A cost-effective monitor for use in schools, restaurants, and other small-to-medium-sized buildings that alerts users when conditions are present that may increase the risk of exposure to airborne viral transmission.*

Classrooms, restaurants, and buildings with outdated HVAC and ventilation systems can foster environments where the risk of airborne virus transmission could increase.* Honeywell proprietary technology that monitors CO₂ levels, coupled with user-controlled settings to account for human activity levels in an indoor area, provides users with a portable, cost-effective, and user-friendly solution that alerts when conditions are present that may increase the risk of exposure to airborne viral transmission.

Research conducted by scientists at the University of Colorado¹ has shown that real-time monitoring of indoor ambient air can be an indicator of increased risk of airborne viral transmission, utilizing different levels of risk-based factors such as CO₂ concentration levels and the type of human activity in the area.*

Using this guidance and Honeywell algorithms, we identified air quality conditions that are driven by common activities and variables such as average room size, number of people present, breathing rate, and duration. The device comes with three pre-programmed indoor activity settings: low activity (movie theaters, libraries, and classrooms), medium activity (restaurants, offices, small clinics), and high activity (gyms, indoor arenas, recreation centers) and is recommended for coverage of 800-1000 square feet. For each setting, the monitor provides indications using a traffic light pattern (green, yellow, or red) and a sound alarm so users can be aware of conditions that may increase the risk of airborne transmission based on detectable CO₂ levels.

**FEATURES AND BENEFITS**

- The monitor comes with a user manual and USB charging cable. AC adapter sold separately.
- Made of alloy and plastic, the monitor’s sleek, lightweight design makes it easy to carry for real-time monitoring anywhere.
- Red (high), yellow (medium), and green (low) for at-a-glance estimation of risk levels.

The Honeywell Transmission Risk Air Monitor helps you monitor indoor environments in real time for conditions that may increase exposure to airborne viruses.

Monitor air for students in classrooms to determine potentially higher risk conditions.

Monitor air in restaurants to alert to possible higher risk situations.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>PARAMETER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (H × W × D)</td>
<td>80 mm × 80 mm × 22 mm [3.1 in × 3.1 in × 0.87 in]</td>
</tr>
<tr>
<td>Weight</td>
<td>140 g</td>
</tr>
<tr>
<td>Housing materials</td>
<td>Aluminum alloy</td>
</tr>
<tr>
<td>Display</td>
<td>TFT</td>
</tr>
<tr>
<td>Input voltage</td>
<td>5 V</td>
</tr>
<tr>
<td>Input current</td>
<td>1 A</td>
</tr>
<tr>
<td>Battery</td>
<td>Lithium-ion rechargeable battery</td>
</tr>
<tr>
<td></td>
<td>10-hour battery time</td>
</tr>
<tr>
<td>Battery capacity</td>
<td>2,600 mAh</td>
</tr>
<tr>
<td>Operating temperature &amp;</td>
<td>0°C to 40°C, 0% RH to 90% RH</td>
</tr>
<tr>
<td>humidity</td>
<td></td>
</tr>
<tr>
<td>USB port</td>
<td>Micro USB</td>
</tr>
</tbody>
</table>

### SENSOR RANGE

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>DETECTION RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂ (NDIR)</td>
<td>400 ppm to 2000 ppm, up to 10,000 ppm extended range</td>
</tr>
<tr>
<td>Temperature</td>
<td>-20°C to 60°C or -4°F to 140°F</td>
</tr>
<tr>
<td>Humidity</td>
<td>0% RH to 100% RH</td>
</tr>
</tbody>
</table>

### DEVICE INDICATION

<table>
<thead>
<tr>
<th>Setting</th>
<th>COLOR</th>
<th>DETECTION RANGE</th>
<th>LOW INFECTION RISK</th>
<th>MEDIUM INFECTION RISK</th>
<th>HIGH INFECTION RISK</th>
<th>CUSTOM SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Activity</td>
<td>GREEN</td>
<td>&lt;800 ppm</td>
<td>0.043%</td>
<td>0.043%</td>
<td>1100 ppm</td>
<td>The end user can also choose custom settings on the device to set the alarm threshold levels based on the user’s parameters and local, regional and state requirements. <strong>Note:</strong> If custom settings are used, the user is solely responsible for validating that those alarm settings meet their specific requirements.</td>
</tr>
<tr>
<td>Setting</td>
<td>YELLOW</td>
<td>800 ppm</td>
<td>0.043%</td>
<td>0.043%</td>
<td>800 ppm</td>
<td></td>
</tr>
<tr>
<td>Medium Activity</td>
<td></td>
<td>&lt;700 ppm</td>
<td>3.40%</td>
<td>3.40%</td>
<td>1000 ppm</td>
<td></td>
</tr>
<tr>
<td>Setting</td>
<td></td>
<td>700 ppm</td>
<td>3.40%</td>
<td>3.40%</td>
<td>800 ppm</td>
<td></td>
</tr>
<tr>
<td>High Activity</td>
<td></td>
<td>&lt;500 ppm</td>
<td>7.32%</td>
<td>7.32%</td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td>Setting</td>
<td></td>
<td>500 ppm</td>
<td>7.32%</td>
<td>7.32%</td>
<td>800 ppm</td>
<td></td>
</tr>
<tr>
<td>Custom Setting</td>
<td></td>
<td>800 ppm</td>
<td>25.25%</td>
<td>25.25%</td>
<td>800 ppm</td>
<td></td>
</tr>
</tbody>
</table>

### In California's 2020 School Reopening Ventilation and Energy Efficiency Verification and Repair Program legislation, the importance of CO₂ monitoring in classroom settings is highlighted, “To ensure proper ventilation is maintained throughout the school year, all classrooms shall be equipped with a carbon dioxide monitor.”

Monitors should be placed in the center of activity areas and should be close to breathing height (approximately 1.5 m, depending on the height or age of the room occupants), out of direct sunlight, and not directly located near induction units, floor fans, or heaters.
The HTRAM does not detect for levels of CO or CO₂. The information we supply in this data sheet is believed to be accurate and reliable as of this writing. However, specifications may change without notice, and Honeywell assumes no responsibility for its use.

For more information
sps.honeywell.com

Honeywell Gas Analysis and Safety
9680 Old Bailes Rd, Fort Mill, SC 29707
(803) 835-8000

Contact us
US: Canada:
Tel. 800.430.5490 Tel. 888.212.7233
Fax. 800.322.1330 Fax. 888.667.8477

For more information sps.honeywell.com

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CAUTION
Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

MANUFACTURER CERTIFICATE
Honeywell Safety and Productivity Solutions certifies that the CO₂ sensor in Honeywell Transmission Risk Air Monitor (HTRAM) device is maintenance-free in normal indoor environments. No calibration at end user is needed. The accuracy of the CO₂ sensor is ±0.5 ppm at 1000 ppm CO₂.

SIMPLIFIED EU DECLARATION OF CONFORMITY
Hereby, Honeywell Safety and Productivity Solutions declare that the radio equipment type HTRAM-X2-W is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

SIMPLIFIED UK DECLARATION OF CONFORMITY
Hereby, Honeywell Safety and Productivity Solutions declare that the radio equipment type HTRAM-X2-W is in compliance with UK radio equipment regulation. The full text of the UK declaration of conformity is available at the following internet address:

United Kingdom Contact: Life Safety Distribution GMBH.
Address: Hatch Pond House, 4 Stinford Road, Nuffield Industrial Estate, Poole, Dorset, BH17 0ZR, UK.
Phone: +44 (0) 1963 434 630.

RECHARGEABLE LI-ION BATTERY
Nominal Voltage: 3.6 V
Rated Capacity: 2480 mAh/8.93 Wh
Typical Capacity: 2600 mAh/9.36 Wh
Limited Charging Voltage: 4.2 V
Manufacturer: SCUD (Fu yan) Electronics Co., Ltd.
Red Wine (+) Black Wire (-)
Made in China

WARNING: TO PREVENT INJURY, DO NOT DISASSEMBLE, PUNCTURE, CRUSH, HEAT, OR BURN
Use the authorized charger only. Never disassemble by yourself. Never short-circuit the battery. Dispose of the battery properly. Exposing the battery to an open flame could cause an explosion.

802.11 CAUTION
Users are responsible for configuring the channels of operation that comply with their country regulatory standards. A Wireless Network Administrator should review the operating restrictions for the access point.

Strangulation HAZARD: Children have STRANGLING cords. Keep this cord out of reach of children (more than 3 ft (1m) away). Do not use with an extension cord.

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