



Mesotech's Professional Tipping Bucket Rain Gauge (MT-PR0004) is a dependable instrument used for

measuring precipitation. The gauge measures snowfall when equipped with the optional heater.

Rainfall entering the 8-inch or 12-inch funnel collector is directed to the tipping bucket assembly. When an incremental amount of precipitation has been collected, the bucket assembly tips and activates a magnetic reed switch. The sample is discharged through the base of the gauge. A momentary electrical contact closure actuates for each increment of rainfall. This contact closure can be used to operate an event recorder or other data acquisition system.

The standard gauge is made of anodized and powder coated aluminum. A bubble level is located on the base for correct positioning. The funnel has a screen to prevent

debris from entering the gauge. Mounting brackets with leveling adjustments are included.

The rain gauge can be ordered with a 24 VDC or 115/220 VAC electric heater for measurements of snow and rain. The heating components include a 400-watt heater installed in the base, insulation in the outer tube, and a freeze-point thermostat control at the funnel. Snow falling into the funnel is melted and the resulting water drains into the tipping bucket assembly. The heater option includes 25 feet of cable.

The Economical Rain Gauge (MT-PR0001) was designed for the USA National Weather Service as a reliable, low-cost gauge. Its design simplicity assures trouble-free operation, yet provides accurate rainfall measurements. The tipping bucket mechanism activates a sealed reed switch that produces a contact closure. The gauge has an 8-inch orifice and is made of aluminum. Enclosure surfaces are powder-coated gloss white. The funnel has a screen to prevent debris from entering the gauge.

## Technical Specifications

|                 |   |
|-----------------|---|
| Capacity:       | Unlimited   |
| Orifice:        | 8" (20 cm) or 12" (30 cm)                           |
| Calibration:    | 0.01", 0.2 mm, 0.25 mm, or 1 mm (others on request) |
| <u>Accuracy</u> |   |
| MT-PR0004:      | +1% for < 2"/hr (75 mm/hr)                          |
| MT-PR0001:      | +2% for < 2"/hr (75 mm/hr)                          |
| Output:         | 100 msec switch closure                             |
| Contact rating: | 3 watts, 0.25 amps, 175 VDC                         |
| Mounting:       | 3 legs, ¼" diameter bolt holes on 9½"               |

## Dimensions

|                        |           |
|------------------------|-----------|
| MT-PR0004:             | 8" x 17"  |
| MT-PR0004 with heater: | 12" x 20" |
| MT-PR0001:             | 8" x 15"  |

## Weight

|                        |        |
|------------------------|--------|
| MT-PR0004:             | 7 lbs  |
| MT-PR0004 with heater: | 14 lbs |
| MT-PR0001:             | 6 lbs  |

## Ordering Options

- Rain Gauge with 8" orifice, 0.01" per tip
- Rain Gauge with 12" orifice, 0.01" per tip
- Rain Gauge with 8" orifice, 0.01" per tip with heater
- Rain Gauge with 12" orifice, 0.01" per tip with heater
- Rain Gauge with 8" orifice, 1 mm per tip
- Rain Gauge, with 12" orifice, 0.25 mm per tip
- Rain Gauge, with 8" orifice, 0.25 mm per tip
- Rain Gauge, with 8" orifice, 0.5 mm per tip
- Rain Gauge with 8" orifice, 0.01" per tip
- Rain Gauge with 8" orifice, 1 mm per tip
- Rain Gauge, with 8" orifice, 0.25mm per tip

**The Professional Tipping Bucket Rain Gauge is an excellent choice for aviation use.**

