

SKF's innovative and compact magnetic bearing control system for industrial applications

Benefits

- Advanced magnetic bearing control
- Compact
- Proven reliability
- Simple Ethernet communication
- Built-in data logger
- Easy connection to condition monitoring software
- Remote diagnostics

Typical applications

- Compressors <1 MW
- Small turboexpanders

SKF offers advanced benefits to industrial equipment.

Magnetic bearings bring proven reliability and ease of operation to challenging operating environments.

The benefits of using SKF's magnetic bearing systems have been proven for over 25 years in equipment from leading industrial OEMs. SKF magnetic bearings have set the standard for contact-free, oil-free reliability by combining our global presence, industrial experience and technology platforms to build customer value.

The E150/8-16 combines the benefits of a fully digital system with advanced control for high damping and managing compressor surge loads. The system is easily connected to the internet and latest communication protocols

The E150/8-16

Advanced control systems: The core components in the E150/8-16 have been standardized across multiple industries. This maximizes reliability and economies of scales.

Simple Ethernet communication:

Simply connect a standard Ethernet cable from the control system to any PC running our MBScope software to monitor and configure the controller.

Built-in data logger: Onboard memory is used to record system performance data such as shaft positions and bearing currents.

Condition monitoring: Ethernet communication allows for possible connection to SKF's @ptitude monitoring suite, or other 3rd party condition monitoring software.

Remote diagnostics: Connect your PC to the control system and an SKF expert can collect and analyze data and make recommendations for corrective actions.

USB connection: Allows for the storage and transfer of system performance data, and the easy transfer of control system firmware in the event of a control system replacement.

Uninterruptible Power Supply (UPS): Control system is compatible with an off-the-shelf single phase UPS.

Local interface: LCD display and key pad allow simple communication with the control system without the need for a PC or any other hardware.

Fully digital: All control system parameters are stored in a single firmware file that can be easily transferred to a replacement controller if required. No need for factory or on-site customization of components.





Applying SKF knowledge engineering

The E150/8-16 control system combines the best features of previous designs with significant advancements in size, communication, and usability.



E150/8-16 Magnetic Bearing Control (MBC)

- Advanced magnetic bearing control
- 8 A radial bearing capacity
- 16 A thrust bearing capacity
- Auxiliary bearing condition monitoring
- IP44 ingress protection (optional)
- Monitor up to 3 TDC sensors
- 0–100 m cable length
- Single phase power factor corrected 110–265 V AC 50/60 Hz input power
- Compact – 4U- 19 inch single rack mount controller
- Each controller is easily customizable with a USB flash drive
- Easy to install and use, virtually maintenance-free
- User friendly interfaces and remote diagnostics for easy technical assistance
- CSA/CE/UL (certification pending)

Communication:

- Ethernet communication port/Modbus control
- USB communications
- Analog inputs 0–10 V or 4–20 mA (customer defined)
- Analog outputs 0–5 V (customer defined)
- 7 Discrete outputs (dry contact) – interlocks
- 8 Discrete inputs (optically isolated) – remote command
- CAN open field bus
- RS485/422 serial communications

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