A fieldbus can have multiple access points spread over a wide distance. Large ground loops and electrically noisy environments can create hazardous voltages which have implications for operator safety, protection of peripheral devices and preserving the communications performance. Signal isolation can be built into the IC, however for higher isolation and efficiency an external isolated power supply is still required to power the transceiver circuitry.

**Isolated Interface Power Supply for**
- RS-485/RS-232
- ProfiBus
- CAN
- Other Industrial Fieldbus

**Pulse Offering**
- High Isolation Packages
- Reinforced Insulation, 4KVrms
- Extended creepage distance, > 10mm
- Compliant with Industrial Safety Standards
- UL and TUV Certification

**Applications**
- Building Technologies
- Smart Grid
- Industrial Automation
- Process control
A power driver, either as a discrete component or integrated into the transceiver IC, in conjunction with a transformer delivers a power supply across the isolation barrier. A fixed duty cycle Push-Pull topology is commonly implemented as a low cost solution. The turns ratio of the transformer is selected to deliver the desired output voltage with galvanic isolation from the IC source voltage.

PH9185 is a series of high isolation push pull converter transformers, certified by UL and VDE to deliver a reinforced insulated voltage with 4KV isolation and 8 mm creepage distance.

Popular power driver IC's are listed, some using other topologies such as the Bridge and Fly-Buck. Contact the IC vendor for more information on this.

The transformer design varies depending on the topology selected and the requirements of the applications. Pulse has developed a number of standard platforms optimised to the requirements of different levels of isolation and safety certification and new series are being made available. Contact Pulse for further information.