

Compressor based expansion unit
for accurate pressure management

BMS
enabled



Flamcomat MK-U G4
Versatile and highly efficient

- Simple commissioning
- Efficient operation and low power consumption
- Reliable performance through the load balancing of essential components
- Suitable for installations with high temperatures (> 110 °C)
- Scalable thanks to co-operation mode
- Suitable for Flamconnect Remote Service

Carefree and ready for the future!

The Flamcomat MK-U G4 is a compressor based, low-maintenance expansion automat that effectively absorbs differential pressures in heating and cooling installations. The unit is designed for large sealed heating installations (acc. to EN12828) and chilled water (cooling) installations which cannot tolerate the rise in pressure associated with standard sealed system equipment.

The Flamcomat MK-U G4 comes with the latest technology Flextronic control unit allowing for remote communication (with Flamconnect Remote Service). The unit offers a number of automatic functions for balancing, temperature monitoring and leak detection.



The system is also suitable for connecting into a co-operation mode configuration. The Flamcomat MK-U G4 is delivered completely pre-assembled and ready for operation. Installation is both simple and cost-effective due to the adjustable system connection.*

Modular, expandable, flexible design

The design principle relies on the use of a pressurised, intelligent expansion vessel. Multiple vessels can be interlinked to match the total system requirement. This also allows for the use of multiple smaller volume vessels where headroom (vertical height) is limited.

Compressor balanced pressure

The Flamcomat MK-U G4 will maintain the system pressure to +/- 0.2 bar regardless of the position in the thermal cycle. This means that there is no difference between the static pressure (cold) and the running pressure (hot).

Space saving

The Flamcomat MK-U G4 expansion vessel is 85% efficient, traditional expansion vessels are typically 50% at best (system characteristics may reduce this substantially). As a result the MK-U system always represents a reduction in space required.

Intelligent Expansion Vessel

The system as a whole sees the equipment as a traditional expansion vessel, comprising of a wet side and a dry (air cushion) side. The 'intelligent' difference is that as expanded water enters the vessel, the control system vents air from the gas cushion to allow the expanded fluid into the vessel without changing the pressure as a whole.

Wide choice

- Volume sizes 400 to 10.000 liter
- Pressure rating PN3 to PN10
- Expansion vessel without or with internal coating

“The Flamcomat MK-U G4 comes with a state-of-art Flextronic Controller”

Automatic temperature monitoring

When the system temperature rises above 110 °C, there is a danger of overheating as a consequence of steam formation or overheated water. The Flamcomat MK-U G4 is Flamco's second expansion unit to automatically switch off above the temperature limit and to supply a potential free signal that can be used to interrupt the central heating installation. The system thus naturally complies with directives EN12952 and EN12953.

In order to use the 110 °C mode, please contact your local Flamco sales organisation.

Communication with BMS

Installing a Flamcomat MK-U G4 unit equipped with the Flextronic Controller lets you connect to most building management systems. Each Flextronic Controller has two physical ports with the corresponding Modbus or BACnet communication protocols.

Smart co-operation mode by default *

You can add the Flamcomat MK-U G4 to a co-operation mode configuration. For example, if you want to expand the installation's capacity (upscaling) or give the system a backup/redundancy feature. In this co-operation mode, the main automat automatically determines the number of active and available automats and the priority in which they are used, so that the number of operating hours is distributed evenly amongst all the units. You can connect a maximum of 10 Flamcomat MK-U G4 expansion units with each other in one co-operation mode network.

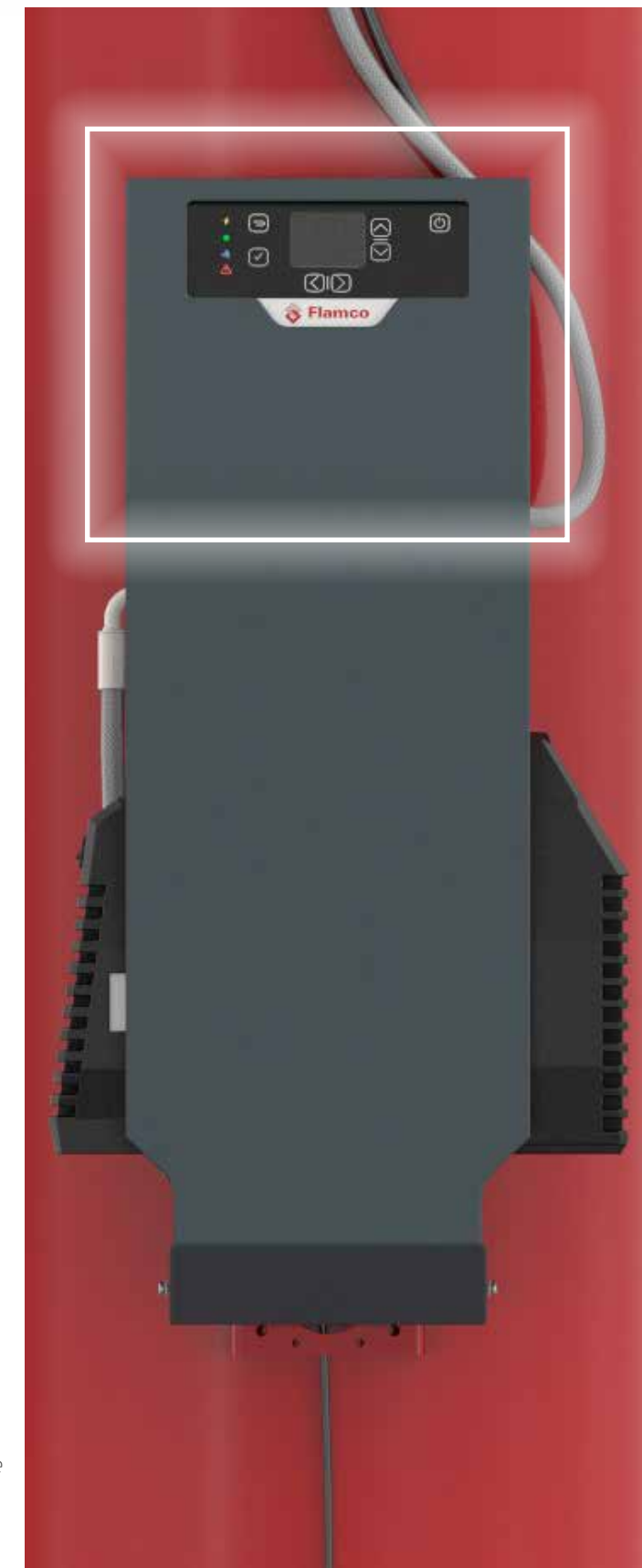
Floating Master function **

A new feature is that each automat can automatically take over in the event of the Master failing or functioning poorly ('Floating Master') without interrupting the pressure maintenance of your system.

See www.flamcogroup.com for all technical specifications of the Flamcomat MK-U G4 and the Flextronic Controller.

* Standard feature as from Q1 - 2022 or as upgrade via firmware update

** Patent pending





We supply heating system products to installation companies in more than 70 countries. We do so by making use of a network of subsidiaries and wholesalers who are familiar with the local market and thus always able to provide expert advice.

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