

CERTIFICATE OF COMPLIANCE
with the mechanical requirements of
EN 13485 standards

Client: **Nokeval Oy**

Address: **Yrittäjätatu 12, FI-37100 NOKIA, Finland**

Sort of Equipment: **Nokeval FT10 and MTR260C Pt 100 internal temperature sensors with Wireless Transmitter 433.92 MHz.**

Marketing Name: **OVA- system**


Type: **See appendix 1**

Serial Numbers: **See appendix 1**

Manufacturer: **Nokeval Oy**

Conclusion of Examination: **Nokeval FT10 and MTR260C Pt 100 internal temperature sensors fulfils the requirements of standard EN 13485:2001 clause 4.8.1 Class 1 accuracy for measuring the air temperature value - 30°C ... + 30 °C.**

Certificate Issue Date: **March 16, 2009**

Signed: 
Seppo Nykänen
Specialist

Nemko Oy is testing laboratory T017 accredited by the Centre for Metrology and Accreditation (FINAS).

Sample models in the test.

Sample 1. ID 65535

- FT10-IS, S/N: P108969, EN13485 air, S,C,1, -30°C + 50°C (Pt 100 internal temperature sensor) with FT10-RT433, S/N: P161638 (Wireless Transmitter 433.92 MHz).

Sample 2. ID 30000

- FT10-IS, S/N: P180973, EN13485 air, S,C,1, -30°C + 50°C (Pt 100 internal temperature sensor) with FT10-RT433, S/N: P169958 (Wireless Transmitter 433.92 MHz).

Sample 3. ID:6216 (old model MTR260C)

- MTR260C, EN13485, air, S,C,1, -30°C +50°C S/N: P17 0462

Measured values: +30°C 0.0°C... -30°C

Sample 1. ID 65535	Deviation	FLUKE 52 II 568	Sample 2. ID 30000	Deviation	FLUKE 52 II 568	Sample 3. ID:6216	Deviation	FLUKE 52 II 568
30.0	0.0	30.0	30.0	-0.1	29.9	30.0	0.0	30.0
0.0	0.0	0.0	-0.1	0.0	-0.1	-0.1	0.0	-0.1
-30.0	+0.3	-29.7	-30.1	+0.3	-29.8	-30.0	+0.2	-29.8
Measuring uncertainty: ±0.5°C								

Accuracy class of thermometers for measuring the air temperature

EN 13485:2001 Clause 4.8.1

Class	1
Maximum permissible errors	± 1°C
Resolution	≤ 0.5°

List of test equipment used:

Testing / measuring equipment	Range used	Calibration date
FLUKE type: 52 II ID: 568	+30°C 0.0°C... -30°C	24.06.2008
Heating chamber ID: 586	+30°C 0.0°C... -30°C	28.10.2008
Data acquisition by Nokeval PromoLog system: Wireless Surveillance Unit: Nokeval Model: DPR990		