

ISO8200BQ

Leading innovation for industrial automation



New galvanic isolated 8-channel high-side switch in compact QFN package saves space and enhances noise immunity

Smaller, more robust and energy-efficient controllers are the current trend for innovative industrial automation equipment.

As an integrated galvanic isolated switch, ST's ISO8200BQ in a compact QFN package fulfills the safety requirements and saves PC-board space occupied by conventional opto-electronic isolation circuitry.

With very low levels of quiescent current, together with robust RF communication, it ensures excellent levels of efficiency and immunity to electromagnetic noise in compliance with international standards.

KEY FEATURES & BENEFITS

- Isolation rating up to 4 kV with CMTI > 50V/ns for extreme compactness and reliability
- Low RDS(on) power stage 110 mΩ at 25°C for very low power dissipation
- Short-circuit protection and channel over temperature detection and protection for maximum reliability
- Fast load demagnetization for driving large inductive loads (> 1 H) IEC 61000-4-2/4/5/8 compliant meets the EMC immunity standards for wide deployment and ultra-robust operation
- 11x9 mm 32-lead QFN package for compact footprint

KEY APPLICATIONS

- Programmable logic control
- Industrial PC peripheral input/outputs
- Numerical control machines
- Drivers for all types of loads (resistive, capacitive, and inductive)



INDUSTRY 4.0 READY

As an integrated galvanic isolated switch, ST's ISO8200BQ fulfills the mandatory safety requirements and saves the space normally occupied by conventional opto-electronic isolation circuitry and also enhances reliability, since those parts are subject to aging and temperature-related degradation driving up ownership costs.

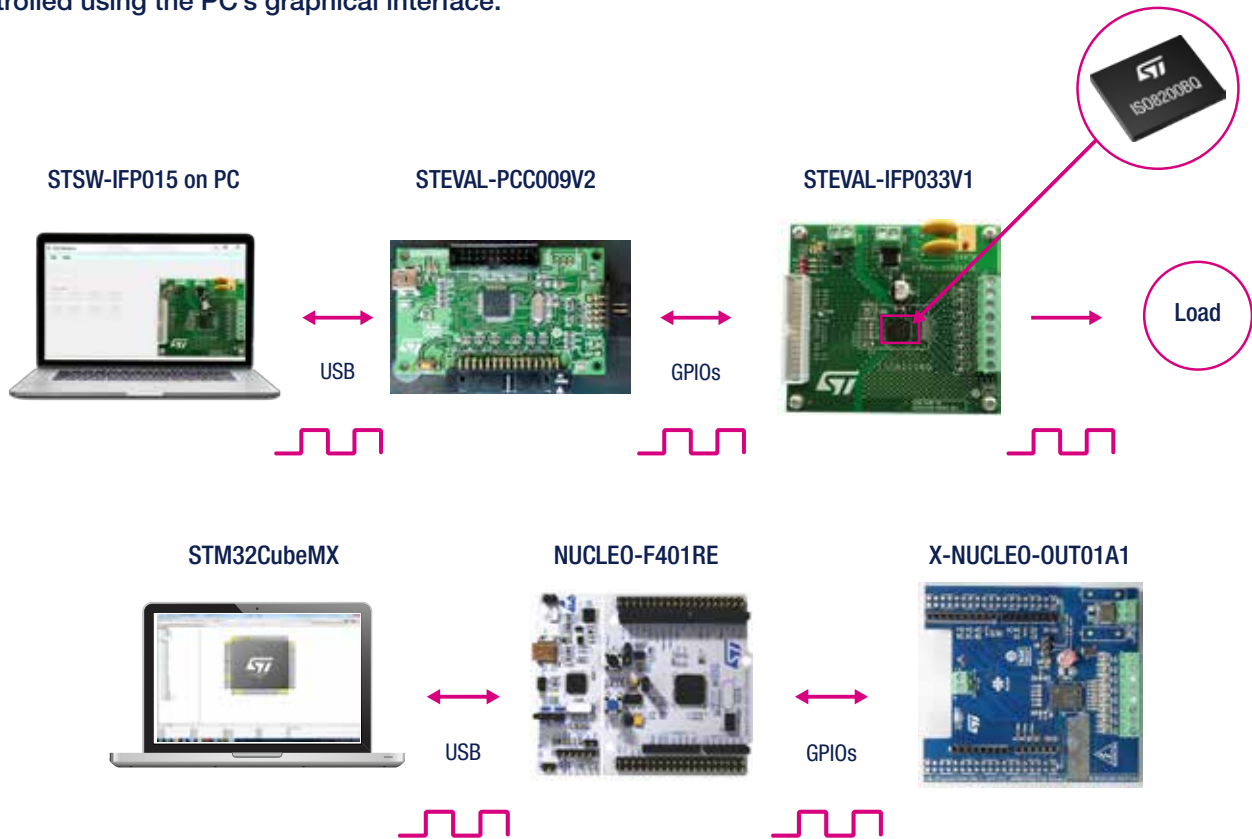
The device can drive eight output channels connected to any kind of load connected to ground, whether inductive, capacitive or resistive with 0.7 A maximum output current.

The design of the IC also ensures low quiescent operating current, reducing power dissipation and saving energy compared to a traditional, opto-coupler based solution. In addition, the ISO8200BQ has very low on-state resistance, which minimizes system energy losses and ensures superior thermal performance for enhanced reliability.

The ISO8200BQ integrates circuitry for fast demagnetization of inductive loads such as motors or heaters, which delivers further space and cost savings. Built-in protection features guard against over-temperature, short-circuit, under-voltage, over-voltage, loss-of-ground or loss-of-supply voltage. In addition, a fault output allows direct monitoring of correct operation.

Easily evaluate the ISO8200BQ

If the STSW-IFP015 GUI software is used on a PC connected to the STEVAL-PCC009V2 IBU Motor Control board with IPS universal interface via USB, a simple PLC device can be built. The ISO8200BQ outputs are controlled using the PC's graphical interface.



PRODUCT TABLE

Part number	V _{CC} (V)	R _{DS(on)} (ohm)	Output current (A)	Package	Ecosystem
ISO8200BQ	45	0.11	0.7	TFQFPN 11X9X1 32L	STEVAL-IFP033V1 product evaluation board; STEVAL-PCC009V2 interface board; STSW-IFP015 graphical user interface X-NUCLEO-OUT01A1 nucleo expansion board

