



## Translation

# (1) EC-Type Examination Certificate

(2) - Directive 94/9/EC -  
Equipment and protective Systems intended for use  
in potentially explosive atmospheres

(3) **BVS 03 ATEX E 306 X**

(4) **Equipment:** Solenoid types FEB 103/94 and FEB 106/94

(5) **Manufacturer:** Dr.Breit GmbH

(6) **Address:** D 42579 Heiligenhaus

(7) The design and construction of this equipment and any acceptable Variation thereto are specified in the schedule to this type examination certificate.

(8) The certification body of Deutsche Montan Technologie GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council 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 test and assessment report BVS PP 03.2206 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 50014:1997+A1-A2 General requirements  
EN 50018:2000+A1 Flameproof enclosure  
EN 50019:2000 Increased safety

(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 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 2G EEx de IIB + H<sub>2</sub> T4 respectively T6**

**Deutsche Montan Technologie GmbH**

Essen, dated 02. September 2003

Signed: Jockers DMT-Certification body

Signed: Eickhoff Head of special Services unit



(13) Appendix to

(14) **EC-Type Examination Certificate**

**BVS 03 ATEX E 306 X**

(15) 15.1 Subject and type

Solenoid types FEB 103/94 and FEB 106/94

15.2 Description

The two types FEB 103/94 and FEB 106/94 differ with same structure in their dimensions  
The housing possesses a connection area in type of protection „Increased Safty“ and a fitting space in the type of protection „Flameproof Enclosure“ . In the fitting space a solenoid and an overvoltage protection are installed. Optionally a rectifier additionally is installed.

15.3 Parameters

Type FEB 103/94 and FEB 106/94

15.3.1 Marking EEx de IIB + H<sub>2</sub> T4

Nominal voltage	≤ 250 V
Nominal current	≤ 1.9 A
Total power dissipation	≤ 22 W
Ambient temperature range	-20 °C up to +70 °C

15.3.2 Marking EEx de IIB + H<sub>2</sub> T6

Nominal voltage	≤ 250 V
Nominal current	≤ 1.9 A
Total power dissipation	≤ 20 W
Ambient temperature range	-20 °C up to +40 °C

(16) Test and assessment report

BVS PP 03.2206 EG as of 02.09.2003

(17) Special conditions for safe use

17.1 The solenoids are rated in temperature class T4 for an ambient temperature range of -20 °C up to +70 °C

17.2 In the case of ambient temperature (Ta) exceeding 50 °C, a connecting cable with a permissible operating temperature of Ta + 20 K shall be used.

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We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding

D - 42579 Heiligenhaus, dated 27.01.2004  
Dr.Breit GmbH

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Dr.Ing. F.E.Breit