

The Enterprise
IoT platform
for heat networks

mini bems

Retrofit
solutions

www.minibems.com

FITTED IN &
2 HOURS
OPERATIONAL

With Minibems the hard work has been taken away. Our technology can control and monitor any piece of hardware, such as HIUs, cylinders and heating circuits.

Apartment block metering & billing upgrade delivers cost savings

Minibems retrofit technology is delivering cost savings for an apartment block served by a district heating system. The building features direct heating and single plate Heat Interface Units (HIUs) for domestic hot water.

Previously, the building managers were forced to subsidise energy costs due to a problematic prepayment system and poorly controlled HIUs.

Heat network regulations met

The Minibems solution enables the network owner to meet their regulatory obligations and significantly improves reliability and efficiency. As such, the building managers were able to reduce the cost per kWh paid by residents for energy by around 10%. With less gas consumed, they no longer need to subsidise the cost of heat for the residents.

Accurate meter readings

Tenants' also benefit from the Minibems pre-payment system, which features remote connectivity, a range of payment methods and is based on accurate meter readings to apportion energy use.

Revive your heat network

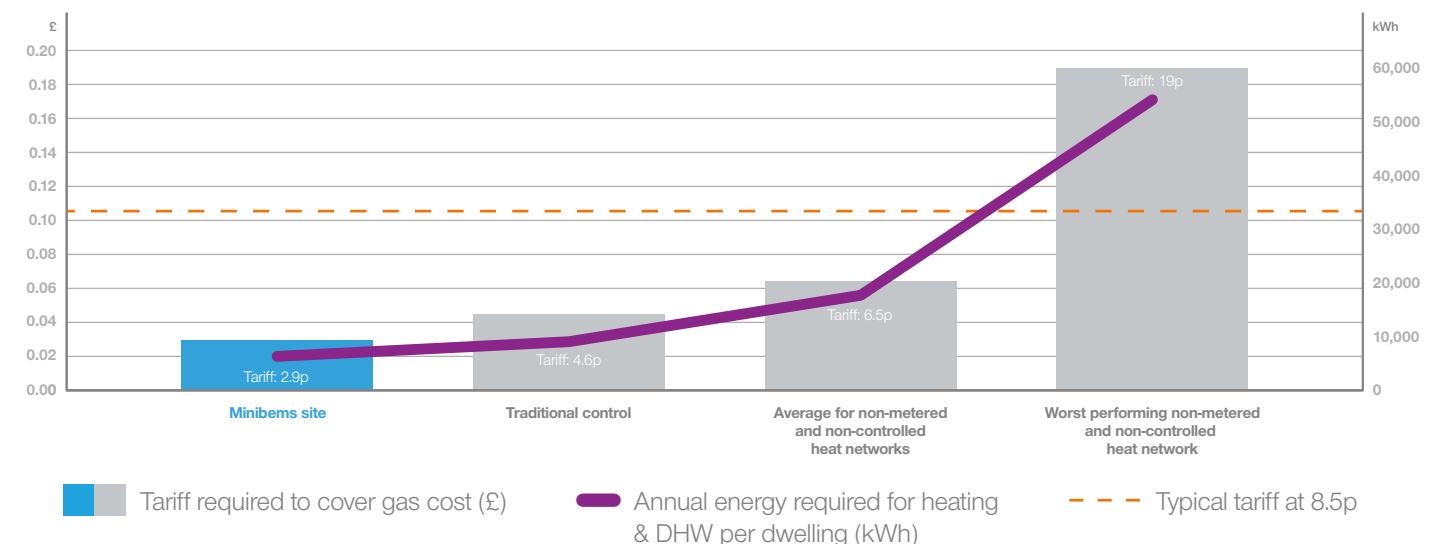
Achieving heat network performance in six simple steps:

- | | |
|---------------|--|
| Step 1 | Identify your system type |
| Step 2 | Select the kit (Kit 01, 02, 03 or 04) |
| Step 3 | Define the communication network & infrastructure |
| Step 4 | Determine metering requirements
(Minibems can provide advice where required) |
| Step 5 | Appoint in-house or contracted installers |
| Step 6 | Fitted & operational in two hours* |

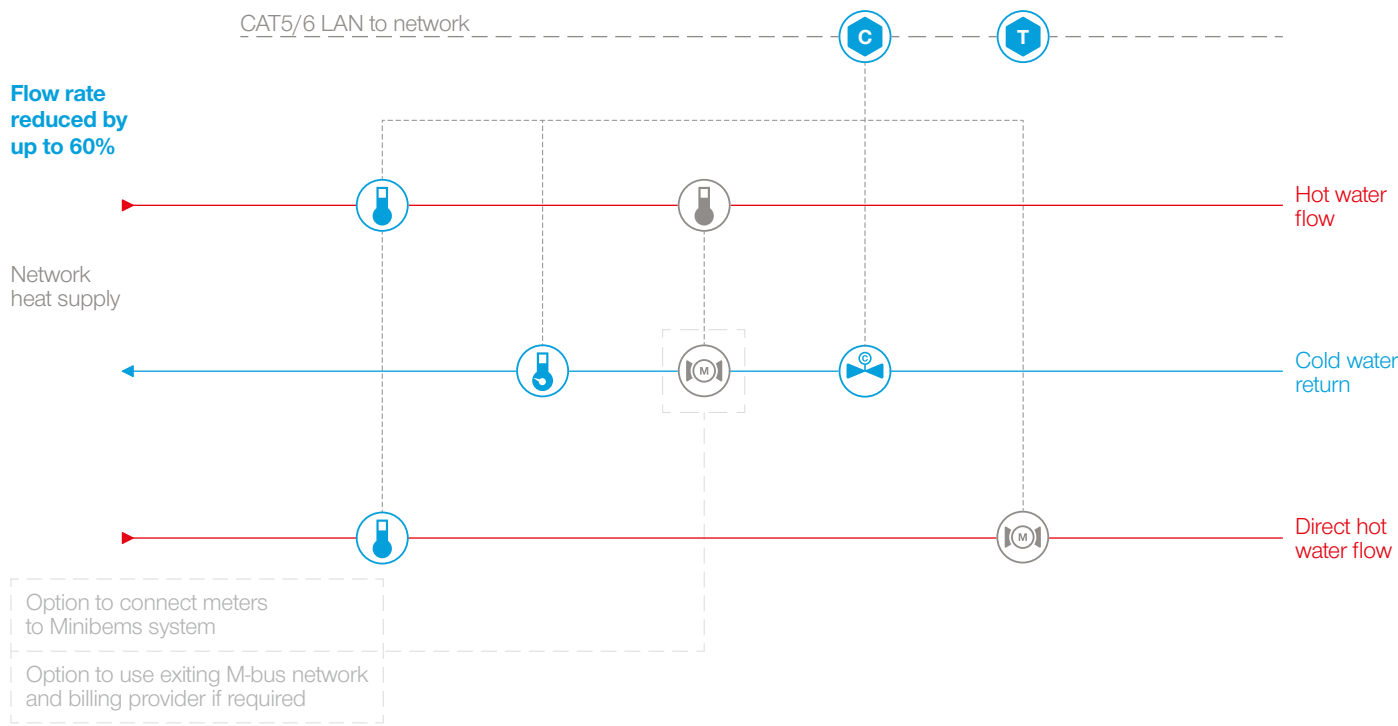
You will find examples of typical system solutions shown over the following pages, however, we offer solutions for many different heat network applications. Please contact us to discuss your requirements.

Provides significant cost savings











Minibems analysed 21 non-metered heat networks and compared the gas consumption data with two metered heat networks; one using traditional controls and another that is Minibems-controlled. Full report available upon request.

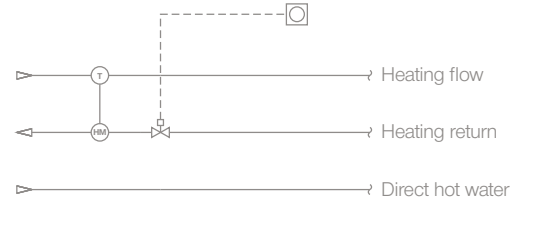


Direct heating - Centralised hot water

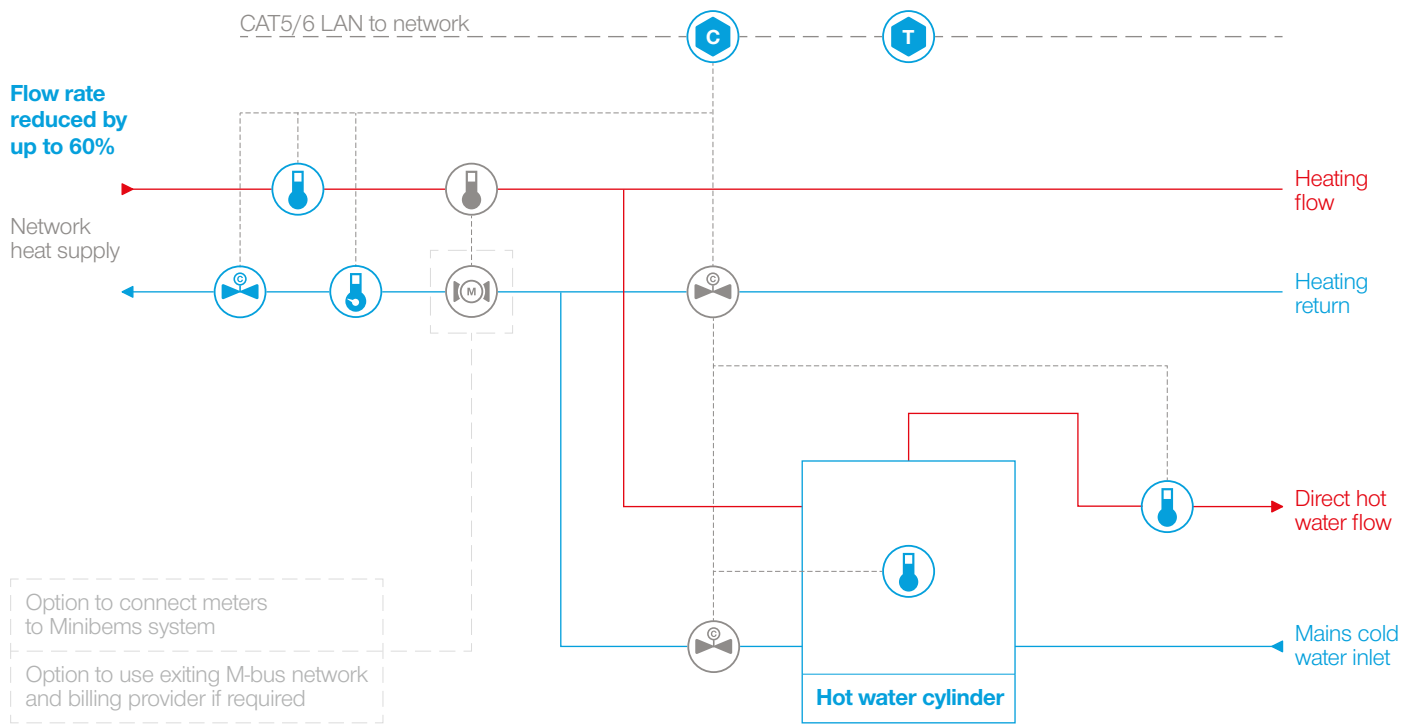


Kit 01










 dynamic	 telematic	 minipay	 minibems connect Qty - 1	 minibems touch Qty - 1	 Control valve Qty - 1	 Flow & temperature sensor Qty - 1	 Temperature sensor Qty - 2	 Heat meter Qty - 1	 Hot water meter Qty - 1
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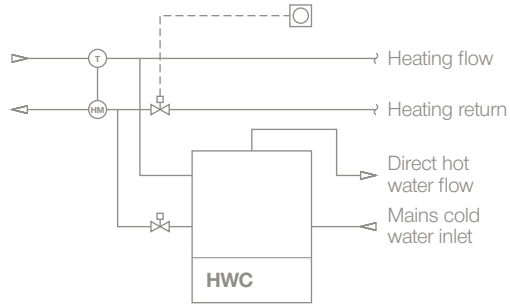
Connectivity	Wireless or hard wired CAT5/6 LAN	Typical existing system Constant volume, constant temperature 
Meters	Select as per project requirements and Heat Network (Metering & Billing) Regulations	
Features	<ul style="list-style-type: none">- Convert to a fair and profitable business model- Real-time flow control- Prepayment and credit billing compatible- Weather compensation	

Direct heating - Hot water cylinder

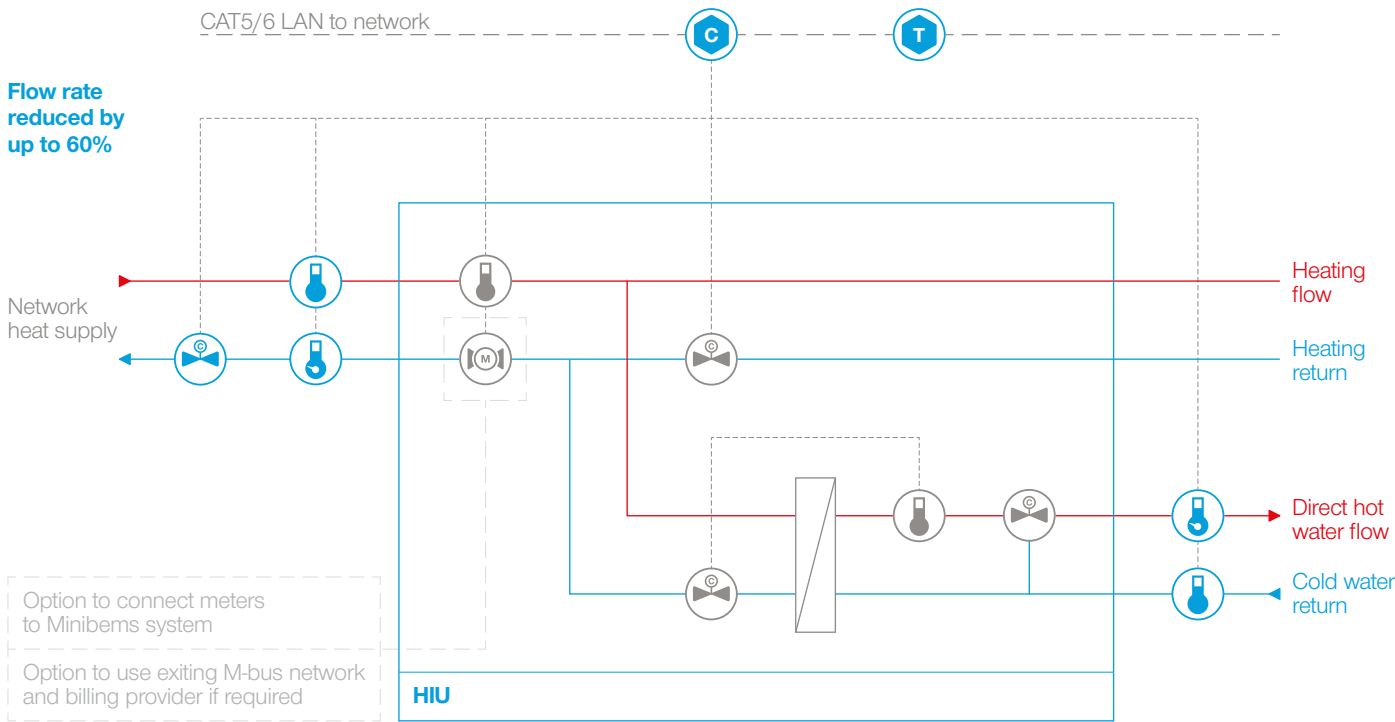


Kit 02

 dynamic	 telematic	 minipay	 minibems connect Qty - 1	 minibems touch Qty - 1	 Control valve Qty - 1	 Flow & temperature sensor Qty - 1	 Temperature sensor Qty - 3	 Heat meter Qty - 1
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Connectivity	Wireless or hard wired CAT5/6 LAN	Typical existing system Constant volume, constant temperature 
Meters	Select as per project requirements and Heat Network (Metering & Billing) Regulations	
Features	<ul style="list-style-type: none">- Convert to a fair and profitable business model- Real-time flow control- Prepayment and credit billing compatible- Weather compensation	

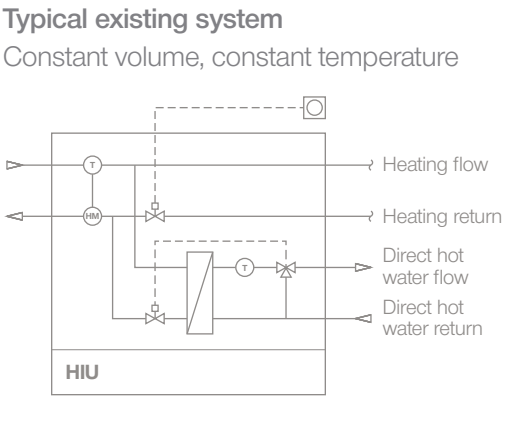
Direct heating - Single plate HIU



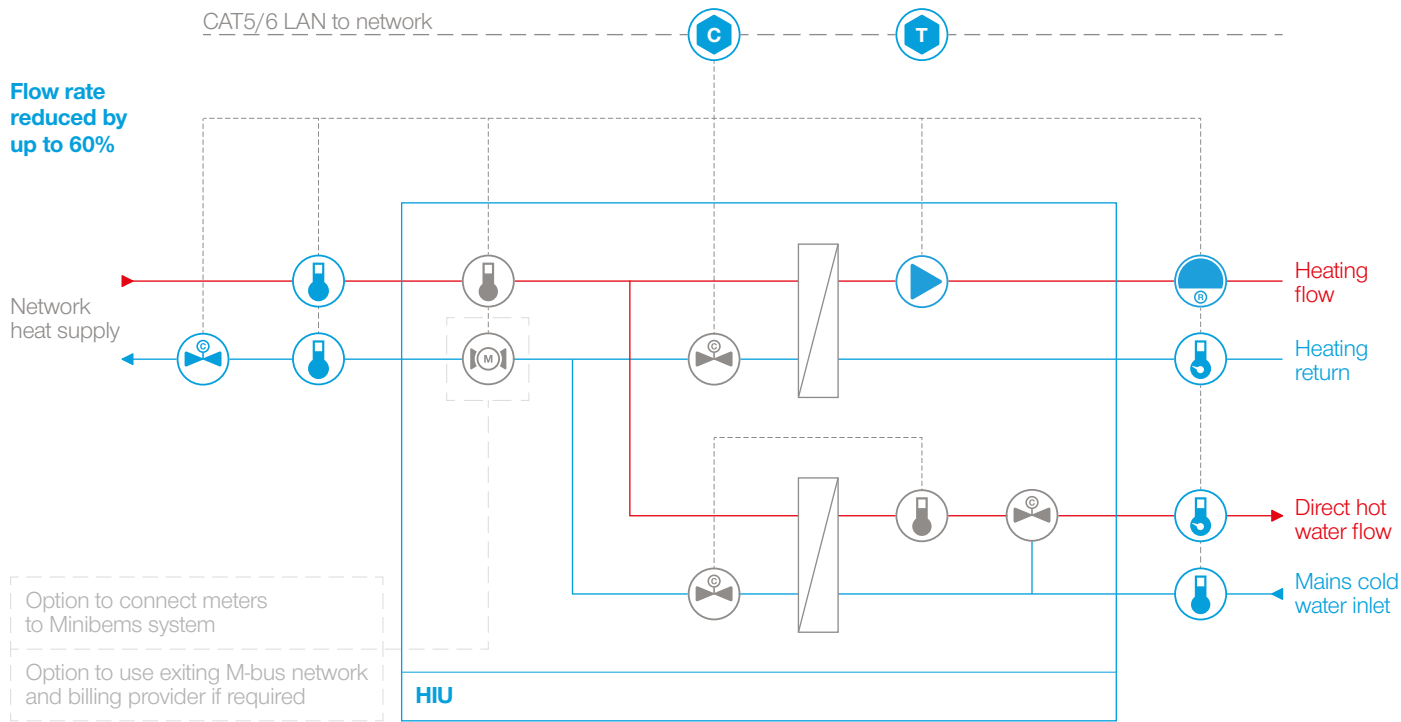
Kit 03

 dynamic	 telematic	 minipay	 minibems connect Qty - 1	 minibems touch Qty - 1	 Control valve Qty - 1	 Flow & temperature sensor Qty - 2	 Temperature sensor Qty - 2	 Heat meter Qty - 1
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Connectivity	Wireless or hard wired CAT5/6 LAN
Meters	Select as per project requirements and Heat Network (Metering & Billing) Regulations
Features	<ul style="list-style-type: none">- Real-time flow control- Keep-warm functionality- Prepayment and credit billing compatible- Weather compensation



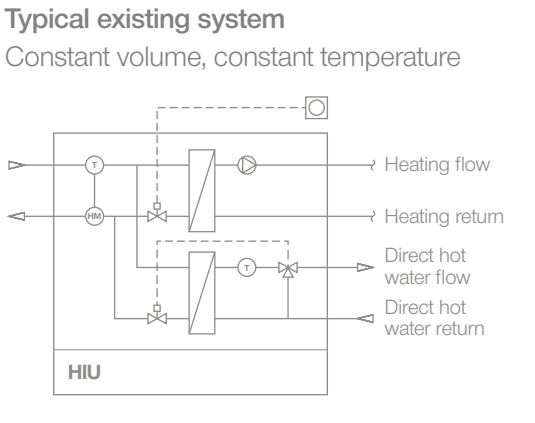
Indirect heating - Twin plate HIU



Kit 04

 dynamic	 telematic	 minipay	 minibems connect Qty - 1	 minibems touch Qty - 1	 Control valve Qty - 1	 Flow & temperature sensor Qty - 2	 Temp. sensor Qty - 3	 Relative pressure sensor Qty - 1	 Heat meter Qty - 1	 PWM control pump (optional) Qty - 1
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Connectivity	Wireless or hard wired CAT5/6 LAN
Meters	Select as per project requirements and Heat Network (Metering & Billing) Regulations
Features	<ul style="list-style-type: none">- Real-time flow control- Keep-warm functionality- Delta T control (optional pump)- Prepayment and credit billing compatible- Weather compensation



The Enterprise IoT platform for heat networks

Enterprise IoT platform with dynamic control of flow rates

Leveraging data science to improve heat network performance

Telematic dashboard and reporting of all metrics

Providing in-depth and up-to-the minute reporting

Comprehensive metering and billing options

Offering 24/7 heating and hot water technical support & insight

Unified, consolidated heat network portfolio to enable comprehensive strategic planning

Easily integrated into new build and existing heat networks

Get in touch

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Visit www.minibems.com