

1. **EC-TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use  
in Potentially explosive atmospheres  
Directive 94/9/EC**

3. Reference: **VTT 02 ATEX 022X**
4. Equipment: **Capacitive level detector probe**  
Certified type: **SET/TSSH2, SET/TSSHS2 or SET/SA2**
5. Manufactured by: **Oy Labkotec Ab**
6. Address: **Labkotie 1  
FIN-36240 Kangasala  
Finland**

7. This equipment or protective system and any acceptable variations thereto is specified in the schedule and possible supplement(s) to this Certificate and the documents therein referred to.
8. VTT Industrial Systems, notified body number 0537, in accordance with Article 9 of the Council Directive 94/9/EC of March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective system 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 TUO26-021435.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with the standards:

**EN 50014 (1997) +A1&A2  
EN 50020 (1994)  
EN 50284 (1999)**

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. This certificate does not cover these.
12. The marking of the equipment or protective system shall include the following:

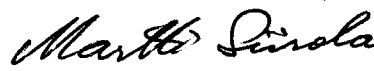


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EEx ia IIC T5

(Ta = -25 °C ... +70°C)

Espoo, 05.10.2002

VTT INDUSTRIAL SYSTEMS  
Ex-LaboratoryRisto Sulonen  
Senior research scientistI018  
(EN45004, liite A)Martti Siirola  
Research scientist

13. **Schedule**14. **EC-TYPE EXAMINATION CERTIFICATE VTT 02 ATEX 022X**15. Description of Equipment

The capacitive level detector probe type SET/TSSH2, SET/TSSHS2 or SET/SA2 consist of a connection box (including a transmitter) and an electrode. The probe SET/TSSH2 or SET/TSSHS2 is meant to indicate low/high level of liquids or indicate the interface between two liquids. The probe SET/SA2 is capacitive level probe for clogging and solid substances. The connection box of the transmitter is of aluminium and includes a capacitive level switch transmitter type CBS1e, component certificate VTT 02 ATEX 021U. The SET/TSSH2, SET/TSSHS2 or SET/SA2 shall be connected to an intrinsically safe circuit.

Electrical data

The maximum input values of the level detector probe type SET/TSSH2, SET/TSSHS2 or SET/SA2 are:

U <sub>i</sub>	I <sub>i</sub>	P <sub>i</sub>	C <sub>i</sub>	L <sub>i</sub>
18 V	66 mA	297 mW	3 nF	0 μH

Documents:

Description of the SET/TSSH2 and SET/SA2, XA25174\_s, 4 pages, 06.06.2002  
Assembly drawing SET/TSSH2, XK25142As, 22.08.2000  
Assembly part list SET/TSSH2, XC25142As, 02.07.2002  
Assembly drawing SET/TA2, XK25172\_s, 26.06.2002  
Bushing, SET/TSSH2, XK25140\_s, 28.06.2002  
Teflon insulation tube, XK25180\_s, 02.07.2002  
Teflon insulation tube, XK25185\_s, 02.07.2002  
Marking plate, K25165\_s, 26.06.2002

16. Report No. TUO26-02143517. Special conditions for safe use:

The permissible ambient temperature range is :

- 25 °C ≤ T<sub>a</sub> ≤ +70 °C for the connection box
- 25 °C ≤ T<sub>a</sub> ≤ +70 °C for the SET/SA2 electrode
- 25 °C ≤ T<sub>a</sub> ≤ +120 °C for the SET/TSSH2 or SET/TSSHS2 electrode

This connection box is of light metal so there may be sparks, if the box is subjected to friction or impact. The box shall be electrostatically grounded.

The central electrode of the probe is covered with plastic parts. There may be hazard of electrostatic charges if the plastic parts are subjected to friction or to flow of non-conducting media or material.

18. Essential Health and Safety Requirements

Met by compliance with the standards referred in point 9.

Espoo, 05.10.2002

VTT INDUSTRIAL SYSTEMS  
Ex-Laboratory



Risto Sulonen  
Senior research scientist



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(EN45004, IIItte A)



Martti Siirola  
Research scientist

**1. SUPPLEMENT TO EC-TYPE EXAMINATION CERTIFICATES**

<b>VTT 02 ATEX 012X</b>	<b>VTT 03 ATEX 067X</b>
<b>VTT 02 ATEX 021U</b>	<b>VTT 03 ATEX 068U</b>
<b>VTT 02 ATEX 022X</b>	<b>VTT 03 ATEX 073U</b>
<b>VTT 03 ATEX 007X</b>	<b>VTT 03 ATEX 075X</b>
<b>VTT 03 ATEX 009X</b>	<b>VTT 03 ATEX 088X</b>
<b>VTT 03 ATEX 015X</b>	<b>VTT 03 ATEX 089X</b>
<b>VTT 03 ATEX 024X</b>	<b>VTT 03 ATEX 090X</b>
<b>VTT 03 ATEX 030X</b>	<b>VTT 03 ATEX 094X</b>

2. Equipment: **Surface level measuring sensors**

Certified types:

**KAH/3W, KAR/SA/3W, PA/3W, PAH/3W, SA/FEP/3W,  
KAH/2W, KAR/SA/2W, PA/2W, PAH/2W or SA/FEP/2W  
TSSH(S)/3W, MET LPG/3W  
TSSH(S)/2W, MET LPG/2W  
WBS 500 or WBS 500 RTD  
WBS 1000/SETTSH2/SETSA2  
WBS 3000  
LABKO 3000 or LABKO 3000 LPG  
MET3VL, MET3V, MET3R  
CBM22 R or CBM22 V  
SET/OS2, SET/TSH2, SET/TSHS2, SET/TSH2/VP,  
SET/OELO2, SET/TSH2 LPG, SET DM/3 or SET DM/3E,  
SET/TSSH2, SET/TSSH2 or SET/SA2, CBS1e, SET/S**

3. Manufactured by: **Labkotec Oy**

4. Address: **Myllyhaantie 6  
FI-33960 PIRKKALA  
Finland**

5. The manufacturer name Wavin-Labko Oy or Wavin-Labko ltd. or Oy Labko Ab has been changed to Labkotec Oy

6. Compliance with the Essential Health and Safety Requirements has been assured by compliance with the standards:

**EN 60079-0 (2009)  
EN 60079-11 (2007)  
EN 60079-26 (2007)**

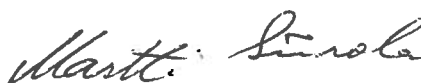
7. The marking of the equipment or protective system shall be according to the standards above.

Espoo, 8.10.2009

**VTT Technical Research Centre of Finland**



Pertti Kokkonen  
Research engineer



Martti Siirola  
Research scientist