



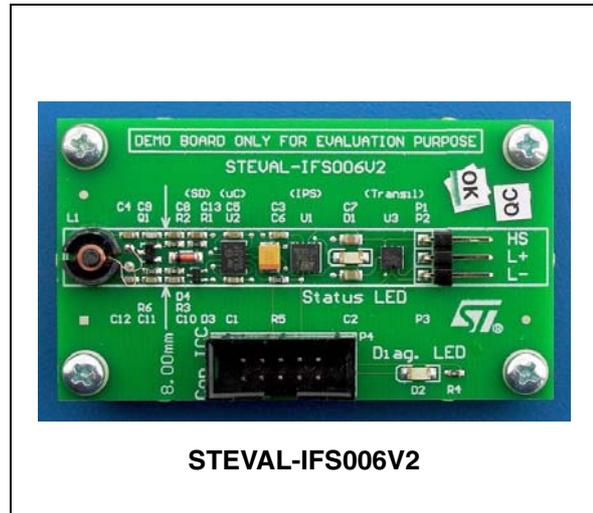
# STEVAL-IFS006V2

## Smart inductive proximity switch with the SPT01-335DEE

Data brief

### Features

- Metal body detection using the eddy current effect on the HF losses of a coil
- Flexibility
  - MCU firmware can be modified based on application requirements
  - sensitivity and hysteresis adjustment
- In-circuit programming and debugging capabilities
- Analog and digital temperature compensation
- PNP (high-side) sensor functionality configuration
- Complete Transil protection of the output and power supply lines
- Overload and short-circuit protection
- Indicator status LED
- Compact design
- Supply voltage: 7 V to 32 V DC
- Temperature range:  $-25\text{ }^{\circ}\text{C}$  to  $+85\text{ }^{\circ}\text{C}$
- RoHS compliant



STEVAL-IFS006V2

### Description

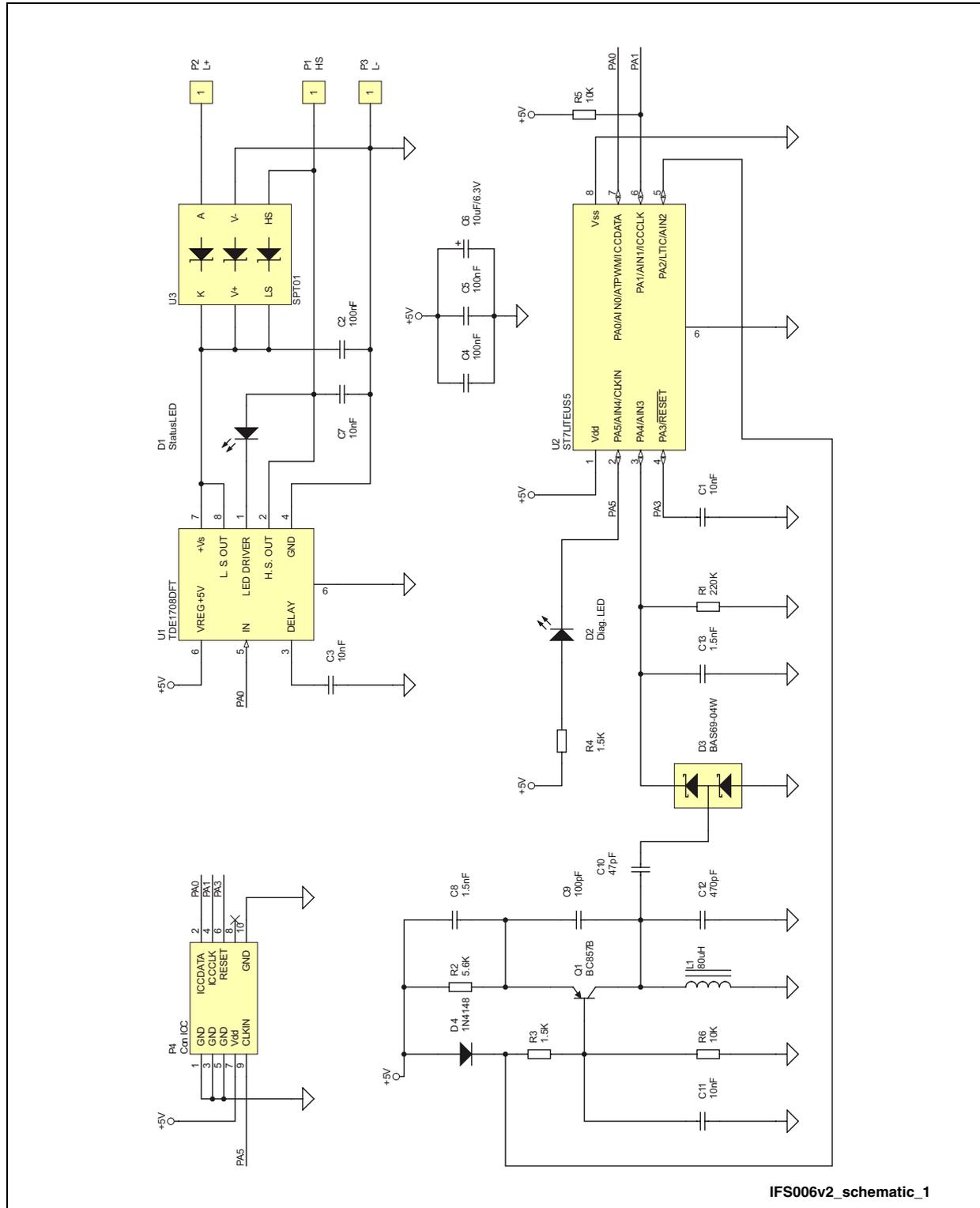
The STEVAL-IFS006V2 demonstration board is an inductive proximity switch application based on the principle of metal body detection using the eddy current effect on the HF losses of a coil.

The design consists of a single transistor HF oscillator, an ST7LITEUS5 microcontroller, an intelligent TDE1708DFT power switch, and a SPT01-335DEE triple Transil™ array.

The STEVAL-IFS006V2 represents a very simple, compact and cost-effective solution for an inductive proximity switch with wide temperature range, supply voltage variation and noise immunity in industrial environments.

# 1 Schematic diagram

Figure 1. Circuit schematic



IFS006v2\_schematic\_1

## 2 Revision history

**Table 1. Document revision history**

Date	Revision	Changes
04-Nov-2009	1	Initial release.

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