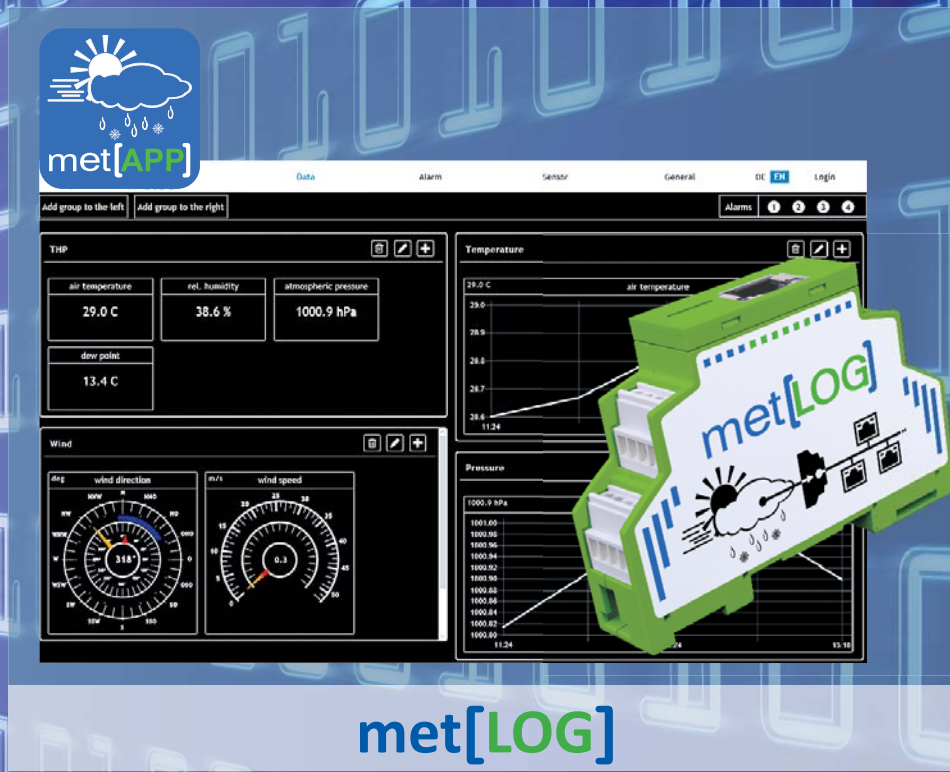


met[LOG]

Measure your climate data, display and provide them in your network. This is easy with our Smart System Solutions around the data logger met[LOG] and its integrated met[APP].

Create your own measuring station. This brochure will guide you through the possible combinations.

Smart System Solutions



met[LOG]

closer to the climate

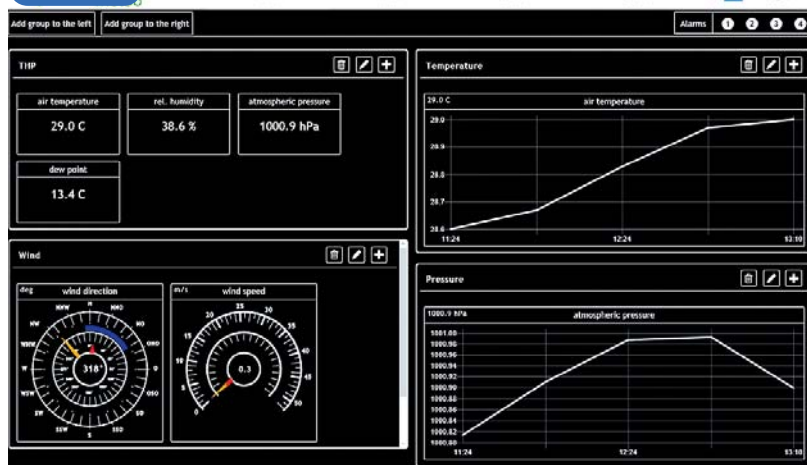
Smart serial solution

This means for you: The data logger met[LOG] and its met[app] quickly and easily transfer your climate data into your network (LAN). The met[LOG] has an autoconfiguration via plug & play for the uncomplicated commissioning of the serial LAMBRECHT meteo sensors. Visualisation of your data is easily done via integrated met[APP] in your web browser.



Features and advantages:

- real-time access to measurement data via integrated web server, visualised in your browser with met[APP]
- data management includes wind speed, wind direction, air humidity, air temperature, air pressure and global radiation as well as amount of precipitation
- met[LOG] calculates trends and patterns, and automatically performs corrections based on altitude and air pressure
- thanks to its digital outputs the met[LOG] immediately issues a warning or raises an alarm
- plug & play - auto-configuration by push of a button allows full working capability within seconds
- various combinations are possible: 7 interfaces allow connection of 4 analog and 3 serial sensors



met[APP] - Our browser app which is integrated in the met[LOG] - for easy visualisation of the current climate data in your network. Platform-independent on your PC, tablet or smartphone.

- Displays the instantaneous values of your LAMBRECHT meteo station
- Exports the measured values stored by the met[LOG]
- Configures the met[LOG]



Technical Data

Professional Line	Data Logger met[LOG] incl. SD card	Id-No. 00.95800.010000
Interface:	3 x RS 485 • A+, B-; half duplex	
Input:	4 analogue/ digital input • range: 0...10 V (configurable) • $R_i \geq 10 \text{ k}\Omega$	
Output:	4 digital output • digital output max. voltage: $V_0 - 0.1 \text{ V}$ up to V_0 • max. 0.7 A	
Ethernet:	10/100 BaseT • connector RJ45 shielded	
Power Supply (V_0):	11...32 V DC • Caution: Power supply switched through at the digital outputs	
Power consumption:	500 mW typically (no digital output active)	
Operating temperature:	-40...+85 °C	
ESD:	IEC 61000-4-2 up to 8 kV	
Mechanics:	DIN rail mount 3 TE	
Dimensions:	17.8 x 89 x 60 mm	
Weight:	62 g	
Websserver:	integrated web page for visualisation of instantaneous values • configuration web page • data export	
Alarm:	8 free configurable warning channels • direction dependent wind warning • logical link of warning channels	
Auto configuration:	automatic configuration of connected serial Lambrecht sensors	

Flexible options

Various sensors are available to create your individual system solution. We have summarized the selection criteria for you in the following overview. You can choose between 6 physical parameters, 2 inputs, heated and unheated sensors - or choose one of the preconfigured met[LOG] stations on page 11.



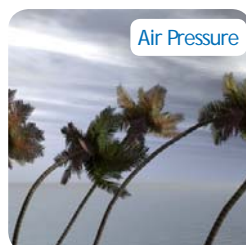
Wind



Precipitation



Humidity/Temperature





Air Pressure



Global Radiation

Connectable Sensors

met[LOG] has 3 serial and 4 analog inputs.

 	Parameter						
	Wind	Precipitation	Temperature/ rel. Humidity	Air Pressure	Global Radiation	Heating	Input
EOLOS-IND	✓		✓	✓			serial
EOLOS-IND H	✓		✓	✓		✓	serial
WENTO-IND	✓		✓	✓		✓	serial
u[sonic]	✓					✓	serial
EOLOS-MET T	✓						serial
EOLOS-MET TH	✓					✓	serial
ARCO-SERIAL	✓					✓	serial
PREOS	✓					✓	serial
WENTO-MET	✓					✓	serial
rain[e], unheated		✓					serial
rain[e], heated		✓				✓	serial
8095 THP			✓	✓			serial
8095 THP-NAV			✓	✓			serial
INDUSTRY	✓					✓	analog
PRO-WEA	✓					✓	analog
15189, 2 cm ³ , unheated		✓					analog
15189, 2 cm ³ , heated		✓				✓	analog
15189, 4 cm ³ , unheated		✓					analog
15189, 4 cm ³ , heated		✓				✓	analog
Sensor 8093.11			✓				analog
Air pressure sensor 8121				✓			analog
Pyranometer 16106					✓		analog
Pyranometer 16103					✓		analog

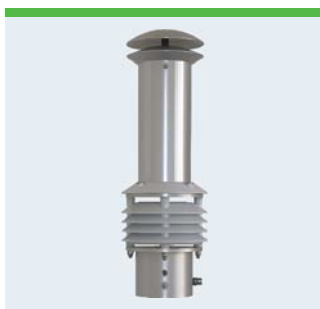


Easy access to weather data

The compact data logger met[LOG] is a genuine multi talent.

Take a look at the technical data of the sensors that can be connected and combine your individual system solution.

Serial Sensors



Static Weather Sensor EOLOS-IND/H

Id-No. 00.16430.000002 unheated • 00.16430.010002 heated

Measuring range: Wind direction: 0...360° • Wind speed: 0.1...85 m/s • Air temperature: -40...+70 °C • Relative humidity: 0...100 % r. h. • Air pressure: 600...1100 hPa

Range of application: -30...+70 °C (unheated · under non-icing conditions) • -40...+70 °C (heated) • 0...100 m/s • 0...100 % r. F.

Accuracy: Wind direction: ± 3° • Wind speed: ± 0.5 m/s ± 5 % of the meas. value • Air temperature: ± 0.8 °C (v > 2 m/s) • Relative humidity: ± 3 % (10...90 %) • ± 4 % (0...100 %) • Air pressure: ± 2 hPa (-40...+85 °C) · ± 0.5 hPa at 25 °C



Combined Weather Sensor WENTO-IND

Id-No. 00.14516.210001

Measuring range: Wind direction: 0...360° • Wind speed: 0.3...75 m/s • Relative humidity: 0...100 % r. F. • Air pressure: 600...1100 hPa • Air temperature: -30...+70 °C

Range of application: -30...+70 °C heated • 0...80 m/s • 0...100 % r. h.

Accuracy: Wind direction: ± 1° • Wind speed: ± 2 % FS at 0.3...50 m/s • Relative humidity: ± 3 % (10...90 %); ± 4 % (0...100 %) • Air pressure: ± 2 hPa (-30...+70 °C) • Air temperature: ± 0.8 °C



Combined Ultrasonic Wind Sensor u[sonic]

Id-No. 00.16470.000000

Measuring range: Wind direction: 0...359,9° • Wind speed: 0...75 m/s

Range of application: -40...+70 °C (with heating -50...+70 °C) • 0...100 % r. h.

Accuracy: Wind direction: < 2° (> 1 m/s) RMSE • Wind speed: ± 0.2 m/s RMSE (v < 10 m/s) • ± 2 % RMSE (10 m/s < v < 65 m/s)



Static Wind Sensor EOLOS-MET/TH

Id-No. 00.16430.400002 unheated • 00.16430.410002 heated

Measuring range: Wind direction: 0...360° • Wind speed: 0.1...85 m/s

Range of application: -30...+70 °C (unheated · under non-icing conditions) • -40...+70 °C heated • 0...100 m/s • 0...100 % r. h.

Accuracy: Wind direction: ± 3° • Wind speed: ± 0.5 m/s ± 5 % of the meas. value



Combined Wind Sensor ARCO-SERIAL
Id-No. 00.14581.010010

Measuring range: Wind direction: 0...360° • Wind speed: 0.3 ... 75 m/s
Range of application: -30...+70 °C (unheated · under non-icing conditions) • 0...80 m/s • 0...100 % r. h.
Accuracy: Wind direction: ± 1° • Wind speed: ± 2 % FS at 0.3 ... 50 m/s



Static Wind Sensor PREOS
Id-No. 00.16440.014002

Measuring range: Wind direction: 0...360° • Wind speed: 0.1...65 m/s
Range of application: -40...+70 °C heated • 0...100 m/s • 0...100 % r. h.
Accuracy: Wind direction: ± 3° • Wind speed: ± 0.5 m/s ± 5 % of the meas. value



Combined Wind Sensor WENTO-MET
Id-No. 00.14516.010001

Measuring range: Wind direction: 0...360° • Wind speed: 0.3...75 m/s
Range of application: -30...+70 °C heated • 0...80 m/s • 0...100 % r. h.
Accuracy: Wind direction: ± 1° • Wind speed: ± 2 % FS at 0.3...50 m/s



Weighing Precipitation Sensor rain[e]
Id-No. 00.15184.000000 unheated • 00.15184.400000 heated

Measuring range: 0...20 mm/min resp. 0...1200 mm/h
Range of application: 0...+70 °C (unheated) • -40...+70 °C (heated · no icing, no snowdrift)
Accuracy: ± 0.1 mm/min resp. ± 6 mm/h



Combined Sensor THP (8095)
Id-No. 00.08095.000000

Measuring range: Temperature: -40...+70 °C • Relative humidity: 0...100 % r.h. • Barometric pressure: 500...1100 hPa
Accuracy: Temperature: ± 0.3 °C at (v > 2 m/s) · ± 0.4 °C (10...40 °C) · ± 0.8 °C (-10...+70 °C) • Relative humidity: ± 3 % (10...90 %) r. h. · ± 4 % (0...100 %) r. h. • Barometric pressure: ± 2 hPa (-30...+70 °C) ± 1 hPa (-10...+60 °C)



Combined Sensor THP (8095-NAV) with membrane filter for special resistance to air pollutants · Id-No. 00.08095.001000

Measuring range: Temperature: -40...+70 °C • Relative humidity: 0...100 % r. h. • Barometric pressure: 500...1100 hPa

Accuracy: Temperature: ± 0.3 °C at ($v > 2$ m/s) · ± 0.4 °C (10...40 °C) · ± 0.8 °C (-10...+70 °C) • Relative humidity: ± 3 % (10...90 %) r. h. · ± 4 % (0...100 %) r. h. • Barometric pressure: ± 2 hPa (-30...+70 °C) ± 1 hPa (-10...+60 °C)

Analog Sensors



Wind Sensor INDUSTRY · incl. cable

Id-No. 00.14567.100180 Wind direction • 00.14577.100 180 Wind speed

Measuring range: Wind direction: 0...360° • Wind speed: 0.7...50 m/s

Range of application: -30...+70 °C (heated) • 0...60 m/s

Accuracy: Wind direction: $\pm 2^\circ$ • Wind speed: $< \pm 2$ % FS



Wind Sensor PRO-WEA · incl. cable

Id-No. 00.14523.130080 Wind direction • 00.14524.100080 Wind speed

Measuring range: Wind direction: 0...360° • Wind speed: 0.5...60 m/s

Range of application: -40...+70 °C heated • max. gusts 100 m/s • 0...100 % r. h.

Accuracy: Wind direction: $\pm 2^\circ$ • Wind speed: ± 0.3 m/s ≤ 10 m/s • ± 0.5 m/s...60 m/s



Precipitation Sensor (15189)

Id-No. 00.15189.002000 · 2 cm³ volume of tipping bucket · unheated
00.15189.402000 · 2 cm³ volume of tipping bucket · heated
00.15189.004000 · 4 cm³ volume of tipping bucket · unheated
00.15189.404000 · 4 cm³ volume of tipping bucket · heated

Measuring range: 2 cm³: 0...8 mm/min • 4 cm³: 0...16 mm/min

Range of application: 0...+70 °C metering (unheated · frost resistant down to -20 °C)
 • -20...+70 °C (heated · no icing, no snowdrift)

Accuracy: ± 2 % with intensity correction



Temperature Humidity Sensor (8093.11) · incl. cable

Id-No. 00.08093.110000

Measuring range: Temperature: -40...+60 °C • Relative humidity: 0...100 % r. h.

Range of application: Temperature: -40...+80 °C • Humidity: 0...100 % r. h.

Accuracy: Temperature: $\pm 0,2$ °C at -27...+70 °C · Plus: ± 0.007 °C/ °C at:
 $< +10$ °C • $> +40$ °C • Relative humidity: ± 2 % r. h. at: 5...95 % r. h. • +10...+40 °C ·
 Plus: < 0.1 % r. h./ °C at: $< +10$ °C • $> +40$ °C

Analog Sensors



Air Pressure Sensor (8121) · incl. cable
Id-No. 00.08121.100002

Measuring range: 600...1100 hPa • switchable to 800...1100 hPa
Range of application: Altitudes 0...4000 m • Temperatures -20...+70 °C • Humidity 0...99 % r. h.
Accuracy: ± 1 hPa within the range of -10...+60 °C • < ± 2 hPa within the range of -20...-10 °C



Pyranometer (16106) · incl. cable
Id-No. 00.16106.000080

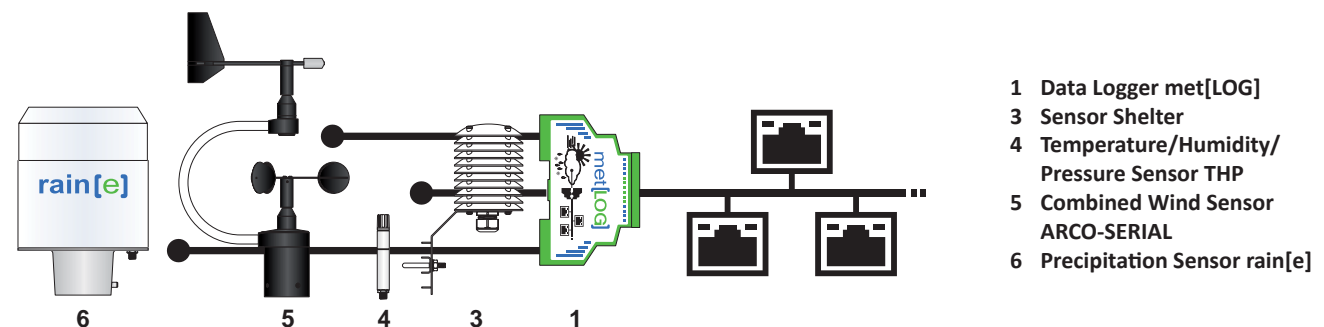
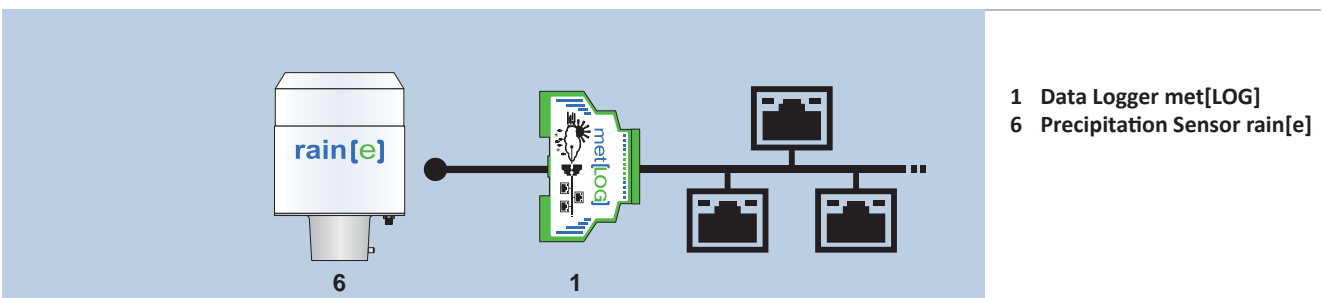
Measuring range: 0...1400 W/m²
Range of application: -40...+60 °C
Cosine error: < 10% @ 80°



Pyranometer (16103) 'Second class'
Id-No. 00.16103.050060

Measuring range: 0...1600 W/m²
Range of application: -40...+80 °C
Calibration uncertainty: < 1.8 % (k = 2)

System Examples

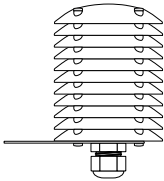
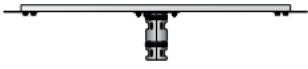


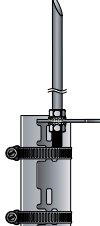




Your ordering tool

Here you can determine the total power requirement of your sensors and select the appropriate power[cube]. In the overview you will find all the accessories that you need to complete your individual weather station.

Parameter		Id-No.	Power requirement (watt)	
	met[LOG] Data logger incl. SD card	00.95800.010000	0,5	
Serial sensors, AUTO CONFIGURATION				
WTHP	EOLOS-IND · Combined weather sensor, unheated	00.16430.000002	60,0	
WTHP	EOLOS-IND H · Combined weather sensor, heated	00.16430.010002	130,0	
WTHP	WENTO-IND · Combined weather sensor	00.14516.210001	21,0	
W	u[sonic] · Ultrasonic sensor	00.16470.000000	242,0	
W	EOLOS-MET T · Wind sensor, unheated	00.16430.400002	60,0	
W	EOLOS-MET TH · Wind sensor, heated	00.16430.410002	130,0	
W	ARCO seriell · Wind sensor	00.14581.010010	18,5	
W	PREOS · Wind sensor	00.16440.014002	130,0	
W	WENTO-MET · Combined wind sensor	00.14516.010001	21,0	
R	rain[e] · Weighing precipitation sensor, unheated	00.15184.000000	1,0	
R	rain[e] · Weighing precipitation sensor, heated	00.15184.400000	141,0	
THP	Temperature/Humidity/Air pressure sensor THP	00.08095.000000	0,1	
THP	Temperature/Humidity/Air pressure sensor THP-NAV	00.08095.001000	0,1	
Analog sensors				
W	INDUSTRY Wind speed 0...50 m/s, 0...10 V	00.14577.100180	19,2	
W	INDUSTRY Wind direction 0...360°, 0...10 V	00.14567.100180	19,2	
W	PRO-WEA Wind speed 0...60 m/s, 0...10 V	00.14524.100080	19,2	
W	PRO-WEA Wind direction 0...360°, 0...10 V	00.14523.130080	19,2	
R	Precipitation sensor, 2 cm ³ , 15189, unheated	00.15189.002000	> 0,1	
R	Precipitation sensor, 2 cm ³ , 15189, heated	00.15189.402000	150,0	
R	Precipitation sensor, 4 cm ³ , 15189, unheated	00.15189.004000	> 0,1	
R	Precipitation sensor, 4 cm ³ , 15189, heated	00.15189.404000	150,0	
TH	Temperature/Humidity sensor 0...1 V incl. 5 m cable	00.08093.110000	0,1	
P	Air pressure sensor 600/ 800...1100 hPa	00.08121.100002	0,1	
G	Pyranometer 0...1400 W/m ² , 0...10 V	00.16106.000080	0,2	
G	Pyranometer 'Second class' 0...1600 W/m ² , 0...1 V	00.16103.500060	0,1	
T	NTC 100 mm shaft, 5 m cable	00.08250.010005	0,0	
Total power requirement =				
	power[cube] 150 W ... • Input voltage: 90...264 VAC	Power ≤	150,0	<input type="checkbox"/>
	power[cube] 480 W ... • Input voltage: 90...264 VAC	Power ≤	480,0	<input type="checkbox"/>
Power supply with power[cube]				
	150 W power[cube] for EOLOS, rain[e], 15189 etc.	00.14966.715000		
	150 W power[cube] MET (PSU + met[LOG])	30.95800.015000		
	150 W power[cube] WIFI (PSU, met[LOG] + WiFi module)	30.95800.115000		
	480 W power[cube]	00.14966.715000		
	480 W power[cube] MET (with met[LOG])	30.95800.048000		

Weather and radiation protection shelter 8141.6 TS for traverse system	00.08141.610000		
Set wind traverse consisting of: · 1 x 33.14627.001010 Traverse 750 mm · 1 x 32.14627.007000 · 1 x 32.14627.007000 2x Cover cap · 2 x 32.14627.002000 Holder parts WIND · 1 x 32.14627.001000 Mast bracket	32.14627.010000		
Set traverse for pyranometer and TH consisting of: · 1 x 33.14627.001000 Traverse 1000 mm · 1 x 32.14627.007000 2x Cover cap · 1 x 32.14627.002000 Holder parts WIND · 1 x 32.14627.003000 Holder parts RADIATION · 1 x 32.14627.004010 Holder parts SENSOR SHELTER · 1 x 32.14627.001000 Mast bracket	32.14627.011000		
Set Traverse for pyranometer and sensor shelter TS consisting of: · 1 x 33.14627.001000 Traverse 1000 mm · 1 x 32.14627.007000 2x Cover cap · 1 x 32.14627.003000 Holder parts RADIATION · 1 x 32.14627.001000 Mast bracket	32.14627.011010		
Other accessories			
Lightning rod	32.14565.019000		
WiFi router	00.90251.000000 (not illustrated)		
Ground terminal block 4 x 3	32.14966.015000 (not illustrated)		
Bracket for mast (for wind sensors INDUSTRY and PRO-WEA)	32.14627.001010 (not illustrated)		
Micro SD card 8 GB (-25...+85 °C) · industrial standard	32.95800.010000 (not illustrated)		
Wall bracket THP (indoor)	32.14629.010000 (not illustrated)		

You wish to tell us something or have a question?

Your contact person:
David Weiler
Tel: +49 551 4958-343
dweiler@lambrecht.net



Legend:

W Wind
T Air temperature
H Relative humidity
P Air pressure
R Rain/Precipitation
G Global radiation

Preconfigured all-in-one solutions

These high-quality sensors combined with high-performance communication technology guarantee in addition to reliable and precise measurement data unrestricted availability of the measured environmental parameters. LAMBRECHT meteo offers standardised measurement stations for all meteorological applications.

met[LOG] stations



Wind warning station

Id-No. 30.00851.600 000

Quick and easy assembly simplifies the installer's work, minimum power requirements of our sensors ensure further energy savings.

Consisting of: • Wind sensors PRO-WEA • Data logger met[LOG]
• Power supply power[cube] as WiFi edition

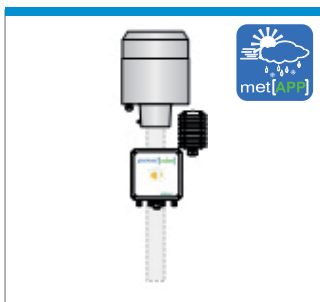


Room climate station [THP]

Id-No. 30.00851.700 000

This room climate station reliably determines temperature, relative humidity and air pressure. Individual visualisation in your web browser - easy with plug & play.

Consisting of: • Combined sensor THP 8095-N • Data logger met[LOG]
• Power supply power[cube] as WiFi edition



Weather station COMPACT

Id-No. 30.00851.500 000

Sewage treatment plants, water management, industry and building technology, benefit from the minimal maintenance effort through best product quality.

Consisting of: • Precipitation sensor 15189 • Combined sensor THP 8095 • Sensor shelter 8141.6 • Data logger met[LOG] • Power supply power[cube] • Mast · tube diameter: 60 mm · length: 1200 mm



Weather station ENGINEER

Id-No. 30.00851.200 000

Measure 6 environmental parameters with extremely precise, robust and durable sensors. Continuous data transmission via Ethernet.

Consisting of: • Ultrasonic wind sensor u[sonic] • Precipitation sensor 15189 • Combined sensor THP 8095 • Sensor shelter 8141.6 • Pyranometer 16106 • Data logger met[LOG] • 2 x Power supply power[cube] • Tripod mast, height 2.5 m, aluminium-made



Weather station EXPERT

Id-No. 30.00851.100 000

The station for the highest demands in the professional meteorology of the weather services, early weather warning, hydrology etc.

Consisting of: • Ultrasonic wind sensor u[sonic] • Precipitation sensor rain[e] • Temperature/humidity sensor 8093.11 • Sensor shelter 8141.6 • Pyranometer 16103.5 • Air pressure sensor module • Data logger met[LOG] • 2 x Power supply power[cube] • Tripod mast, height 2.5 m, aluminium-made,

