



BMS vs. EMS

(Building Monitoring System)

(Environment Monitoring System)

There is a need for control (BMS) and monitoring (EMS) solutions in facilities in sectors like pharmaceutical manufacturing.

Although a combined BMS/EMS system initially looks to be the most advantageous option, we have identified 5 factors that demonstrate that going 2 in 1 is not necessarily more advantageous.

1

EMS sensors are normally installed in **GMP locations (such as labs, warehouses, production facilities, etc.)**, whereas BMS sensors are spread out across the entire building in both GMP and non-GMP regions (e.g. offices, common areas, etc.).

Without separation, the BMS turns into the GMP system, necessitating far more extensive validation efforts.



2

GMP systems require change control.

Even if one of your coworkers requests a higher office temperature, you will need to prepare entire change documentation if your BMS is a GMP system.

3

The EMS will continue to run and collect data proving that the product has been maintained in accordance with specifications in the event of faults or maintenance work that causes the BMS to go offline.



testo 150 TUC4

testo

100% 

18.8 °C

42.8 %

Alarm
Status



4

Using different systems adds redundancy to monitoring.

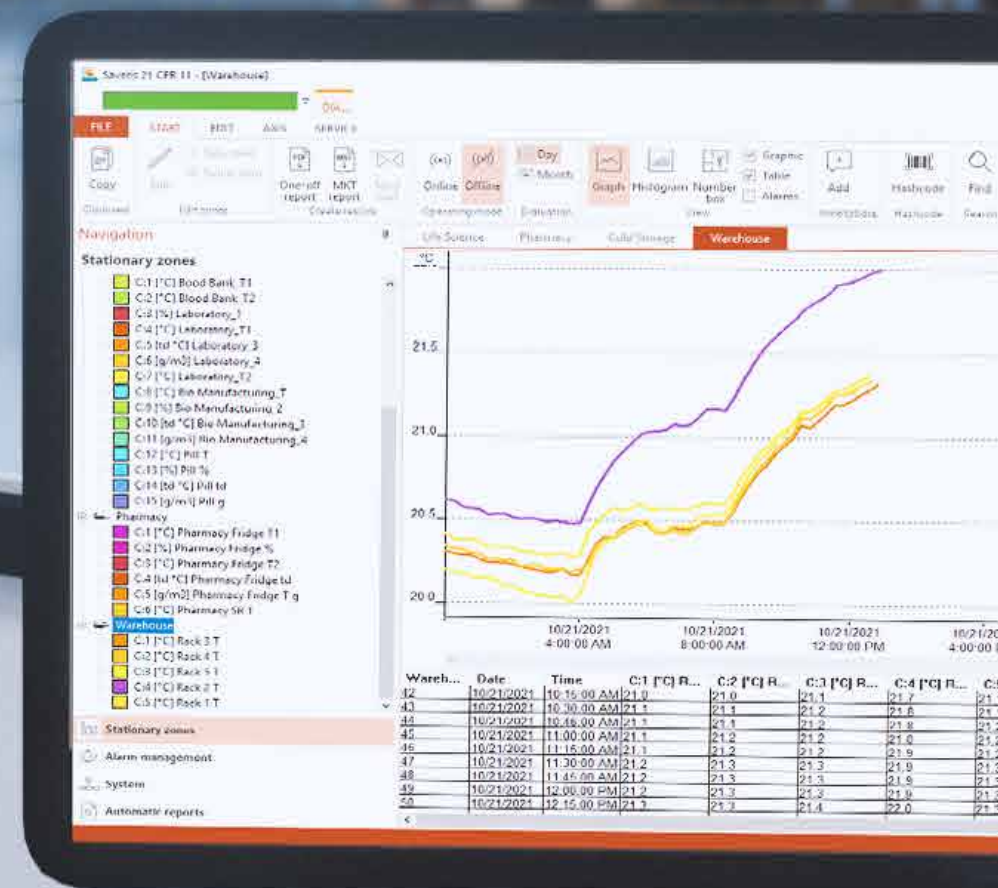
The same sensor is used for both BMS and EMS in a combined EMS/BMS system. If the necessary limits are exceeded, you won't get the proper warning if this sensor is out of calibration.

5

The calibration of some of the sensors included in BMS solutions is challenging and of low quality.

You can get improved precision and reproducibility by employing an EMS with high-quality sensors.

Moreover, calibration for EMS systems using digital sensors can be done separately from the display/recording module. As a result, you have the option to utilize a substitute sensor set to close any gaps in the documentation.



**Do you know of any other benefits
to adopting EMS and BMS
independently?**

Please comment below.