



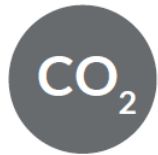
Smarten up
your hot
water system

CircoSense Benefits



CircoSense is a patented, innovative energy saving product and water compliance assistant, proven to reduce the energy currently wasted in secondary return hot water systems.

CircoSense CS4000 uses Artificial Intelligence to control your hot water system's circulation, reducing fuel consumption which lowers both energy bills and carbon emissions.



Reduced CO₂ emissions



Artificial Intelligence (AI)



Improved compliance regime & reduced labour costs



Average Savings of 38%



Web Portal & App



Outright purchase and shared savings options

CircoSense Unit

- **CS4000** - Energy Savings & Compliance
- **CS400** – Compliance
- Non-intrusive installation
- 5 Year Product Warranty
- 5 Year Workmanship Warranty
- User Interface & Reporting
- Real Time Saving Reports





CircoSense Operating Modes

1. Auto Intuitive

- Learns existing usage patterns
- Send info to cloud based server – stores them, analyses them, uses algorithm to set circulation cycles
- Continuously learns and adjusts look ahead running times to actual running times

2. Random Request

- Reacts to calls out with normal recognised usage patterns
- Sensors detect call for water and reactivates the circulation pump

3. Water Compliance

- Built-in purge cycle to circulate if no detected/look ahead usage for 24 hours
- Additional external temperature sensors circulate water if temperature falls below 50 degrees on return leg for 3 hours (default)
- Prevents any key parts being in danger band, ensures compliance guidelines



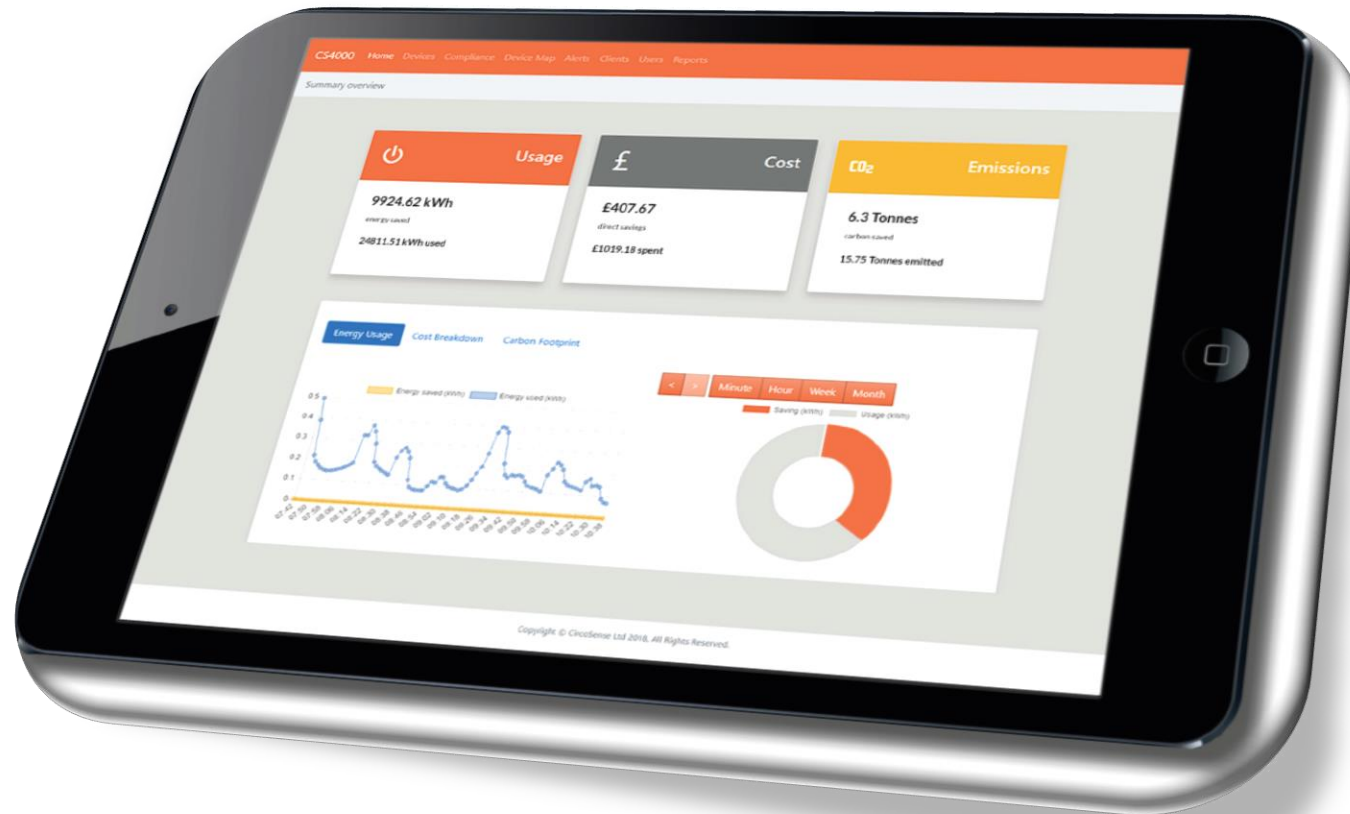
Average Hot Water Savings

Building Type	Average fuel savings	Average Carbon Savings (tonnes)	Average DHW %	Average Payback Period (Years)	Overall % Saving
Care Home	37.1%	8.42	25%	3.14	9.32%
Community Centre	34.6%	10.10	29%	4.20	10.10%
Further & Higher Education	44.5%	14.35	20%	2.90	8.90%
Hotel	35.8%	13.30	15%	3.22	5.29%
Leisure Facility	35.9%	12.94	40%	2.44	14.54%
Office	40.6%	9.34	21%	3.97	8.46%
Public Facility	35.6%	13.02	14%	2.80	4.94%
School	39.7%	11.27	21%	4.29	8.49%
Transport	31.3%	9.06	26%	4.25	8.13%
Averages	41%	11.38	23%	3.62	8.16%

User Portal – Live Data

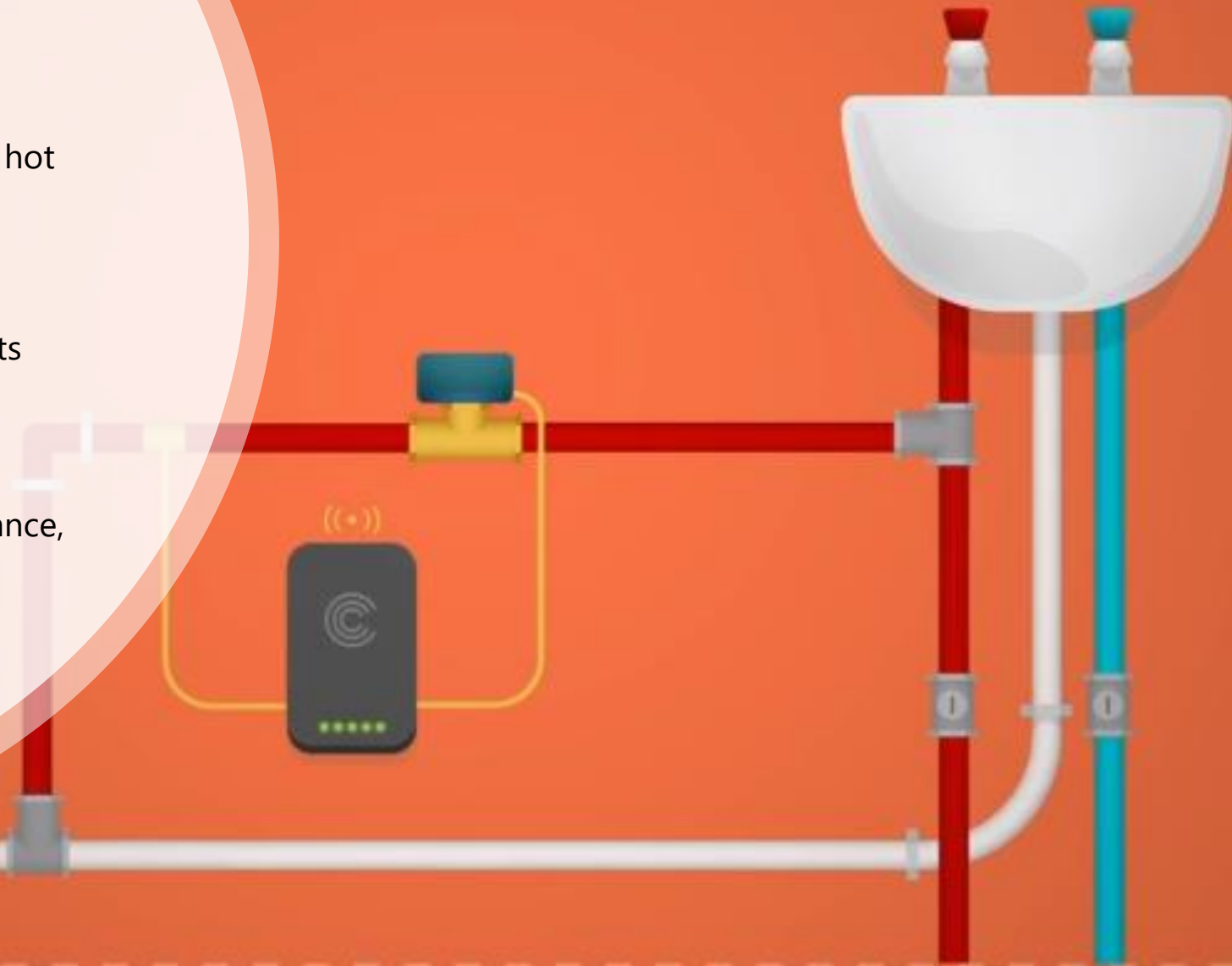


The CS 4000 incorporates a user interface capable of demonstrating real-time savings, information on your hot water system's operational analytics, compliance status, pump run times and many other functions.



Compliance Assistance

- Control the temperature of the stored hot water
- Automatic Flushing of Sentinel Points
- Remotely takes water temperature readings saving on manual labour costs
- Pasteurisation Cycle
- Water returning at 50°C /55°C
- Reporting – Compliance, Non-compliance, Outlet flushing records



Some of our existing clients:



Tower of London

- Installed in the New Armouries kitchen boiler house
- Andrews DGF hot water
- 32.5% saving on cost of heating hot water
- 9.2 tonne reduction in carbon emissions per annum
- M&V – Gas meter on the hot water source



Future Walk, Post Office Ltd

- 2 Lochinvar 80kW DGF water heaters
- 32.02% saving on cost of heating hot water
- 12.4 tonne reduction in carbon emissions per annum
- 1.9 year payback
- M&V - Hour counters measured gas valve kWh



Robert Gordon University

- Installed in the Sir Ian Wood Building
- 28.1% saving on cost of heating hot water
- 24.34 tonne reduction in carbon emissions per annum
- 2.14 year payback
- M&V – Ultrasonic heat meter measures difference between flow & return temps



Heathrow Airport

- 3 units installed across airport
- Average 22% saving on hot water costs
- Average 7.7 tonne reduction per unit per annum in carbon emissions
- Average payback of 4.1 years
- Follow up order pending for further units across the airport





Thank you
for your
attention

For more information:

T: 0333 320 1000
W: circosense.com
E: info@circosense.com