Meteo-Multisensor FMA 510



Meteo multisensor is a compact and light-weight multi-sensor system for measuring all important meteorological variables. The system can be freely configured to measure temperature, relative humidity, atmospheric pressure, wind velocity, wind direction, and rainfall.

- Eight essential weather parameters all combined in one device.
- Stable and accurate measured results.
- No moving parts.
- Low power consumption.
- Compact and light-weight.
- Quick and easy to set up.
- Low maintenance requirements.

! This sensor is connected to two input sockets. To the output of the sensor values a cycle must have started (in the measuring instrument or in the software). The functions of this sensor supported by the devices V6 2590, 2690, 2890, 8590-9 8690-9, 5690-1 2 and devices V5 (only with the function pressure/measuring cycle).

Operation with the device in SLEEP mode is not possible!

Technical Data

Wind direction	
Azimuth	0 to 360 °,resolution: 1°, with average value
Accuracy	±3°
Wind velocity	
Range	0,5 to 60 m/s, resolution: 0,1 m/s, with max. value and average value
Accuracy	0 to 35 m/s ± 0,3 m/s or ± 3%, whichever is the largest 36 to 60 m/s ± 5%,
Barometric Pressure	
Range	600 to 1100 mbar, resolution: 0,1 mbar
Accuracy	±0,5 mbar at 0 to 30 °C ±1 mbar at -52 to +60 °C
Air temperature	
Range	-52 to 60 °C, resolution: 0,1 K
Accuracy	± 0,3 K at 20 °C (sensor element)
Relative humidity	
Range	0 to 100 % r.H., resolution: 0,1% r.H.
Accuracy	± 3% r.H. at 0 to 90 % r.H., ± 5% r.H. at 90 to 100 %
Rainfall - quantity	
Surface area measured: 60 cm², resolution: 0,01 mm with sum value	
Accuracy*	±5% of daily total, depending on weather conditions

Rainfall-intensity	
Range	0 to 200 mm/h, resolution: 0,01 mm/h with maximum value
Dimensions	
Height	240 mm
Diameter	120 mm
Weight	620 g
Cable	Sensor cable, fixed, 12 m long with 2 ALMEMO®digital input cable, 0.3 m
Powersupply	6 to 12V, 22mA from the ALMEMO® device
Heating (only FMA510H)	12 V DC max. 1.1A or 24 V DC/AC max. 0.6A
Mounting	
direct	mounted on cross arm or tube with external diameter Ø 30mm and internal diameter >= Ø 24mm
with adapter ZB9510MA27 mounted on tube with external diameter Ø 27 or Ø 30 mm	

* Due to the of the phenomenon, deviations caused by spatial variations may exist in precipitation readings, especially in short time scale. The accuracy specification does not include possible wind induced error.

Accessorie	Order no.
Mounting adapter (mobile weather station see 12.04)	**ZB9510MA27**

Types (incl. factory test certificate)	Order no.
Meteo-Multisensor FMA510, sensor cable, fixed, 12 m long with 2 ALMEMO®digital input cable, 0.3 m	**FMA510**
Meteo-Multisensor FMA510, sensor cable, fixed, 12 m long with 2 ALMEMO®digital input cable, 0.3 m with heating incl. cable, fixed, 12 m long (mains adapter not included)	**FMA510H**

Factory calibration KH92xx temperature, humidity, atmospheric pressure for digital sensor (see chapter Calibration certificates)

10/2013 • We reserve the right to make technical changes.