Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(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 03 ATEX 2134

(4) Equipment: Valve solenoids, types 3039..

(5) Manufacturer: IMI Norgren-Herion Fluidtronic GmbH & Co. KG

(6) Address: Stuttgarter Straße 120, 70736 Fellbach, 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 03-23098 .

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

EN 50014:1997 + A1 + A2 **EN 50020:2002**

(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 G EEx ia IIC T6 or T4

Zertifizierungsstelle Explosionsschutz
By order:

(signature)

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

Braunschweig, October 2, 2003

2 pages, correct and complete as regards content.
By order:

Dr.-Ing. Johannsmeyer
Direktor und Professor

Braunschweig, June 4, 2007

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 03 ATEX 2134

(15) Description of equipment

The valve solenoids are intended for installation and operation in hazardous areas. The coil assembly is potted with epoxy resin moulding compound. The breaking overvoltage is limited by means of diodes connected in parallel to the winding. The degree of protection IP 65 is met when using a connector according to DIN.

Electrical data

Supply	Only for connection to intrinsically safe circuits of category ia with the following limiting values: $U_i \leq$ 28 V $I_i \leq$ 115 mA $P_i \leq$ 1.6 W The effective inductances and capacitances of the magnet coil are negligibly low. $L_i \approx 0$ $C_i \approx 0$

For temperature class T6 the ambient temperature for type 3039.. shall not exceed the range of -40 °C up to +50 °C. The maximum permissible medium temperature is 70 °C.
For temperature class T4 the ambient temperature for type 3039.. shall not exceed the range of -40 °C up to +85 °C. The maximum permissible medium temperature is 80 °C.

(16) Test report PTB Ex 03-23098

(17) Special conditions for safe use

not applicable

(18) Essential health and safety requirements

met by compliance with the standards mentioned above

Zertifizierungsstelle Explosionsschutz
By order:

(signature)

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

Braunschweig, October 02, 2003