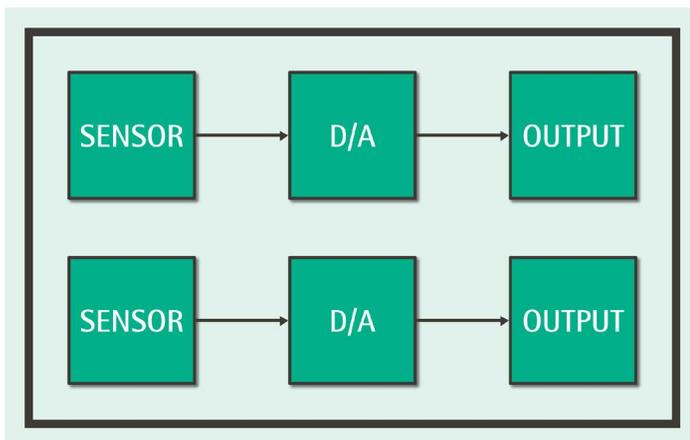


Redundant analogue and CANopen inclinometers

- Redundant version with duplicated electronics: separate circuits, components, outputs
- IXA: 1-axis ($0^\circ \div 360^\circ$) and 2-axis ($\pm 10^\circ$, $\pm 30^\circ$, $\pm 60^\circ$) current and voltage analogue inclinometer
- IXB / IXC: 1-axis ($0^\circ \div 360^\circ$, $\pm 180^\circ$) and 2-axis ($\pm 5^\circ$ to $\pm 60^\circ$) programmable CANopen inclinometers
- High resolution down to 0.001° , high accuracy down to $\pm 0.05^\circ$ typ.
- Compact and robust measuring system, reliable operation in harsh environments



IX series 1-axis and 2-axis inclinometers with analogue and CANopen interfaces from Lika Electronic are available in redundant version now: all the electronics is duplicated, i.e. two separate boards with independent circuits,

components (accelerometer sensor, signal conditioning, power supply, microcontroller, output interface, ...) and cables for power supply and signal transmission are installed in the same compact package. They are perfect for safety-related applications according to UNI EN ISO 13849 standard that require maximum reliability and the safest communication.

Both mechanical and electrical characteristics of the redundant inclinometers are identical to the standard versions, only the enclosure of the current analogue inclinometer is just a little larger.

They rely on MEMS technology and are robust, precise and high quality. So they are able to provide reliable and accurate information also in the most critical environments.

The measurement range is from ± 5 deg up to ± 60 deg in 2-axis models and up to ± 360 deg in 1-axis models with **very high resolution** (down to 0.001 deg) and **very high accuracy** (down to ± 0.05 deg). IX inclinometers are compact, rugged and **IP67 protected**. The robust metal enclosure and the resin-coated electronics allow for high protection against mechanical stresses, vibrations, thermal shocks (range of op-

erating temperature: $-40^\circ\text{C} \div +85^\circ\text{C}$ / $-40^\circ\text{F} \div +185^\circ\text{F}$), moisture, offshore conditions and load dumps.

IXA models provide current (4-20mA) and voltage (0.5V-4.5V) **analog output**.

IXB and IXC models are equipped with CANopen interface and comply with DS301 and DS410 profiles.

They feature programmable resolution from 0.1° to 0.001° , complete diagnostics, programmable antivibration filter and optional temperature compensation to highly reduce the thermal drift (0.002 deg/ $^\circ\text{C}$ - IXB model only).

Thanks to their robust construction Lika tilt sensors can safely operate also under dirt, moisture, vibration, shock and extreme temperatures and are suitable for use in harsh environments such as construction machinery, mobile equipment, utility vehicles, telescopic handlers, material handling, mobile cranes, excavators, shovels, bucket trucks, forklifts, agricultural and forestry machinery and equipment (tractors, harvesters, mowers, skidders, forestry harvesters, feller bunchers, ...), solar trackers, marine installations. They further provide the highest levels of safety and performance for robotics, electro-medical equipment, telecommunications.

Technical specifications of **TILT COD series**