







Meteobot® Sensor Compatibility



The Meteobot data logger is compatible with all Meteobot sensors as well as many sensors manufactured by other companies. All sensors in the table below are supported and tested for use with your Meteobot system.

Sensor Type	Photo	Manufacturer	Model	Tech Specifications	Advantages	Competitors
RAIN		Meteobot	Meteobot Rain	Resolution: 0.2 mm/m2; optional: 0.1 mm/m2	Double cone	Davis Instruments
				Accuracy: 98% (up to 120 mm/hr)	Double tipping bucket	Pronamic
				Intensity: 0-1000 mm/hr, (mathematical correction over 120 mm/hr)	Debris filter	Metos
					Bird guard upgrade	Barani Design
				Orifice diameter: 200 mm	Accurate by high winds	Rainwise
				Collection area: 314 cm2	Built-in bubble level	Onset
WIND SPEED		Thies Clima	4.3515.51.000	Measuring range: 0.9 ... 40 m/s	Compact	Campbell Scientific
				Resolution: 0.4 m wind run	Ice-free	Lambrecht
				Accuracy: ±0.5 m/s or ±5 % of meas. value	Reed-contact	Lufft
				Ambient temp.: -25 ... +60 °C	With mounting angle	Vaisala
					Cup star	Adcon
WIND SPEED AND DIRECTION		Davis Instruments	6410	Resolution: 1°	Very good accuracy	Onset
				Accuracy: ±3°; 1 m/s	Big range	Campbell Scientific
				Range: 1 - 89 m/s (1 - 322 kph)	Long arm	Metone
				Operating temp.: -40° to +65°C	U-bolt	EWS
AIR TEMPERATURE, RELATIVE AIR HUMIDITY AND AIR PRESSURE		Sensirion	SHT-31	Resolution: 0,01°C, 0,01 % RH, 0,1 hPa	Optimal resolution	Texas Instruments
				Operating range: -40°C ÷ +125°C, 0 – 100 % RH, 500 - 1100 hPa	Wide operating range	Honeywell
				Accuracy: ± 0,2°C, ± 2 % RH, ± 1 hPa	Very good accuracy	Rotronic

WET BULB TEMPERATURE		Metobot	Metobot Bulb	Resolution: $\pm 0,1^{\circ}\text{C}$	Optimal resolution	Pessl Instruments
				Operating range: $-55^{\circ}\text{C} \div +125^{\circ}\text{C}$	Wide operating range	MMM-Tech
				Accuracy: $\pm 0,5^{\circ}\text{C}$	Very good accuracy	LSI LASTEM
SOIL MOISTURE		Irrrometer	Watermark 200SS	Resolution: 1 cb or 0,1 %	Proven stable calibration	N/A
				Operating range: 0 – 239 cb or 0 – 100 %	Not affected by freezing temperatures	
				Accuracy: 1 cb or 0,1 %	No maintenance required	
VOLUMETRIC WATER CONTENT IN SOIL		Pino-Tech	SoilWatch 10	Current: $\sim 15\text{mA}$	Accurate	Spectrum Technologies
				75Mhz capacitive sensor	Easy to use	Meter Group
				Operating temperature: -20°C to 80°C	Waterproof	Delta T
				Dimensions: 170x25x25 mm	Long lasting	Pessl Instruments
					For irrigation systems	Truebner
SOIL TEMPERATURE		Quick-Teck	DS18B20	Resolution: $\pm 0,1^{\circ}\text{C}$	Powered from data line	Campbell Scientific
				Operating range: $-55^{\circ}\text{C} \div +125^{\circ}\text{C}$	Suitable for any wet or harsh environment	Meter Group
				Accuracy: $\pm 0,5^{\circ}\text{C}$		Spectrum Technologies
					Stainless steel sheath	Metos
SOIL PROBES - MOISTURE, TEMPERATURE AND SALINITY		Sentek	Sentek SDI-12 Drill & Drop soil probe	Moisture sensor resolution: 1:10000	Shows all soil parameters at every 10 cm depth	Netafim
				Moisture sensor precision: $\pm 0.03\%$ vol.	Lengths: from 30 to 120 cm	AquaCheck
				Temperature sensor resolution: $0,3^{\circ}\text{C}$; Temp.range: $-20^{\circ}\text{C} \div +60^{\circ}\text{C}$	Use as a "sensor" the root of the plant	Hydrascout
					For irrigation systems	GroPoint
						Adcon
LEAF WETNESS		Meter Group	Phytos 31	Resolution: 0,4 %	Mimics a real leaf	Spectrum Technologies
				Operating range: 0 – 100 %	Sensitivity without false positives	Caipos
				Accuracy: $\pm 0,5\%$		Davis Instruments
					Accurate detection	Campbell Scientific
SOLAR RADIATION		Apogee Instruments	SP-110-SS	Resolution: 0,2 W/m ²	Self-powered	Campbell Scientific
				Operating range: 0 – 2000 W/m ²	Silicon-cell photodiode	Davis Instruments
				Frequency range: 360 \div 1120 nm	Self-cleaning housing	Xylem
				Accuracy: $\pm 5\text{ W/m}^2$	Calc. evapotranspiration	Delta T
WATER (HYDROSTATIC) LEVEL		Aplisens	SGE-25	Range: 1 \div 500 m H ₂ O	Certificates:	Keller
				Repeatability: 0,05%	DNV, ATEX, PZH	Piezus
				Accuracy: 0,1%	IP 68	WIKA
				Temp.range: $-30 \div +40^{\circ}\text{C}$	Stainless steel 316L	BD sensors
				Overpress. limit: 10 \div 40 x range	Cable shield	SensorsONE

Air Quality Sensors

CARBON DIOXIDE (CO ₂)		Sensirion	SCD41	Accuracy: ±40 ppm	High-volume applications	Winsen
				Meas. range: 400-5000 ppm	Photoacoustic principle	CO2Meter
				Response time: 60 s	High performance	Infineon
				Operating range: 0-95 %RH	Fit for various needs	GasLab
PARTICULATE MATTER (PM)		Sensirion	SPS30	Mass concentr. precision: ±10 %	MCERTS-certified	AlphaSense
				Mass conc. range: 0-1000 µg/m ³	Lifetime: > 10 years	Winsen
				Particle size range: PM1.0, PM2.5 and PM10	Very precise	Tera Sensor
					High quality	Honeywell
SULPHUR DIOXIDE (SO ₂)		Winsen	ZE03-SO2	Detection range: 0-20 ppm	Lifetime: 2 years	AlphaSense
				Resolution: 0.1 ppm	High precision	Spec Sensors
				Response time: ≤ 30 s	Meets different gas detection needs	DD Scientific
				Accuracy: ±0.1 ppm		Angst+Pfister
CARBON MONOXIDE (CO)		Winsen	ZE03-CO	Detection range: 0-1000 ppm	Lifetime: 2 years	AlphaSense
				Resolution: 1 ppm	High precision	Parallax
				Response time: ≤ 20 s	Meets different gas detection needs	Spec Sensors
				Accuracy: ±5.4 ppm		EC Sense
OXYGEN (O ₂)		Winsen	ZE03-O2	Detection range: 0-25 % vol.	Lifetime: 2 years	Angst+Pfister
				Resolution: 0.2 %	High precision	DD Scientific
				Response time: ≤ 15 s	Meets different gas detection needs	AlphaSense
				Accuracy: ±0.2%		Bacharach
OZONE (O ₃)		Winsen	ZE03-O3	Detection range: 0-20 ppm	Lifetime: 2 years	AlphaSense
				Resolution: 0.1 ppm	High precision	Spec Sensors
				Response time: ≤ 120 s	Meets different gas detection needs	Oizom
				Accuracy: ±0.1 ppm		EC Sense
NITROGEN DIOXIDE (NO ₂)		Winsen	ZE03-NO2	Detection range: 0-20 ppm	Lifetime: 2 years	AlphaSense
				Resolution: 0.1 ppm	High precision	Spec Sensors
				Response time: < 25 s	Meets different gas detection needs	DD Scientific
				Accuracy: ±0.1 ppm		Seitron
AMMONIA (NH ₃)		Winsen	ZE03-NH3	Detection range: 0-100 ppm	Lifetime: 2 years	AlphaSense
				Resolution: 0.5 ppm	High precision	Oizom
				Response time: ≤ 150 s	Meets different gas detection needs	EC Sense
				Accuracy: ±0.5 ppm		Euro-Gas
HYDROGEN FLUORIDE (HF)		Winsen	ZE03-HF	Detection range: 0-10 ppm	Lifetime: 2 years	Angst+Pfister
				Resolution: 0.06 ppm	High precision	Euro-Gas
				Response time: ≤ 90 s	Meets different gas detection needs	EC Sense
				Accuracy: ±0.06 ppm		Semea Tech

HYDROGEN SULFIDE (H ₂ S)		Winsen	ZE03-H2S	Detection range: 0-100 ppm	Lifetime: 2 years	AlphaSense
				Resolution: 0.5 ppm	High precision	Spec Sensors
				Response time: < 30 s	Meets different gas detection needs	Angst+Pfister
				Accuracy: ±0.5 ppm		Euro-Gas
CHLORINE (Cl ₂)		Winsen	ZE03-CL2	Detection range: 0-10 ppm	Lifetime: 2 years	AlphaSense
				Resolution: 0.06 ppm	High precision	Euro-Gas
				Response time: < 60 s	Meets different gas detection needs	Angst+Pfister
				Accuracy: ±0.06 ppm		Membrapor

Meteobot® Sensor Compatibility
 Datasheet
 ver. 1.0
 Aug 19th, 2022

Prointegra Ltd.
 Bulgaria, Varna 9009
 2, Todor Penev str.
www.meteobot.com