

TLE4984C

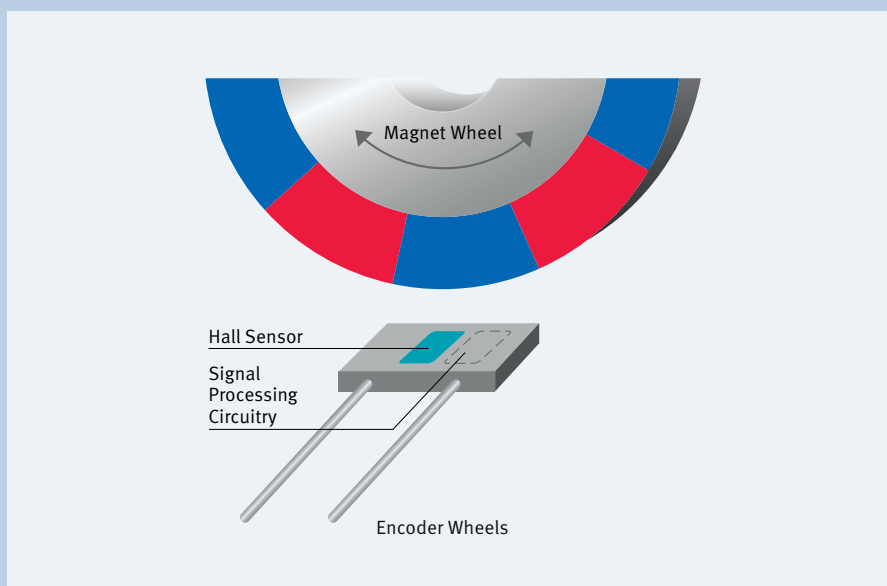
Programmable Mono-cell Chopped Hall Sensor with True Power On for Cam Shaft Applications

The TLE4984C is an active Hall sensor ideally suited for camshaft applications in automotive. Its basic function is to map either a tooth or a notch of a target wheel (e.g. gear wheel) into a unique electrical output state. The magnetic switching points thereby have a high accuracy paired with an excellent stability due to the innovative chopped Hall technology used for this sensor. The implemented electrical trimming option for post-fabrication trimming sets the sensor's switching points. This ensures its true power on capability even in the case of production spreads such as different magnetic configurations or misalignment. The programmability of the sensor includes also the option to adjust the temperature coefficients to the application needs. The standard configuration is programmed for NdFeB back bias magnets. Additional, a self-calibration module has been implemented to achieve optimum accuracy during normal running operation. The self calibration adjusts the offsets and is well suited to cope with symmetrical and asymmetrical target wheels.

The TLE4984C comes in a three-pin package for the supply voltage and an open drain output. The package has two integrated capacitors for enhanced EMC micro break performance.

Features

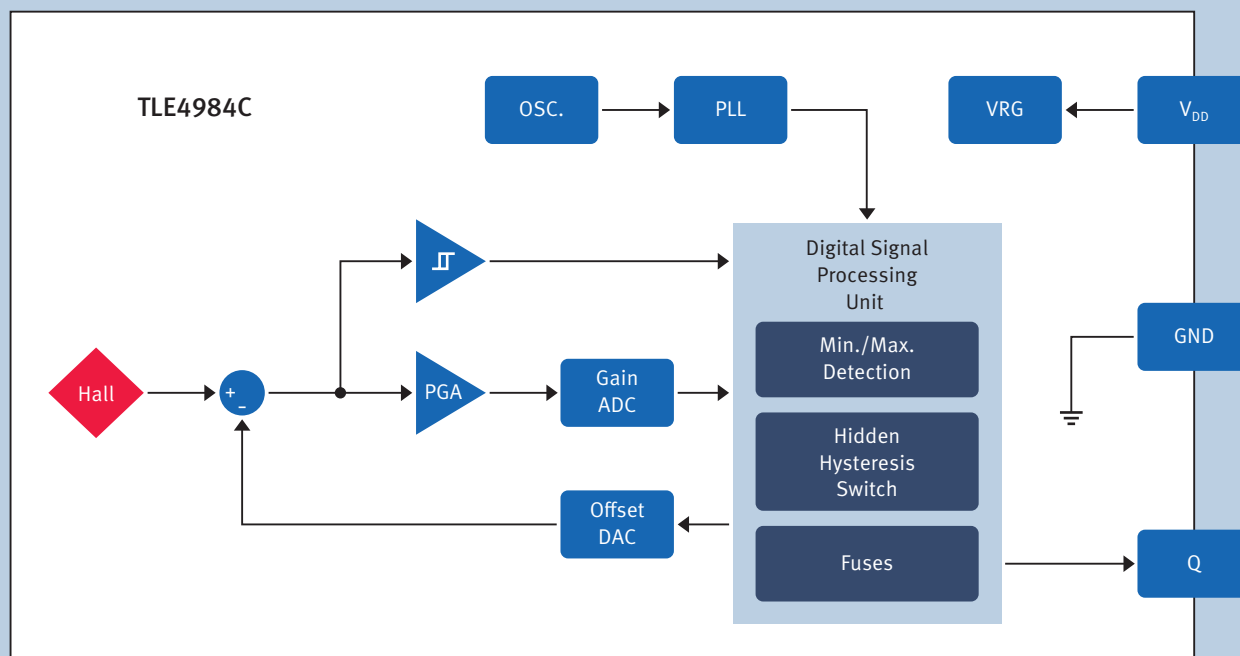
- True Power On functionality (TPO)
- Programmable switching points
- Pre-configured magnet temperature coefficient
- Single chip solution
- PG-SSO-3 package
- Twist-Independent Mounting (TIM) for larger fabrication tolerances
- Advanced performance by dynamic self-calibrating principle
- High accuracy and high stability of the magnetic switching points
- High resistance to mechanical stress
- Digital output signal (voltage interface)
- Short-circuit protection
- Enhanced ESD performance
- Module styled package with two integrated capacitors for micro cuts in power supply and enhanced EMC performance
 - 47nF between V_S and GND
 - 4.7nF between V_q and GND
- -40°C to 150°C
- Automotive qualified



TLE4984C

Programmable Mono-cell Chopped Hall Sensor with True Power On for Cam Shaft Applications

Block Diagram of TLE4984C



Product Summary

Sales Name	Description	Order Code
TLE4984C-HT E6747	4.7/47nF capacitors with standard tin plating	SP000374268

Published by
Infineon Technologies AG
85579 Neubiberg, Germany

© 2012 Infineon Technologies AG.
All Rights Reserved.

Visit us:
www.infineon.com

Order Number: B142-H9697-X-X-7600
Date: 03 / 2012

ATTENTION PLEASE!

The information given in this document shall in no event be regarded as a guarantee of conditions or characteristics ("Beschaffenheitsgarantie"). With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

INFORMATION

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office (www.infineon.com).

WARNINGS

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office. Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Infineon:](#)

[TLE4984C-HT E6747](#)