1. EC-TYPE EXAMINATION CERTIFICATE

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

3. Reference: **VTT 03 ATEX 015X**

4. Equipment: **Capacitive level probe**

   Certified types: **SET/OELO2 and SET/MO2**

5. Manufactured by: **Oy Labko 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 TUO26-021761.

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

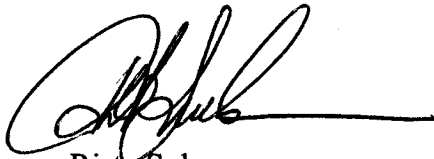   **EN 50014 (1997) +A1&A2
   EN 50020 (2002)**

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:

      II 2 G   EEx ia IIB T5   (Ta = -25 °C ... +60°C))

Espoo, 26.02.2003

VTT INDUSTRIAL SYSTEMS
Ex-Laboratory

Risto Sulonen
Senior research scientist

I018
(EN45004,liite A)

Martti Siirola
Research scientist

13. # Schedule

14. **EC-TYPE EXAMINATION CERTIFICATE VTT 03 ATEX 015X**

15. ## Description of Equipment

The SET/OELO2 or SET/MO2 is a capacitive level probe for liquid level or leakage detection. The probe is equipped with a permanently connected cable max length 15 m. The probe SET/OELO2 or SET/MO2 shall be connected to an intrinsically safe circuit.

Electrical data

The nominal voltage of the probe is $U_N = 9 \ldots 18$ V and the maximum input values of the probe type SET/OELO2 or SET/MO2 (with 15 m connecting cable) are:

Ui	Ii	Pi	Ci	Li
18 V	66 mA	297 mW	3 nF	30 µH

Documents:

Description of the SET/OELO2 and SET/MO2 capacitive leakage detector probe,
        XA25213_s, 4 pages, 16.10.2002
Schematic diagram, CBS1.3, XB25148Ae
Part list, CBS 1.3, XC25150Ae, 15.10.2002
Component layout on PCB CBS 1.3, XK25150Ae, 2 pages, 16.05.2002
Printed circuit board, CBS 1.3, XK25149Ae, 2 pages, 15.06.2002
Assembly drawing, SET/OELO2, XK25110As, 28.10.2002
Assembly part list, SET/OELO2, XC25110As, 25.10.2002
Probe enclosure, XK25207_s, 22.10.2002
Label, SET/OELO2, XK25015Bs, 18.10.2002
Assembly drawing, SET/MO2, XK25123As, 22.10.2002
Assembly part list, SET/MO2, XC25123As, 22.10.2002
Sensor plate, SET/MO2, XK25122Ae, 16.08.2002
Sensor metal frame, XK25128As, 22.10.2002
Earth bar, XK25132As, 22.10.2002
Label, SET/MO2, XK25126As, 18.10.2002

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17. **Special conditions for safe use:**

The free end of the permanently connected cable shall be connected according to the manufacturers instructions.

The metal frame of the SET/MO2 sensing element shall be grounded.

The permissible ambient temperature range is $-25\ °C \le T_a \le +60\ °C$.

18. **Essential Health and Safety Requirements**

Met by compliance with the standards referred in point 9.

Espoo, 26.02.2003

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