



DEIC - Drive and driven equipment  
integrated control  
The solution for rotating machinery

Power and productivity  
for a better world™



# The control device for your rotating machinery

ABB is a worldwide market leader for automation systems and control technologies, supplying solutions and products at all levels of process control and for all types of industries. Large rotating machinery such as compressors, turbines and motors are complex, fragile and expensive equipment that requires specialized control devices. That's why we designed the DEIC (drive and driven equipment integrated control system), the culmination of ABB's experience in rotating equipment from the late 19th century to the present days.

We've even gone a step further: a single device can control and protect the rotating machinery, the process and the feeding electrical system - tasks that were once - carried out by separate control units.

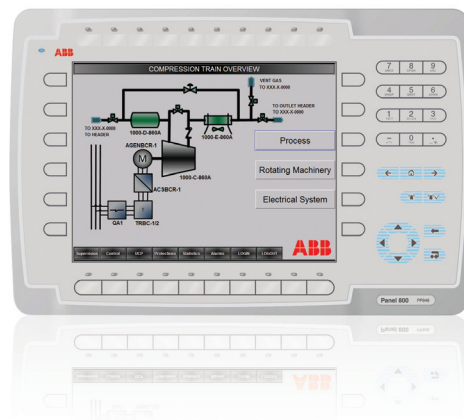
DEIC's vast software libraries meet customer requirements in accordance with oil and gas industry directives and standards and the hardware has been designed to grant the highest safety and availability. Further, the integrated design reduces footprint and enhances maintenance activity.



## The DEIC family, the solution for rotating machinery integrated control

DEIC controllers are designed to provide a complete set of features for medium voltage (MV) motors, turbines (gas and steam), compressors, pumps and large fans.

- Integrated design: process, mechanical, electrical control and protection in one device
- Supervisory control of entire system
- Enhanced protection and alarm management
- Modular and easily extendable structure
- Support of all main fieldbus and industrial communication protocols including IEC 61850, the standard for substation automation
- Integration with SCADA networks
- Perfect integration with ABB MV drives
- Reduced footprint, the best solution for applications where space really matters



# Flexible models for different needs

The DEIC controller family is designed to adapt to customer needs, from remote unmanned oil pumping station to LNG trains. All models deliver precise operation and performance without sacrificing flexibility and maintainability of the system.

DEIC-700 One device to control and monitor the full train	DEIC-800 The most powerful controller for rotating machinery	DEIC-900 The solution for high-safety requirements
<ul style="list-style-type: none"> <li>- Based on ABB Compact-800 Automation system</li> <li>- Works with all DEIC's packages</li> <li>- Great integration with ABB or 3rd party automation systems</li> <li>- Single or redundant CPU and I/Os</li> <li>- Some safety function up to SIL-3</li> <li>- Embedded HMI included (touchscreen or with keypad)</li> <li>- No workstations or servers required</li> </ul>	<ul style="list-style-type: none"> <li>- Based on ABB System 800xA</li> <li>- Works with all DEIC's packages</li> <li>- Great integration with ABB or 3rd party automation systems</li> <li>- Single or redundant CPU and I/Os</li> <li>- All safety function up to SIL-3</li> <li>- Embedded HMI included (touchscreen or with keypad)</li> <li>- Provided with a complete workstation supervision system</li> <li>- Advanced asset management features</li> </ul>	<ul style="list-style-type: none"> <li>- Based on ABB System 800xA</li> <li>- Works with all DEIC's packages</li> <li>- Great integration with ABB or 3rd party automation systems</li> <li>- Redundant CPU and I/Os</li> <li>- Hardware SIL-3 certified</li> <li>- All safety function up to SIL-3</li> <li>- Embedded HMI included (touchscreen or with keypad)</li> <li>- Provided with a complete workstation supervision system</li> <li>- Advanced asset management features</li> </ul>

Each model can be equipped with one or more packages depending on the type of rotating machinery

## Compressor and Fans Package

Control, protection, supervision and monitoring for centrifugal, axial and alternatives compressors and for centrifugal fans

## Pump Package

Control, protection, supervision and monitoring for oil and water pumps

## Electrical and Drive Package

Advanced supervision over the variable-speed drive (VSD) train and the electrical system, plus control and monitoring on the VSD auxiliary systems

## Mechanical Package

Monitoring over the rotating shaft, compressor/motor/turbine bearings and vibrations, plus control, supervision and monitoring over the shaft auxiliary systems

## Turbine Package

Control, supervision and protection over gas, and steam turbines plus advanced condition monitoring functions.

	Control	Safety	Monitoring & Diagnostic
Process Package	Performance Control	Anti-Surge	Performance Curves Monitoring
	Load Sharing	Surge Detection	Process Asset Management
Electrical & Drive Package	Cooling Control	Emergency Shut Down	Protections Monitoring
	Harmonics Filtering	Unit Control Panel	Drive Monitor™
Mechanical Package	Lubrication Control	Vibrations Protection	Analyst™ (Vibration Analysis)
	Jacking Oil Pump Control	Bearings Protection	Mechanical Asset Management

Example of DEIC packages setup for VSD-driven pipeline compressor

The DEIC family offers a complete set of control and monitoring solutions for industrial rotating machinery, designed with ABB's skill and expertise in integrated control systems.

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB group of companies operates in around 100 countries and employs more than 135,000 people.

# Contact

[www.abb.com/oilandgas](http://www.abb.com/oilandgas)  
[oilandgas.info@it.abb.com](mailto:oilandgas.info@it.abb.com)

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