

VIS Modular Explosion Proof Brakes
A product invented and produced by Coel Motori, Milano, Italy

By Jeff Miller, Motion Technologies, Inc.
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Cincinnati, OH – Motion Technologies, Inc. announces the VIS modular explosion proof brake manufactured by Coel Motori, Milano, Italy.

Since 1976, Coel Motori has designed and manufactured brake motors to include all related components and brake units in their facility in Milano, Italy. With this experience, Coel Motori invented the VIS modular ATEX brake system in 2005. The concept was to meet market demand for a simple solution to create an explosion proof brake motor without having to modify the motor or the extension of the certificates.

The VIS ATEX brake is an innovated modular flameproof spring applied disc brake unit. This new concept applies an independent brake unit to a standard flanged explosion proof motor or to a transmission unit. The flanges input and output follow both IEC and NEMA standards. VIS brakes are certified as independent components which means that there are no coupling procedures in order to define the certification. VIS brakes are certified cCSAUs for hazardous locations in the US market.

VIS has also introduced a range of safety brakes to be applied as an additional brake to the hoist system which provides additional safety features to any standard hoist. (brake torque up to 11800 ft/lb.)

VIS brakes are available in B5 flange face to face versions (IEC 63 to 280)and NEMA standards (56 to 405). The braking torque values (depending on the frame) are between 7 to 575 ft/lbs.

Main Characteristics:

- Patent pending design and concept system.
- DC electromagnets with patent pending reconnectable system VAC 210 to 480 all in one.
- Totally Enclosed.
- IP66.
- Special voltages available.
- F class insulation.
- Themally protected with dual metal protectors as standard.
- Large terminal box with terminal board and built in rectifier.
- Very high resistance structure.
- Designed for S1 duty without ventilation.

Standards : The VIS NEMA series brakes are designed and approved for the following directives.

- FM for the US market, DIRECTIVE FM 3600:2011, FM 3616:2011, FM 3615:2006
- ANSI/IEC 60529:2004
- FM 3810:2005

- ANSI/ISA – 61010-1
- CSA Certificate 2542839

Certificates and available protection classes:

- CSA (US)
- Class I, Division 1, Groups C, D.
- Class II, Division 1, Groups E,F and G.
- Class III
- Ambient temperature range : -20 C ...+ 50 C (all models)
- - 50 C....+50 C (models made of GSF400/12 LT)

Options :

- Hand Release
- Ready for Hand Release Kit
- PTC thermistors
- Anti-condensation heaters
- Switch on brake opening or on hand release
- Special flange coupling

General Information:

VIS is a single spring-applied , single-disc brake with two friction surfaces. The compression springs create the braking torque by friction locking. The brake is release electromagnetically.

The spring-applied brake is designed for the conversion of mechanical work and kinetic energy in heating.

Manual Release :

The manual release is an option available giving the possibility to release the brake in absence of current. It is a mechanical lever mounted on 2 fulcrum points moving the mobile anchor.

Microswitch:

The VIS brakes can be equipped with a microswitch for air-gap or wear monitoring and for hand released opening monitoring. The user must provide the corresponding electrical connection.

Thermistors :

All VIS brakes are equipped with a PTO thermal protection with temperature limit related to the temperature class of the brake required. It must always be connected when operating in order to prevent extra heating in hazardous areas.

As an alternative, VIS can apply a PTC thermistor to have a constant monitoring of the brake temperature through an external PLC.

The main advantage of the VIS brake is modularity due to the face to face mounting on a standard motor flange. In addition, the cost of an explosion proof motor with a VIS brake is considerably lower than an explosion proof brake motor. These features allow for reduced lead and installation times while improving safety and performance.

VIS brakes are widely used in both the European and Far East markets by many manufacturers producing explosion proof hoist, crane and related equipment. US companies in similar markets are now realizing the potential of the VIS brakes and have incorporated the VIS brake into their systems.

For further details visit : www.visbrakes.com

Contact:

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