

TIPPING COUNTER V2A

Tipping counters are volumetric flow measurement devices used for the continuous measurement of small, time-varying seepage water flows and event-driven surface water runoff. The volume of water flowing out is quantitatively measured as a flow rate (volumetric flow). UGT offers both closed and larger open tipping counters. The closed designs also allow for aliquot, volume-proportional subsampling. Tipping counters thus offer a high-resolution, automated alternative to volumetric measurement tests.

ADVANTAGES

- Cost-effective flow measurement
- Alternative to manual volumetric flow measurements
- Sturdy and corrosion-resistant, made of V2A steel
- Inert to water of various sources and compositions; suitable for use with slightly contaminated water containing high level of suspended solids
- Larger designs are possible than with plastic tipping counters
- Tilting tray sizes ranging from 0.1 to 20 liters
- Includes data logger & software

APPLICATIONS

- Measurement of seepage rates in lysimeters, landfills, or tailings piles
- Detection of leaks from reservoirs, dams, or similar structures
- When used in combination with the UGT Runoff System, tipping counters make it possible to measure surface runoff on slopes.
- When used in combination with the UGT H-Flume, tipping counters provide high measurement accuracy during low-water conditions, while the H-Flume accurately measures higher flows in open channels.



TECHNICAL DATA

LITER	0,1	0,25	0,5	1	2	3	5	10	20
Max. flow rate in l/min	2	4	7	12	24	36	60	120	240
Dimensions W x D x H in cm	33 x 19 x 21.5	29 x 23 x 34	29 x 23 x 34	28 x 42 x 35	37 x 41 x 37	44 x 46 x 43	61 x 29 x 37	70 x 36 x 43	88 x 45 x 55
Weight in kg	3.2	5.7	6.6	9.4	13.2	17	11	18	32
Design	closed						open		
Material	stainless V2A steel								
Features	Robust and chemically inert toward water of various sources and compositions, operating temperature down to 0 °C; insulation and/or pipe tracing available								
TIPPING BUCKET									
Vol. per tray in ml	100	250	500	1,000	2,000	3,000	5,000	10,000	20,000
Bearing	adjustable double-sided knife-edge bearing					Flange bearing	adjustable double-point bearing		
HOSE CONNECTION									
Inlet/outlet connections in mm	Ø 20	Ø 34	Ø 34	Ø 34	Ø 34 / 50	Ø 50	free outlet for installation in a manhole		
Inlet height in mm	197	315	315	320	340	390			
Drain height in mm	42	65	65	70	70	50			
BASE									
Features	Holes for horizontal mounting; wall mounting available upon request					Holes for horizontal mounting			
PULSE TRANSMITTER									
Features	Reed switch with permanent magnet on the tipping bucket, including terminal block for connection cables								
Max. switching current	0.5 A								
Max. switching voltage	200 V								
Clamping range	up to 1.5 mm²								
SUB-SAMPLING									
Flow rate	Aliquot, volume-proportional sampling possible: 0.1 ... 3% of the total volume of water that has flowed through or been tipped						Sub-sampling not possible		

A cost-effective alternative to the stainless-steel V2A tipping bucket counters is the food-grade polycarbonate tipping bucket counter. With a tipping bucket volume of 0.1 L, it is particularly suitable for measuring low flow rates and can be used for flow rates from 0 to 2 L/min (up to 5 L/min under vacuum conditions).

