Rain gauge

A Rain gauge is a device to measure liquid rain fall amount and intensity. The device is composed of a rain collector cone and a double-chamber tipping bucket connected to a magnet. The magnet operates one reed switch, which generates impulses that can be counted by external meters.

Siphon: DQA230.1/231.1 versions are equipped with a siphon placed on the cone's nozzle; it has function during heavy rain, to regulate the flow into the bascule permitting all the water to fall inside the tipping bucket. This solution gives its best results where the main need is the measurement of the total amount of rain over long periods, not rain intensity.

Class A rain gauges: DQA230/231/235/236 versions have the "Class A" class accuracy as described by the UNI11452:2012 standard - this class is the most accurate class for intensity measurement.

Order numb.	DQA230#C (1)	DQA231#C (1)	DQA230.1#C (1)	DQA231.1#C (1)	DQA235 (2)	DQA236 (2)
Class A (UNI11452:2012)	YES	YES	NO	NO	YES	YES
Diameter	203 mm	203 mm	203 mm	203 mm	360 mm	360 mm
Collector area	323 cmq	323 cmq	323 cmq	323 cmq	1000 cmq	1000 cmq
Heater	NO	YES 24 Vdc/Vac (Max 60 W)	NO	YES 24 Vdc/Vac (Max 60 W)	NO	YES 24 Vdc/Vac (Max 60 W)
Siphone	NO	NO	YES	YES	NO	NO
Accuracy	Intensity 3% UNI11452-2012 (using correction formula)		Rain fall amount 0÷20 mm/hr: ± 0,2 mm 20÷240 mm/hr: 1%		Intensity 3% UNI11452-2012 (using correction formula)	
Calibration certificate	Included					
Protections	Capacitor debounce circuit.				Polarity reverse and transient. Capacitor debounce circuit.	
Operative temperature	0÷80°C	-20÷80°C	0÷80°C	-20÷80°C	0÷80°C	-40÷80°C
Cable	Not included (DWA5xx)					
Material	Housing: Aluminum Tipping spoon: teflonate plastic Base: plastic				Housing: Aluminum Tipping spoon: stain-less steel Base: PED	

Common features

Rain gauge	*Principle*	Tipping bucket
	Design	WMO accordance
	Output	Dry reed contact pulses (R<250 Ω)
	Pulse duration	100 msec ± 50
	Output resistance	100 m Ω / 1 m Ω
	Resolution	0,2 mm

continue

Accessories	Order numb.	
	**DYA039.1**	Base plate for ground installation (DQA230-231-230.1-231.1)
	**DYA040.2**	Mast-mounting device for ø 50 mm pipe (DQA230-231-230.1-231.1)
	DYA040.3	Mast-mounting device for ø 50 mm pipe (DQA235-236)
	**DYA058**	Lateral support. Requires DYA040.2-.3
	DWA505	Cable L = 5 m
	DWA510	Cable L = 10 m
	DWA525	Cable L = 25 m
	MG2251	7 pin free female connector

Rain presence

Technical features - MODELS

Rain presence sensor

Rain presence sensors are used when it is necessary to discriminate between rainfall and condensation. The measurement principle employed is that of conductivity between two electrodes; these are kept above environmental temperature by heaters in order to prevent condensation.

Order numb.	**DQA060**	
	Principle	Capacitive
	Power supply	10÷14 Vdc
	Measure	Presence of rain
	Output	Relay contact (1A-40V)
	Operative temperature	0÷50°C

Accessories	Order numb.	
	DYA049	Mast-mounting device for ø 45-65 mm pipe
	DWA510	Cable L = 10 m
	DWA525	Cable L = 25 m
	DWA526	Cable L = 50 m
	DWA527	Cable L = 100 m