

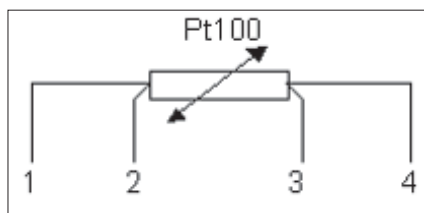


Function

The sensor 8241 is used for grass temperature measurements at a height of 50 mm above ground level. It contains an encapsulated platinum-resistor (type Pt100) which is connected to a fix-mounted cable, using 4-wire-technology. The entire assembly is rainproof and shielded against thermal influences by a protective roof.

Cable type

We recommend a 4xAWG 20 C UL sw cable.



Ader Core	AWG C UL				Electric Wiring
	AWG-Farbcode	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-	

Remarks for operation

Mounting: The sensor has to be mounted at a height of 50 mm. It has to be connected, using it's connection-part, to a vertical tube with a maximum diameter of 15 mm.

Maintenance: The sensor itself is maintenance-free. For best results, make sure that no vegetation is growing up and inside the sensor-system.

Functional test: The indicated value on the data acquisition system must be credible and can additionally be cross-checked with a separate reference thermometer.

Technical Data

Accuracy: 0.1 K at 0 °C
acc. to DIN / ICE 751 (1/3 DIN)

Operating temperature: -30...+70 °C

Dimensions:

Sensor: length 120 mm · Ø 5 mm

Mounting: 250 x 60 x 45 mm (L x W x H)

Output: Pt100-resistor
100 Ohm at 0 °C

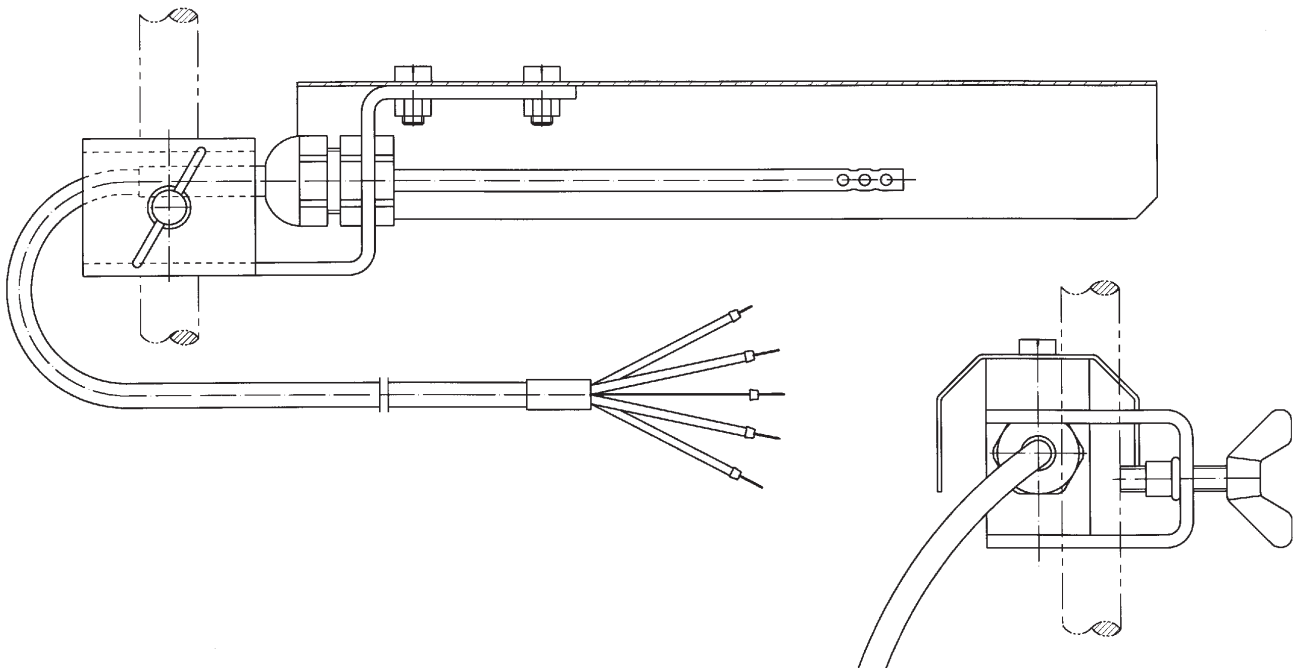
Cable length: approx. 7.5 m

Weight: approx. 1 kg
(incl. case and mounting)

Basic values of the 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



Dimensional drawing



Product	Specifications	Id-No.
Sensor 8241 for grass temperature	Pt100, 1/3 DIN 43 760 resp. IEC 751 Output: Pt100-resistor; Accuracy: 0.1 K at 0 °C; Temperature range: -30...+70 °C; With cable 4 x AWG 20 C UL sw, approx. length 7.5 m, mounting tube and protective shield	00 08241.000 000
Transducer 8763	2-channel transducer with overvoltage protection Inputs: Sensor for rel. humidity 8001 and/or sensor for air temperature 8241; Output: 2x 0(4)...20 mA, working resistance max. 1.2 kOhm at 24 V _{DC} Operating voltage: 10...30 V _{DC}	00.08763.012 002

Please note the loss of warranty and non-liability by unauthorised manipulation of the system. You need a written permission from 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 (false polarity) etc.
4. Damages which are caused by using the device beyond the specified operation conditions.

Subject to change without notice.

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LAMBRECHT meteo GmbH
Friedländer Weg 65-67
37085 Göttingen
Germany

Tel +49-(0)551-4958-0
Fax +49-(0)551-4958-312
E-Mail info@lambrecht.net
Internet www.lambrecht.net



Quality System certified by DQS according to
DIN EN ISO 9001:2008 Reg. No. 003748 QM08