# Facts About Trane Air-Fi® Wireless Technology



What is Trane Air-Fi Wireless technology?

Trane® Air-Fi® wireless technology replaces the need for wired building controls, allowing installations to be completed quickly and with less disruption to building occupants.

#### **Features**

## Self-repairing mesh technology and extended range

Air-Fi has self-repairing mesh technology that features redundant signal paths to help prevent communication failures. It immediately reroutes disrupted signals around obstacles to ensure that wireless communication is maintained. With a typical 200-foot indoor signal range and four times the number of potential paths, Air-Fi extends up to a half-mile when unobstructed for even greater levels of signal reliability. Challenges that interfere with other systems — including obstructions and wall damage — won't impact Air-Fi because it is built on an IEEE standard (802.15.4).

## Lifetime battery\*

Trane Air-Fi has a battery life three times that of competitive products which eliminates time and money replacing batteries and can last for the life of the system in most installations.

#### **Built on BACnet Standards**

Air-Fi® wireless uses BACnet/ZigBee® wireless mesh. This allows customers to integrate devices in the future when the building expands or changes. Adding unit controllers, zone sensors and other devices down the road can be easy and affordable, which increases options and flexibility as technology and building needs evolve.

## System security

Air-Fi secures building automation networks by the use of AES 128 encryption, keys and device authentication.

# Factory programmed and tested

The Air-Fi interface is available factory-installed and pre-addressed. This expedites installation time and reduces labor and upfront costs. It also ensures system consistency and is easily repeatable in controlled factory environments.

\*Based on typical indoor operating conditions.





Benefits	<ul> <li>Self-repairing mesh eliminates the risks of conventional wired systems, which fail when wires are cut or disconnected or fail intermittently when damaged.</li> <li>In most installations, the battery will last the life of the system, eliminating the time and money spent replacing batteries.</li> <li>Pre-programmed controls provide consistency, reliability and optimized system operation, resulting in better building performance and less on-site trouble shooting.</li> <li>Because there is no need to pull or run wire in the facility, installations can be completed more quickly, with less disruption to building occupants.</li> <li>Wireless sensors are easy to move or replace, as needed, to resolve occupant comfort, sensing accuracy, aesthetic issues or reconfigured spaces.</li> <li>The easy-to-install wireless control system offers affordable advantages on time project schedule completion.</li> </ul>
Key Markets	Trane Air-Fi wireless technology can help optimize any building's performance, including commercial real estate, education, healthcare, religious and hospitality applications.

Trane solutions optimize indoor environments with a broad portfolio of energy efficient heating, ventilation and air conditioning systems, building and contracting services, parts support and advanced control. For more information, visit trane.com.



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