

Pressure Sensor AMS 5935 – The Power Saver for Low-Pressure Applications

Wearables for everyday use, sports, and mobile medical monitoring are becoming increasingly widespread. The sensors and components in these often battery-powered devices typically have high energy demands, requiring frequent battery recharging. A promising development is the new energy-efficient next-generation pressure sensor AMS 5935, capable of precisely measuring even extremely low pressures in the range of ± 125 pascals.



The differential pressure sensors AMS 5935-0001-D-B

With the AMS 5935, AMSYS introduces sustainable sensors into its portfolio. Manufactured in Germany, these sensors feature an integrated I2C / SPI interface that delivers calibrated pressure and temperature readings. They offer ultra-low power consumption (250 nA in sleep mode and 2 mA during measurement) and operate with a supply voltage range of 1.7 V to 3.6 V.

Based on a piezoresistive pressure sensing cell and a state-of-the-art signal processing ASIC housed in a ceramic DIL package, this board-mount sensor is ideal for PCB integration. The AMS 5935 boasts a low total error over the temperature range from -25 to 85 °C, and an even lower error at room temperature, making it a highly accurate and energy-efficient pressure sensor.

The AMS 5935 proves to be a sustainable component for mobile respiratory aids and other innovative devices where longer operational time is crucial, thanks to its intelligent, digital 18-bit pressure sensing capabilities.

AMSYS offers this sensor for pressure ranges starting at ± 1.25 mbar, including various differential, gauge, absolute, and bidirectional pressure types from 0 to 2 bar. For housing options with hose connection, users can choose between a DIL version with vertical pressure ports or a compact manifold-mount version for O-ring installation. Custom adaptations are available. To support rapid prototyping, AMSYS provides a USB starter kit for initial setup, 3D data, and access to a dedicated support team.

Press Release

AMSYS GmbH & Co. KG



Title

Pressure Sensor AMS 5935 – The Power Saver for Low-Pressure Applications

Applications

Medical devices

- Respiratory devices
- Sleep apnea therapy devices (CPAP)
- Spirometers
- Anesthetic devices
- Dialysis machines
- Infusion pumps
- Oxygen concentrators
- Vacuum suction pumps
- Insufflators
- Blood sugar measuring devices
- Pulse oximeters
- Computer tomographs (CT)

HVAC and Instrumental

- Volumetric flow measurement
- Channel pressure monitoring
- Room pressure monitoring
- Filter monitoring

Product Page

<https://www.amsys-sensor.com/products/pressure-sensor/ams5935-low-energy-pressure-sensor-125-pascal/>

The Company

AMSYS GmbH & Co. KG is a German company specializing in sensor technology, particularly pressure measurement. Its product range includes pressure sensors from 1.25 mbar to 800 bar, as well as humidity, temperature, and inclination sensors, along with wireless solutions. In addition to standard products, AMSYS offers custom adaptations to meet specific customer requirements.

Adress

AMSYS GmbH & Co. KG
An der Fahrt 4
55124 Mainz
Tel: +49 (0) 6131 / 469 8750
<https://www.amsys-sensor.com>

Press Contact

Mr. Fruci
v.fruci@amsys.de