



STEVAL-IFS006V1

Smart inductive proximity switch demonstration board based on the Ultralite 8-bit microcontroller and the TDE1708DFT

Data Brief

Features

- Metal body detection using the eddy current effect on the HF losses of a coil
- High flexibility: MCU firmware can be modified in accordance with application requirements
- Sensitivity and hysteresis adjustment
- In-circuit programming and debugging capabilities
- Analog and digital temperature compensation
- PNP and NPN sensor functionality configurations
- Indicator status LED
- Overload and short-circuit protection
- GND and V_S open wire protection
- Compact design
- Supply voltage: 6 V to 48 V DC
- Temperature range: $-25\text{ }^{\circ}\text{C}$ to $+85\text{ }^{\circ}\text{C}$



Description

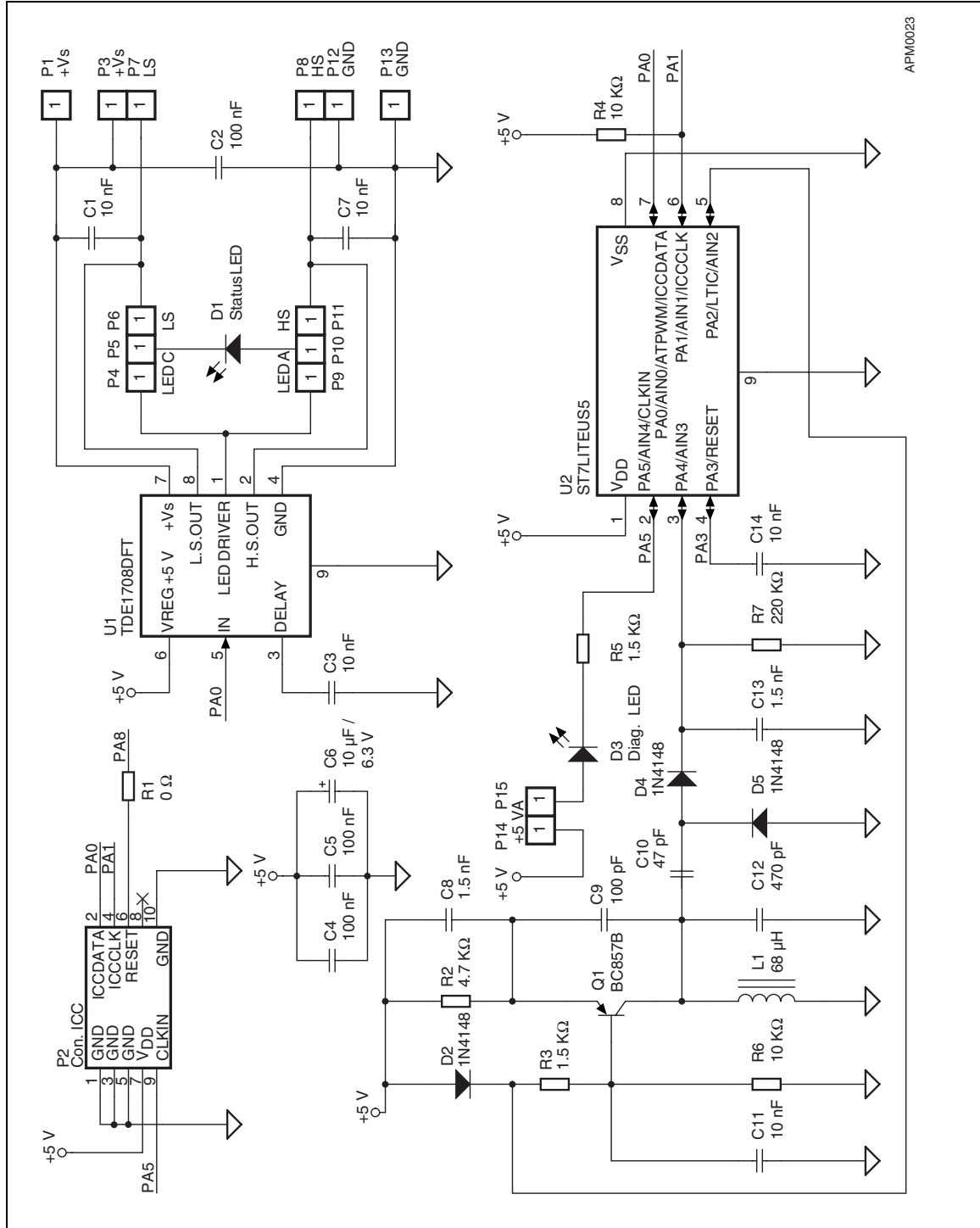
The STEVAL-IFS006V1 demonstration board is an inductive proximity switch design based on the principle of metal body detection using the effect of eddy currents on the HF losses of a coil.

It consists of a single transistor HF oscillator, the ST7LITEUS5 microcontroller and the TDE1708DFT intelligent power switch.

In addition to its simplicity, wide temperature range and supply voltage variation, the inductive proximity sensor design implemented in the STEVAL-IFS006V1 demonstration board is also compact and cost-effective.

1 Block diagram

Figure 1. Smart inductive proximity switch



APM0023



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
08-Jul-2008	1	Initial release.

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