



# setraFLEX

SETRA'S MOST ADVANCED ROOM MONITOR & CONTROLLER



WE DESIGN AND DELIVER  
PREMIUM SENSING SOLUTIONS  
[www.setra.com](http://www.setra.com)



# setra FLEX

## ENVIRONMENTAL MONITOR



The **Setra FLEX™** is a complete monitoring and control solution in a pre-configured and easy-to-use package. Offering all of the essential parameters that require monitoring, the FLEX will meet all of your critical environment needs.

### SETRA FLEX FEATURES

- Monitor and Control Up to 3 Spaces
- 6 Parameters per Room, Total 18
- 7" Touch Screen, Works with Medical Gloves
- Integrates with BMS Systems
- BACnet/IP and BACnet MS/TP
- USB Cloning Feature Saves Time
- High Accuracy Pressure Transducer
- Expansion I/O Available

### APPLICATIONS & STANDARDS

- Hospitals - ASHRAE Standard 170
- Pharmacies - USP 797 & USP 800
- Bio-safety & Vivarium Laboratories
- Pharmaceutical Manufacturing
- Custom for OEM, Energy, Industrial

#### GOING BEYOND ROOM PRESSURE

From the pressure experts comes the most accurate and reliable room pressure monitor in the industry – but that's not all. Now you can monitor *and* control pressure, temperature, humidity, and air changes per hour; plus, any two additional parameters you may require. Visualize the data by either hard wiring the sensors, or by mapping network objects via BACnet. The FLEX is flexible enough to meet any HVAC sensing or control need and customizable enough to monitor energy usage and industrial equipment.

#### NO PROGRAMMING EASY CONFIGURATION

The Setra FLEX comes out-of-the-box ready to configure at the job site. No programming or training is required for setup. Just configure your sensors and network on-site and the FLEX is ready to go. If there are many units to configure, our unique USB cloning feature helps you get them done even faster, saving time and money.

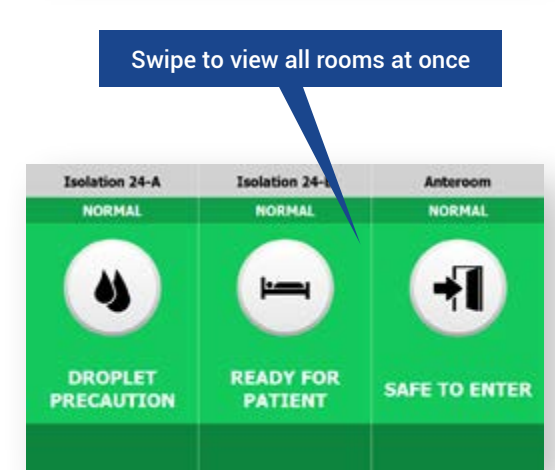
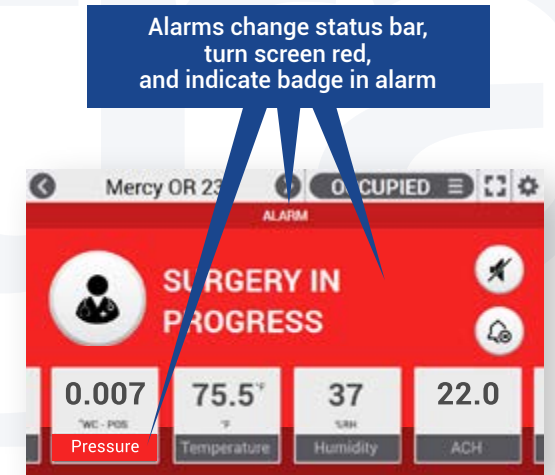
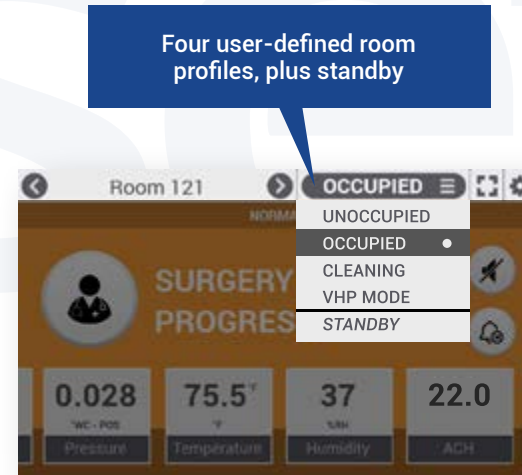
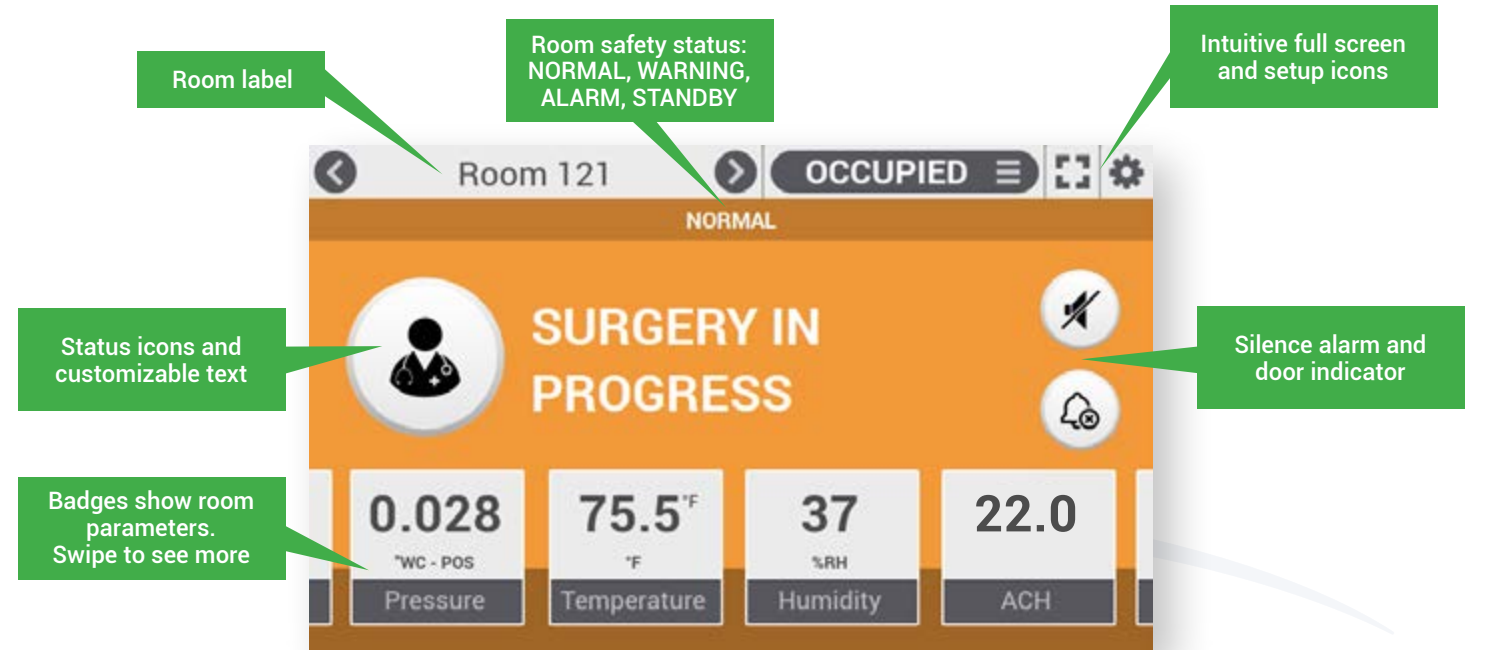
#### FLEX RM / FLEX RC

FLEX comes in two models, providing both the best price-to-performance as well as the one-of-a-kind feature set to meet the most difficult application needs. Both FLEX models can be controlled over the network via read/write BACnet objects, permitting both local control via the touch screen or control from the BMS.



### THE FLEX DISPLAY

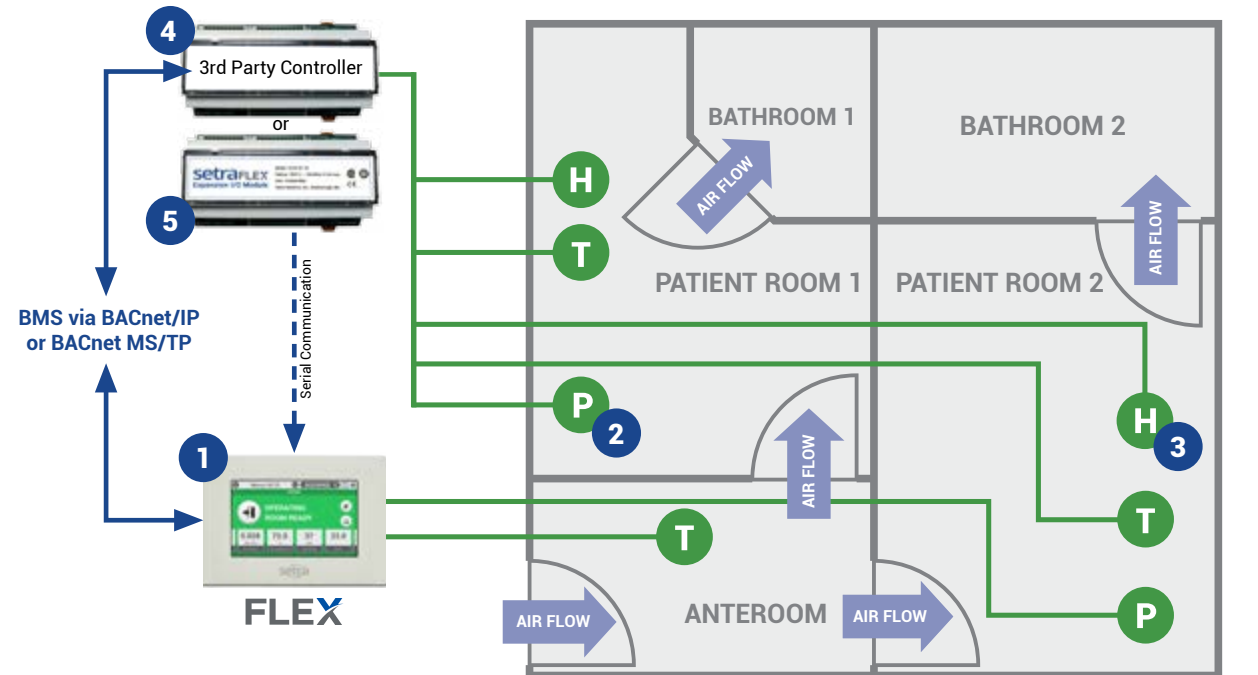
The FLEX has a large, 7-inch touch screen display which provides swiping functionality and use with medical gloves. The high resolution display allows the user to easily view the graphics and text from across the room.



## YOU HAVE OPTIONS

Configure the FLEX multiple ways: wire sensors directly to the on-board I/O or via the optional Expansion I/O module. Or, if you prefer, pick up pre-wired sensors from third-party BMS controllers and map to FLEX via network configuration.

### Two Patient Rooms with Common Anteroom



- 1 Install FLEX in a standard electrical box at a location suitable for your application.
  - 2 Use either external pressure sensors, or an on-board FLEX transducer.
  - 3 Temperature, humidity, and other sensors can be wired directly to the FLEX.
  - 4 If using a third-party BMS controller, network via BACnet/IP or BACnet MS/TP.
  - 5 If using FLEX Expansion I/O module, a single wire integrates seamlessly with FLEX.
- T Temperature sensor
  - P Pressure sensor
  - H Humidity sensor

## FLEXIBILITY FOR INSTALLATIONS

FLEX was designed with construction installations in mind, and the flexibility often needed to accommodate project site challenges and installer preferences. Want the sensor in the wall? No problem. Order FLEX with an on-board transducer. Want all the pressure tubing above the ceiling? No problem. Order FLEX with external transducers; or combinations of both. Need additional I/O for your rooms? No problem. Order FLEX Expansion I/O, and get support to hard-wire all the sensors you need.



OPERATING ROOMS

CSP PHARMACIES

BIO-SAFETY LABS

PHARMACEUTICAL MANUFACTURING



### EASY INSTALLATION

1. Rough-in wires and tubing.
2. Connect pressure fittings and I/O.
3. Touch screen configures room.
4. Clone configuration for other units.
5. Done. Site commissioned.



### COMMISSIONING CONFIDENCE

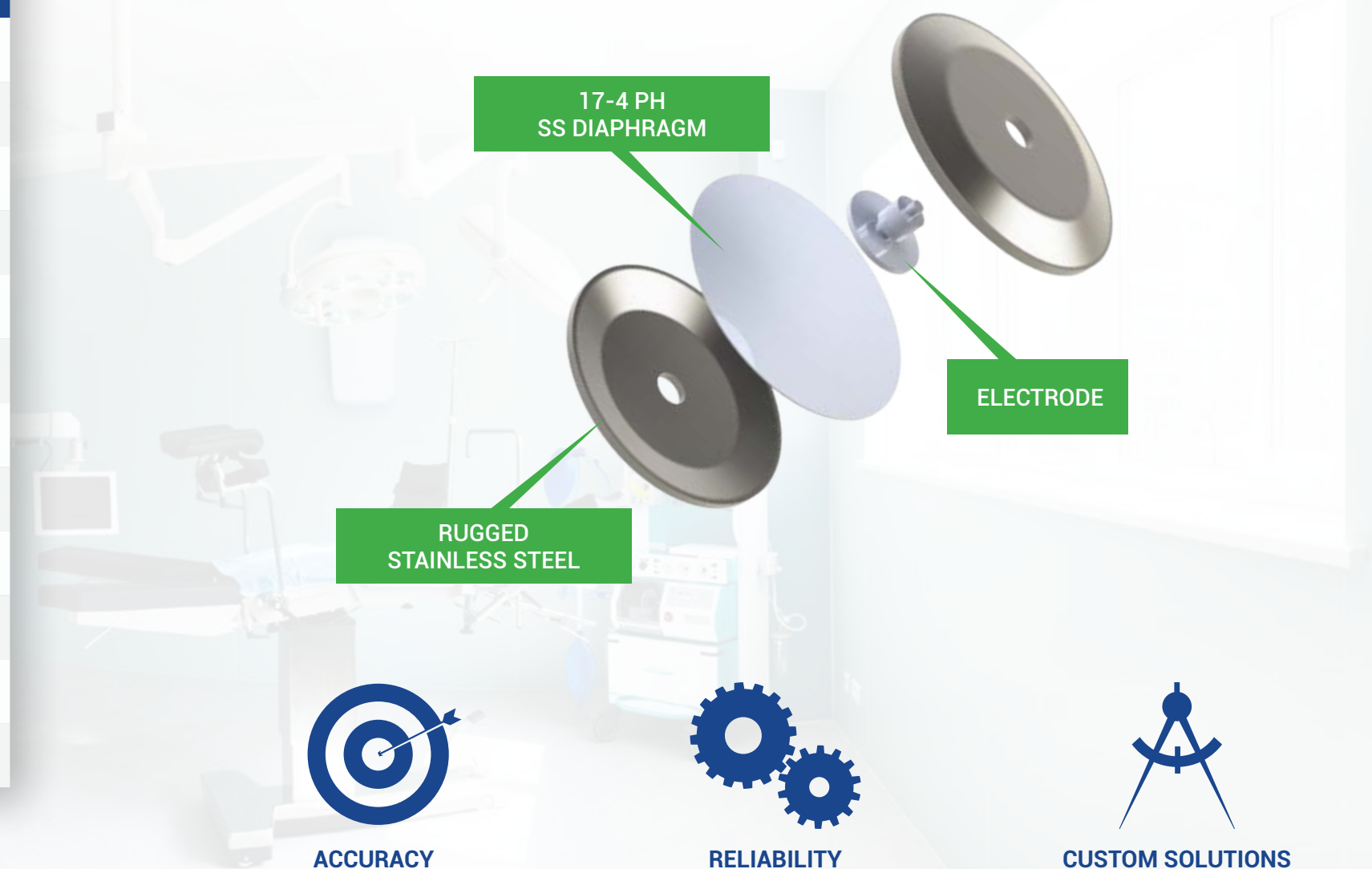
FLEX is BTL certified, which means you have confidence during automation integration. FLEX is also rated for IP-54 washdown, which provides an excellent seal to the wall, and easy cleaning with common infection control chemicals.



| Key Feature                         | Setra FLEX | COMPETITOR #1 | COMPETITOR #2 |
|-------------------------------------|------------|---------------|---------------|
| 7" touch screen display             | ✓          | ✗             | ✓             |
| Support for 3 rooms                 | ✓          | ✓             | ✗             |
| User-defined room profiles          | ✓          | ✗             | ✓             |
| User-defined room parameters        | ✓          | ✗             | ✗             |
| Support for 18 parameters           | ✓          | ✗             | ✗             |
| Integrated multi-room monitor       | ✓          | ✓             | ✗             |
| BACnet/IP communications            | ✓          | ✗             | ✗             |
| Configurable over the network       | ✓          | ✗             | ✗             |
| Expandable I/O                      | ✓          | ✗             | ✗             |
| USB cloning feature                 | ✓          | ✗             | ✗             |
| High-accuracy 0.25% sensor standard | ✓          | ✗             | ✗             |
| 100% made in the USA                | ✓          | ✗             | ✗             |

### VARIABLE CAPACITANCE TECHNOLOGY

When used for room differential pressure, Setra FLEX has the option of either an on-board or external sensor, depending on the installer's preference. In either case, Setra's industry-best high-accuracy sensor is used. Our patented variable capacitance technology is based on a all stainless steel micro-tig welded sensor. The radially tensioned stainless steel diaphragm and insulated stainless steel electrode, positioned close to the diaphragm, form a variable capacitor. This provides industry-best accuracy for very low pressures and unmatched long-term stability. Unlike competitors, who use a flow-through sensor that can become clogged or contaminated, Setra's dead-ended sensors ensure ultimate accuracy for patient safety.



## setraFLEX vs. the competition

#### ACCURACY

Every unit includes ultra-high accuracy  $\pm 0.25\%$  full scale sensors, with 0.0001" W.C. resolution.

#### RELIABILITY

To Setra, reliability means long-term stability of sensors that drift  $< 0.05\%$  of full scale per year.

#### CUSTOM SOLUTIONS

As a flexible platform, FLEX can be modified at the factory to meet specific application needs. Contact your sales representative for more information.

# setraFLEX

## ENVIRONMENTAL MONITOR



### CELEBRATING 50 YEARS

Founded in 1967, Setra Systems, Inc. is a leading designer and manufacturer of pressure, acceleration, and weight sensing devices. Setra's founders, Dr. Y.T. Li and Dr. S.Y. Lee, were co-developers of the variable capacitance transduction principle, the innovative force sensing technology which is the heart of Setra's products.



### MADE IN THE USA

Since our founding, we have been proudly producing all of our transducers for sale in the United States at our 100,000 sq. ft. Boxborough, MA facility.



### SOLUTIONS YOU CAN TRUST

Setra is an ISO 9001-2008 certified manufacturer with robust and mature processes at work to continually optimize team performance. From ideation and design, to validation and test, to volume production, quality is built in.

At each stage in Setra's production process there are built-in verifications to ensure that the products being supplied to our customers are of the highest quality. The Setra team has created numerous innovative manufacturing techniques and tools to catch, track and prevent future failures from occurring. Any newly discovered issues learned from the field, engineering labs, validation testing and even from the production line are reviewed on a regular basis and corrective actions are implemented quickly and efficiently to exceed our customers' expectations.



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