► Contact monitor (8 channel to GND, parallel interface) E910.33

FEATURES

- Supply voltage range VDD 4.75V to 5.25V
- Monitoring supply voltage range VS 5.25V to 25V
- Maximum overvoltage protection up to 40V
- Internal clamp diodes at each input to VS and GND
- Low standby current (typical < 10µA)
- Contact status monitoring by comparison of the resistance at the inputs with an internal reference
- High noise immunity
- –40°C to +125°C operating temperature
- SO20w package

APPLICATION

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

DESCRIPTION

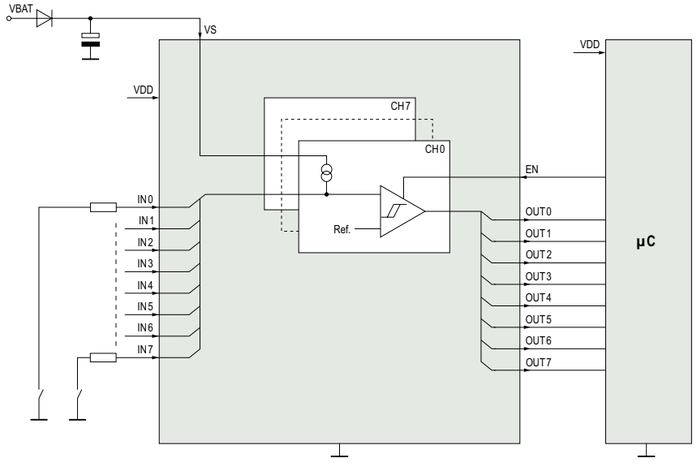
The IC monitors the status of all switch contacts connected to ground continuously .

The input currents are compared with the current of an internal reference resistor. The IC is designed to operate with an external series resistor RIN0 to RIN7 of 1kΩ. The current, driven through the contacts keeps their resistance low.

The output switches to high when the input resistance increases to above 9kΩ and switches to low when the input resistance falls below 1.5kΩ. These values are valid within the supply range 5.25V to 25V.

A closed switch corresponds to a low logic level on the outputs OUT0-7.

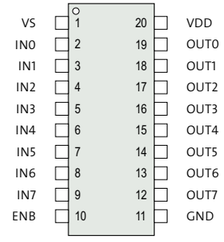
BLOCK DIAGRAM



PINNING

Pin	Name	Description
1	VS	Monitor supply voltage
2	IN0	Input for switch / voltage sensing
3	IN1	Input for switch / voltage sensing
4	IN2	Input for switch / voltage sensing
5	IN3	Input for switch / voltage sensing
6	IN4	Input for switch / voltage sensing
7	IN5	Input for switch / voltage sensing
8	IN6	Input for switch / voltage sensing
9	IN7	Input for switch / voltage sensing
10	ENB	Chip enable
11	GND	Ground
12	OUT7	TTL compatible bidirectional data port
13	OUT6	TTL compatible bidirectional data port
14	OUT5	TTL compatible bidirectional data port
15	OUT4	TTL compatible bidirectional data port
16	OUT3	TTL compatible bidirectional data port
17	OUT2	TTL compatible bidirectional data port
18	OUT1	TTL compatible bidirectional data port
19	OUT0	TTL compatible bidirectional data port
20	VDD	Logic supply voltage

PACKAGE



Note *ELMOS Semiconductor AG (below ELMOS) reserves the right to make changes to the product contained in this publication without notice. ELMOS assumes no responsibility for the use of any circuits described herein, conveys no licence under any patent or other right, and makes no representation that the circuits are free of patent infringement. While the information in this publication has been checked, no responsibility, however, is assumed for inaccuracies. ELMOS does not recommend the use of any of its products in life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of a life-support system or to significantly affect its safety or effectiveness. Products are not authorized for use in such applications.*

Copyright © 2005 ELMOS *Reproduction, in part or whole, without the prior written consent of ELMOS, is prohibited.*

www.elmos.de | sales@elmos.de