



STEVAL-MKI111V1

Water level detector based on the LPS001WP (MEMS)

Data brief

Features

- MEMS LPS001WP pressure sensor
- 5 V to 12 VDC or direct 3.3 VDC power supply
- Output signal interfaces available: I²C, PWM modulation
- Internal/external MEMS control (onboard selector)
- “Zero” button to reset the pressure offset
- 2x LEDs + level indicator LED bar (5 steps)
- SWIM programming interface
- Operating temperature 0 to 85 °C
- RoHS compliant



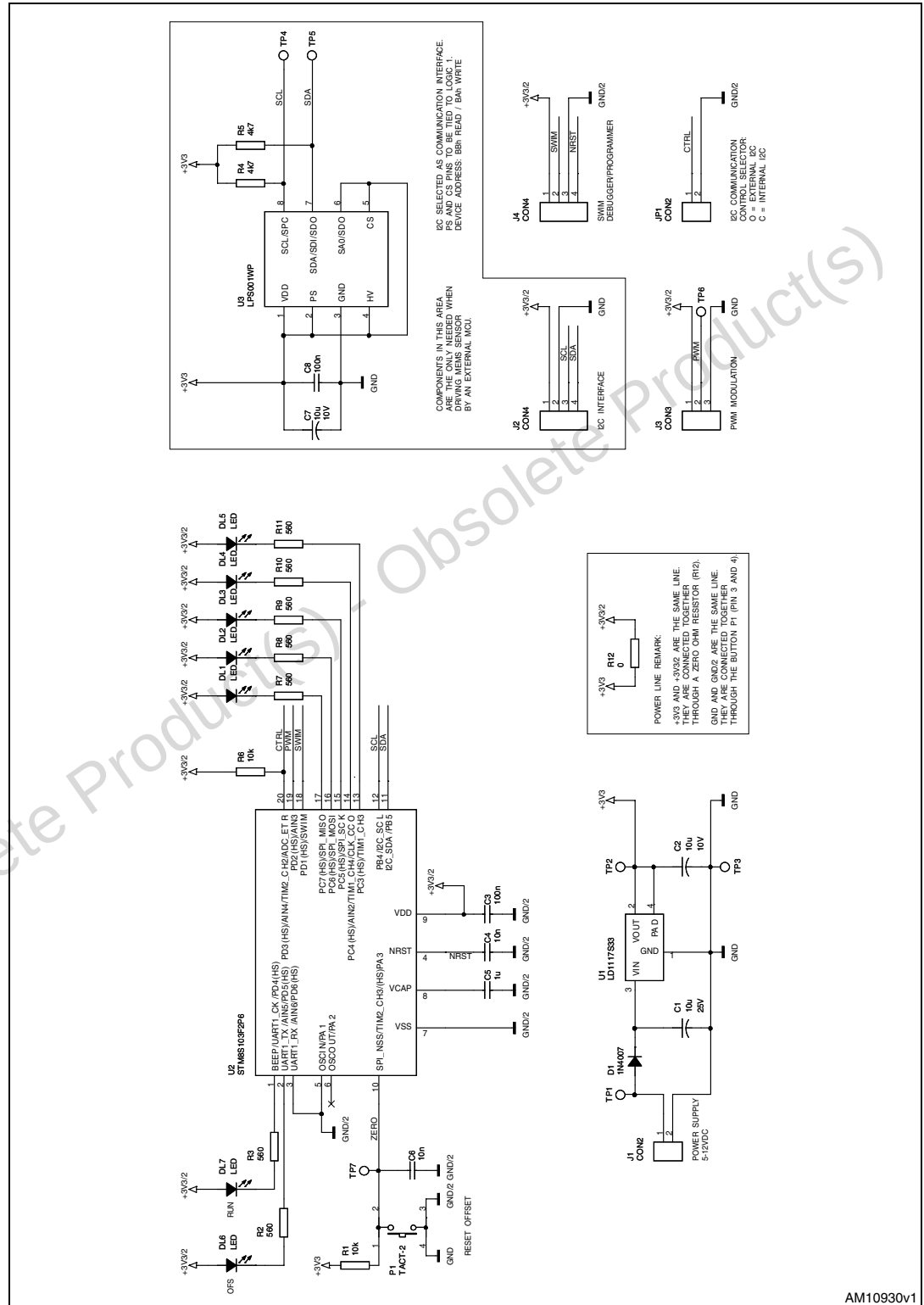
Description

The STEVAL-MKI111V1 is a low cost demonstration board for the home appliance market. It is designed in order to efficiently replace the mechanical or electromechanical pressure sensor in domestic and industrial washing machines (or similar appliances), where the measurement of the water level is performed by a pressure measurement.

The demonstration board is designed to measure temperature and pressure inside a container (i.e. the drum of a washing machine, or similar), by means of a gum tube connected between the container and the demonstration board itself. The core device is the LPS001WP MEMS, a 300-1100 mbar absolute digital output barometer. The MEMS communicates with the MCU through an I²C bus.

1 Schematic

Figure 1. STEVAL-MKI111V1 schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
23-Dec-2011	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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