

(1) EC-TYPE-EXAMINATION CERTIFICATE

ZELM ex

- (2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**
- (3) EC-TYPE-EXAMINATION CERTIFICATE Number:

ZELM 09 ATEX 0409

- (4) Equipment: **Field Data Processor Type N4560 Servo Gauge Monitor**
- (5) Manufacturer: **Varec, Inc. An SAIC Company**
- (6) Address: **5834 Peachtree Corners East, Norcross, GA 30092, USA**
- (7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The Prüf- und Zertifizierungsstelle ZELM Ex, notified body No. 0820 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 ZELM Ex 1960817704.

- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- | | | |
|------------------------|------------------------|------------------------|
| EN 60079-0:2006 | EN 60079-1:2007 | EN 60079-7:2007 |
|------------------------|------------------------|------------------------|
- (10) If the sign "X" is placed after the certificate number indicates the equipment is subjected 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 or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this Certificate.
- (12) The marking of the equipment shall include the following:

 II 2G Ex d IIC T4 resp. Ex de IIC T4

Braunschweig, December 18, 2009

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Zertifizierungsstelle ZELM ex
Dipl.-Ing. Harald Zelm

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EC-type-examination Certificates without signature and stamp are not valid. The certificates may only be circulated without alteration. Extracts or alterations are subject to approval by the Prüf- und Zertifizierungsstelle ZELM ex. The English version is based on the German text. In the case of dispute, the German text shall prevail.

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Prüf- und Zertifizierungsstelle
Siekgraben 56 · D-38124 Braunschweig

(13)

SCHEDULE

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(14) **EC-TYPE-EXAMINATION CERTIFICATE ZELM 09 ATEX 0409**

(15) Description of equipment

The Field data processor type N4560 Servo Gauge Monitor is designed for evaluation and display of signals received from remotely installed sensors.

The electronic circuits are mounted into an enclosure type PRO-LINE.

Type code

Field data processor Servo Gauge Monitor N4560-abcde

- a = 6, Ex d IIC T4 (ATEX) or 8, Ex d IIC T4 (ATEX & NMi)
- b = Cable entry
- c = Power supply
- d = Mounting bracket
- e = Painting

Electrical data

Supply circuit:

NRF High voltage Input Version

Terminals: 1(L+), 3(N-), 5(GND) 85 V ... 264 V AC +10% max. 25 VA

NRF Low voltage Input Version

Terminals: 1(L+), 3(N-), 5(GND) 19 V 55 V AC max. 25 VA

or

Terminals: 1(L+), 3(N-), 5(GND) 19 V 62 V DC max. 25 W

Interface circuits:

Terminals: 11 – 20 $U_{\max} = 24 \text{ V} / I_{\max} = 100 \text{ mA}$

Maximum ambient temperature $T_a = -20^{\circ}\text{C}$ to $+60^{\circ}\text{C}$ resp. -40°C to $+60^{\circ}\text{C}$
The differentiation take place on the type label.

Degree of protection at least IP 54 according to EN 60529:1991

**Schedule
to EC-Type-Examination Certificate ZELM 09 ATEX 0409**

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References:

The instruction manual has to be considered, in particular the sufficient equipotential bonding and grounding and the overvoltage protection.

The equipment with the type of protection Ex d is to be connected via cable glands or conduit systems suitable for that purpose, which meet the requirements of sections 13.1 and 13.2 of EN 60079-1 and for which a separate certificate has been issued including the required ambient temperature range. Openings which are not used have to be closed in compliance with section 11.9 of the EN 60079-1. Cable glands and stopping plugs of simple design must not be used. Connecting the equipment via a conduit entry approved for that purpose, the associated conduit seal has to be located right next to the housing.

If the terminal room is built with the type of protection Ex e, only cable glands and stopping plugs according to EN 60079-7 are to be used.

Wiring cable of the equipment has to be installed rigidly and sufficiently protected against damage.

The routine test in compliance with section 16.1 of the EN 60079-1 is only to be applied to equipment, which is intended to the extended ambient temperature range of -40°C . That equipment has to be statically overpressure tested using 33.1 bar.

This EC-type-examination certificate or the herein specified technical data respectively are to be accompanied to each produced equipment in appropriate manner.

(16) Report No.

ZELM Ex 1960817704

(17) Special conditions for safe use

not applicable

(18) Essential Health and Safety Requirements

fulfilled by standards

Braunschweig, December 18, 2009

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**Zertifizierungsstelle ZELM ex
Dipl.-Ing. Harald Zelm**

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