

Electro-
nics

Ultra-small Water-proof Digital Absolute Pressure Sensor

Fujikura has developed an ultra-small water-proof digital output absolute pressure sensor (the ABS5 series). As this sensor has a waterproof structure, it will find applications in measuring altitude and depth using waterproof electronic equipment for outdoor use.

This new product is even smaller than a current analog output absolute pressure sensor (the FPBS series). In terms of functions, the new product digitally outputs accurate pressure and temperature data since it performs a correction calculation of the output signals using its built-in temperature sensor and signal processing circuit.

Thanks to these additional functions, this absolute pressure sensor requires no complicated adjustment or corrective calculation on the customer's part and enables easy incorporation into a device.

The sales of the product starts in December 2016.

Features

1. High waterproofness

Package design capable of standing high pressure of 1 MPa (equivalent to water pressure at 90 m depth)

2. Miniaturized

Small-sized package of ϕ 4.0 mm \times 1.85 mm

3. Digital output

16-bit digital output of pressure data and temperature data compensated for accuracy

4. High resolution

Pressure resolution of 0.02 hPa (equivalent to about 16 cm height resolution near ground surface)



External view of product
Package as small as grain of rice

Product specifications

Model	ABS5-100KA	ABS5-450KA	Unit
Outer diameter of package	ϕ 4.0 \times 1.85		mm
Pressure / temperature output data format	16 bit , I2CTM		-
Pressure measurement range	300 ~ 1100	300 ~ 4500	hPa
Pressure resolution	0.02	0.084	hPa/count
Pressure medium	Noncorrosive gasses, water, salt water		-
Operating temperature range	-40 ~ 85		°C
Accurate compensation temperature range	-10 ~ 60		°C
Operating voltage	1.8 ~ 3.6		V
Average consumed current	9		μ A/sample/sec

I²C™ is a registered trademark of NXP Semiconductors.

Headquarter Switzerland:
Pewatron AG
Thurgauerstrasse 66
CH-8050 Zurich
Phone +41 44 877 35 00
info@pewatron.com

Office Germany:
Pewatron Deutschland GmbH
Edisonstraße 16
D-85716 Unterschleißheim
Phone +49 89 374 288 87-0
info.de@pewatron.com



PEWATRON
SENSORS · POWER SOLUTIONS

We are here for you. Addresses and Contacts.

Sales Germany & Austria

Postcode 00000 – 31999
Postcode 38000 – 39999
Postcode 80000 – 99999
Austria

Kurt Stritzelberger

Phone +49 89 260 52 80
Mobile +49 171 803 41 35

kurt.stritzelberger@pewatron.com

Postcode 32000 – 37999
Postcode 40000 – 79999

Gerhard Vetter

Phone +49 674 394 75 75
Mobile +49 163 762 74 30

gerhard.vetter@pewatron.com

Geometrical sensors
Sensor elements

Thorsten Ravagni

Phone +49 60 479 53 627

thorsten.ravagni@pewatron.com

Sales Switzerland & Liechtenstein

Postcode 3000 – 9999

Basil Frei

Phone +41 44 877 35 18
Mobile +41 76 279 37 26

basil.frei@pewatron.com

Postcode 1000 – 2999

Christian Mohrenstecher

Mobile +41 76 444 57 93

christian.mohrenstecher@pewatron.com

Sales International Key Accounts

Peter Felder

Phone +41 44 877 35 05
Mobile +41 79 406 49 83

peter.felder@pewatron.com

Sales Other Countries / Product Management

Pressure Sensors

Philipp Kistler
Phone +41 44 877 35 03
philipp.kistler@pewatron.com

Accelerometers / Level Flow sensor elements

Thorsten Ravagni
Phone +49 60 479 53 627
thorsten.ravagni@pewatron.com

Drive technology CH Postcode 5000 – 9999 / DE

Roman Homa
Mobile +41 76 444 00 86
roman.homa@pewatron.com

Gas sensors / Gas sensor modules Load cells

Dr. Thomas Clausen
Phone +41 44 877 35 13
thomas.clausen@pewatron.com

Power supplies

Sebastiano Leggio
Phone +41 44 877 35 06
sebastiano.leggio@pewatron.com

Drive technology CH Postcode 1000 – 4999 / AT / IT / FR

Christian Mohrenstecher
Mobile +41 76 444 57 93
christian.mohrenstecher@pewatron.com

Flow / Level / Medical products

Dr. Adriano Pittarelli
Phone +49 8245 774 95 44
adriano.pittarelli@pewatron.com

Linear position sensors Angle sensors

Eric Letsch
Phone +41 44 877 35 14
eric.letsch@pewatron.com

Current sensors Power solutions

Osman Coban
Phone +49 71 635 363 898
osman.coban@pewatron.com