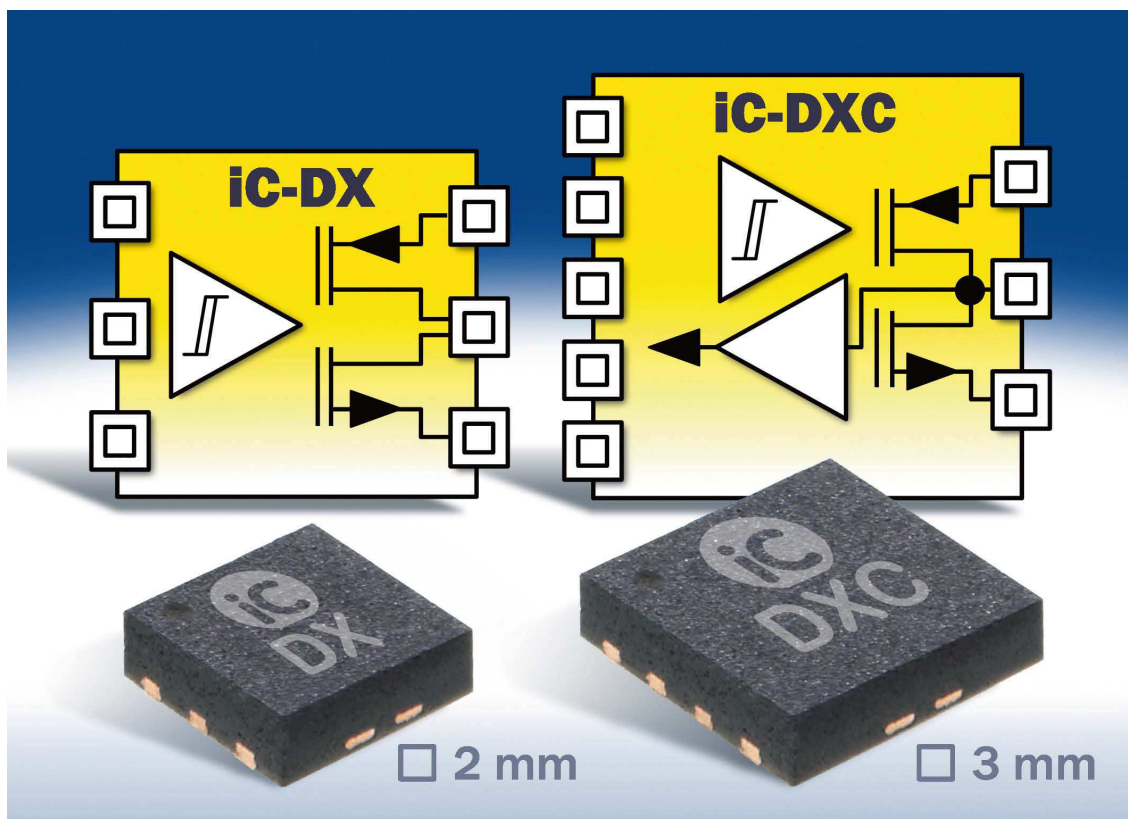


**Universal, digital sensor output driver with sensor supply**

Configurable NPN/PNP/PP/IO link driver stages for digital switching sensors

Universal, digital output driver iC-DX/DXC enables compact sensors to be assembled with NPN, PNP, push-pull, and IO link-compatible output driver options. From an input voltage of 8 to 30 V an integrated linear regulator provides the sensor electronics with a stable +5 V voltage with a 10 mA carrying capacity. The iC-DX switching output supplies at least +/-150 mA of drive current; at 200 mA minimum drive current iC-DXC is also IO link-compatible, as it has a feedback channel with a polarity monitor for wake-up detection. The integrated temperature monitor protects both devices against overtemperature and shuts down the output driver at +150°C. An integrated reverse polarity protection circuit safeguards the sensor against incorrect wiring of the supply voltage.



Press photo of iC-DX/iC-DXC

Download text and photo at [http://www.ichaus.com/pressroom/ichaus\\_dx\\_dxc\\_pre.zip](http://www.ichaus.com/pressroom/ichaus_dx_dxc_pre.zip)

A flyback circuit has been integrated into the device to drive inductive loads.

iC-DX/DXC are suitable for use as full interfaces with a sensor supply, particularly for small, digital switching sensors such as:

- Inductive or capacitive proximity switches
- Ultrasonic switching sensors
- Light and fork light barriers
- Pressure sensors/switches
- Magnetic, capacitive, or optical limit switches
- Gear wheel sensors.

The iC-DX/DXC output stage can be activated using inputs IN/NIN and OE so that the output functions as NPN, PNP, or push-pull. For sensors that are intended for IO link operation iC-DXC has an integrated back channel with a polarity monitor for wake-up detection. This flexibility enables the user to meet practically all current and future output configuration requirements on the worldwide sensor market (NPN, PNP, PP, and IO link) with little logistical effort and without having to invest further in development.

The small DFN6 housing for iC-DX (2 x 2 mm<sup>2</sup>) and iC-DXC's slightly larger DFN8 package (3 x 3 mm<sup>2</sup>) allows sensors with tiny dimensions to be assembled. The operating temperature range covers -40°C to +125°C. An 8-pin DIL board is available for evaluation of the iC.

Further information is available at <http://www.ichaus.com/sensor>.

## **Introducing iC-Haus**

iC-Haus GmbH is a leading independent German manufacturer of standard iCs (ASSP) and customized ASiC semiconductor solutions. The company has been active in the design, production, and sales of application-specific iCs for industrial, automotive, and medical technology for over 25 years and is represented worldwide. The iC-Haus cell libraries in CMOS, bipolar, and BCD technologies are fully equipped to realize the design of sensor, laser/opto, and actuator ASiCs, among others.

The iCs are assembled in standard plastic packages or using iC-Haus chip-on-board technology to manufacture complete microsystems, multichip modules, and optoBGA™, the latter in conjunction with sensors.

Further information is available at <http://www.ichaus.com/>.

### **If you have any queries, please contact:**

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