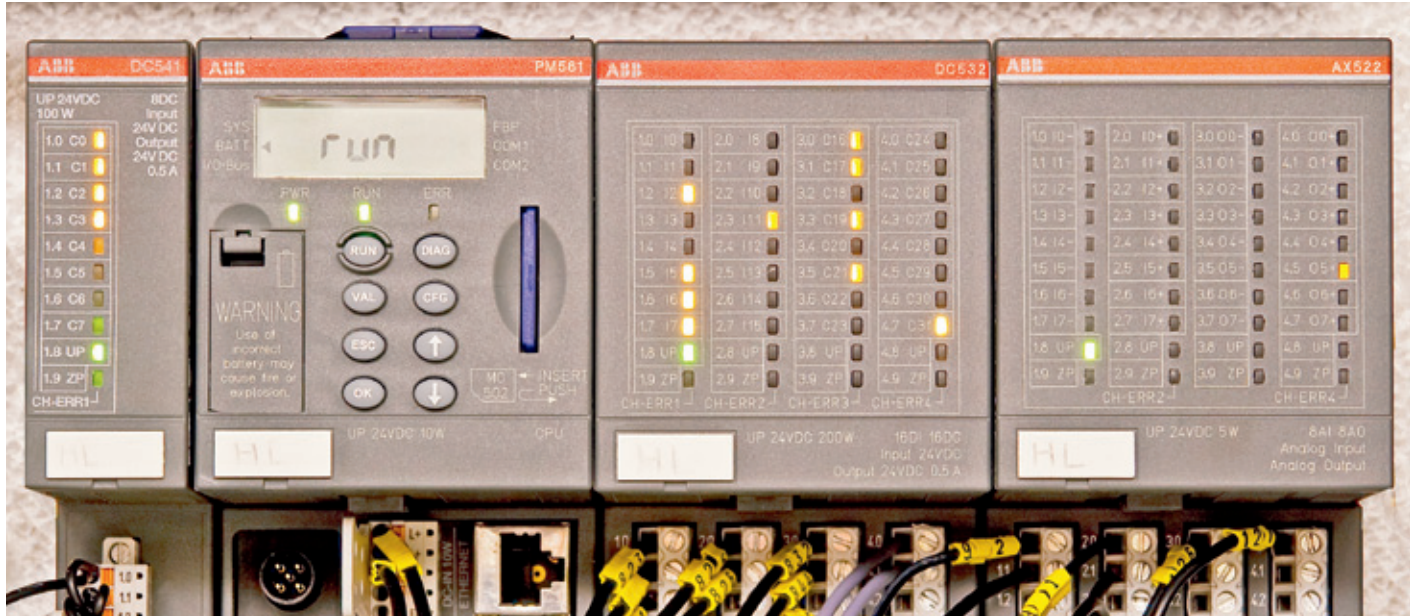


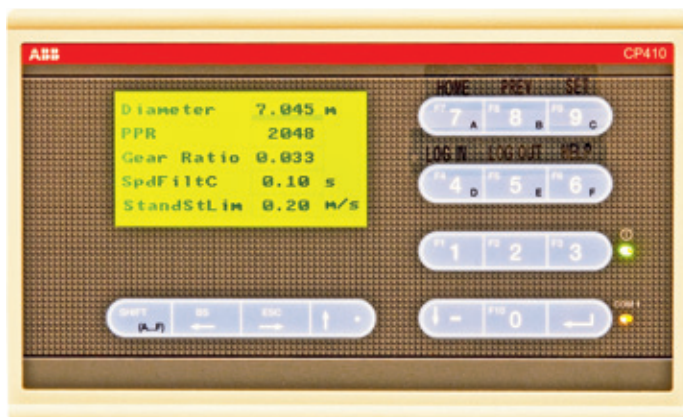
Brake Card Upgrade Kit Mine Hoist Digital Control Module



The Brake Card Upgrade Kit brings all the benefits of digital control to mechanical braking systems. The module is compact and can be retrofitted into existing ABB mine hoists and brake controllers; it can operate on the analogue output from existing tachometers.

The digital control module is self-diagnostic and permits the replacement of individual components. Thus the mean time to repair is significantly reduced. The digital module permits integration into the hoist's central control system and thus integration into the central alarm system.

All settings are made from the local operator interface panel; settings are stable over time and are not vulnerable in power outages. They can be stored on a flash card. Digital control results in smoother operation during emergency braking thus reducing stress and wear of mechanical components.



Operator Interface

The Brake Card Upgrade Kit includes:

- ABB Controller AC 500
- Analogue I/O unit
- Digital I/O unit
- ABB Operator Interface CP 410
- Shaft Speed Sensor (optional)

Customer benefits

- Reduced mean time to repair (MTTR).
- Individual components replaceable.
- State of the art digital technology.
- Improved plant specific settings:
 - Set from operator interface panel.
 - Stable over time.
 - Stored on a flash card. Settings secure in a power outage.
- Smoother braking during emergency stops.
- Alarm signal accessible to main hoist controller.

The module is designed to permit easy and rapid replacement of the existing Brake Control cards.

The Brake Card Upgrade Kit provides another example of ABB's determination to remain at the forefront of technological development and to support its customers around the world.

For more information please contact:

ABB AB

Mining

Tvärleden 2

SE-721 59 Västerås, Sweden

Phone: +46 21 32 50 00

Fax: +46 21 18 58 90

E-mail: aftersales.mining@se.abb.com

ABB business unit Minerals is represented in the following countries:

Australia, Brazil, Canada, Chile, China, Egypt, Estonia, Germany, Greece, India, Indonesia, Latvia, Lithuania, Malaysia, Mexico, Norway, Oman, Peru, Poland, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Thailand, USA and Vietnam.

For contact details, please visit our website:

www.abb.com/mining