

# IPS160H/IPS161H

## Ready for tomorrow's factory automation



### Single high-side switch with protections and diagnostics for safety integrity level (SIL2 and SIL3) compliant systems

We are on the threshold of the fourth industrial revolution: digitalization of production, efficient and flexible manufacturing, maximum quality and enhanced safety are driving the future of manufacturing. With a supply voltage range up to 60 V, the IPS160H and IPS161H intelligent power switches (IPS) are specifically designed to be compliant with the stringent rules of Safety Integrity Level (SIL) systems. These monolithic devices are capable of safely driving complex (resistive, capacitive and inductive) loads with one side connected to ground such as valves, relays and lamps in factory automation or process control applications.

#### KEY FEATURES

- Wide supply voltage range: 8 to 60 V
- Current limitation > 2.6 A IPS160H, > 0.7 A IPS161H with programmable cut-off delay time
- Detection of open load or short to Vcc in OFF state
- Max. on-state resistance of 120 mΩ (60 mΩ typ.) for very low conduction losses
- Fast demagnetization of inductive loads

#### KEY BENEFITS

- Wide voltage range
- Low power dissipation
- Enhanced robustness with extensive protections and diagnostics
- Enabling SIL2 and SIL3 compliant systems

#### KEY APPLICATIONS

- Programmable logic controllers (PLC)
- Factory automation I/O peripherals
- Computer numerical control (CNC) machines
- Suitable for all kinds of resistive, inductive and capacitive loads

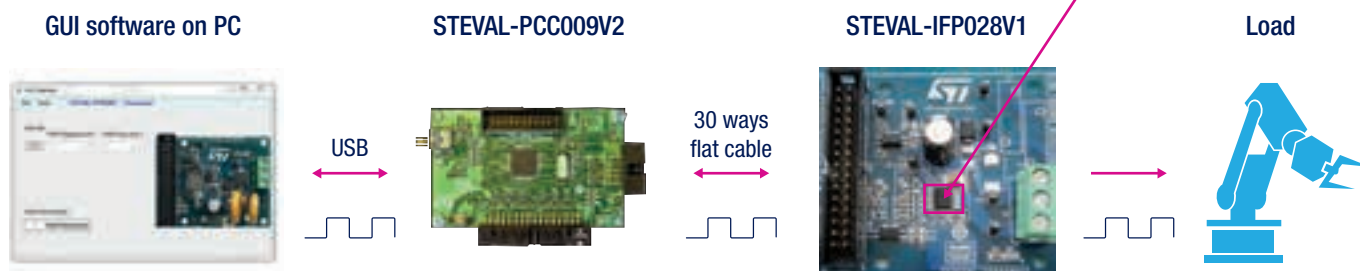
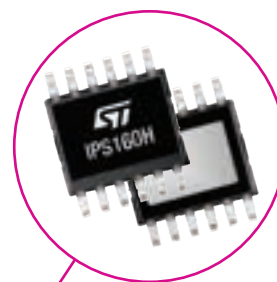


## HANDS-ON DEVELOPMENT

You can easily explore the IPS160H/IPS161H's features and gauge their benefits for your application using the STEVAL-IFP028V1/STEVAL-IFP034V1 evaluation boards. With their thermally-optimized layout, a galvanically-isolated connection for both the command and diagnostic lines, the board

comply with IEC 61000-4-2, IEC61000-4-4, and IEC 61000-4-5 requirements to enable a comprehensive system level evaluation.

The STEVAL-IFP028V1/STEVAL-IFP034V1 can be connected through the STEVAL-PCC009V2 to a PC where the STSW-IFP001 dedicated graphic user interface (GUI) will provide full access to IPS160H/IPS161H functions.



Order code	Current Limitation (A)	Package	Packing
IPS160H/IPS160HTR	> 2.6	PowerSSO 12	Tube/Tape & Reel
IPS161H/IPS161HTR	> 0.7		

Order code	Description	Related documents
STEVAL-IFP028V1	IPS160H single high-side driver evaluation board	AN4781
STEVAL-IFP034V1	IPS161H single high-side driver evaluation board	
STSW-IFP001	Graphical user interface for intelligent power switches in industrial applications	
STEVAL-PCC009V2	Motor control and intelligent power switch (IPS) universal interface	