

# Total Precipitation Gauge & Logger (TPG)



## Overview

Sutron's Total Precipitation Gauge (TPG) is a weighing bucket gauge with a built-in logger for unattended measurement of precipitation in remote locations worldwide. Its large collection orifice reduces chances of blockage. A large collection container holds precipitation on a precision weighing platform with accuracy of <math><0.02''</math> (0.6mm) & resolution (<math><0.001''</math>, 0.025mm) required by the most demanding monitoring systems.

## Features

- ▶ Low power consumption (<math><1\text{ma}</math> quiescent, <math><20\text{ma}</math> measuring @ 12V)
- ▶ Operate as stand-alone or integrate w/loggers/communications via SDI-12 & RS232.
- ▶ User-settable measurement logging, & averaging (filtering)
- ▶ Built-in flash log for 300,000 readings to safeguard data
- ▶ Precision temperature compensated load cell
- ▶ 0.001" measurement resolution.
- ▶ 2 built-in calibration routines
- ▶ High accuracy: 0.02" -25°C to +60°C
- ▶ Automatic data save in permanent log
- ▶ Full front panel access to setup, status & data
- ▶ Redundant data storage when connected to a logger
- ▶ Optional: tipping bucket output, heater & autodrain
- ▶ Free software for programming, consulting, viewing live readings.



SPECIFICATIONS	
Measurements	Precipitation, Precip rate, Internal Temp, Battery
Automeasure Interval	1 second to 24 hours
Measurement Technique	Precision hermetically sealed load cell
Resolution	<math><0.001''</math> (0.025mm)
Accuracy	0.02" (0.6mm) -25°C to +60°C 0.3% of full scale (temperature range: -40°C to +60°C)
Range	36" (914 mm) standard, >72" (1800 mm) w/drain kit
Calibration	Built-in calibration function using customer supplied weights for annual certification.
Autodrain Option	Automatically drains into collection container when precip >75% capacity. Tracks amnt drained for total precip report.
Heater Kit Option	Heater kit provides rim heater & temperature sensor. Software operates the heater only when there is precipitation & temperature is within user set limits.
Enclosure	IP65 Rating. UV Resistant ABS plastic cover. 8" diameter aluminum inlet with knife edge.
Base	Cast aluminum base with 4.0" pipe (4.5" or 0.114 OD). Includes bubble level. (Order mounting pipe separately.)
Collection Pail	Plastic w/handles & center calibration-weight depression Collection Area - 324cm <sup>2</sup> (Collection opening - 8" dia.)
Communication Ports	SDI-12, RS232
Operating Temperature	-40°C to +60°C
Memory	
Built-In Flash	>300,000 readings flash memory, >20 years data retention
SD, USB, Ethernet	no
Clock Accuracy	20 seconds per month (at 0°C - 40°C)

Power Requirements	9-18 VDC
Current Drain	<math><1\text{mA}</math> @12 VDC standby; 5ma active
Communication Protocols	MODBUS, SDI-12
Programming	via RS232, SDI-12
Device Dimensions	
Height	28" (71.2 cm)
Diameter	18" (45.8 cm)
Weight	42 lbs. (19.1 kg)

## ORDERING

TPG-0001-1	TPG, single cell
TPG-0003-1	TPG, triple cell
ACCESSORIES	
TPG-DK	TPG Drain Kit
TPG-HK-120	TPG Heater kit, 120V, 200W
TPG-HK-240	TPG Heater kit, 240V,200W
TPG-HK-48	TPG Heater kit, 48V, 200W

\*Extended temperature range available

## SHIPPING

Height	32 in. (81.3 cm)
Length	25 in. (63.5 cm)
Width	25 in. (63.5 cm)
Weight	55 lbs. (25 Kg)