

## Pressure sensor kit with QVAR functionality based on ILPS28QSW



### Features

- User friendly ILPS28QSW board
- Complete ILPS28QSW pinout for a standard DIL 24 socket
- Fully compatible with and STEVAL-MKI109V3 motherboards
- RoHS compliant

### Description

The **STEVAL-MKI223V1K** demonstration board is a kit made up of an ad hoc PCB, mounting the ILPS28QSW pressure sensor with a Qvar electrostatic sensor and a swipe electrode to make it compatible with the **STEVAL-MKI109V3**.

The electrode boards (STEVAL-MKE001A, STEVAL-MKE002A, or STEVAL-MKE003A) can be stacked on a STEVAL-MKI223V1 board. The kit provides the complete **ILPS28QSW** pinout and comes ready-to-use with the required decoupling capacitors on the  $V_{DD}$  power supply line.

This adapter is supported by the **STEVAL-MKI109V3** motherboards which includes a high performance 32-bit microcontroller functioning as a bridge between the sensor and a PC, on which it is possible to use the downloadable graphical user interface (**Unico-GUI**), or dedicated software routines for customized applications.

### Product summary

Pressure sensor kit with QVAR functionality based on ILPS28QSW	STEVAL-MKI223V1K
Dual full-scale, 1260 hPa and 4060 hPa, absolute digital output barometer with Qvar detection in a water-resistant package	ILPS28QSW
MEMS adapter motherboard based on the STM32F401VE	STEVAL-MKI109V3
Applications	Gas Metering

# 1 Schematic diagrams

Figure 1. STEVAL-MKE001A circuit schematic

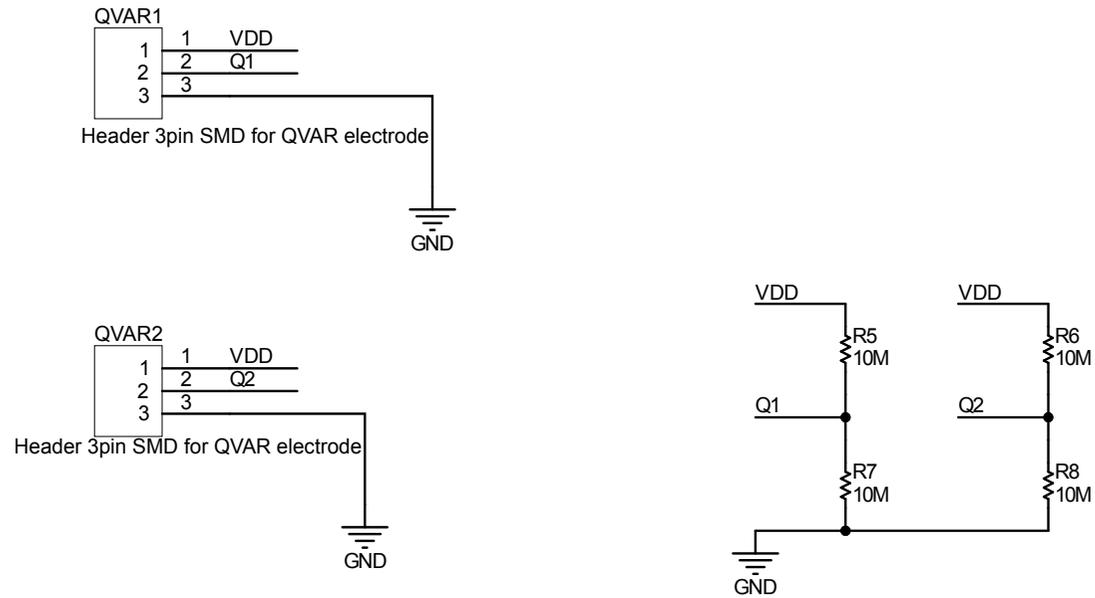


Figure 2. STEVAL-MKE002A circuit schematic

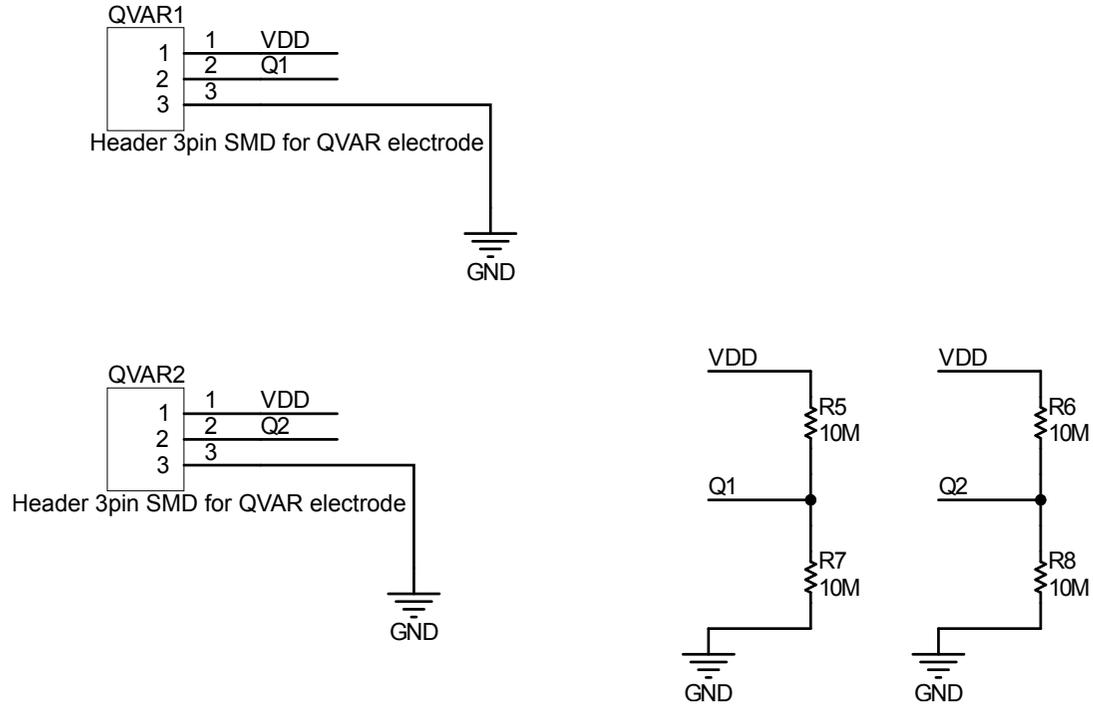
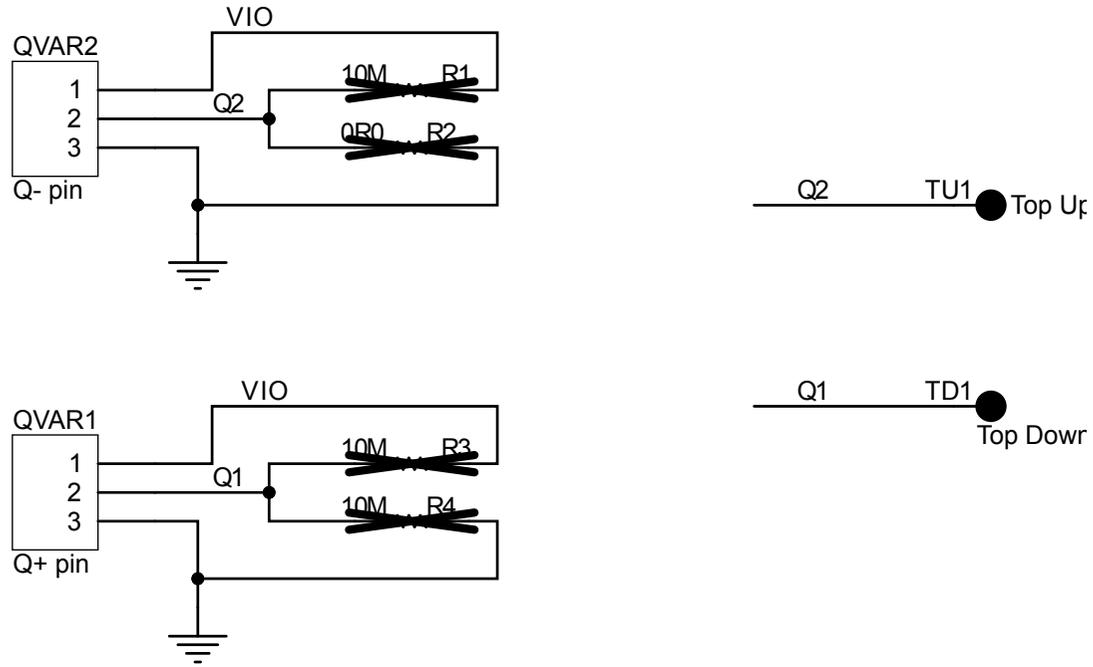


Figure 3. STEVAL-MKE003A circuit schematic



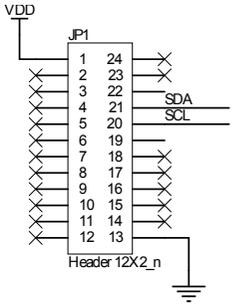
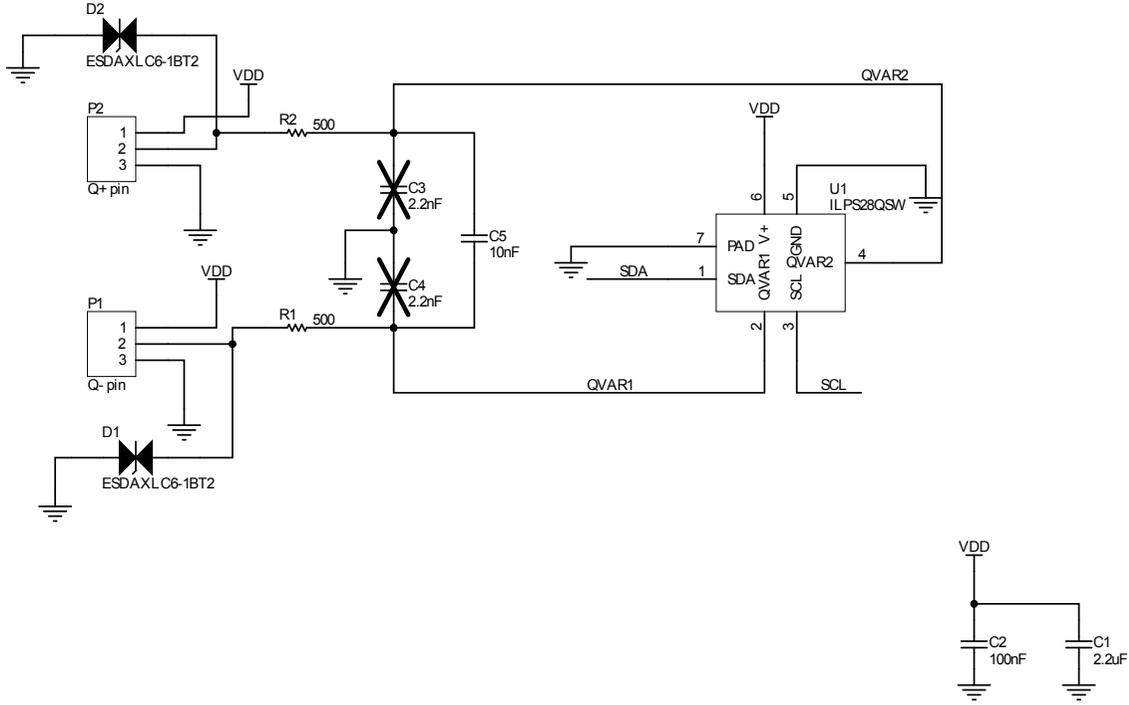


Figure 4. STEVAL-MKI223V1 circuit schematic



## 2 Kit versions

**Table 1. STEVAL-MKI223V1K versions**

PCB version	Schematic diagrams	Bill of materials
STEVAL\$MKI223V1KA <sup>(1)</sup>	STEVAL\$MKI223V1KA schematic diagrams	STEVAL\$MKI223V1KA bill of materials

- This code identifies the STEVAL-MKI223V1K evaluation kit first version. The kit consists of a STEVAL-MKI223V1 whose version is identified by the code STEVAL\$MKI223V1A, a STEVAL-MKE001A whose version is identified by the code STEVAL\$MKE001AA, a STEVAL-MKE002A whose version is identified by the code STEVAL\$MKE002AA and a STEVAL-MKE003A whose version is identified by the code STEVAL\$MKE003AA.*

## Revision history

**Table 2. Document revision history**

Date	Revision	Changes
18-May-2023	1	Initial release.

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