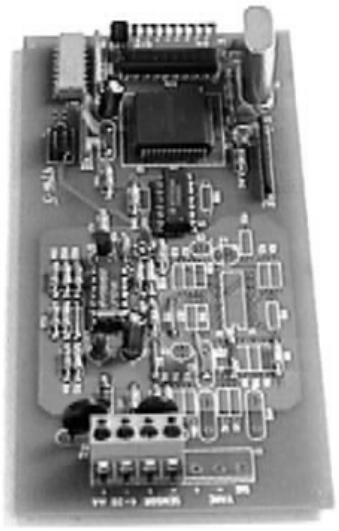
Rainfall Sensor & Transmitter

Model A70-R



Track mounted transmitter

Model 2502 Rain Gage

The A70 Rainfall Transmitter converts the signal from a tipping bucket rain gage into a 4-20 mA signal for input to a computer, meters or other instrumentation. It features reliability, low cost, accuracy, simplicity of operation and ruggedness. Ramp and rain detector output modes are user selectable.

In ramp mode each tip of the bucket causes the output signal to increase 1% of full scale. Each complete excursion of the output signal from zero to full scale represents 100 tips of the bucket. This corresponds to one inch or 100 mm of rainfall depending on the calibration of the rain gage. During periods of no rain there is no change in the output signal.

In rain detector mode each tip of the bucket causes a 20 mA output signal for a user adjustable time period from 1 to 80 minutes.

Running average and other signal output formats are available. Contact Comptus for additional information.

The Transmitter is protected from lightning damage with metal oxide varistors. The rain gage is fabricated of heavy duty PVC, aluminum and stainless steel. It consists of an outer funnel, screen, inner funnel and tipping bucket assembly.

Precipitation entering the collection orifice fills the calibrated tipping bucket assembly. When the bucket fills to the calibrated amount, the bucket tips. Another bucket is brought into place and the precipitation sample is discharged through the dump tubes to the ground below. This produces a switch closure which is detected by the electronics in the Transmitter.

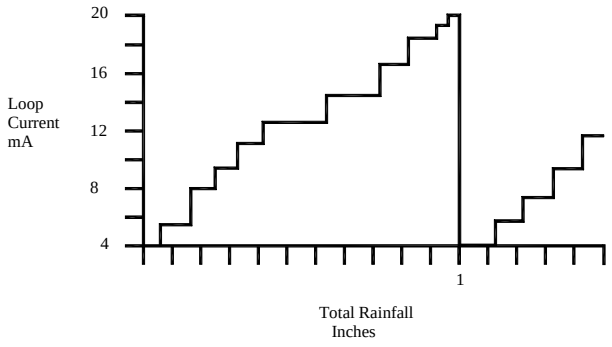
Air Flow Tech
B504, Hagye Technotown, 250-3, Hagye-Dong, Nowon-Gu, Seoul, 139-727, Korea
Tel :(02)948-5432 www.airflowtech.co.kr info@airflowtech.co.kr

Model A70-R

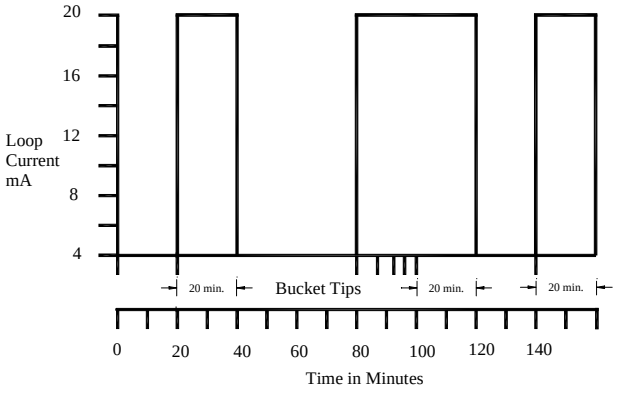
The electronics in the Transmitter count the switch closures from the rain gage. The counter drives a digital to analog converter which produces a current signal which increases as counts are accumulated. The current signal drives the output amplifier.

The A70-RL is available in a track mounted version when it is to be installed in an existing enclosure. It is also available in NEMA 12 Steel, NEMA 4X Fiberglass and NEMA 4X Stainless Steel enclosures

Ramp Mode Output



Rain Detector Mode Output



Note: Time period is user selectable

SPECIFICATIONS

Operating Power:	12-24 Vdc
Input Device:	Tipping Bucket Rain Gage
Output:	Rainfall 4 to 20 mA
Range:	/E - 1 inch, /M - 25 mm
Resolution:	/E 0.01 inch, /M 0.25 mm
Accuracy:	Electronics: ± 1/2 % of F.S.
	2502 Rain Gage: ± 4 % of F.S.
Temperature	0 to 70 Degrees C.
Range:	-40 to 70 Degrees C. available
Dimensions:	PWB: 6."l X 2.75"w X 1"h
Weight:	Transmitter: 1/2 lb.
	2502 Gage : 10 lb.
Maintenance:	Recalibrate system yearly
Connectors:	Terminal Strip to accept
	AWG #12 to #22 Wire
Accessories:	A70-EO Power Supply
	A70-LPD Loop Powered Display
	A96 Lightning Arrestor
	Higher Accuracy Rain Gages
	52202 Heated Rain Gage

Accessories

Additional lightning protection is indicated if any of the cables connected to the instrument are buried or run on top of the ground for a distance of more than 100 feet. The A96 Series of Lightning Protectors are available for this purpose.

The A70-EO is a linear power supply suitable for providing operating power for the system from the AC mains. Two models are available that will provide 10 watts at either 15 or 24 VDC. It will operate from 105 - 130 VAC or 210 - 260 Vac, 50 / 60 Hz.

The A70-LPD is a loop powered display used when displays at multiple locations are required. It is simply installed in series with the 4 -20 mA loop and derives its power from the loop. Each display in the loop introduces a 2.5 volt drop. A 24 Vdc source of excitation is recommended for applications involving the A70-LPD.

Air Flow Tech
B504, Hagye Technotown, 250-3, Hagye-Dong, Nowon-Gu, Seoul, 139-727, Korea
Tel :(02)948-5432 www.airflowtech.co.kr info@airflowtech.co.kr