

PTH Thies Compact – Meteo

S59000A



PTH Thies Compact – Meteo

Order number	Availability
S59000A	Usually on stock

PTH Thies Compact – Meteo is designed to measure relative humidity, air temperature and barometric air pressure.

Description

- Measurement of relative humidity, air temperature and barometric air pressure
- High accuracy
- Long-term robustness
- Sintered filter cap
- Stainless steel housing

Hygro-Thermo-Baro transmitters COMPACT are designed to measure relative humidity, air temperature and barometric air pressure.

PTH Thies Compact – Meteo sensor is intended for use at meteorological measuring stations for connection to datalogger systems. Thanks to its universal interface the sensor can also be used as a single solution in every application suitable.

The use of high-quality sensors for the parameters to be measured allows the sensor to achieve the following:

- high long-term stability,
- virtually linear characteristic,
- good dynamic behaviour,
- dewing resistance,
- low temperature coefficients,
- small hysteresis.

Specifications

PTH Thies Compact – Meteo

General Information

Order Number S59000A

Temperature

Measuring Range -40 ... +80 °C

Accuracy ± 0.1 °C @ -40 ... +80 °C @ moved air >2 m/s

Relative Humidity

Measuring Range 0 ... 100 % rel. Humidity

Accuracy Typ. ± 1.5 % r. H. @ 25 °C and < 80 % r. H.
2 % r. H. over the complete measuring range

Air Pressure

Measuring Range 600 ... 1100 hPa

Accuracy ± 0.25 hPa @ -20 ... +80 °C @ 800 ... 1100 hPa
 ± 0.50 hPa @ -20 ... +80 °C @ 600 ... 800 hPa

Output Digital

Interface RS485 HD

Communication Protocol Modbus RTU (on request Thies ASCII)

Baud Rate 38400 (on request 2400 ... 57600)

Device ID 1 (on request others)

RS485 Data Format 8N1

Output Analog (3 x 0 ... 1 V)

Temperature Range: -40 ... +80 °C
Offset: -40 °C
Slope: 120 °C/V

Rel. Humidity Range: 0 ... 100 %
Offset: 0 %
Slope: 100 %/V

Air Pressure Range: 600 ... 1100 hPa
Offset: 600 hPa
Slope: 500 hPa/V

Power Supply

PTH Thies Compact – Meteo

Operating Voltage 6 ... 30 VDC

Current Consumption Typ. 3 mA @ 12 V / max. 8.5 mA @ 12 V

General

Ambient Conditions -40 ... +85 °C

Housing Stainless steel

Type of Protection IP 67 (applies to the total sensor)

Dimension See dimensional drawing

Weight Approx. 0.45 kg

Manufacturer Thies Klima

Admissible Environmental Conditions -40 ... +85 °C
0 ... 100 % rel. humidity, including condensation

Filter Sintered filter cap

Accessories S50050 Weather and Radiation Shield

Dimensional drawing



Sensor connection diagram

PTH Thies Compact – Meteo connection analog to Meteo-42

Plug Pin No.	Ammonit Cable Wire Colour	Meteo-40 / Meteo-40 plus
3	white	B+, Data+
4	brown	A-, Data-
2	yellow grey	RGND GND / Main Ground
1	green	Supply

Cable type: LiYCY 3 x 2 x 0.25 mm²

PTH Thies Compact – Meteo connection RS-485 to Meteo-42

Plug Pin No.	Ammonit Cable Wire Colour	Meteo-40 / Meteo-40 plus
1	red	Supply
2	blue	GND, Main Ground
	brown	AGND
	yellow	AGND
	pink	AGND
3		
4		
5	white	Pressure
6	green	Humidity
7	grey	Temperature

Cable type: LiYCY 8 x 0.25 mm²

PTH Thies Compact – Meteo connection RS-485 to Meteo-40



Plug Pin No.	Ammonit Cable Wire Colour	Meteo-40 / Meteo-40 plus
3	white	B+, Data+
4	brown	A-, Data-
2	yellow grey	RGND GND / Main Ground
1	green	Supply

Cable type: LiYCY 3 x 2 x 0.25 mm²

Accessories

- Weather and Radiation Shield for Air Temperature / Humidity Sensor

Documents

EN_TD_Pt100-ToleranceClasses