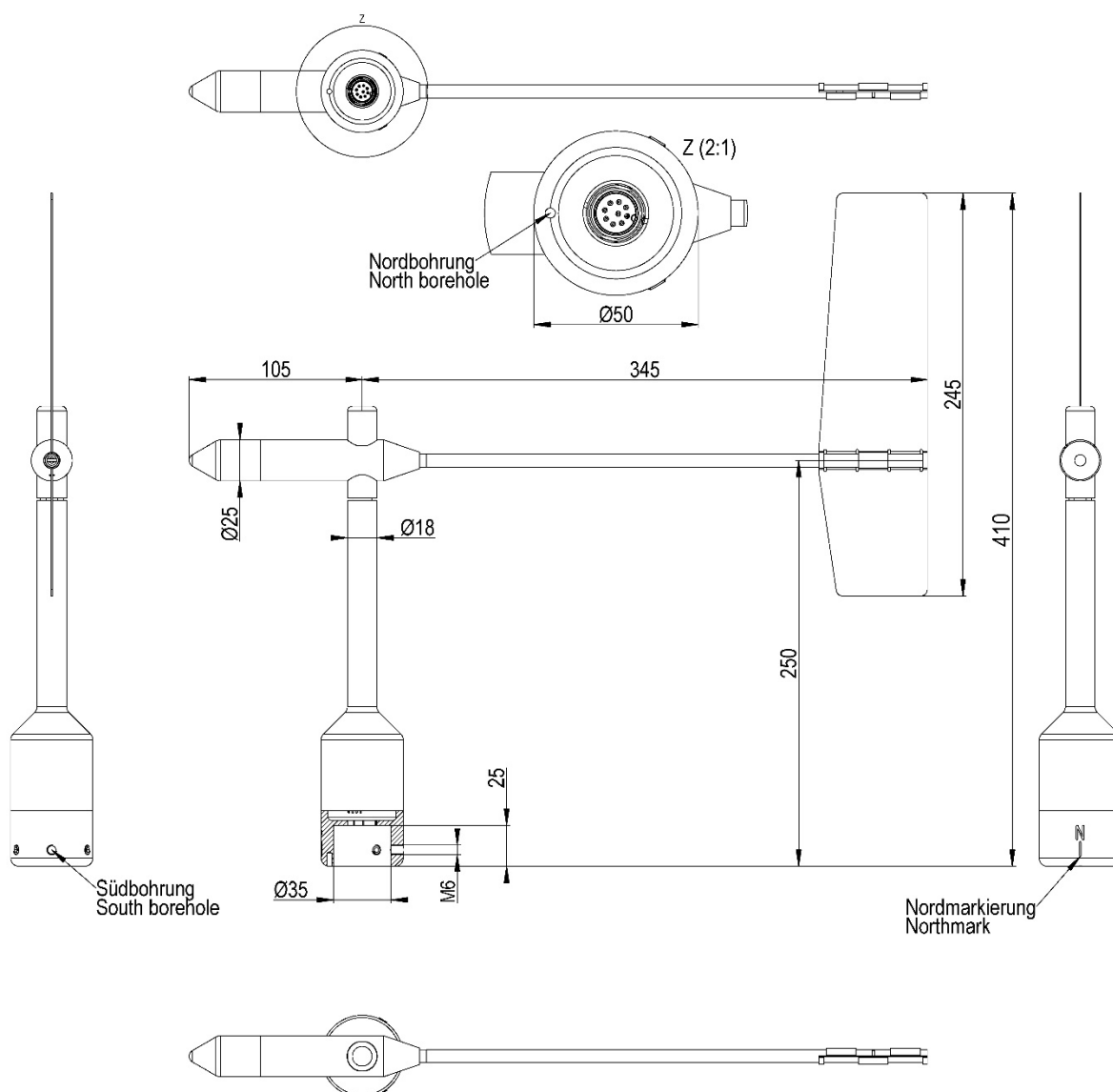


14 Technical Data

Characteristic	Description
Measuring range	0 ... 360 °
Measuring Accuracy	±1 °
Resolution of measuring value	0.1 °
Output telegram	Telegram 3; Telegram 4; Telegram 5
Measuring time	Approx. 10ms / WD-measurement.
Operating speed	Up to 75m/s.
Survival speed	85 m/s up to 0.5h.
Electric input of wind velocity	0 ... 1082Hz @ 0 ... 50m/s U _{PP_max} = 0 ... 15V, U _{PP_min} = 0 ... 3V
Permissible ambient conditions for operation	-50 ... +80 °C All occurring situations of rel. humidity incl. dew moistening.
Wind load (Wind power)	64,5N
Electrical output	RS 485 half duplex: 1200; 2400; 4800; 9600; 19200; 38400; 57600Baud 8 Bit; no/even/odd parity; 1/2 Stopbit(s)
Starting threshold	< 0.5m/s at 10 ° amplitude (acc. to ASTM D 5366-96). < 0.2m/s at 90 ° amplitude (acc. to VDI 3786 Part 2).
Delay distance	< 1.8m (acc. to ASTM D 5366-6).
Damping ratio	D > 0.3 (acc. to ASTM D 5366-96).
Quality factor	K > 1 $K = \frac{4 \cdot D \cdot \omega_0}{\rho \cdot u}$ D damping ratio, ω ₀ angular frequency of undamped oscillation, ρ air density u wind speed.
Heating	Surface temperature of housing neck > 0 °C at 20m/s up to -10 °C air temperature, at 10m/s up to -20 °C using the Thies icing standard 012002 on the housing neck heating regulated with temperature sensor.
Power supply	3,3 ... 42V
Power consumption	Serial communication: 0,5mA @ 3,3 ... 42V With one data query/sec: 1,0mA @ 3,3 ... 42V

Characteristic	Description
Power supply for heating	Current: 24V AC/DC +- 20%, 45...65Hz (galvanic isolation from housing) Idling voltage: max. 32V AC and max. 48V DC Power: 25W
Connection	8-pole plug connection for shielded cable in the shaft (see connecting diagram).
Mounting	Mounting on mast Outer diameter $\leq 34\text{mm}$ Inner diameter $\geq 22\text{mm}$ Remark: mounting on mast is possible with separate adaptor (option).
Dimensions	See dimensional drawing.
Weight	Approx. 0.7kg
Protection	IP 55 (DIN 40050)
Material:	Housing, vane Mast-adaptor Aluminium Stainless steel (V4A)

15 Dimensional Drawing



16 Accessories

<p>Traverse 0,6m For mounting the wind speed and wind direction transmitter jointly onto a mast</p>	4.3174.00.000	<p>Horizontal sensor distance: 0.6m Vertical sensor distance: 0.2m Mast receptacle: 48 ... 50mm Material: Aluminum, anodized Dimensions: tube Ø 34 x 4mm, 668mm long, 756mm high</p>
<p>Hanger –FIRST CLASS- 1m For the lateral mounting of a wind speed and wind direction transmitter onto a mast tube..</p>	4.3184.01.000	<p>Sensor distance to mast: 1m Mast clamp: 40 ... 80mm Tube diameter: 34mm Material: Aluminum</p>
<p>Lightning rod For mounting the a/m traverse or hanger.</p>	4.3100.98.000	<p>Dimension: Ø 12mm, 500mm long, 1050mm high Material: Aluminum</p>
<p>Wind – Junction box Serves for the connection of several measuring value transmitters. Minimizes the number of cable cores.</p>	507 676	<p>Dimension: 125 x 80 x 57mm Material: Aluminium</p>
<p>Adaptor For isolated mounting of each wind transmitter and wind direction transmitter on the traverse (4.3174.0.000).</p>	509077	<p>Dimension: A:Ø 34mm, outside 25mm high B:Ø 35mm, inside 45mm high Material: POM</p>
<p>Adapter “north ring“ The “north ring“ serves is an alignment aid, and for the easy change/replace-ment without re-adjustment of the northern direction of wind direction transmitters.</p>	509619	<p>Material: Aluminium, anodized Dimension: A: Ø 50mm, outside 75mm high B: Ø 35mm</p>

Please contact us for other accessories such as cables, power supply units, masts, as well as for additional mast- or system-constructions.

Example: Wind transmitter with traverse and lightning rod.



17 More Information / Documents as download

Following documents are available for download via the link.

Instruction for use

https://www.thiesclima.com/db/dnl/4.3151.xx.40x_WR-Geber-FirstClass_deu.pdf

18 EC-Declaration of Conformity

Manufacturer: Adolf Thies GmbH & Co. KG
 Hauptstraße 76
 37083 Göttingen, Germany
<http://www.thiesclima.com>

Product: WR firstclass, akt, Poti

Doc. Nr. 1585-44784_CE

Article Overview:

4.3151.00.000	4.3151.00.001	4.3151.00.012	4.3151.00.020	4.3151.00.110	4.3151.00.140	4.3151.00.141	4.3151.00.161	4.3151.00.173	4.3151.00.210
4.3151.00.212	4.3151.00.400	4.3151.00.401	4.3151.00.901	4.3151.01.400	4.3151.01.401	4.3151.10.000	4.3151.10.001	4.3151.10.012	4.3151.10.020
4.3151.10.110	4.3151.10.140	4.3151.10.141	4.3151.10.161	4.3151.10.173	4.3151.10.210	4.3151.10.212	4.3151.10.400	4.3151.10.401	4.3151.11.400
4.3151.11.401	4.3151.90.000	4.3151.90.001	4.3151.90.141	4.3151.90.400					

The indicated products correspond to the essential requirement of the following European Directives and Regulations:

2014/30/EU	26.02.2014	DIRECTIVE 2014/30/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.
2017/2102/EU	15.11.2017	DIRECTIVE (EU) 2017/2102 of the European Parliament and of the Council of November 15, 2017 amending Directive 2011/65 / EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
2012/19/EU	13.08.2012	DIRECTIVE 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on waste electrical and electronic equipment (WEEE).
2018/1139/EU	04.07.2018	Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency.

The indicated products comply with the regulations of the directives. This is proved by the compliance with the following standards:

DIN EN 61000-6-2	2019-11	Electromagnetic compatibility immunity for industrial environment
DIN EN 61000-6-3:2007 + A1:2011	2011-09	Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments
DIN EN 61010-1	2020-03	Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements
DIN EN 63000	2019-05	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Legally binding signature:



General Manager - Dr. Christoph Peper

Legally binding signature:



Development Manager - ppa. Jörg Peterleit

This declaration certifies the compliance with the mentioned directives, however does not include any warranty of characteristics.
 Please pay attention to the security advises of the provided instructions for use.

19 UK-CA-Declaration of Conformity

Manufacturer: Adolf Thies GmbH & Co. KG
 Hauptstraße 76
 37083 Göttingen, Germany

<http://www.thiesclima.com>

Product: WR firstclass, akt, Poti

Doc. Nr. 1585-44784_CA

Article Overview:

4.3151.00.000	4.3151.00.001	4.3151.00.012	4.3151.00.020	4.3151.00.110	4.3151.00.140	4.3151.00.141	4.3151.00.161	4.3151.00.173	4.3151.00.210
4.3151.00.212	4.3151.00.400	4.3151.00.401	4.3151.00.901	4.3151.01.400	4.3151.01.401	4.3151.10.000	4.3151.10.001	4.3151.10.012	4.3151.10.020
4.3151.10.110	4.3151.10.140	4.3151.10.141	4.3151.10.161	4.3151.10.173	4.3151.10.210	4.3151.10.212	4.3151.10.400	4.3151.10.401	4.3151.11.400
4.3151.11.401	4.3151.90.000	4.3151.90.001	4.3151.90.141	4.3151.90.400					

The indicated products correspond to the essential requirement of the following Directives and Regulations:

1091	08.12.2016	The Electromagnetic Compatibility Regulations 2016
RoHS Regulations 2012	01.01.2021	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
3113	01.01.2021	Regulations: waste electrical and electronic equipment (WEEE)
2018/1139/EU	04.07.2018	Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency.

The indicated products comply with the regulations of the directives. This is proved by the compliance with the following standards:

BS EN IEC 61000-6-2	25.02.2019	Electromagnetic compatibility (EMC). Generic standards. Immunity standard for industrial environments
BS EN IEC 61000-6-3	30.03.2021	Electromagnetic compatibility (EMC). Generic standards. Emission standard for equipment in residential environments
BS EN 61010-1+A1	31.03.2017	Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements
BS EN IEC 63000	10.12.2018	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Legally binding signature:



General Manager - Dr. Christoph Peper

Legally binding signature:



Development Manager - ppa. Jörg Peterleit

This declaration certifies the compliance with the mentioned directives, however does not include any warranty of characteristics. Please pay attention to the security advises of the provided instructions for use.

**Please contact us for your system requirements.
We advise you gladly.**

ADOLF THIES GMBH & CO. KG

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