

## **Czech Metrology Institute**

Okružní 31, 638 00 Brno, Czech Republic phone +420 545 555 111 www.cmi.cz





Calibration laboratory No. 2202 accredited by the Czech Accreditation Institute according

to ISO/IEC 17025:2017

Regional inspectorate, Okružní 31, 638 00 Brno Laboratory:

Department of temperature and humidity, tel. +420 545 555 314, fax. +420 545 555 183

# CERTIFICATE OF CALIBRATION

6036-KL-V0102-20

Date of issue:

March 26th, 2020

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Customer:

ELEN, s.r.o.

Ľubochnianska 16 080 06 L'ubotice

Measuring

instrument:

Sensor of the humidity and temperature with tranducer

Manufacturer:

ELEN, s.r.o., Slovakia

Type:

THS Sensor 40 12DC LAN

Serial number:

19/0918

Ident. number:

192,168,0,60

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. 19/0918

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 19th, 2020

Calibrated by:

Director of the Regional inspectorate:

Ing. Jiří Bílek

Ing. Radovan Wiecek

Metrological

Measurements are traceable to (inter)national standards.

traceability:

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

Place of calibration:

CMI RI Brno, Okružní 31, 638 00 Brno

Ambient conditions:

temperature:  $(23 \pm 3)$  °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

 $(23 \pm 2)$  °C. During the calibration the instrument was supplied by the adapter.

#### Results of calibration:

### RELATIVE HUMIDITY

Data of standard	Data of measuring instrument	Uncertainty
$H_{ m et}$	$H_{\mathrm{m}}$	U
% RH	% RH	% RH
10,0	11,3	0,6
30,0	31,1	0,7
50,0	49,6	0,8
70,0	69,6	0,9
90,0	90,2	1,1

#### TEMPERATURE

Data of standard	Data of measuring instrument	Uncertainty
t 90	t <sub>m</sub>	U
°C	°C	°C
-40,0	-40,1	0,3
-20,0	-20,0	0,3
0,0	0,0	0,2
20,0	20,0	0,2
40,0	39,9	0,2
60,0	59,9	0,2
80,0	79,9	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.

Český metrologický institut Oblastní inspektorát Brno Okružní 31 638 00 Brno -4-