# FLOW SENSOR SPIROQUANT A+

Honeywell EnviteC Series

Honeywell has been developing and manufacturing highly specialized products for medical applications. Honeywell's research and development activities are consistently aligned to industry needs – identification and optimization of sustainable product solutions are Honeywell's main concerns.



# WE KEEP YOUR DEVICES OPERATING AT THEIR BEST

Honeywell trusts in the quality of advanced production methods and processes. The result are flow measurement solutions for medical applications, which share the same superior quality, excellent signal stability and reliable response for accurate readings. The flow sensor SpiroQuant A+ is a hot-wire sensor for measuring volume gas flow in anesthesia machines and ventilators. The flow sensor is not suitable for sterilization. For installation and use of the sensor, please refer to the instructions for the device in which the sensor is integrated.

# FROM STANDARD SENSORS TO CUSTOMIZED SENSORS

Experienced Honeywell engineers analyze customer requirements. This input is used for different standard and OEM applications, and ongoing engineering support for SpiroQuant A+ is provided right up to the final integration in the solution. Honeywell also offers customized sensors which can provide superior precision based on their application and utilization.

## **ADDITIONAL INFORMATION**

If the sensor is intended to replace the original flow-sensing component in anesthesia machines or ventilators, consult the <a href="EnviteC">EnviteC</a>
<a href="EnviteC">Cross Reference List</a> for selecting the appropriate sensor.

# FEATURES AND BENEFITS



• Proven constant temperature hot-wire anemometry



- Biocompatible components
- Fast response time



- Short delivery times
- Technical support



- High product quality
- Certified quality management system according ISO 13485
- RoHS conform
- Made in Germany



# **SpiroQuant A+** Technical Specifications

TABLE 1. TECHNICAL SPECIFICATIONS	
Characteristic	Measure
Measuring principle	Constant temperature hot-wire anemometry
Cross reference	Designed for EnviteC SpiroQuant MAX module; compatible with Dräger Spirolog flow sensor
Sensor type	Disposable sensor for single patient use
Flow range	0 160 slpm (standard liters per minute)
Accuracy	± 7% from measured value between 0 10 l/min with flow module SpiroQuant MAX; ± 5% from measured value between 10 160 l/min with flow module SpiroQuant MAX; (± 8 % reading used in Dräger ventilators)
Flow resistance	< 2.5 mbar (added resistance)
Operating temperature	+15 °C +40 °C
Usage time <sup>1</sup>	Disposable sensor – for single patient use only, and can be used as long as the sensor is successfully calibrated.
Storage temperature	-20 °C +70 °C
Storage ambient pressure	570 1200 hPa
Storage humidity	5 % 95 % RH in orginal packaging
Storage time	Max. 5 years in original packaging
Cleaning/disinfection	Single patient use
Weight	Approx. 10 g
Electrical connection	Gold plated 4 pin (compatible with Dräger Spirolog sensor)
Material	Housing parts: MABS; Contact pins: gold-plated; Hot-wires: platin
Part number	E1000470: Flow sensor SpiroQuant A+ (Box with 5 pieces); E1001487: Flow module SpiroQuant MAX

Usage is subject to local hygiene regulations which may provide replacement cycle or limit the possible period of use for the sensor.

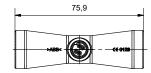
All specifications are applicable at standard conditions: 1013 hPa, 25 °C dry ambient air

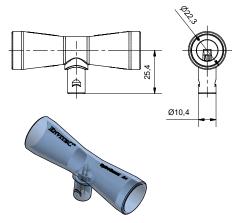
# **Certified Quality Management**

Honeywell is maintaining a quality management system, which meets the requirements of ISO 13485 for medical devices.

# Mechanical drawing

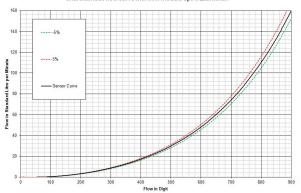
All dimensions in mm





General tolerances ISO 2768-c

#### Charakteristic flow curve with flow module SpiroQuant Max





For suitable accessories and sensors, please refer to <a href="https://sps.honeywell.com/gb/en/support/advanced-sensing-technologies/cross-reference-list">https://sps.honeywell.com/gb/en/support/advanced-sensing-technologies/cross-reference-list</a>

### For more information

Honeywell Sensing & Safety Technologies services its customers through a worldwide network of sales offices and distributors. For engineering assistance, current specifications, pricing, or the nearest Authorized Distributor, visit sps. honeywell.com/ast or call:

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## WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective.

The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

While Honeywell may provide engineering assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

# • WARNING MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only.
   Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions available for download on the Honeywell website.

Failure to comply with these instructions could result in death or serious injury.

### SAFETY NOTE

This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.



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