



**Czech Metrology Institute**  
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**Calibration laboratory No. 2202 accredited by the Czech Accreditation Institute according to ISO/IEC 17025:2017**

**Laboratory:** Regional inspectorate, Okružní 31, 638 00 Brno  
Department of temperature and humidity, tel. +420 545 555 314, fax. +420 545 555 183

## CERTIFICATE OF CALIBRATION

**6036-KL-V0101-20**

**Date of issue:** March 26<sup>th</sup>, 2020

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**Customer:** ELEN, s.r.o.  
Lubochnianska 16  
080 06 Lubotice

**Measuring instrument:** Sensor of the humidity and temperature with transducer

**Manufacturer:** ELEN, s.r.o., Slovakia

**Type:** THS Sensor 52 24DC RS485-GI

**Serial number:** 19/3309

**Ident. number:** 192.168.0.64 ID2

**Description:** resolution 0,1 % RH, 0,1 °C using the PC with SW SW ELEN Data Logger Software version 1.20.03

probe external s.n. 19/3309

connection by the convertor RS485-LAN s.n. 14/1296

The results of the calibration have been obtained following the procedures reported in this Certificate and are related only to the date, place and conditions of the calibration.

**Date of calibration:** March 19<sup>th</sup>, 2020

**Calibrated by:**

**Director of the Regional inspectorate:**

Ing. Jiří Bílek



Ing. Radovan Wiecek

**Metrological traceability:** Measurements are traceable to (inter)national standards.

**Calibration procedures:** 636-MP-C119, 133-MP-C004

**Place of calibration:** CMI RI Brno, Okružní 31, 638 00 Brno

**Ambient conditions:** temperature:  $(23 \pm 3) ^\circ\text{C}$

**Calibration conditions:** measuring instrument was calibrated according to the internal procedures on a standard equipment of CMI RI Brno. Humidity calibration was performed at  $(23 \pm 2) ^\circ\text{C}$ . During the calibration the instrument was supplied by the RS485.

**Results of calibration:**

RELATIVE HUMIDITY

Data of standard $H_{et}$ % RH	Data of measuring instrument $H_m$ % RH	Uncertainty $U$ % RH
10,0	10,8	0,6
30,0	30,6	0,7
50,0	49,3	0,8
70,0	69,2	0,9
90,0	90,5	1,1

TEMPERATURE

Data of standard $t_{90}$ $^\circ\text{C}$	Data of measuring instrument $t_m$ $^\circ\text{C}$	Uncertainty $U$ $^\circ\text{C}$
-40,0	-39,9	0,3
-20,0	-19,9	0,3
0,0	0,1	0,2
20,0	20,0	0,2
40,0	39,9	0,2
60,0	59,9	0,2
80,0	79,8	0,2

The standard uncertainty of measurement has been determined in accordance with EA-4/02 M:2013 document. The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k$  corresponding to a coverage probability of approximately 95 %, which for normal distribution corresponds to a coverage factor  $k = 2$ .

End of calibration certificate.

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