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Standards and documents applied:

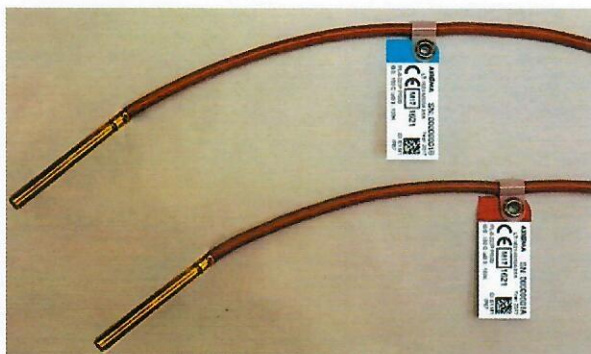
LST EN 1434-1:2015+A1:2019;
LST EN 1434-2:2015+A1:2019;
LST EN 1434-4:2015+A1:2019;
LST EN 1434-5:2015+A1:2019.

The measuring instrument must correspond with the following specifications:

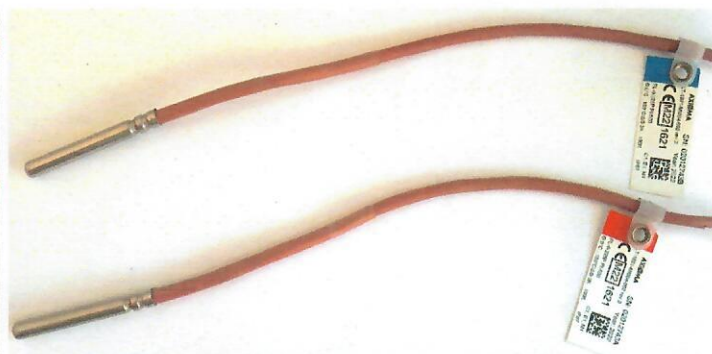
1 Design of the instrument

1.1 Construction

The resistance temperature sensor pair PL-6 is a sub-assembly of a thermal energy meter. The temperature sensors have a permanently connected signal leads. The protective sheath of the temperature probe is made of brass or stainless steel. The sensors have either two-wire or four-wire connection, the cable length can be 3; 5 or 10 m. Mechanical design of the temperature sensors – pocket mounted long probes type PL according to LST EN 1434-2. The pockets are available in 85; 120 or 210 mm.



a) The protective sheath of the probe is made of brass



b) The protective sheath of the probe is made of stainless steel

Fig.1. Temperature sensor pair PL-6

Structure of type number of the temperature sensor pair PL-6

Type	PL - 6 - □ □ □ □ □ *
Pt- designation:	Pt 500 – 2
Connection method:	two – wire scheme – 2 four – wire scheme – 4
Connection cable length, m:	3, 5 or 10
Temperature sensor pair:	P
Temperature sensor double pair (three sensors):	PD
Individual sensor:	(omitted) –
Mounting set (pocket, sleeve, sealing ring) depending on the diameter of the pipeline (DN20,DN25, DN32, DN40, DN50,DN65, DN80,DN100,DN125,N150,DN200):	DN20...DN200
No mounting set:	(omitted) –

Note:* - marked code number are used only for order coding (no used for type marking).

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1.2 Sensor

Platinum resistance thermometer with Pt 500 sensor and resistance characteristics according to LST EN 60751.

1.3 Measurand processing

None.

1.4 Indication of the measurement results

The output signal in the form of resistance is transferred to the thermal energy meter calculator, which displays the values of temperatures in inlet and outlet and values of temperature differences.

1.5 Optional equipment and functions subject to MID requirements

None.

1.6 Technical documentation

Platinum resistance temperature sensors PL-6. Technical description and user manual PLPL6V04MID, 11-05-2018.

Design and dimensions of the temperature sensor PL-6. Drawing N1.1941.00.00.SB, 27-01-2022.

Other reference documents, on which basis this certificate is issued, are stored in a file LEI-12-MP-125.22.

1.7 Integrated equipment and functions not subject to MID

Double pair – temperature sensor pair with additional temperature sensor, which is paired with inlet temperature sensor.

2 Technical data

2.1 Rated operating conditions

2.1.1 Measurand

Temperature difference, which is directly related to the heating energy, measured by the heat meter calculator.

2.1.2 Measurement range

- limits of temperature θ : 0 °C to 150 °C;
- limits of temperature differences $\Delta\theta$: 3 K to 100 K.

2.1.3 Maximum permissible error

$$E_t = \pm (0,5 + 3\Delta\theta_{min}/\Delta\theta), \%$$

where: $\Delta\theta_{min}$ - the lower limit of the temperature difference, K;
 $\Delta\theta$ - the measured temperature difference, K.

2.1.4 Environmental conditions/ Influence quantities

Ambient temperature	:	5 °C to 55 °C;
Humidity	:	condensing;
Installations	:	indoor;
Mechanical environment	:	class M1;
Electromagnetic environment	:	class E1.



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2.2 Other operating conditions

Thermal response time $\tau_{0,5}$, when the sensors are immersed directly :

- when the protective sheath of the temperature probe is made of brass: < 4 sec.;
- when the protective sheath of the temperature probe is made of stainless steel: < 5 sec.

Thermal response time $\tau_{0,5}$, when the sensors are mounted in pockets :

- when the protective sheath of the temperature probe is made of brass: < 10 sec.;
- when the protective sheath of the temperature probe is made of stainless steel: < 12 sec.

3 Interfaces and compatibility conditions

The heat meter calculator must be intended for the connection of the temperature sensors Pt 500.

4 Requirements on production, putting into use and utilization

4.1 Requirements on production

At the end of the manufacturing process the temperature sensor pair shall be tested according to the requirements of the LST EN 1434-5. Errors of the temperature sensor pair shall not exceed the maximum permissible errors described in Annex VI (MI-004) of the Directive 2014/32/EU.

4.2 Requirements on putting into use

The temperature sensor pair must be installed in accordance with the requirements of technical description listed in section 1.6.

4.3 Requirements for consistent utilization

No special requirements identified.

5 Control of the measuring process after tasks of the instrument in use

5.1 Documentation of the procedure

None.

5.2 Special equipment of hardware or software

None.

5.3 Identification of hardware and software

Identification of hardware: see Fig.1 and Fig. 3 of this appendix.

5.4 Calibration-adjustment procedure

The tests of the temperature sensor pair should be carried out according to requirements of LST EN 1434-5.

6 Security measures

6.1 Sealing

The marking label of the each sensor is permanently connected to the sensor cable (Fig. 1).

After the installation in the heating system, the installation site of temperature sensors in the pipeline should be sealed by means of hanged seal of heat supplier as shown in Fig. 2. The sealing wire should be passed through the special holes of the sleeve and of the screw head of the protective pocket.



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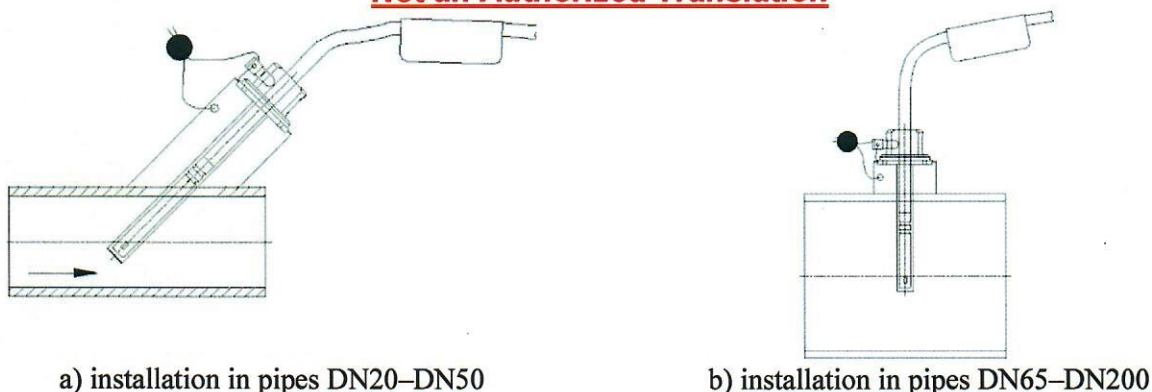


Fig. 2. Sealing of the temperature sensors after installation

7 Marking and inscriptions

7.1 Information to be borne by and to accompany the measuring instrument

The labels of the temperature sensors contain the following information:

- EU-type examination certificate number;
- name of the manufacturer or this trade mark;
- type number;
- Pt - designation of the temperature sensor;
- year of manufacture and serial number*;
- limits of temperature;
- limits of temperature differences;
- electromagnetic class;
- mechanical class;
- IP code;
- QR code.

Note: * - serial number of temperature sensor consists of eight digits and the letter. The pair or double pair has the same number and the different letters:

„XXXXXXXXXA“- temperature sensor is used for mounting in inlet pipe. Field in the label is red.

„XXXXXXXXXB“- temperature sensor is used for mounting in outlet pipe. Field in the label is blue.

„XXXXXXXXXC“- additional temperature sensor of the double pair. Field in the label is blue.

In addition, the pockets of temperature sensors shall be marked with „EN 1434”.

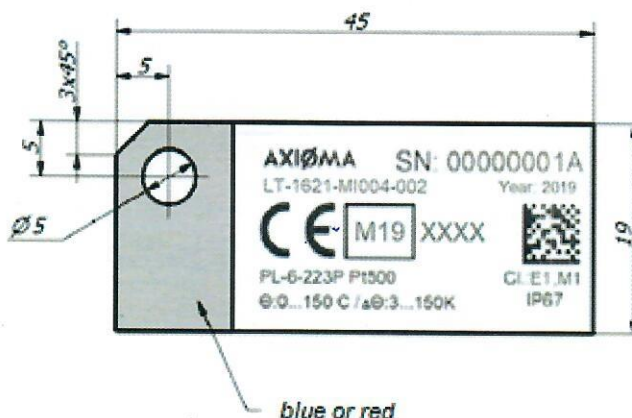


Fig. 3. Marking label of the temperature sensor

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7.2. Conformity marking

In addition, the label of the temperature sensor should contain the following marking:

- „CE” marking;
- metrology marking, consisting of the capital letter „M” and the last two digits of the year of its affixing, surrounded by a rectangle;
- identification number of the notified body, which carried out the conformity assessment.

8 List of the drawings attached to the certificate

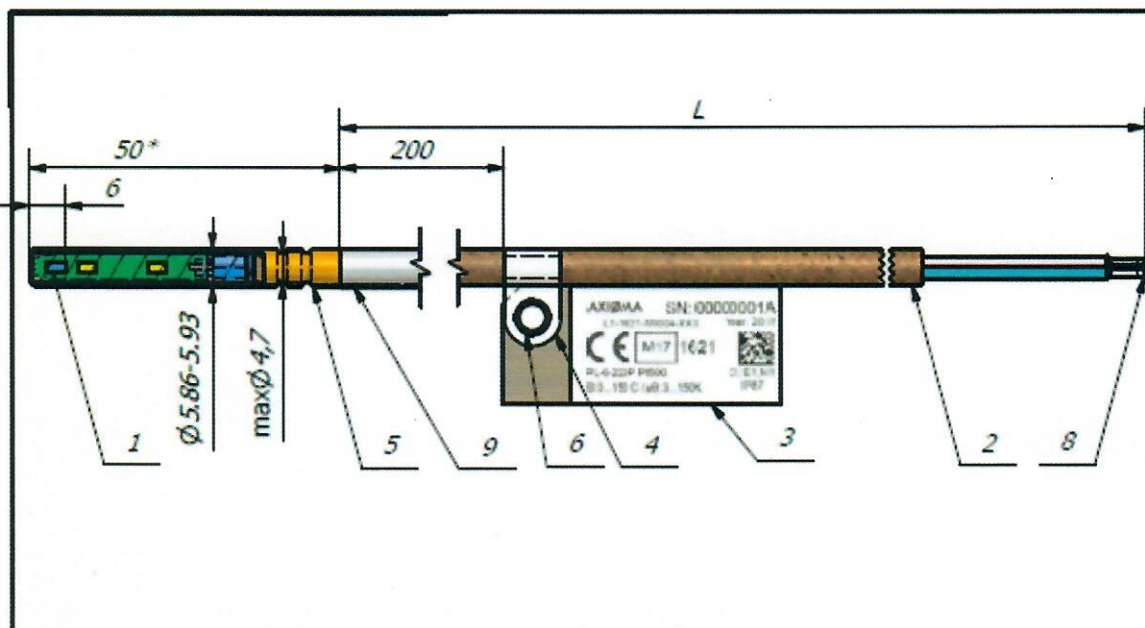
Design and dimensions of the temperature sensor PL-6. Drawing N1.1941.00.00.SB, 01-27-2022.

9 Certificate history

Issue	Date and reference №	Description
LT-1621-MI004-002	16-01-2009, No. LEI-12-MP-002.08	Type examination certificate first issued
LT-1621-MI004-002 Revision 1	24-01-2018, No. LEI-12-MP-065.17	<p>1. Manufacturer's name AB „Axis Industries” changed by name UAB „Axioma LEZ”.</p> <p>2. Dismountable temperature sensor label is replaced to all-in-one label without any additional sealing.</p> <p>3. On the temperature sensor label, the brand name Axis Industries has been changed to AXIOMA.</p> <p>4. New drawing 856.00.00.SB of the temperature sensor, issued 01-2018.</p> <p>5. The document PLPL6V03MID, issued on 12-01-2009, has been replaced by the document PLPL6V04MID, issued on 21-11-2017.</p>
LT-1621-MI004-002 Revision 2	04-04-2019, No. LEI-12-MP-085.19	<p>1. Certificate validity extended until 16-01-2029.</p> <p>2. Manufacturer's name UAB „Axioma LEZ” changed by name UAB „Axioma Metering”.</p> <p>3. The document PLPL6V04MID, issued on 21-11-2017, has been replaced by the document PLPL6V04MID, issued on 11-05-2018.</p>
LT-1621-MI004-002 Revision 3	14-07-2022, No. LEI-12-MP-125.22	<p>1. The protective sheath of the temperature probe can be made of brass or stainless steel.</p> <p>2. The drawing of the temperature sensor N1.856.00.00.SB, issued on 01-2018, has been replaced by the drawing N1.1941.00.00.SB, issued on 27-01-2022.</p>



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Specifikacija

Form	Pozic	Žymėjimas	Pavadinimas	Kiekis	Nvs kodas
A4	1	JUMO PCSE Pt500	Temperatūros sensorius	1	SE0001799
A4	2	N1.856.00.05	Kabelis	1	SE0001794
A4	3	N1.856.00.04-02	Etiketė PL6	1	
	4		Laikiklis etiketei	1	EUP000467
	5	JUMO 00048208 arba JUMO 00065578	Temperatūros jutiklio korpusas	1	AGG000001
	6		Kniedė žalvarinė HO66	1	TVKN00138
	7	H775517-1	Silikoninė pasta	1	SE0002310
	8		Antgalis laidui 0,5-6	2	EAN000011
	9		Termokembrikas 6,4; L-60; skaidrus	1	SE0001604
	10		Viela lydmetalio		SE0002228
	11		Klijai "Super adhesive"		CKL000006

Kabelio ilgis "L" nurodomas užsakyme.

N1.1941.00.00.SB

Pak	Lapas	Dokum.Nr	Parašas	Data	Termojutiklis PL-6	Raidė	Masė	Mastelis
Atliko	Poška			2022.01.27				1:1
Tikrino								
N.kontr.						Lapas	1	Lapų
T.kontr.								1
Suderinta	Baltikonis					UAB "AXIOMA METERING"		
Tvirtino								

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