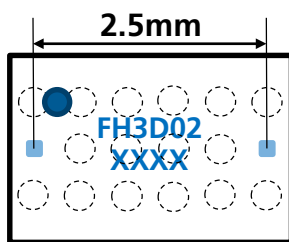




### FH3D02 \*

#### Dual 3D Hall Sensor with EEPROM

\* Equivalent to FH5401c



1 FH3D02 3x2x0.6mm WLCSP with 0.5mm pitch

#### General Description

The FH3D02 is a dual 3D Hall sensor based on Fraunhofer HallinOne® technology. This versatile magnetic field sensor uses pure Hall effect principle without magnetizable materials. FH3D02 offers accurate 3D magnetic field measurement at two positions with a planar IC in a 3x2x0.6mm WLCSP. It supports stray field robust applications by user selectable gradient measurement modes and contains integrated position / angle calculation. A variety of applications are supported On Chip with the standard programming. With specific programming even more applications can be addressed.

#### Applications

- 3D position measurement (Joystick)
- Current sensing
- Linear position measurement (axial/orthogonal and axial/parallel)
- Angular measurement (on-/off-axis)
- Magnetic field mapping, equidistant arrangement for cameras with 2.5mm pitch

#### Features

- Dual 3D Hall-Sensor with 2.5mm pitch
- On Chip linear position or angle calculation
- Offset and Sensitivity compensated over temperature
- Default measurement range 70mT
- Default position / angle measurement rate 0.5kHz or 1kHz
- Supply voltage 3.0V...3.6V
- Temperature range -40°C ... 105°C
- Temperature sensor for system-level drift tracking
- Diagnostic features for fault detection
- SPI interface, with all hall and temperature measurements accessible
- PWM output
- Customer specific programming concerning measurement range, measurement rate and measurement sequence feasible on request

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