CONTACT MONITOR (8 CHANNEL TO VBAT, PARALLEL INTERFACE) E100.16

Features

- Supply voltage range VS 5.25V to 25V
- Logic supply voltage range VDD 4.25V to 5.25V
- Internal clamp diodes at each input to VS and GND
- Low standby current (ENB=1) I_{VS} < 20µA
- Contact status monitoring by comparing the input resistance to an internal reference
- High noise immunity
- Operating temperature range –40°C to +125°C
- SOIC 20 package

Applications

- Automotive and industrial electronics
- Monitor for mechanical switches
- Monitor for voltage levels

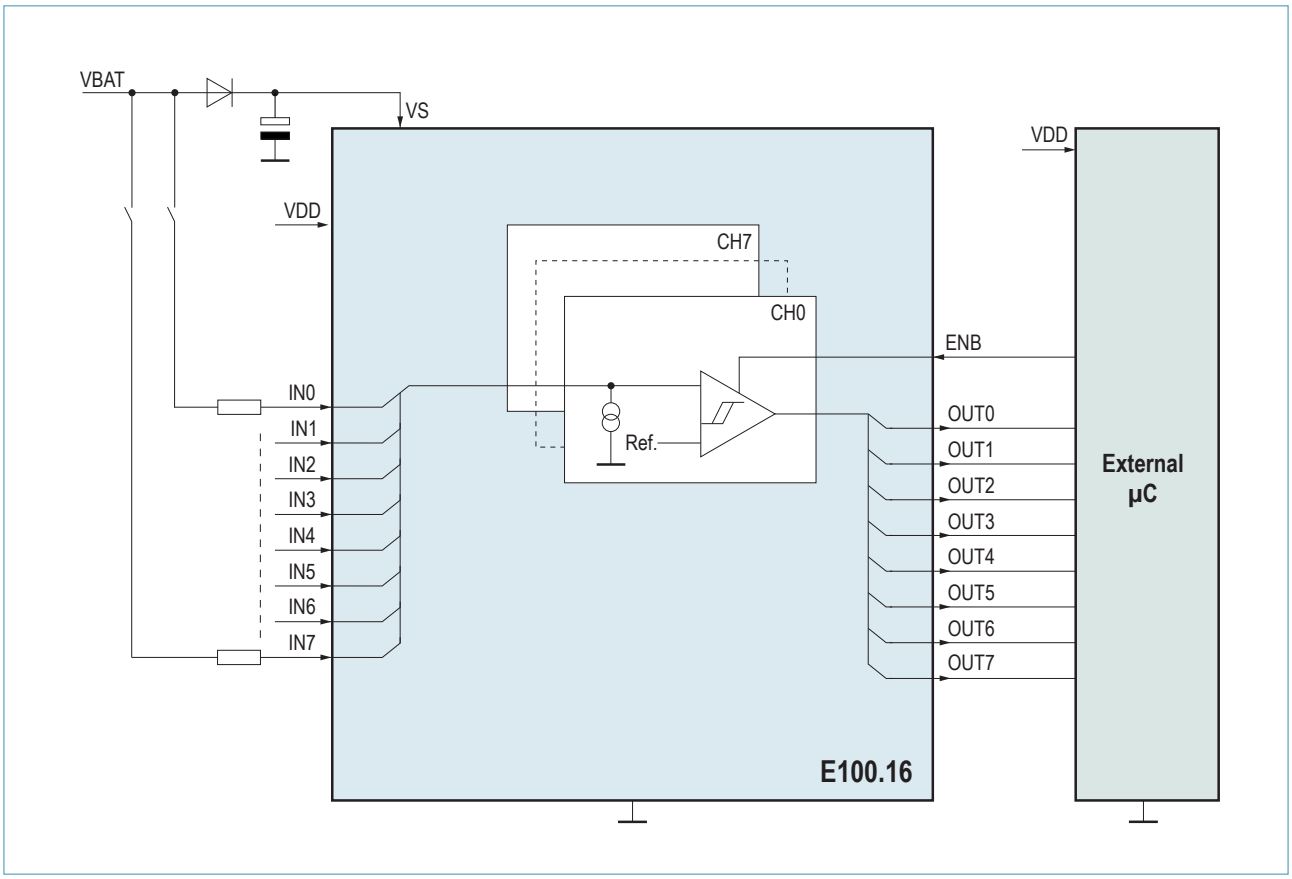
General Description

The IC continuously monitors the status of all switch contacts connected to VS .

The input currents are compared to the current in an internal reference resistor. The current, driven through the contacts keeps their resistance low.

The output switches to high when the input resistance increases to above 10kΩ and switches to low when the input resistance falls below 2.5kΩ within the full supply range 5.25V to 25V. An external series resistance of 1kΩ is assumed to be connected between INn and the switch for current limitation incase of over voltage.

A closed switch results in a low logic level on the corresponding output OUT0-7.



ELMOS Semiconductor AG – Headquarters

Heinrich-Hertz-Str. 1 | 44227 Dortmund | Germany

Phone +49 (0) 231-75 49-100 | Fax +49 (0) 231-75 49-149

sales@elmos.de | www.elmos.de