

# EC-TYPE EXAMINATION CERTIFICATE



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

EC-Type Examination Certificate Number: DEMKO 02 ATEX 0225421

Equipment or Protective System: Models TLS-350 and TLS-350R Consoles  
Form Nos. 8470X - XXX and 8482X -XXX

Manufacturer: Veeder-Root Co  
Address: 125 Powder Forest Dr  
Simsbury, CT 06070 USA

This equipment or protective system and any acceptable variation there to is specified in the schedule to this certificate and the documents therein referred to.

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. 0225421

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
EN 50014: 1997 E incl. A1+A2 EN 50020:1994

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.

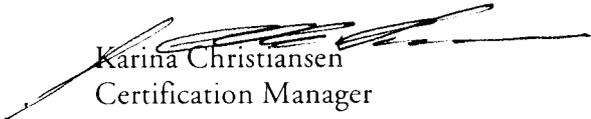
This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

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

 II (1)G [EEx ia] IIA

On behalf of UL International Demko A/S

Herlev, 2002-11-05

  
Karina Christiansen  
Certification Manager

**UL International Demko A/S**

Årskøler 8, P.O. Box 514  
DK-2730 Herlev, Denmark  
Telephone: +45 44856365  
Fax: +45 44856500

Certificate: 02 ATEX 0225421

This certificate may only be reproduced in its  
entirety and without any change, schedule included



A Subsidiary of  
**Underwriters  
Laboratories Inc.**

P1

[13] Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE No.  
DEMKO 02 ATEX 0225421

[15] Description of Equipment or protective system:

The TLS-350 Series consists of a control unit for use in indoor non-hazardous locations, an optional overflow alarm with its optional acknowledgement switch for use in outdoor nonhazardous locations and has intrinsically safe output circuits for use with up to 12 tank inventory/leak detect probes, 64 interstitial and piping sump liquid sensors, 40 vapor sensors, or eight line leak detectors. The system is intended to monitor overflow conditions (with optional overflow alarm) the level of petroleum products in underground tanks and for detecting the presence of liquids and hydrocarbon vapors, typically in an observation well or in the interstitial area of a double wall tank.

[16] Report No.:

Project Report No.: 02NK25421 (Hazardous Location Testing)

Electrical data

$U_o : 12,6V, I_o : 196mA, P_o : 0,62W, C_o : 3,86\mu F, L_o : 0,4mH$

Type variants comprised by the certificate:

Model  $\frac{8470}{I} \frac{6}{II} \frac{0}{III} - \frac{0}{IV} \frac{0}{V} \frac{0}{VI}$

I – Basic Form Number

II – Approvals

6 - ATEX

III – 0 – Veeder Root TLS-350

1 – Veeder-Root TLS-PC

2 – Gilbarco (EMC)

3 – Gilbarco TLS-PC

4 – OEM

5 – Veeder-Root TLS-350J

6 – Not Available

7 – RJ Pro Max

8 - Reserved

9 - Tominaga

IV - Optional (This option is not related to the safety of the device.)

0-9 – Communications

V - Optional (This option is not related to the safety of the device.)

0-9 – Communications

VI – Voltage

0-9 – Defines Max Safe Area Voltage

**UL International Demko A/S**

Lyngskov 8, P.O. Box 514  
DK-2730, Herlev, Denmark  
Telephone: +45 44856565  
Fax: +45 44856500

Certificate: 02 ATEX 0225421  
Report: 0225421



A Subsidiary of

**Underwriters  
Laboratories Inc.**

Page 1 of 2

This certificate may only be reproduced in its entirety and without any change, schedule included

Model 8482 6 0 - 0 0 0  
I II III IV V VI

I – Basic Form Number

II – Approvals

6 - ATEX

III – 0 – Veeder Root TLS  
1 – Veeder-Root TLS-PC-350R  
2 – Gilbarco (EMC)  
3 – Gilbarco EMC-PC-350R  
4 – Schlumberger/Omicron  
5 – Simplicity  
6 – Unused  
7 – Unused  
8 – Unused  
9 – Tominaga

IV - Optional (This option is not related to the safety of the device.)

0-9 – Communications

V - Optional (This option is not related to the safety of the device.)

0-9 – Communications

VI – Voltage

0-9 – Defines Max Safe Area Voltage

Drawings:

Number	Date	Description
331671-005 (Sheets 1-13)	2002-10-10/E	Safety Certification TLS-350 Series Console

[17] Special conditions for safe use:

None

[18] Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Ex standards only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

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.

The certificate entitles the licensee to provide the product with the registered mark ® and the Epsilon-x mark ⓧ.

On behalf of UL International Demko A/S

Herlev, 2002-11-05

  
Karina Christiansen  
Certification Manager

**UL International Demko A/S**

Eskær 8, P.O. Box 514  
DK-2730, Herlev, Denmark  
Telephone: +45 44866565  
Fax: +45 44666500

Certificate: 02 ATEX 0225421  
Report: 0225421

This certificate may only be reproduced in its entirety and without any change, schedule included



A Subsidiary of

**Underwriters  
Laboratories Inc.**

Page 2 of 2

[1] **EG-Baumusterprüfbescheinigung**  
(Übersetzung)



[2] **Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen – Richtlinie 94/9/EG**

[3] EG-Baumusterprüfbescheinigungsnummer: **DEMKO 02 ATEX 0225421**

[4] Gerät oder Schutzsystem: **TLS-350 und TLS-350R Steuergeräte  
Form No. 8470X-XXX und 8482X-XXX**

[5] Hersteller: **Veeder-Root Co**

[6] Adresse: **125 Powder Forest Dr  
Simsbury, CT 06070 USA**

[7] Die Bauart dieses Gerätes oder Schutzsystems sowie die verschiedenen zulässigen Ausführungen sind in der Anlage und den darin aufgeführten Unterlagen zu dieser Baumusterprüfbescheinigung festgelegt.

[8] UL International Demko A/S bescheinigt als benannte Stelle Nr. 0539 nach Artikel 9 der Richtlinie des Rates der Europäischen Gemeinschaften vom 23. März 1994 (94/9/EG) die Erfüllung der grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie.

Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht 0225421 festgehalten.

[9] Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit

**EN 50014: 1997 E inkl. A1 + A2**

**EN 50020: 1994**

[10] Falls das Zeichen „X“ hinter der Bescheinigungsnummer steht, wird auf besondere Bedingungen für die sichere Anwendung des Gerätes in der Anlage zu dieser Bescheinigung hingewiesen.

[11] Die EG-Baumusterbescheinigung bezieht sich nur auf Konzeption und Prüfung des festgelegten Gerätes gemäß Richtlinie 94/9/EG. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Inverkehrbringen dieses Gerätes. Die Anforderungen werden nicht durch diese Bescheinigung abgedeckt.

[12] Die Kennzeichnung dieses Gerätes muß die folgenden Angaben enthalten:

 **II (1)G [EEx ia] IIA**

Im Auftrag von UL International Demko A/S

Harlev, 05.11.2002

Karina Christiansen  
Zulassungsbeauftragte

[13] **Anlage**

[14] **EG-Baumusterprüfbescheinigung DEMKO 02 ATEX 0225421**

[15] Beschreibung des Gerätes

Die TLS-350 Serie besteht aus einer Steuereinheit für die Verwendung im nicht explosionsgefährdeten Bereich innerhalb eines Gebäudes, einem optionalen Überfüllalarmanzeiger in Verbindung mit einer optionalen Bestätigungstaste für die Verwendung im nicht explosionsgefährdeten Bereich außerhalb des Gebäudes sowie aus eigensicheren Ausgangstromkreisen für den Anschluß von bis zu 12 Tanksonden zur Bestandskontrolle/Leckerkennung, 64 Flüssigkeitssensoren zur Überwachung des Zwischenraum- und Rohrsumpfes, 40 Gassensoren oder acht Leitungslecksensoren. Das System dient zum Zwecke zur Erkennung von Überfüllungen (in Verbindung mit einem optionalem Überfüllalarmanzeiger), zur Überwachung der Bestandhöhe von Mineralölprodukten in unterirdischen Tanks und zur Erkennung von Flüssigkeiten und Kohlenwasserstoffen üblicherweise innerhalb eines Überwachungsrohres oder im Wandzwischenraum eines doppelwandigen Tanks.

[16] Berichtsnummer:

Projektbericht Nr.: 02NK25421 (Hazardous Location Testing)

Elektrische Daten

**$U_0=12,6V$ ,  $I_0=196mA$ ,  $P_0=0,62W$ ,  $C_0=3,86\mu F$ ,  $L_0=0,4mH$**

In der Bescheinigung eingeschlossene Ausführungen:

Typ 8470 6 0 - 0 0 0  
**I II III IV V VI**

I - Gerätegrundausführung

II - Zulassungen

6 – ATEX

III - 0 – Veeder-Root TLS-350

1 – Veeder-Root TLS-PC

2 – Gilbarco (EMC)

3 – Gilbarco TLS-PC

4 – OEM

5 – Veeder-Root TLS-350J

6 – nicht vorhanden

7 – RJ Pro Max

8 – Reserviert

9 – Tominaga

IV - Optional (Diese Option steht nicht im Zusammenhang mit der Sicherheit des Gerätes.)

0-9 – Kommunikationen

V - Optional (Diese Option steht nicht im Zusammenhang mit der Sicherheit des Gerätes.)

0-9 – Kommunikationen

VI - Spannung

0-9 – Definiert maximale Spannung im geschützten Bereich



# EC Declaration of Conformity for the TLS-350(R) Console

Issued by: Veeder-Root Co.,  
Sixth Avenue at Burns Crossing,  
Altoona,  
Pennsylvania,  
16602,  
USA.

This document certifies that the equipment specified below, manufactured by the Veeder-Root Co., complies with the requirements of Council Directives 89/336/EEC (EMC), 73/336/EEC (LVD) and 94/9/EC (ATEX).

## Description of Equipment (TLS Console)

Veeder-Root TLS Consoles function as both a liquid level gauge and a leak detection system while conforming to the standards described in this document. TLS systems are comprised of a console (control unit) and a variable number of probes or sensors used to detect liquid products.

Installed consoles are located in in-door non-hazardous areas and are powered by an alternating current power source. Internal to each console is a power supply, a CPU, I/O hardware and an Intrinsically Safe Barrier Circuit. The barrier circuit provides power to, and communications from, probes or sensors that are installed in hazardous locations such as tanks and piping used to contain petroleum products. Also, each console may have a display, keypad, printer and the electronics necessary to provide external serial communications.

## Type of Equipment

### Liquid Level Gauge / Leak Detection System

Consoles, Consisting of:

848260-122, TLS-350R, [EEx ia] IIA

847060-024, TLS-350, [EEx ia] IIA

## Manufacturer

Veeder-Root Co.  
125 Powder Forest Drive  
Simsbury  
Connecticut  
06070  
USA

## Supplier

Veeder-Root Environmental Systems Ltd  
Hydrex House  
Garden Road  
Richmond  
Surrey  
TW9 4NR  
UK

**Application of Council Directive**

**89/336/EEC, Amendment 92/31/EEC (EMC)**

Standards Applied - Technical Report Issued

Test Lab

Report Number

**TLS-350 and TLS-350R**

Emissions: EN 55022 Class A

Stratus

CPR07208

Immunity: EN 50082-1

ESD: IEC 1000-4-2

Stratus

ESD07228

Radiated Susceptibility: IEC 1000-4-3

Stratus

EMS07218

Electrical Fast Transient: IEC 1000-4-4

Stratus

EFT07218

**Application of Council Directive**

**73/336/EEC (LVD)**

**TLS-350 and TLS-350R**

Low Voltage Directive: IEC 1010-1

UL Report No. 96NK34477-E184796

**Application of Council Directive**

**94/9/EC (ATEX)**

Standards applied

EN50014 1997 including A1+A2, General Requirements  
EN50020 1994, Intrinsic Safety  
EN50284 1999, Special Requirements for Construction,  
Test and Marking of Electrical Apparatus of Equipment,  
Group II Category 1G  
EN50039 1980, Electrical Apparatus for Potentially  
Explosive Atmospheres - Intrinsically Safe Electrical  
Systems "i"

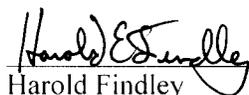
Technical Reports

DEMKO 02 ATEX 0225421, TLS-350/350R Console

The Notified Body performing the certification is:

UL International Demko A/S Testing and Certification  
P.O. Box 514 Lyskaer 8  
DK-2730 Herlev, Denmark

Signed:

  
Harold Findley

Position:

Quality Manager  
Veeder-Root Co.

Date:

October 10, 2002