



flamco

incl.
3
years
Flamconnect
Remote
for free

that's excellence.

Flamcomat MK-U G4 Remote

compressor controlled expansion automat,
including Flamconnect Remote



Flamcomat MK-U G4 Remote

compressor controlled expansion automat

The Flamcomat MK-U G4 Remote 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.

for large, sealed heating and cooling installations

The Flamcomat MK-U G4 Remote 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 Remote is delivered completely pre-assembled and ready for operation. Installation is both simple and cost-effective due to the adjustable system connection.

advantages and features at a glance

- **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**
- **simple commissioning**
- **including 3 years Flamconnect Remote**



compressor balanced pressure, to +/- 0.2 bar

The Flamcomat MK-U G4 Remote 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).

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.

smart co-operation mode by default

You can add the Flamcomat MK-U G4 Remote expansion units 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 Remote with each other in one co-operation mode network.

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 Remote 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.

Flamcomat Kit 110 °C

In order to use the Flamcomat MK-U with temperatures exceeding 110 °C, a Flamcomat kit 110 °C is required. This is available via Part. no. 17504.

* Patent pending

Flamcomat kit 110 °C



1. smart Flextronic controller

Installing a Flamcomat MK-U G4 Remote 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.

2. space saving design

The Flamcomat MK-U G4 Remote 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.

3. ergonomic operation

The compressor and the Flextronic Controller are attached to the side of the machine, which means that the controller can be operated in an ergonomic way. The controller and the extremely quiet, oil free compressor are protected by an impact-resistant housing, which also ensures a pleasing design.

4. intelligent expansion vessel with fixed diaphragm

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.

The Flamcomat MK-U G4 Remote comes with a replaceable butyl bladder. The membrane is known for its long service life. The vessels can be compared with those of the Flamcomat MK-C product range with fixed, flexible rubber membrane.

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.



The Flamcomat MK-U G4 Remote comes with a replaceable butyl bladder.

Flamconnect Remote

digital dashboard for installers, service providers and facility managers

Flamconnect Remote allows you to remotely monitor heating and cooling installations. You have 24/7 realtime and interactive access to your connectable Flamco devices via a clearly arranged dashboard. With Flamconnect Remote you can view and optimise system settings remotely, perform maintenance, repair malfunctions and reduce service costs. Flamconnect Remote allows you to predict required replacement or receive a report the instant an installation or product suffers a fault. Flamconnect Remote helps you to plan your visits by creating insights into the use of the installations you are servicing.

4 main benefits at a glance

- 1. Receive alerts:** be able to receive alerts via the portal or directly via e-mail. Allows you to be proactive upon the alert being received, perhaps even before the customer realises there is a problem. Get a more detailed description to prepare for a visit if needed and increase the first time fix rate.
- 2. Remotely change settings / execute actions:** be able to remotely change product settings or execute actions such as rebooting and topping-up. These actions will be done remotely and thus decrease the amount of service visits.
- 3. See system telemetry and make service visits more plannable:** be able to analyse the system, product behavior and diagnose a possible issue remotely 24/7/365. Find the optimal product configuration for an optimal system/product performance. All historic data is automatically saved. As a Service Engineer you'll arrive on location at the right time, armed with lots of information and the right spare parts.
- 4. Online dashboard:** be able to see all connected devices and the manage the assets remotely and directly.

How does it work?

1. Install your product according to the manual or using the Flamconnect App.
2. As part of the installation, register your modem on flamco.aalberts-hfc.com/ex-en/pageid/form-flamconnect-remote-registration. You can also use the QR code on the right hand page.
3. The portal will be set up and you will be given login data via e-mail.
4. The modem communicates via our GSM network with the portal where the device can be monitored.

What does it cost*

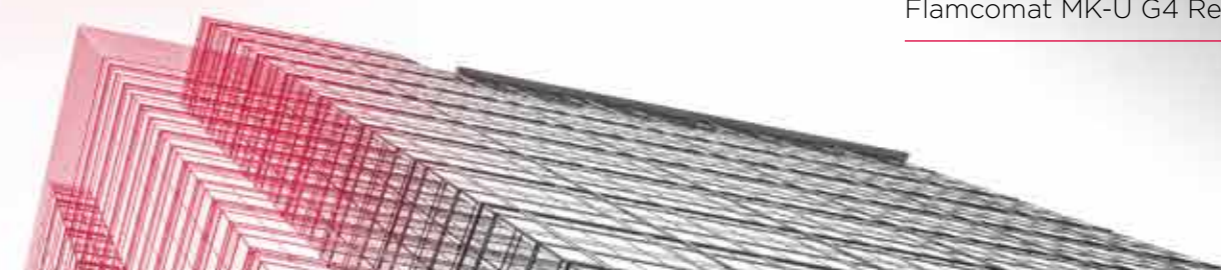
Subscription fee per device / month	€ 4,-
Subscription fee per device / year	€ 48,-



Safe Connection
Flamconnect Remote uses Microsoft Azure technology. Your connection is safe.

* price level 2024.

Flamconnect Remote is free of charge for the first 3 years. After this, the subscriptions costs as stated above, then apply at the applicable rate.



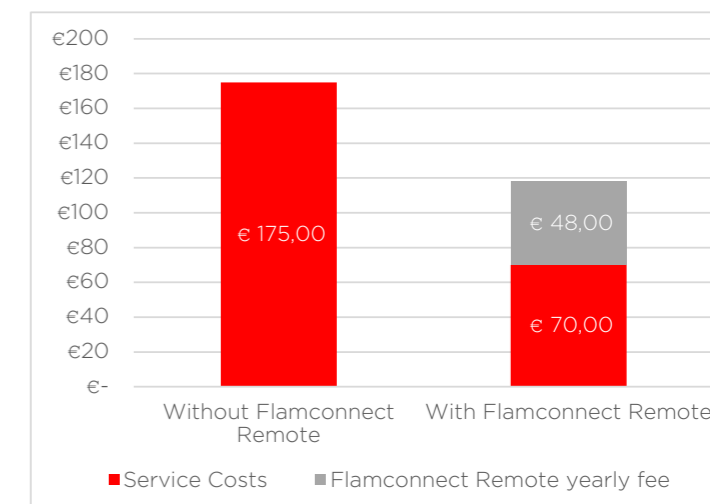
for whom?

What situations are of interest for connecting my installation to Flamconnect Remote?

- Installations for which operational safety is a key requirement of the user (data centres, care homes, offices)
- To perform better analysis in the event of insufficient pressure or leaks
- For support in order to comply with the international standards e.g. CEN/TC 319
- When you have a full service contract with your customer (ESCO)
- When your installation's sustainability is of relevance

save up to 33% on your service costs!

A subscription to Flamconnect Remote allows you to drastically cut your service and maintenance costs. The chart shows the cost saving potential for one remotely serviced Flamco device. On average a service visit costs € 350,-. With 1 visit in 2 years, the costs are € 175,- per year. With Flamconnect Remote on average a service visit is required once per 5 years. Costs are € 70,- per year. Total yearly costs including subscription costs of € 4,- per connected device/month, are € 118,-. Savings can easily total up to 33% across a year! to 33% per year!



What do you get?

Access to portal	Unlimited users
Alerts - View in portal or receive via e-mail	✓
Diagnose - Check system telemetry and product settings	✓
Adjust - Remotely change configuration settings or execute commands	✓
Data exchange period	Real time

More information or connecting your Flamco device?

flamco.aalberts-hfc.com/ex-en/pageid/form-flamconnect-remote-registration



Wide range

The Flamcomat MK-U G4 is available in a wide range of vessel sizes, pressure ratings. Uncoated or with corrosion-protected internal coating to minimize damage to the bladder. The units are delivered completely pre-assembled and ready for operation. Installation is both simple and cost-effective due to the adjustable system connection.

		with internal coating			uncoated	
Max. working pressure compressor		2.4 bar	5.4 bar	8.0 bar	5.4 bar	8.0 bar
Design pressure		PN3	PN6	PN10	PN6	PN10
type	capacity [l]					
Flamcomat MK-U G4 Remote 400	400	-	23450	23470	23430	23440
Flamcomat MK-U G4 Remote 600	600	-	23451	23471	23431	23441
Flamcomat MK-U G4 Remote 800	800	-	23452	23472	23432	23442
Flamcomat MK-U G4 Remote 1000	1000	-	23453	23473	23433	23443
Flamcomat MK-U G4 Remote 1200	1200	-	23554	23574	22422	-
Flamcomat MK-U G4 Remote 1600	1600	-	23555	23475	22427	-
Flamcomat MK-U G4 Remote 2000	2000	-	23556	23576	22432	-
Flamcomat MK-U G4 Remote 2800	2800	-	23557	23577	22437	-
Flamcomat MK-U G4 Remote 3500	3500	-	23558	23578	-	-
Flamcomat MK-U G4 Remote 5000	5000	23559	-	-	-	-
Flamcomat MK-U G4 Remote 6500	6500	23560	-	-	-	-
Flamcomat MK-U G4 Remote 8000	8000	23561	-	-	-	-
Flamcomat MK-U G4 Remote 10000	10000	23562	-	-	-	-

Vessel capacity from 400 - 1000 litres (in accordance with EN13831), 1.200 - 10.000 litres in accordance with AD2000. See www.flamco.aalberts-hfc.com for all technical specifications of the Flamcomat MK-U G4 Remote and the Flextronic Controller.

Aalberts hydronic flow control

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