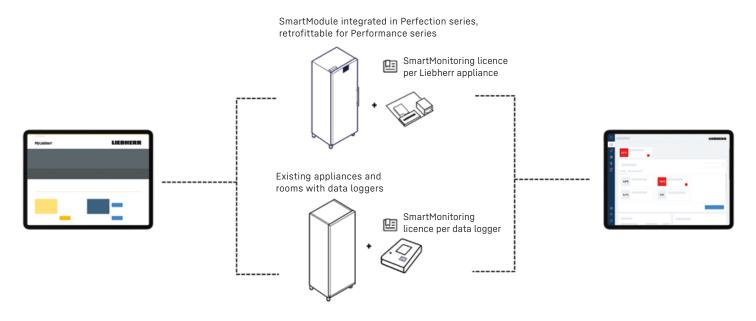


SmartMonitoring - it's that easy to be on the safe side

- Highest level of protection for your stored goods by ensuring constant and precise temperature
- Fully documented proof of temperature compliance through automated documentation
- Reliable alarms and notifications to prevent damage and degradation
- More time to concentrate on what is important by eliminating time-consuming checks and documentation
- Easy and convenient monitoring solution for all refrigerators, freezers and rooms



SmartMonitoring - for maximum safety and convenience

The new generation of Liebherr appliances for research, laboratory and healthcare is either already equipped with the SmartModule (Perfection series) or can be retrofitted (Performance series). Predecessor models and third-party refrigerators and freezers, as well as rooms can be connected to SmartMonitoring via external data loggers.

Required hardware and general requirements

- SmartMonitoring-enabled Liebherr fridge/freezer
- Internet-enabled end device (PC/laptop) with current browser version and a minimum resolution of 1024x768 px
- Broadband Internet connection with wireless (WiFi 2.4 GHz) or wired network (Ethernet/LAN)
- DHCP mode active (automatic IP address assignment)
- MAC address enabled in the network when using a MAC filter
- Additional network cable for LAN setup

SmartModule

SmartModule connects Liebherr appliances with SmartMonitoring or existing monitoring systems. The small unit with its integrated LAN/WiFi is ready to use immediately after installation on the back of the appliance.



Network requirements

- Supports WiFi IEEE 802.11 b/g/n 2.4 GHz, WPA2/WPA3
- Enable the following network ports within your network and at the internet access point:
- HTTP: Port 80/TCP (OUT)
- HTTPS: Port 443/TCP (OUT)
- NTP: Port 123/UDP (OUT)

Local interface

SmartModule can also be used as a local interface. This allows you to integrate Liebherr appliances into existing monitoring solutions.

Data logger

Data logger, temperature

The standard online data logger reliably records temperature data and transmits it directly to SmartMonitoring via a WiFi connection.



Data logger, three-channel

In addition to the standard temperature sensor, the three-channel data logger features an additional temperature sensor which can be used to monitor the temperature of sensitive products, as well as a door contact sensor.

Data logger, ULT

For reliable storage at extreme temperatures, this data logger has a special temperature sensor for temperature ranges as low as -200 °C, so that all cooling situations can be covered with a single solution.



Network requirements

- Supports IEEE 802.11 b/g/n, 1-Channel 1x1, 2.4 GHz WEP, WPA (TKIP), WPA2 (TKIP, AES, CCMP)
- Data rates up to 150 Mbps
- Unencrypted (open) WiFi networks are supported
- Enable the following network ports within your network and at the Internet access point:
- DNS: Port 53/UDP (OUT)
- NTP: Port 123/UDP (OUT)
- Please find further information in the respective data sheet.



Further information about all services available in your country can be obtained from your sales partner, or find out more about SmartMonitoring at: