



USER MANUAL

8281

Air Temperature Sensor



Warranty

Please note the loss of warranty and non-liability by unauthorized manipulation of the system. You need a written permission of the LAMBRECHT meteo GmbH for changes of system components. These activities must be operated by a qualified technician.

The warranty does not cover:

1. Mechanical damages caused by external impacts (e.g. icefall, rockfall, vandalism).
2. Impacts or damages caused by over-voltages or electromagnetic fields which are beyond the standards and specifications in the technical data.
3. Damages caused by improper handling, e.g. by wrong tools, incorrect installation, incorrect electrical installation (e.g. false polarity) etc.
4. Damages which are caused by using the device beyond the specified operation conditions.

Function

The sensor 8281 measures the air temperature using a platinum resistance measuring element Pt100. The protective shelter 8141.6 protects the sensor from unwanted weather influences such as precipitation and radiation, creating optimal measurement conditions.

ACCESSORIES

Sensor shelter 8141.6

Id-No. 00.08141.600000

For mounting the 8281 sensor using the adapter:

Id-No. 32.08141.001010

(See also illustration on next page)



Two-channel transducer 8763 TH

Id-No. 00.08763.012002

For connecting one temperature sensor, e.g. 8281 and/or one humidity sensor; with overvoltage protection.

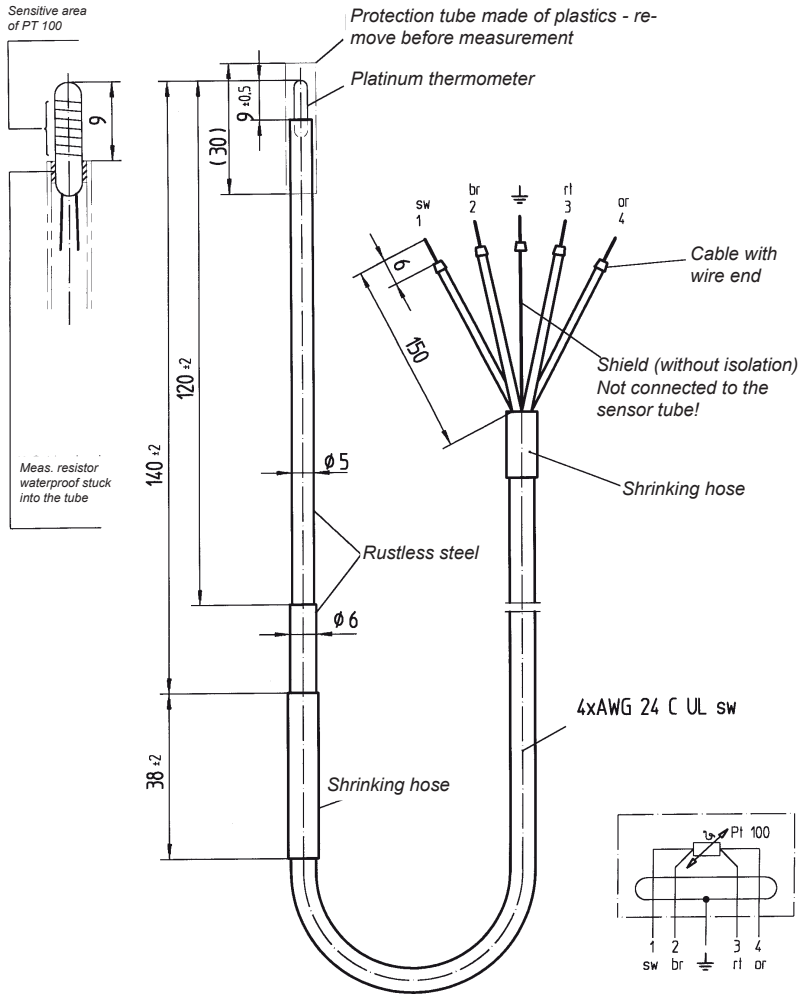
Power supply: 0...30 VDC

2 outputs: 0(4)...20 mA, max. load 1.2 kOhm at 24 VDC; 0...2 V

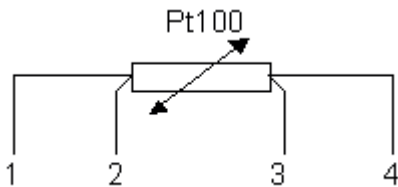
(For further data, see operating manual for the 8763 TH transducer)



Dimensional drawings and connections

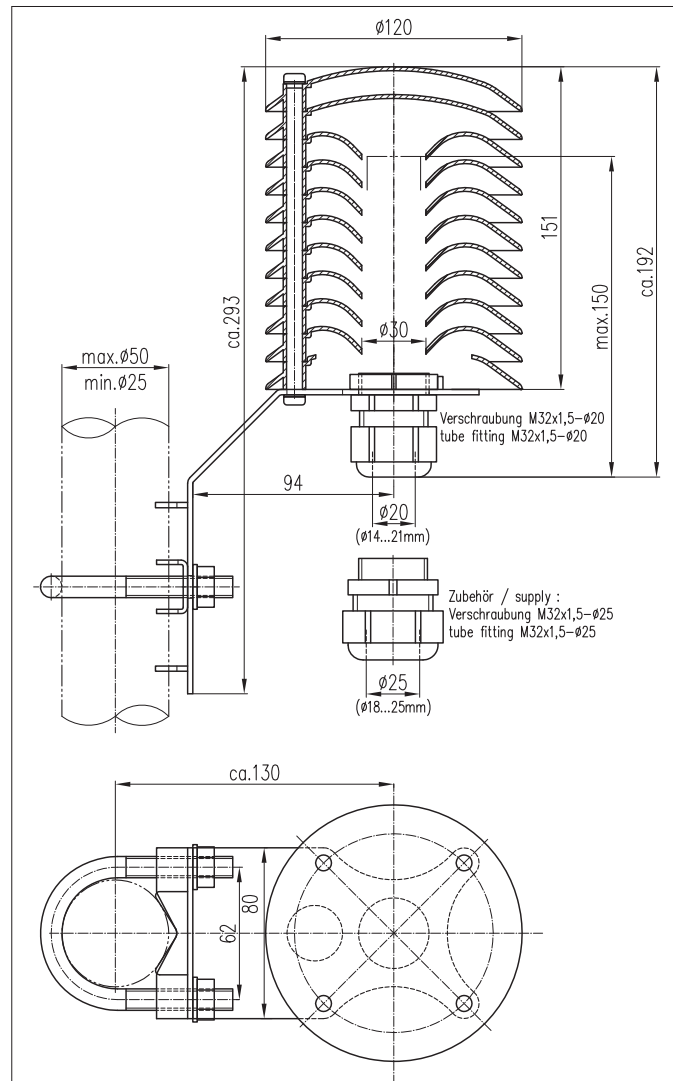


- The connection is made using 4-wire technology
- Cable recommendation: 4 x AWG 20 C UL sw Kabel



Ader Core	AWG C UL				Electric Wiring
	AWG-Farbcode	Colour code	Colour code	Colour code	
1	schwarz sw	black	blk	J+	
2	braun br	brown	brn	U+	
3	rot rt	red	red	U-	
4	orange or	orang	ora	J-	

Sensor shelter



Disposal

LAMBRECHT meteo GmbH is listed and registered at the Stiftung Elektro-Altgeräte Register ear under:

WEEE-Reg.-Nr. DE45445814

In the category of monitoring and control instruments, device type: "Monitoring and control instruments for exclusively commercial use".

Within the EU



The device has to be disposed according to the European Directives 2002/96/EC and 2003/108/EC (Waste Electrical and Electronic Equipment). Do not dispose the old device in the household waste! For an environmentally friendly recycling and disposal of your old device, contact a certified disposal company for electronic waste.

Outside the EU

Please follow the regulations in your country regarding the appropriate disposal of waste electronic equipment.



Technical data

8281 AIR TEMPERATURE SENSOR

Id-No.	00.08281.008005
Measuring element	Pt100, 1/3 DIN; DIN 43 760 resp. IEC 751
Measuring range	-30...+70 °C
Accuracy	± 0.1 °C at 0 °C
Range of application	-60...+90 °C
Dimensions	120 mm length; 5 mm Ø
Output	Pt100 resistor; 100 Ohm at 0 °C
Cable	approx. 7.5 m; 4 x AWG 20 C UL sw

Values of a Pt100 resistor

Temperature [°C]	Resistance [Ohm]	max. Deviation [°C]
-30	88.17	0.13
-20	92.13	0.12
-10	96.07	0.12
0	100.00	0.10
10	103.90	0.10
20	107.80	0.12
30	111.68	0.12
40	115.54	0.12

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