Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

PTB

(1) # EC-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 04 ATEX 3012

(4) Equipment: Universal motor controller type UMC22-FBP version 3.20

(5) Manufacturer: ABB Stotz-Kontakt GmbH

(6) Address: Eppelheimerstraße 82, 69123 Heidelberg, Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 04-33427.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60 947-1 **EN 60 947-4-1** **EN 60 079-14** **EN 954-1**
EN 60 947-5-1 **EN 50281-1-1**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II (2) GD

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. F. Lienesch
Oberregierungsrat

Braunschweig, September 22, 2004

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT II

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3012

(15) Description of equipment

The universal motor controller of type UMC22-FBP, version 3.20, is in a position to monitor, control and protect non-explosion-protected motors and explosion-protected motors.

It is suited for motor currents from 0.24 A to 63 A and for tripping classes 5, 10, 20 and 30. For higher currents, external current transformers must be used. The motor current is detected by the universal motor controller in three phases and monitored for overload and phase failure.

With the aid of a suitable FieldBUSPlug (FBP), types UMC22-FBP can be connected via the integrated interface to different field buses or operated alone without FBP. Above the field bus, digital inputs, diagnostic information and parameters can be read. The LED displays on the equipment announce the signals "ready", "motor on" and "error".

The most important information, such as:

phase current in %, error messages, digital inputs/outputs, setting current, version, operating hours, number of starts and number of trippings

can be called and adjusted via an external snap-on operator device ACS100-PAN at the forefront of the UMC22 or via the field bus.

When the UMC22 is switched on, a self-checking test is performed with the motor switched off. In the course of this test, the most important functions of the hardware and software of the device are checked and, when an error occurs, the motor cannot be started under safety engineering aspects.

A risk analysis on the basis of DIN V 19250 and DIN V VDE 0801 showed that the device belongs to requirement class 3. According to EN 954-1, the universal motor controller meets the requirements of category 2.

The UMC22-FBP devices may be installed only outside potentially explosive atmospheres for the protection of non-explosion-protected motors and explosion-protected motors. When they are used in potentially explosive atmospheres, the devices must be of the required type of protection.

(16) Test report PTB Ex 04-33427

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SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3012

(17) Special conditions for safe use

none

(18) Essential health and safety requirements

The tests carried out and their positive results as well as the proof furnished of January 31, 2004, have confirmed compliance with the standards and thus with Directive 94/9/EC, Annex II (in particular point 1.5). Suitably selected and adjusted safety devices of this type are necessary for the safe operation of motors of the type of protection "Increased Safety". The devices themselves are installed outside potentially explosive atmospheres (article 1, section 2 of the Directive).

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. F. Lienesch
Oberregierungsrat

Braunschweig, September 22, 2004

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

1st SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3012

(Translation)

Equipment: Universal motor controller, type UMC22-FBP (hardware: 1SAJ510000R0500 and firmware: version 3.50)

Marking: Ⓔx **II (2) GD**

Manufacturer: ABB Stotz-Kontakt GmbH

Address: Eppelheimerstraße 82, 69123 Heidelberg, Germany

Description of supplements and modifications

The universal motor controller of type UMC22-FBP (hardware 1SAJ510000R0500 and firmware: V 3.50) is an equipment which is in a position to monitor, control and protect non-explosion-protected and explosion-protected motors. It is suited for motor currents from 0.24 A to 63 A and for tripping classes 5, 10, 20 and 30. For higher currents, external current transformers must be used. The motor current is detected in three phases by the universal motor controller and monitored for overload and phase failure. Via a corresponding field bus plug (FBP), types UMC22-FBP can be connected to different field buses via the integrated interface or operated separately without FBP. The digital inputs, the diagnostic information and the parameters can be read via the field bus. The LED displays on the equipment show the signals "ready", "motor on" and "error".

The UMC22-FBP equipment was revised to offer the user new functions and a simpler panel operation. These changes do not, however, exert any influence on the motor protection functions so far certified.

Additional information can be taken from:

- Technical description "Universal Motor Controller UMC22-FBP Version 3.50, as of: October 2006"
- the mounting instructions UMC22-FBP (2CDC 342 004 F0006))
- the Internet page http://www.abb.de/stotzkontakt → Schalt- und Steuerungstechnik → german → FBP Feldbus Geräte →Universal Motor Controller UMC →downloads

Note:
The new motor protection functions "PTC function and ground fault processing" must not be used for the protection of explosion-protected motors. At the most, they may have a "warning" status; switch-off must be performed via the measured current.

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1st SUPPLEMENT TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3012

Standards applied

EN 60 947-1	**EN 60 947-4-1** **EN 60 947-5-1**	**EN 60 079-14** **EN 50281-1-1**	**EN 954-1**

Test reports: PTB Ex 04-33427 and PTB Ex 06-36246

Special conditions

none

Essential health and safety requirements

The tests carried out and their positive results as well as the proof furnished of January 31, 2004 (compliance with Directive_94_9-EC) have confirmed compliance with the standards and thus with Directive 94/9/EC, Annex II (in particular 1.5). Suitably selected and adjusted safety devices of this type are necessary for the safe operation of explosion-protected motors. The devices themselves are to be installed outside potentially explosive atmospheres

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. F. Lienesch
Oberregierungsrat

Braunschweig, December 14, 2006

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

2. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3012

(Translation)

Equipment: Universal motor controller, type UMC22-FBP (hardware: 1SAJ510000R0500 and firmware: version 3.51)

Marking: Ⓔx **II (2) GD**

Manufacturer: ABB Stotz-Kontakt GmbH

Address: Eppelheimerstraße 82, 69123 Heidelberg, Germany

Description of supplements and modifications

The universal motor controller of type UMC22-FBP (hardware 1SAJ510000R0500 and firmware: V 3.51) is an equipment which is in a position to monitor, control and protect non-explosion-protected and explosion-protected motors. It is suited for motor currents from 0.24 A to 63 A and for tripping classes 5, 10, 20 and 30. For higher currents, external current transformers must be used. The motor current is detected in three phases by the universal motor controller and monitored for overload and phase failure. Via a corresponding field bus plug (FBP), types UMC22-FBP can be connected to different field buses via the integrated interface or operated separately without FBP. The digital inputs, the diagnostic information and the parameters can be read via the field bus. The LED displays on the equipment show the signals "ready", "motor on" and "error".

The UMC22-FBP equipment was revised to offer the user new functions and a simpler panel operation. These changes do not, however, exert any influence on the motor protection functions so far certified.

Note:
The new motor protection functions "PTC function and ground fault processing" must not be used for the protection of explosion-protected motors. At the most, they may have a "warning" status; switch-off must be performed via the measured current.

Standards applied

EN 60947-1	**EN 60947-4-1**	**EN 60079-14**	**EN 954-1**
	EN 60947-5-1	**EN 50281-1-1**	

Physikalisch-Technische Bundesanstalt

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2. SUPPLEMENT TO EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 3012

Test report: PTB Ex 07-37196

Special conditions

none

Essential health and safety requirements

The tests carried out and their positive results as well as the proof furnished of January 31, 2004 (compliance with Directive_94_9-EC) have confirmed compliance with the standards and thus with Directive 94/9/EC, Annex II (in particular 1.5). Suitably selected and adjusted safety devices of this type are necessary for the safe operation of explosion-protected motors. The devices themselves are to be installed outside potentially explosive atmospheres

Zertifizierungsstelle Explosionsschutz
By order:

Dipl.-Ing. M. Graube

Braunschweig, October 30, 2007