"A smart feature that can be widely beneficial is predictive maintenance as this can avoid costly repair bills or heating failure"

Connected devices 'icing on the cake' for smart homes

Heating controls have joined the smart home revolution with app-enabled products that allow homeowners to control their heating systems remotely for optimum comfort, convenience and energy efficiency. **Gareth Ash of Danfoss** explores this growing trend and asks what is driving demand.

High-speed networking technologies mean that devices such as room thermostats and central controllers can be connected to the internet and adjusted using an app from anywhere at any time.

This gives those with busy lifestyles or irregular hours the flexibility to schedule when their heating should go on and off from their smartphone, helping them save energy and ensure a warm home to come back to.

But not all so-called smart controls are the same and the range of products can daunt even the most experienced installer.

REALITY OR SALES HOOK?

Marketing of smart controls often focuses on the potential energy savings but are these savings a reality or simply a hook to make the sale?

Arguably, a high quality and correctly setup non-connected device is as efficient as one that is internet-connected, in some cases maybe more efficient. Restricting the user's ability to fiddle with their heating controls, and possibly affect boiler efficiency, could even save money in the long run. Also, for households with reasonably predictable daily routines there may be little benefit in having remote control of their heating.

Just because a device is connected to the internet doesn't always make it better, or the best solution for every user. Manufacturers such as Danfoss have developed advanced technical functions for non-connected products to ensure efficient, energy saving heating control. Perhaps internet-connected solutions should, therefore, be seen by installers as the icing on the cake for some rather than the absolute necessity for all.

USER BENEFITS

A smart feature that can be widely beneficial is predictive maintenance as this can avoid costly repair bills or heating failure. This level of control relies on advanced communication between controllers and boilers or for the boiler to be directly connected to the cloud.

Whether this feature would persuade more consumers to invest in smart controls is another matter as we know that many only consider such things after their boiler has broken down.

There are also less talked about advantages for the vulnerable or impaired. For example, smart room thermostats that can be connected to voice-activated systems such as Amazon Alexa allow convenient voice control of heating. Also, those responsible for, say, an elderly relative can monitor their heating remotely for peace of mind. Those outside these groups will probably adopt this technology in time, but more slowly and possibly not purely by choice.

Driven by regulations to cut domestic energy consumption, installation of these potentially energy-saving solutions is becoming the preferred option for many new homes and replacement heating systems.

SECURITY

A concern for some buyers will be the security of smart home devices. We always recommend potential purchasers do their homework and verify the manufacturer's security credentials. Others may look to their installer for advice but as this is a rapidly advancing technology it can be difficult for installers to keep up with, and sometimes understand, the pros and cons of all the different devices.

Manufacturers must be constantly vigilant to ensure their products do not provide a hole into a home network. Whilst it is unlikely that the heating control will be the target it could allow hackers to gain access to other information.

INTERNET OF THINGS

Integration of devices, including heating controls, into one home system has already begun and will no doubt continue. Homeowners can control lights, curtains, heating and alarms through dedicated or generic smart home hubs often from one app interface or voice control. Although some may not like this increased automation it is clearly here to stay.

However, at Danfoss we believe it should never be about technology for technology's sake. Our focus for next generation developments will always be on creating a choice of effective, user-friendly heating controls that will keep homes comfortably, and perhaps most importantly, affordably warm.

WWW.HEATING.DANFOSS.CO.UK