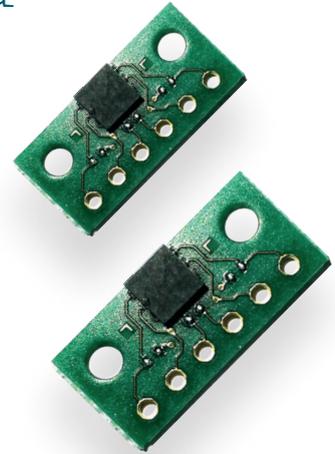


# TA903 Evaluation Board

## MagnetoResistive FreePitch Sensor

The TA903 is a position sensor based on the Tunnel MagnetoResistive (TMR) effect. The sensor contains two Wheatstone bridges with one ground and supply pin. They are shifted at a relative angle of 90° to one another.

The TA903 Evaluation Board is equipped with the sensor in the LGA package and allows easy mechanical fastening with two screws, as well as the soldering of a cable for the electrical connection.



### 1. Dimensions

The dimensions of the evaluation board are shown in the drawing on the right.

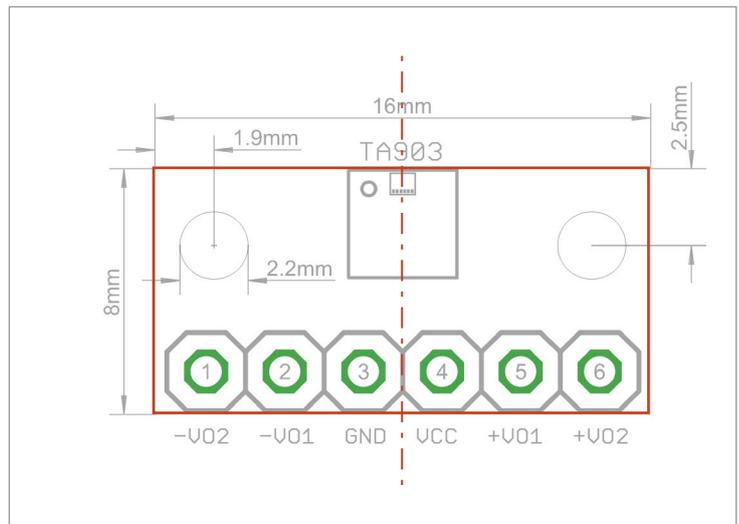
### 2. PIN assignment

The PIN arrangement can be seen in the drawing on the right.

The PIN designation is shown in the table below.

### 3. Assembly

The evaluation board of the TA903 can be easily attached with 2 screws (M2). It can be used with a dipole magnet (shaft end application) as well as for multipole rings with a pitch  $\geq 2$  mm (hollow shaft application).



### Pinning

Pad	Symbol	Parameter
1	-V <sub>O2</sub>	Negative output voltage bridge 2
2	-V <sub>O1</sub>	Negative output voltage bridge 1
3	GND	Ground
4	V <sub>CC</sub>	Supply voltage
5	+V <sub>O1</sub>	Positive output voltage bridge 1
6	+V <sub>O2</sub>	Positive output voltage bridge 2

### Note:

Please do not use electrically conductive substrates for mounting, because short circuits may occur.

## General information

### Disclaimer

Sensitec GmbH reserves the right to make changes, without notice, in the products, including software, described or contained herein in order to improve design and/or performance. Information in this document is believed to be accurate and reliable. However, Sensitec GmbH does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. Sensitec GmbH takes no responsibility for the content in this document if provided by an information source outside of Sensitec products.

In no event shall Sensitec GmbH be liable for any indirect, incidental, punitive, special or consequential damages (including but not limited to lost profits, lost savings, business interruption, costs related to the removal or replacement of any products or rework charges) irrespective the legal base the claims are based on, including but not limited to tort (including negligence), warranty, breach of contract, equity or any other legal theory.

Notwithstanding any damages that customer might incur for any reason whatsoever, Sensitec product aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the General Terms and Conditions of Sale of Sensitec GmbH. Nothing in this document may be interpreted or construed as an offer to sell products that is open for acceptance or the grant, conveyance or implication of any license under any copyrights, patents or other industrial or intellectual property rights.

Unless otherwise agreed upon in an individual agreement Sensitec products sold are subject to the General Terms and Conditions of Sales as published at [www.sensitec.com](http://www.sensitec.com).

### Application information

Applications that are described herein for any of these products are for illustrative purposes only. Sensitec GmbH makes no representation or warranty – whether expressed or implied – that such applications will be suitable for the specified use without further testing or modification.

Customers are responsible for the design and operation of their applications and products using Sensitec products, and Sensitec GmbH accepts no liability for any assistance with applications or customer product design. It is customer's sole responsibility to determine whether the Sensitec product is suitable and fit for the customer's applications and products planned, as well as for the planned application and use of customer's third party customer(s). Customers should provide appropriate design and operating safeguards to minimize the risks associated with their applications and products.

Sensitec GmbH does not accept any liability related to any default, damage, costs or problem which is based on any weakness or default in the customer's applications or products, or the application or use by customer's third party customer(s). Customer is responsible for doing all necessary testing for the customer's applications and products using Sensitec products in order to avoid a default of the applications and the products or of the application or use by customer's third party customer(s).

Sensitec does not accept any liability in this respect.

### Life critical applications

These products are not qualified for use in life support appliances, aeronautical applications or devices or systems where malfunction of these products can reasonably be expected to result in personal injury.

### Copyright © 2019 by Sensitec GmbH, Germany

All rights reserved. No part of this document may be copied or reproduced in any form or by any means without the prior written agreement of the copyright owner. The information in this document is subject to change without notice. Please observe that typical values cannot be guaranteed. Sensitec GmbH does not assume any liability for any consequence of its use.

#### Sensitec GmbH

Georg-Ohm-Str. 11 · 35633 Lahnau · Germany  
Tel. +49 6441 9788-0 · Fax +49 6441 9788-17  
[www.sensitec.com](http://www.sensitec.com) · [sensitec@sensitec.com](mailto:sensitec@sensitec.com)