacting with the chemical or metal in the water sample. Kemio™ measures this electrical signal to determine the concentration of contaminants within the sample.

How does it work?

A user-friendly testing method, Kemio™ minimises the potential for human error to ensure accurate results.

1



Scan the sensor

2



Insert the sensor

3



Fill the sample vessel

4



Close the lid - the measurement begins automatically

Find out more about Kemio™

www.palintest.com/kemio

The many benefits of Kemio™ technology...



Highly accurate

A reliable, proven testing method



No calculations required

Clear pass/fail results are shown



Simple operation

No training or chemistry knowledge is required



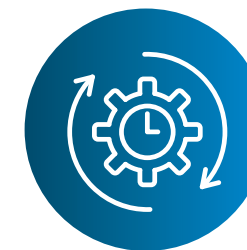
Full traceability

Integrated data log summarises 10,000 results



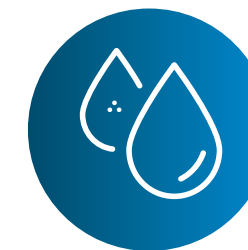
Removes administrative and process errors

Test results are logged automatically



Rapid and reliable on-site testing

Kemio™ combines portability with quick test speeds



Suitable for all sample types

Unaffected by colour, light quality, turbidity or floating particles



Health and safety

No glassware or harsh chemicals

How can Kemio™ help you?

Protect public health by rapidly identifying contamination



Testing with Kemio™ delivers reliable results within minutes at the point of use... and no laboratory testing is needed.

This means that dangerous levels of chemicals or heavy metals can be quickly identified, leading to appropriate contamination control action by businesses or authorities.

Comply with regulations



All test results are automatically stored in a Kemio™ product, providing users and authorities with the traceable and auditable data they need to demonstrate compliance.

Kemio™ offers US Environmental Protection Agency (EPA) approved testing methods which can help organisations comply with regulations such as the EPA Lead and Copper Rule.

Provide peace of mind to authorities and the public



Kemio™ uses a highly accurate electrochemical technique and measurements aren't affected by ambient light, colour, turbidity or floating particles.

Combine this with automatic result logging and data traceability, and users, authorities and the public can have confidence in Kemio's reliability.

Test water at source – wherever you need to



Kemio™ is a lightweight, fully portable digital test kit which uses no glassware and is certified IP67 waterproof.

It therefore enables water testing to be carried out in multiple locations and in challenging or remote environments.

Save on resources and training time



Kemio™ provides users with a simple test method. No training is required, as on-screen visual instructions guide users through the test.

Kemio™ test kits can be deployed quickly, straight out of the box. They can be easily used by single operators and no resources are required for laboratory work.

Ensure safe and compliant practices



No glassware or harsh chemicals are used with the Kemio™ digital test kit. This ensures that no broken or smashed glass can contaminate your product lines and water sources.

No glassware also means that users can conduct tests safely, whether they are using the product in the field or in a laboratory... and there is less waste too.

“The unit is easy to use, easy to train on and is intuitive.”

Compliance and Innovation Manager,
Major Fresh Produce Supplier

“I like the simplicity of the Kemio meter, as well as the lack of waste.”

Chemist, Utilities Authority

Kemio™ Disinfection

Accurate testing for critical disinfection parameters

Results in 60 seconds

A user-friendly test method, Kemio™ Disinfection makes light work of disinfection monitoring. Kemio™ Disinfection delivers reliable results within minutes at the point of use and what’s more no training is required, as on-screen visual instructions guide users through the test.

Guaranteed Accuracy

Kemio™ Disinfection can be used with all water samples including those which are coloured, turbid, and those with floating particles.



Testing for
Bromine, Chlorine, Chlorine Dioxide, Chlorite and Peracetic Acid

Kemio™ Disinfection Soft Case Kit

Contains instrument, protective carry case, check standards, micro USB, international adaptor, stylus and quick start instructions.
Product code: KEMS10DIS.

Kemio™ Disinfection Hard Case Kit

Contains instrument, check standards, micro USB, international adaptor, stylus and quick start instructions. **Product code:** KEMH10DIS.

Kemio™ Disinfection Benchtop Kit

Contains instrument, check standards, micro USB, international adaptor and quick start instructions. **Product code:** KEMR10DIS.

Technical specifications		
Tests	Range	Temperature
Bromine	0.2 - 10mg/L	5 - 30°C
Chlorine (free)	0.02 - 100 mg/L	2 - 35°C
Chlorine (total)	0.02 - 500 mg/L	2 - 35°C
Chlorine Dioxide	0.02 - 50 mg/L	5 - 40°C
Chlorite	0.02 - 50 mg/L	5 - 40°C
Peracetic Acid (PAA)	0.02 - 4000 mg/L	2 - 60°C
Measuring System	Chronoamperometry	
Temperature Range	Ambient range: 0°C - 50°C	
Display	High clarity LCD screen	
User Interface	Touchscreen	
Language Options	English, French, Spanish and Chinese (Simplified)	
Connectivity	USB	
Information Input	Barcode scanner, on-screen keyboard, on-screen keypad	
Data Storage	10,000 test results with all test information	
Size (W x L x H) & Weight	156 mm x 180 mm x 95 mm, 1012g	
Battery	2300mAh NiMH Rechargeable Battery Pack. Only battery packs supplied by Palintest can be used with Kemio™	
Power Supply	USB power and external charger	
Rating	IP67	

Kemio™ Heavy Metals

Expert testing for heavy metal contaminants

EPA approved method for lead testing

Protect against Lead, Copper, Arsenic and Cadmium contamination with Kemio™ Heavy Metals. The only portable EPA approved method for lead testing. The US Environmental Protection Agency (EPA) has approved Palintest Method 1001, Rev. 1.1. for the determination of total recoverable lead in drinking water using differential pulse anodic stripping voltammetry using pre-calibrated disposable sensors in a Palintest Kemio™ device.

Results in 3 minutes

Kemio™ Heavy Metals is lightweight and durable. In as little as three minutes, Kemio™ Heavy Metals provides a measurement in the field, allowing you to rapidly respond to contamination without the delays of laboratory test results.



Testing for Lead, Copper, Arsenic and Cadmium

Kemio™ Heavy Metals Soft Case Kit

Contains instrument, protective carry case, check standards, micro USB, international adaptor, stylus and quick start instructions. **Product code:** KEMS10HM.

Technical specifications		
Tests	Range	Temperature
Lead	1 - 100 µg/L	5 - 35°C
Cadmium	0.2 - 10 µg/L	5 - 35°C
Copper	100 - 2000 µg/L	5 - 35°C
Arsenic	2 - 250 µg/L	5 - 35 °C

Measuring System	Anodic Stripping Voltammetry (ASV)
Temperature Range	Ambient range: 0°C - 50°C
Display	High clarity LCD screen
User Interface	Touchscreen
Language Options	English, French, Spanish and Chinese (Simplified)
Connectivity	USB
Information Input	Barcode scanner, on-screen keyboard, on-screen keypad
Data Storage	10,000 test results with all test information
Size (W x L x H) & Weight	156 mm x 180 mm x 95 mm, 1012g
Battery	2300mAh NiMH Rechargeable Battery Pack. Only battery packs supplied by Palintest can be used with Kemio™
Power Supply	USB power and external charger
Rating	IP67

Kemio™ Multi

An ‘all in one’ system

Combining the best in Kemio™ technology

Combining the capabilities of Kemio™ Heavy Metals with Kemio™ Disinfection. Kemio™ Multi is our next generation, multi-parameter measurement platform. It provides laboratory quality results, whether in the lab or in the field, allowing you to swiftly address and protect from water contamination.

Training Needs Minimised

Kemio™ Multi boasts the many benefits of our Kemio™ range including a user-friendly interface, digital data log, clear pass or fail results, electronic measurement and accurate results.



Testing for
Lead, Cadmium, Copper, Bromine, Chlorine,
Chlorine Dioxide, Chlorite, Arsenic and Peracetic Acid

Kemio™ Multi Soft Case Kit
Contains instrument, 2 x sample vessels, protective carry case, check standards, micro USB, international adaptor, stylus and quick start instructions.
Product code: KEMS10MUL.

Technical specifications		
Tests	Range	Temperature
Lead	1 - 100 µg/L	5 - 35°C
Cadmium	0.2 - 10 µg/L	5 - 35°C
Copper	100 - 2000 µg/L	5 - 35°C
Bromine	0.2 - 10mg/L	5 - 30°C
Chlorine (free)	0.02 - 100 mg/L	2 - 35°C
Chlorine (total)	0.02 - 500 mg/L	2 - 35°C
Chlorine Dioxide	0.02 - 50 mg/L	5 - 40°C
Chlorite	0.02 - 50 mg/L	5 - 40°C
Peracetic Acid (PAA)	0.02 - 4000 mg/L	2 - 60°C
Arsenic	2 - 250 µg/L	5 - 35 °C
Measuring System	Anodic Stripping Voltammetry (ASV) / Chronoamperometry	
Temperature Range	Ambient range: 0°C - 50°C	
Display	High clarity LCD screen	
User Interface	Touchscreen	
Language Options	English, French, Spanish and Chinese (Simplified)	
Connectivity	USB	
Information Input	Barcode scanner, on-screen keyboard, on-screen keypad	
Data Storage	10,000 test results with all test information	
Size (W x L x H) & Weight	156 mm x 180 mm x 95 mm, 1012g	
Battery	2300mAh NiMH Rechargeable Battery Pack. Only battery packs supplied by Palintest can be used with Kemio™	
Power Supply	USB power and external charger	
Rating	IP67	



Kemio

A Palintest Product

Order your
Kemio now

www.palintest.com/contact-us

Ordering information

Items in kit	Kemio™ Disinfection Benchtop Kit KEMR10DIS	Kemio™ Disinfection Soft Case Kit KEMS10DIS	Kemio™ Disinfection Hard Case Kit KEMH10DIS	Kemio™ Heavy Metals Soft Case KEMS10HM	Kemio™ Multi Soft Case Kit KEMS10MUL
					
Kemio™ Disinfection	●	●	●	●	●
Check Standards	●	●	●	●	●
Protective Case		●		●	●
USB Cable	●	●	●	●	●
International Power Adaptor	●	●	●	●	●
Kemio™ Sensors			●		
Soft Case		●		●	●
Hard Case			●		
Additional Information	Sensors ordered separately	Sensors ordered separately	Includes 200 Chlorine Dioxide/Chlorite sensors and 100 Chlorine sensors. *Kit required for Chlorite measurement.	Sensors ordered separately	Sensors ordered separately

Kemio™ Sensors

Kemio™ Sensors help you to understand your chemical concentration and to reduce the risks and costs associated with overdosing and underdosing.

Please note, both the Kemio™ Disinfection Sensors and Kemio™ Heavy Metal Sensors are suitable for Kemio™ Multi.



Consumables

Consumables	Part Code
CR-1 Reagent (Chlorite test)	PT546
CR-2 Reagent (Chlorite test)	PT547
Glycine Reagent (Chlorine Dioxide and Chlorite test)	PT549

Please see page 16 for more Kemio™ accessories.

Kemio™ Heavy Metal Sensors

	Range	Temperature	Part Code
Lead	1 - 100 µg/L	5 - 35°C	10 pack: KEM22MPB Includes tablets, crushing rods and disposable vessels
Cadmium	0.2 - 10 µg/L	5 - 35°C	10 pack: KEM22MCD Includes tablets, crushing rods and disposable vessels
Copper	100 - 2000 µg/L	5 - 35°C	KEM22MCU
Arsenic	2 - 250 µg/L	5 - 35 °C	Total Arsenic: KEM100M-TAS - Pack of 100 sensors. Speciated Arsenic (Arsenic III, Arsenic V, and Total Arsenic): KEM100M-SAS - Pack of 100 sensors (50 tests for total arsenic and 50 tests for arsenic (III)). Both packs include tablets, crushing rods, disposable vessels, 2x syringes and 2x pre-packed reusable cation exchange columns.

Kemio™ Disinfection Sensors

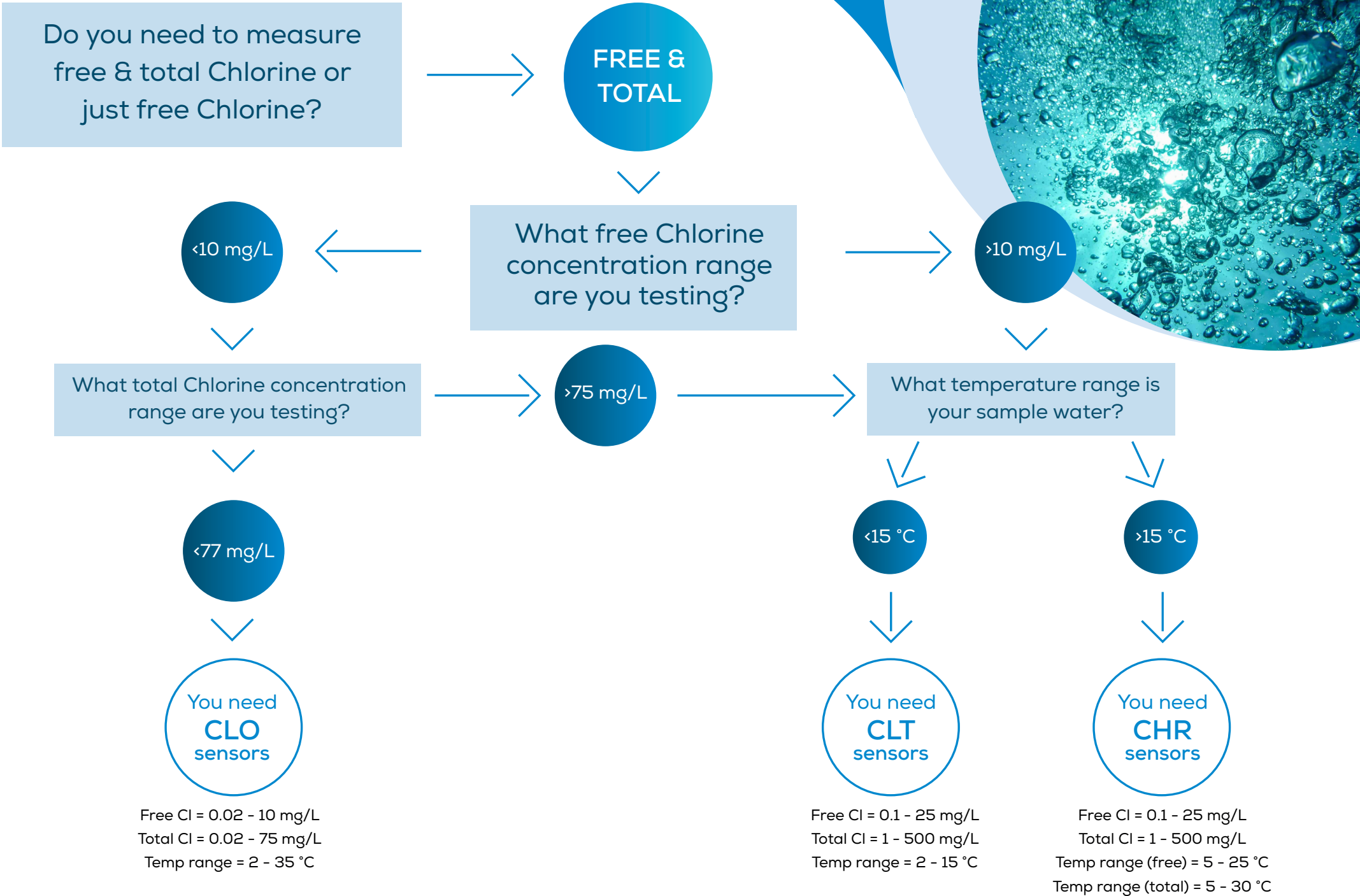
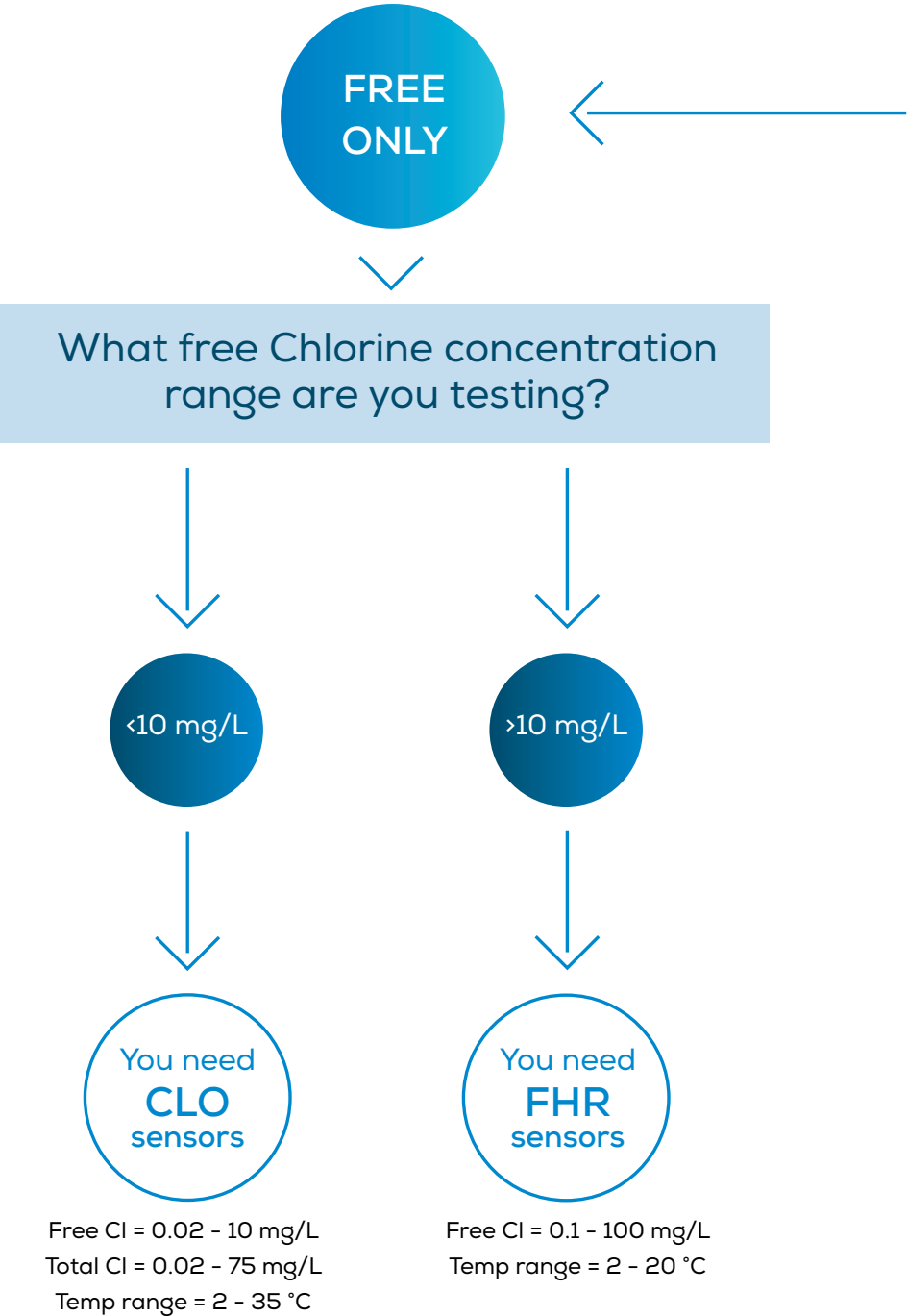
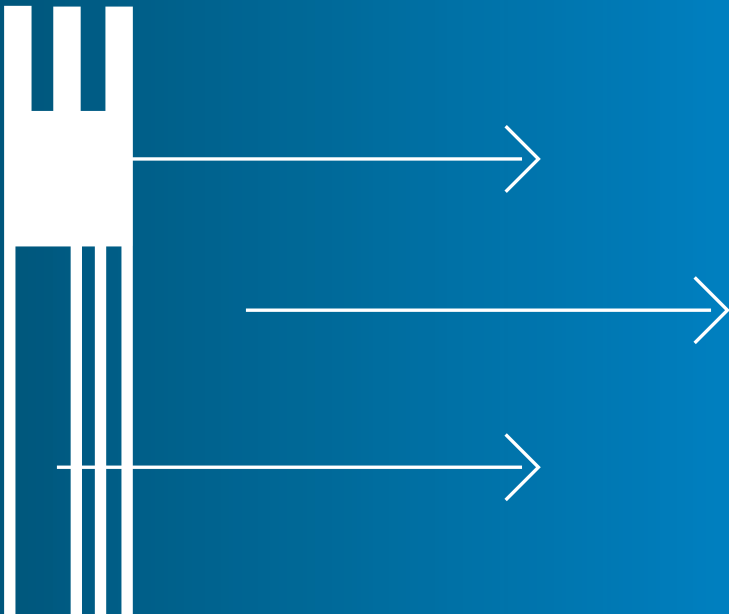
Free and Total Chlorine	Range	Temperature	Part Code
CLO	Free Chlorine: 0.02 - 10mg/L Total Chlorine: 0.02 - 75mg/L	2 - 35°C	100 pack: KEM21CLO 500 pack: KEM25CLO
CHR	Free Chlorine: 0.1 - 25mg/L Total Chlorine: 1 - 500mg/L	5 - 25°C 5 - 30°C	100 pack: KEM21CHR 500 pack: KEM25CHR
CLT	Free Chlorine: 0.1 - 25mg/L Total Chlorine: 1 - 500mg/L	2 - 15°C	100 pack: KEM21CLT 500 pack: KEM25CLT

Free Chlorine	Range	Temperature	Part Code
FHR	0.1 - 100mg/L	2 - 20°C	100 pack: KEM21FHR 500 pack: KEM25FHR

Other Disinfection Sensors	Range	Temperature	Part Code
Bromine	0.2 - 10mg/L	5 - 30°C	100 pack: KEM21BRS
Chlorine Dioxide and Chlorite	Chlorine Dioxide: 0.02 - 50mg/L Chlorite: 0.02 -50mg/L	5 - 40°C	Starter pack (100 sensors and glycine reagent): KEM20CDX 100 pack: KEM21CDX 500 pack: KEM25CDX
Peracetic Acid	5 - 2000mg/L	5 - 30°C	100 pack: KEM21PAA 500 pack: KEM25PAA
Peracetic Acid (low range)	0.02 - 10 mg/L	2 - 30°C	100 pack: KEM21PAL 500 pack: KEM25PAL
Peracetic Acid (high range)	400 - 4000mg/L	10 - 60°C	100 pack: KEM21PAH 500 pack: KEM25PAH

Chlorine Sensor Selection

Use our Chlorine sensor selection diagram to select the most suitable sensor for your testing needs.



Accessories

Palintest is committed to supporting all your water testing requirements. We offer a range of accessories and check standards to help support your testing procedures.

Accessories	Code	Compatibility		
		Kemio™ Disinfection	Kemio™ Heavy Metals	Kemio™ Multi
Kemio™ Check Standards	KEMC10	●	●	●
Kemio™ Stylus	KEM306	●	●	●
Kemio™ Protective Case	KEM307	●	●	●
USB Cable	KEM309	●	●	●
Replacement Sample Vessel (Disinfection)	KEM308	●		●
Replacement Sample Vessel (Heavy Metals)	KEM313		●	●
Degassing Equipment	PT553	●		●
Degassing Replacement Filter	PT556	●		●
Degassing Pump	PT554	●		●

Introducing Palintest

Palintest brings speed, accuracy and reliability to water analysis

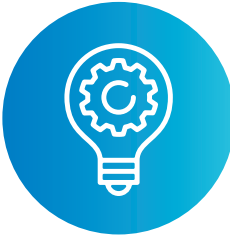
Headquartered in Gateshead, UK, Palintest is an international leader in water analysis technology, with an established market presence in Europe, Asia, North America and Australia.

Established in the UK in 1989, but with a history dating back to the 1800s, Palintest has pioneered techniques and technology used in water management, the pool and spa sector, the food and beverage industry and humanitarian aid. Our technology is manufactured in the UK and used globally in a variety of applications to protect lives and the environment.

Palintest is part of Halma, a global group of life-saving technology companies.



Global



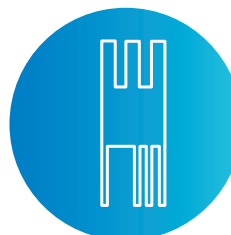
Innovation



Championing water safety



UK manufacturing



Tech leaders

Our expertise in water and wastewater management

Palintest supports water utilities providers, and water management and wastewater personnel, in meeting regulatory requirements and ensuring water is safe for use and distribution. We have worked with customers spanning water utilities providers, local authorities, education authorities and humanitarian organisations.



Palintest Connect

Do you have Palintest technology? If so, don't forget to register for Palintest Connect!

Monitoring water in critical applications requires full confidence in field quality data. Palintest Connect is a cloud-based data management software which allows you to upload, view and manage water quality data swiftly and seamlessly – saving you time and money, and improving efficiencies.



Demonstrate compliance

Automatically generates auditable data log for regulatory reporting. Data is recorded and maintained in a secure database for 8 years.



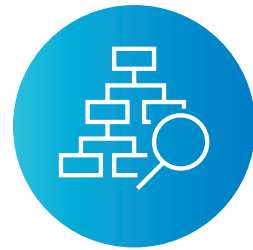
Data at your fingertips

Access data anywhere, anytime from your secure cloud platform to make informed decisions.



Remote supervision

Share and monitor data across multiple sites. What's more, trigger alert notifications to take immediate action and avoid exceedances.



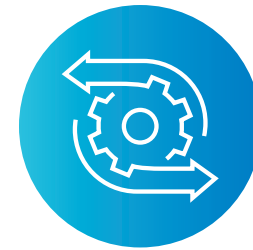
Data storage and management

Automatic data upload, eliminating the need for manual data entry on paper logs.



Remote technical and product support

Enables superior troubleshooting support from our technical team to help keep your operations running.



Optimum performance

Ensure your instrument is always up to date with the latest firmware through automatic updates.

Register for Palintest Connect: www.palintestconnect.com

Kemio

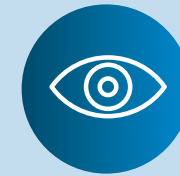
A Palintest Product



Register your product



Download the latest software



View new sensors



Technical support



Product FAQs

For all the latest information about Kemio™ visit www.palintest.com



Kemio

A Palintest Product

Palintest (HQ)
Palintest House
Kingsway
Team Valley
Gateshead
Tyne and Wear
NE11 0NS
United Kingdom

T: 0191 491 0808
E: sales@palintest.com
W: www.palintest.com

Palintest

Water Analysis Technologies