Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

Bewertungs- und Prüfbericht
nach Richtlinie 94/9/EG

Assessment and Test Report
according to Directive 94/9/EC

PTB Ex 11-41009

(T R A N S L A T I O N)

Gegenstand: Flow Meter, type GE 1

Hersteller: Gilbarco Veeder Root

Anschrift: 125 Powder Forest Dr., Simsbury, CT 06070, USA

Eingangsdatum: May 4, 2011


Prüflaboratorium Explosionsschutz
On behalf of PTB:

Dr. rer. nat. Frank Stolpe
Oberregierungsrat

Braunschweig, May 10, 2011

The results presented in this assessment and test report are related only to the test object and the technical documents available. Assessment and test reports without signature and official stamp shall not be valid. The assessment and test reports may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.
1. **Explanations for the item**
   The GE1 flow meter, which is described in Test Report PTB Ex 05-45031, is to be alternatively equipped with an Eltomatic A/S pulse generator. The dimensions of the components have also been changed.

2. **Explanations for the test specification**
   The requirements specified in Test Report PTB Ex 05-45031 shall apply.

3. **Test results**
   List of technical documents, test records, samples and other documents
   a) EC Type Examination Certificate TÜV 10 ATEX 384298 X
      Marking II 2 G Ex mb IIIB T6 Gb
      Magnetic encoder type ME 01-03
      (only informative)
   b) Drawings with parts lists for the GE1 flow meter

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Drawing No.</th>
<th>Date</th>
<th>Rev. date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ISD Flowmeter, Assembly (2 Seiten)</td>
<td>332261-001</td>
<td>01/04/2004</td>
<td>18/10/2010</td>
</tr>
<tr>
<td>2</td>
<td>ISD Flowmeter, Meter Housing - machined (2 Seiten)</td>
<td>331813-001</td>
<td>31/07/2001</td>
<td>18/10/2010</td>
</tr>
<tr>
<td>3</td>
<td>ISD Flowmeter, Rotor – machined</td>
<td>331835-001</td>
<td>16/10/2001</td>
<td>18/10/2010</td>
</tr>
<tr>
<td>4</td>
<td>ISD Flowmeter, Spur Gear 56T 64P W/ HUB</td>
<td>331828-001</td>
<td>15/05/2002</td>
<td>18/10/2010</td>
</tr>
<tr>
<td>5</td>
<td>ISD Flowmeter, Spur Gear Blank - 56T 64P</td>
<td>332517-001</td>
<td>06/01/2006</td>
<td>18/10/2010</td>
</tr>
<tr>
<td>6</td>
<td>ISD Flowmeter, Gear Housing – machined (2 Seiten)</td>
<td>332256-001</td>
<td>26/03/2004</td>
<td>18/10/2010</td>
</tr>
<tr>
<td>7</td>
<td>ISD Flowmeter, Gear Plate (2 Seiten)</td>
<td>331994-001</td>
<td>16/02/2006</td>
<td>18/10/2010</td>
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<tr>
<td>8</td>
<td>ISD Flowmeter, End Plate (2 Seiten)</td>
<td>332255-001</td>
<td>16/02/2006</td>
<td>18/10/2010</td>
</tr>
<tr>
<td>9</td>
<td>ISD Flowmeter, Flame Arrester – Overview</td>
<td>332317-001</td>
<td>23/07/2004</td>
<td>18/10/2010</td>
</tr>
<tr>
<td>10</td>
<td>Mini Prec BRNG-EXT INR RNG .1875 Bore X .5000 OD (2 Seiten)</td>
<td>576008-517</td>
<td>19/01/2005</td>
<td>18/10/2010</td>
</tr>
</tbody>
</table>
Test result: the changes do not have any effect on the explosion protection features.

The tests for explosion pressure surge strength and flame arresting performance mentioned in Test Report PTB Ex 05-45031 conforms with the specifications in EN 16852:2010.

The type test at four times the reference pressure in accordance with EN 50018:2000 (clause 16.2), which is mentioned in Test Report PTB Ex 05-45031, conforms with the EN 13463-3:2005 (16) type test (reference made to EN 60079-1:2008, clause 16.2).

4. Notes for manufacturing and operation

The requirements specified in Test Report PTB Ex 05-45031 continue to apply without any reservations.

The flow meter may be operated together with the Magnetic Encoder type ME 01-03 pulse generator (EC Type Examination Certificate No. TÜV 10 ATEX 384298 X).

5. Technical evaluation - assessment

The assessment in Test Report PTB Ex 05-45031 continues to apply without any reservations.
1st SUPPLEMENT
according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 05 ATEX 4009-1
(Translation)

Equipment: Flow Meter Typ GE 1
Marking: Ex II 1/2 G IIA dm T4
Manufacturer: Gilbarco Veeder Root
Address: 125 Powder Forest Dr., Simsbury, CT 06070, USA

Description of supplements and modifications
The GE1 flow meter, which is described in Test Report PTB Ex 05-45031, is to be alternatively equipped with an Eltomatic A/S pulse generator. The dimensions of the components have also been changed.

Applied standards

Assessment and test report: PTB Ex 11-41009
The changes do not have any effect on the explosion protection features.
The flow meter may be operated together with the Magnetic Encoder type ME 01-03 pulse generator (EC Type Examination Certificate No. TUV 10 ATEX 384298 X).

Zertifizierungssektor Explosionsschutz
On behalf of PTB:

Braunschweig, May 10, 2011

Dr.-Ing. D.-H. Frobese
Oberregierungsrat