



Translation

EC-Type Examination Certificate

- (1)
- (2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use
in potentially explosive atmospheres
- (3) **BVS 05 ATEX E 091**
- (4) **Equipment:** Force Sensor type *** ** * ***-F
- (5) **Manufacturer:** HAEHNE GmbH
- (6) **Address:** 40699 Erkrath, Germany
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (8) The certification body of EXAM BBG Prüf- und Zertifizier 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 05.2061 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 50014:1997 + A1 – A2 General requirements
EN 50020:2002 Intrinsic safety 'i'
- (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 appendix 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 ia IIC T4**

EXAM BBG Prüf- und Zertifizier GmbH

Bochum, dated 20. June 2005

Signed: Dr. Jockers

Signed: Dr. Eickhoff

Certification body

Special services unit

(13) Appendix to

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

BVS 05 ATEX E 091

(15) 15.1 Subject and type

Force Sensor type *** ** * ***-F

In place of *** the complete description characters and numeric are inserted which specify the application:

Type *** ** * ***-F

not ex-relevant identifications such as force measuring range,
type of building, size, sensor designation

15.2 Description

The force sensor is used for the acquisition of tension and compression forces and the conversion of this signal into a proportional electrical signal.

The sensor consists of strain gauges in a bridge circuit which are glued on a gauging member.

The force sensor is a simple apparatus according to section 5.4 of EN 50020 :2002.

The electrical connection of the sensor to a corresponding control unit is made with a fixed cable with maximum 20 m in lengths.

15.3 Parameters

Voltage	Ui	DC	17	V
Current	Ii		500	mA
Power	Pi		2	W
Effective internal capacitance	Ci		3.2	nF
Effective internal inductance	Li		14	μH
Ambient temperature range	Ta		-20 °C up to +60 °C	

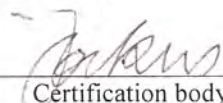
(16) Test and assessment report
BVS PP 05.2061 EG as of 20.06.2005

(17) Special conditions for safe use
None

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.

44809 Bochum, 26.05.2008
BVS-Schu/Ar E 0734/08

DEKRA EXAM GmbH



Certification body



Special services unit