

The installation of landlord/building network meters in heat networks proves indispensable, ensuring compliance with regulations, offering data insights, and enhancing overall network efficiency.



BENEFITS OF LANDLORD/BUILDING NETWORK METERS

- ✓ **Fulfil legal requirements under Heat Network (Metering & Billing) Regulations 2014.**
Accurate measurement at the point of entry ensures compliance with regulations, preventing legal implications.

4.1 Where heating, cooling or hot water is supplied from a district heat network to a building occupied by more than one final customer, the heat supplier must ensure that meters are installed to measure that heating, cooling or hot water to that building.

4.2 A meter installed in accordance with paragraph (1) must be situated at a heat exchanger in that building or at the point of entry of the district heat network pipes into the building.
- ✓ **Meet CIBSE Heat Network Code of Practice (CP1) 2020 standards for energy flow recording.**
Automatic meter reading (AMR) system captures detailed data on energy flows, avoiding limitations of Building Management System (BMS) and ensuring comprehensive monitoring.

3.8.12 A fully automatic AMR system shall be specified to record and report on energy flows for the entire system including:

 - fuel input
 - electricity consumption for heat production, e.g., for heat pumps
 - pumping and parasitic electricity consumption
 - electricity generation (where relevant)
 - heat sent out from central plant
 - heat generated from each individual heat source
 - heat delivered to each main building/block
 - heat delivered to each dwelling
 - flow temperature (at the energy centre and at the customer connections)
 - return temperature (at the energy centre and at the customer connections)
 - average heat rate produced at the energy centre and delivered at each of the customer connections (kW) over a half-hour period (or shorter period where feasible)
 - make-up water consumption
- ✓ **Proactive maintenance through network efficiency and performance insights.**
Network monitoring tools, such as RavenResidential, offer real-time monitoring of network heat losses, volume bypasses, and peak loads, providing alerts for faults and enabling proactive data-driven maintenance.
- ✓ **Demonstrate transparency in tariff calculations.**
Actual data, not estimates, empower fair tariff setting, ensuring customers understand and trust the billing process.
- ✓ **Ensure operational excellence and performance.**
Concrete evidence of commissioning, offers assurance during handover and ongoing operations.
- ✓ **Retaining control and billing advantages.**
Integrating with an AMR system prevents the risk of losing control of metering accuracy within the BMS, ensuring accurate billing and the ability to charge for communal areas and outgoing electricity generation.

RISKS OF THE NON-INSTALLATION OR INTEGRATION OF AMR SYSTEMS

- Non-compliance may lead to **legal consequences**.
- Without visibility of meters, **delays in identifying leaks or faults** may occur.
- Lack of oversight on heat losses can result in **under-recovery** or unfair customer overcharging.
- Absence of meters means **missed chances to enhance** overall network efficiency.
- Lack of transparency in tariff setting may lead to **customer dissatisfaction**.
- Retrofitting is difficult, costly, and unreliable**, involving pipeline adjustments and unreliable meter installations.

STANDARD TECHNICAL SPECIFICATIONS

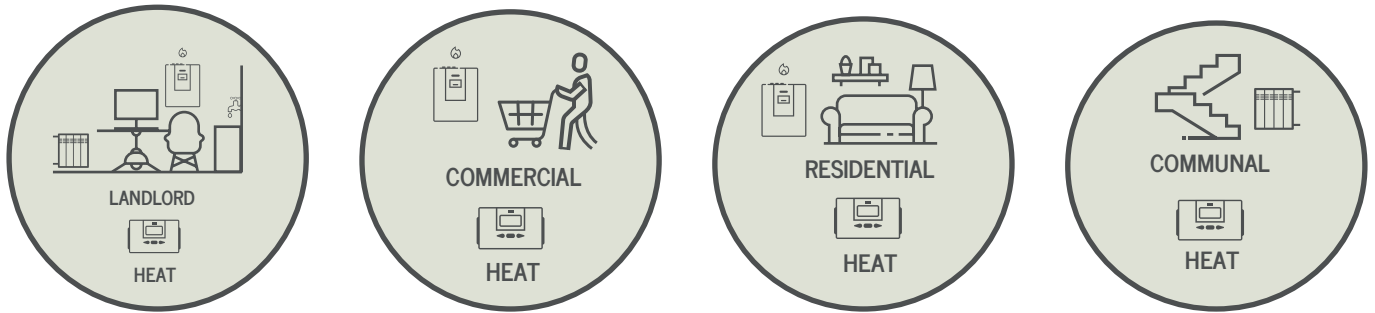
Meter preference	Kamstrup 603 with dual M-Bus capability, or; a meter suitable for shared usage.
Meter data sharing parties	<ul style="list-style-type: none"> Provider/billing company for the heat network BMS party
Meter data sharing platforms	<ul style="list-style-type: none"> AMR for metering & billing provider AMR for performance monitoring (e.g. RavenResidential or BMS)
Installation	Meter to be installed to manufacturer's recommendations

SELECTING THE RIGHT METER

- 1 Ensure sizing aligns with pipework and flow rate requirements.
- 2 Opt for ultrasonic meters to minimise damage, reduce wear and tear, and enhance accuracy.

WHERE SHOULD LANDLORD/BUILDING NETWORK METERS BE INSTALLED

Heat meters at block entry and inside properties:



In energy centres depending on the assets in situ:

