



## Product Brief

# ISOFACE™

## Galvanic Isolated 8-Channel High-Side Switch with 10-fold Diagnostics

The ISO2H823V establishes a new standard in diagnostics for industrial control applications. For example, in industrial plants with capital intensive single-tool equipment at work or with time critical chemical processes running, obtaining in real-time differentiated feedback from the factory floor enables both, preventive maintenance and drastic reduction of the time to fix a problem. This is why the ISO2H823V is a highly desirable system solution. System designers benefit from the ISO2H823V through short time to market, reduced PCB area and uncompromised product reliability.

### The ISO2H823V integrates

- Robust 2.5kV galvanic isolation
  - UL508 and CSA C22.2 No. 14 certified
  - To protect the 3.3V control domain of an industrial control system from the harsh 24V process side
  - Exceeding the IEC 61131-2 requirements for reinforced isolation
- 8-channel high-side power-switching capabilities
  - Of up to 0.6A per channel
  - With active current limitation and overtemperature protection
- 10-fold diagnostic feedback
  - 5 types of feedback which are available individually for each of the eight outputs
  - 5 types of IC-level feedback

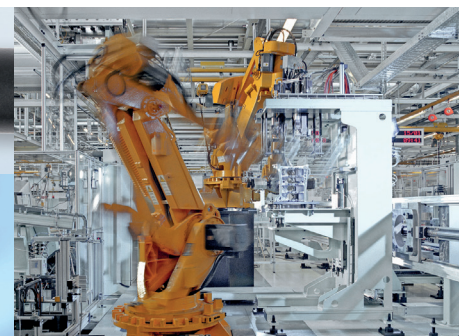
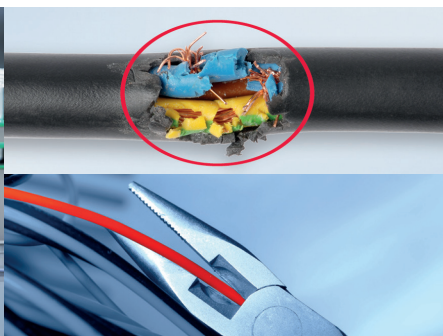
The ISO2H823V enables product designs which meet the stringent EMI requirements of the IEC 61131-2 norm (zone C) applicable for Programmable Logical Controllers (PLC).

### Application Examples

- Programmable Logic Controllers (PLCs)
- Distributed Control Systems
- Robotics
- General Control Equipment

### Customer benefit of ISO2H823V with 10-fold diagnostics

- Preventive Maintenance
- Failure Localization
- Optimizing Equipment Uptimes



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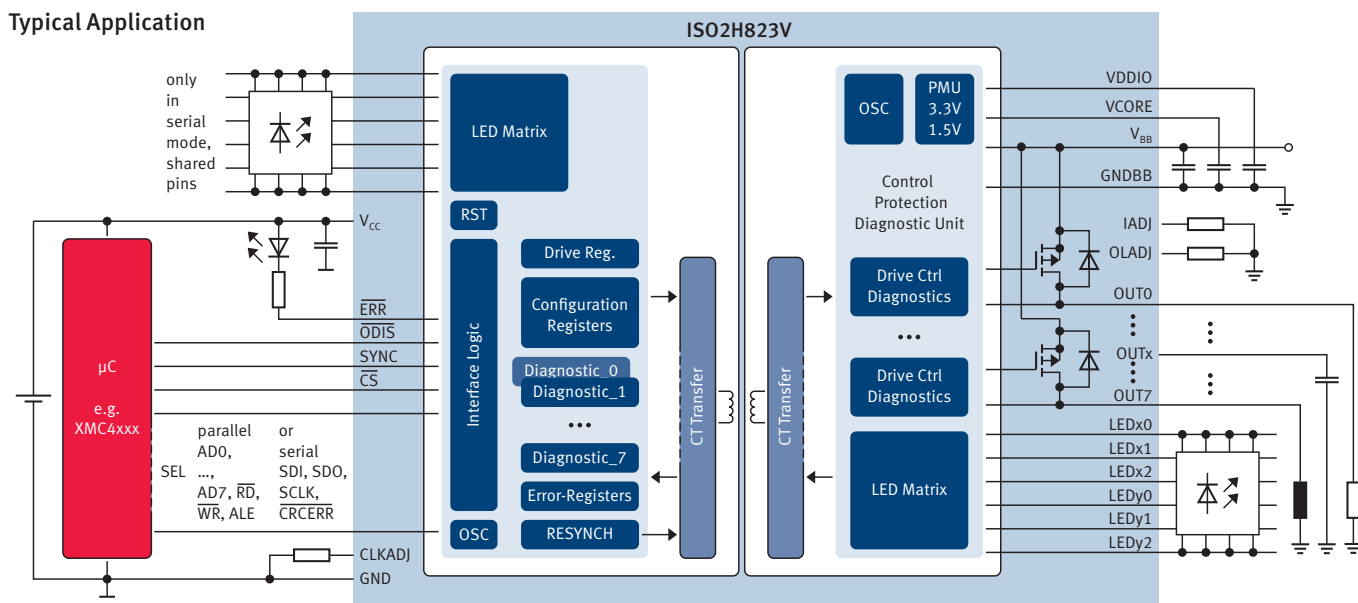
### ISO2H823V Key Feature Overview

Switch	V <sub>bb</sub> operational range	11 to 35V
	Max. continuous load current per channel	0.6A
	Load current increase by using outputs in parallel	✓
	Inductive clamping energy per output	150mJ
	Output Status LED-matrix on V <sub>cc</sub> - or V <sub>bb</sub> -side	optional
µC Interface	SPI or parallel	optional
	Nominal voltage	3.3V
Safety Features	Isolation voltage (UL 508)	V <sub>ISO</sub> = 2.5kV
	Creepage and clearance distances	3.5mm
	Active output current limitation per channel	1A (nom.)
	Thermal shut-down	✓
	Common output disable pin	✓

Diagnostic Feedback		
Diagnostics on per Channel-Level	Output overload	✓
	Open load with output „on“	✓
	Open load with output „off“	✓
	Output shorted to V <sub>cc</sub>	✓
	Overtemperature at output	✓
Diagnostics on IC-level	V <sub>bb</sub> monitoring: 3 stages	✓
	Overtemperature of package	✓
	Incandescent bulb detection	✓
	Communication integrity check	✓
	All outputs in fact off	✓

Package	VQFN-70 (12 x 12mm)
Infineon Ordering Code	SP001063392

### Typical Application



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