[1]

EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **DEMKO 06 ATEX 137478X Rev. 1**

[4] Equipment or Protective System**: Tank Gauging Accessories**

[5] Manufacturer: **Veeder Root Company**

[6] Address: **2709 Route 764, Duncansville, PA 16635 USA**

[7] This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to 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 confidential report no. **SR9150684**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2009 **EN 60079-11:2007** **EN 60079-26:2007**

[10] If the sign "**X**" is placed after the certificate number, it indicates that the equipment or protective system 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 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 the certificate.

[12] The marking of the equipment or protective system shall include the following:

II (1) G [Ex ia] IIA

II 1 G Ex ia IIA T4

Certification Manager
Jan-Erik Storgaard

Notified Body

Date of issue: 2006-03-06
Re-issued: 2012-10-22

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Schedule
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[15] Description of Equipment or protective system

Type TLS-RF Console is intended for use in a nonhazardous location and connects to the intrinsically safe terminals of a separate Associated Apparatus that would normally connect to a magnetostrictive tank gauging probe. The TLS-RF Console receives radio signals from the TLS-RF Transmitter that is located in a hazardous area.

Type TLS-RF Transmitter provides intrinsically safe power supply and communication connection facilities (two wire) for an appropriately certified intrinsically safe magnetostrictive probe or other intrinsically safe device. The TLS-RF Transmitter also has connection facilities for the TLS-RF Battery which supplies power to the TLS-RF Transmitter which in turn supplies power to an intrinsically safe probe or device.

The TLS-RF Battery contains four Lithium Thionychloride "D" sized batteries connected in parallel and current limiting resistors. The batteries are not intended to be replaced in the field; the entire TLS-RF Battery assembly is to be replaced as one complete unit. The batteries are not user replaceable.

Nomenclature for type:
The certificate comprises the following types:

TLS-RF Console	II (1) G [Ex ia] IIA
TLS-Battery	II 1 G Ex ia IIA T4
TLS-Transmitter	II 1 G Ex ia IIA T4

Temperature range:
For the TLS-RF Console, the ambient temperature range is 0 °C to +40 °C.
For the TLS-RF Battery and TLS-RF Transmitter, the ambient temperature range is -40 °C to +60 °C.

Electrical data:
General Electrical Ratings, Inputs:

TLS-RF Console: 120/240 VAC, 50/60 Hz, 2.0 A Max.

Intrinsic safety entity parameters:

TLS-RF Console:
Ui = 12.6 Vdc
Ii = 196 mA
Ci = 3.58 µF
Li = 3.42 mH
Pi = 0.62 W

TLS-RF Battery Box:
Uo = 3.9 Vdc
Io = 1.29 A
Co = 12076 µF
Lo = 283 µH
P0 = 1.2 W

TLS-RF Transmitter:

BAT (J3) Terminals:	Probe (J4) Terminals:
Ui = 3.9 Vdc	Uo = 10.3 Vdc
Ii = 1.29 A	Io = 193 mA
Ci = 12076 µF	Co = 41 µF
Li = 283 µH	Lo = 3.8 mH
Pi = 1.2 W	Po = 0.497 W

Installation instructions:
See special conditions of safe use.

Mounting instructions:
None.

Routine tests:
None.

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[14]

Schedule
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[16] Report No.
Project Report No.: SR9150684 (Hazardous Location Testing)

Drawings:

Number	Rev.	Date	Description
331671-014	D	2012-06-21	Safety Certification TLS-RF Console
331671-015	D	2012-06-22	Safety Certification TLS-RF Battery and Transmitter

[17] Special conditions for safe use:

- The devices have been evaluated in conjunction with the intrinsic safety system defined in DEMKO 06 ATEX 137480X. The descriptive system documents and installation manual 577013-578 included with the aforementioned certificate must be followed during installation.
- The following condition of safe use applies to the TLS-RF Battery and TLS-RF Transmitter: Before installing or taking into a hazardous area, earth the unit in a Safe Area to remove any static charge. Then immediately transport the unit to the installation site; do not rub or clean the unit prior to installation. Cleaning is not required under normal service conditions; do not rub or clean the device after installation. If the unit is not fixed to a known earth point when installed, ensure that a separate earth connection is made to prevent the potential of static discharge. When fitting or removing the unit, use of anti-static footwear & clothing is required.
- The maximum cable length between the TLS-RF Battery and TLS-RF Transmitter must be less than 7.6 m.
- All covers must be in place in both the intrinsically safe and unspecified circuit filed wiring compartments to ensure safe operation.
- The TLS-RF Console contains an optically isolated intrinsically safe circuit. All connection facilities are considered in parallel and the Ci and Li values represent the aggregate sum of the internal capacitance and inductance within the intrinsically safe circuit.

[18] Essential Health and Safety Requirements
Concerning ESR this Schedule verifies compliance with the Annex III of ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

Additional information
The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.