

An I/O module dedicated for wind

Designed to meet the requirements in wind turbines, KK Wind Solutions' I/O module combines long lifetime and stable operation with industry-leading connectivity.

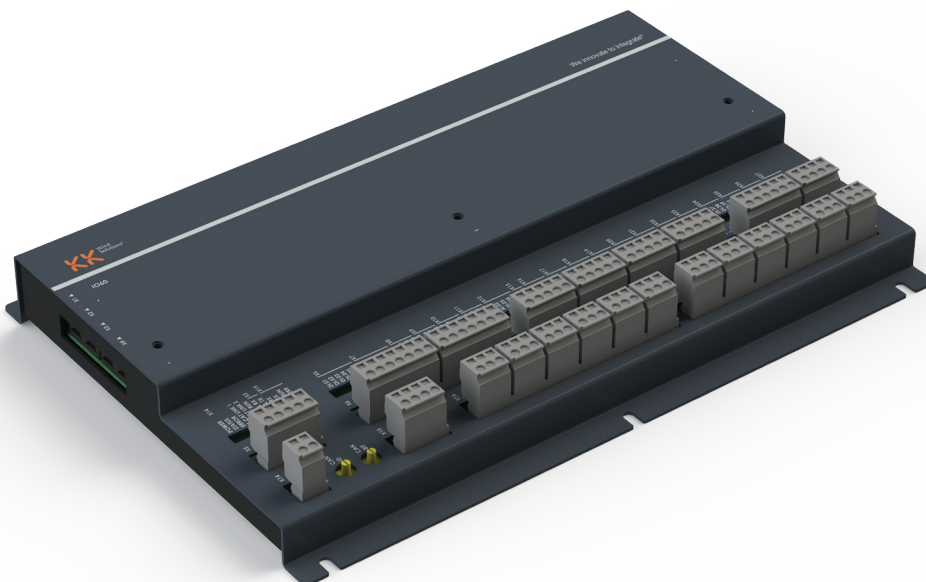
Based on 35 years of experience in electrical systems for wind, KK Wind Solutions' I/O module is designed specifically for the use in wind turbines.

The EtherCAT-controlled module is designed to tolerate high levels of vibration and EMC disturbances found in a wind turbine. Combining many features in one board, it helps keep cost and complexity to a minimum.

Status of all inputs and outputs are available via the EtherCAT network interface and visible on the board. Digital and analogue outputs and the communication channels are controlled from the EtherCAT master.

Key benefits

- ✓ Dedicated design for operation in wind turbines both on- and offshore
- ✓ Robust construction to tolerate high levels of vibration and EMC disturbance
- ✓ Excellent connectivity, including 48 digital inputs and 16 digital outputs



Proven robustness

KK Wind Solutions' long track record and state-of-the-art test facilities ensures that our components are capable of operating reliably in the field.

According to calculations carried out by TÜV Nord, our technology ensures long lifetime of components.

Mean time to failure:

- 40.3 years at 25°C
- 31.7 years at 45°C
- 14.0 years at 70°C

Compliance with standards

KK Wind Solutions' technology complies with all relevant standards, including:

- DS/EN 61000-6-2:2005 Electromagnetic compatibility generic standards – Immunity for industrial environment. (Improved immunity for – ESD, Burst and Surge)
- DS/EN61000-6-2:2005 - Electromagnetic compatibility
- DS/EN 61000-6-4:2007 - Electromagnetic compatibility - Generic emission standard
- IEC 60068-2-64 Vibration random
- IEC 60068-2-6 Vibration sine
- IEC 60068-2-29 Bump
- IEC 60068-2-27 Shock

Wide range of operation

Our I/O module is designed for storage and operation in harsh conditions both onshore and offshore.

Temperature limitations:

- Operation: -35°C to 70°C
- Storage: -40°C to 70°C

Humidity limitations:

- Operation: 5 - 95 %RH non condensing
- Storage: 5 - 95 %RH non condensing

Key features

- CAN master interface
- Up to 48 digital inputs, for general purpose use
- 16 digital outputs for general purpose use
- 2 analogue current outputs
- 5 analogue current inputs
- Incremental encoder input
- 12 temperature inputs
- 3 frequency inputs
- Separate DC supply
- Input for digital output and analogue current output
- RS485 / RS422 interface
- SSI interface
- 2 Optical EtherCAT slave interfaces

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Contact

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About us

Building on more than 35 years of experience in electrical systems for wind, KK Wind Solutions' capabilities span development of state-of-the-art technologies, high quality lean manufacturing, cost-efficient supply chain solutions and flexible service of turbines.

We innovate to integrate®