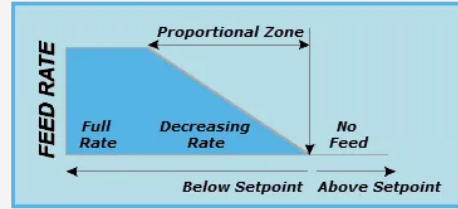


Proportional Control

The Proportional Control mode is recommended only for small bodies of water to prevent overfeeding from oversized feeders. In this mode, the outlet relay is turned ON and OFF at a rate that decreases as the set-point is neared. The rate goes down from 100% ON in a 100-second CYCLE TIME at the edge of the Progressive Zone to 0% at the set-point (see schematic).



Proportional control operates only within the defined Progressive Zone, outside the zone, control reverts to standard ON/OFF mode. The wider the Progressive Zone is, the more slowly and precisely the controller will return to the setpoint. As the width of the Progressive Zone is decreased, the reaction becomes faster and faster until eventually, one gets near the conditions of ON/OFF control. * It should be noted that longer time limits may be required to account for the slower effective feed rates.

pH 8.0 mV															
50%	40%	30%	25%	20%	15%	12%	10%	8%	6%	5%	4%	3%	2%	Setpoint	Deadband
off	off	off	off	off	off	off	off	off	off	off	off	off	off	8.0	
0.67	0.83	1.11	1.33	1.67	2.22	2.78	3.33	4.17	5.56	6.67	8.33	11.11	16.67		
1.33	1.67	2.22	2.67	3.33	4.44	5.56	6.67	8.33	11.11	13.33	16.67	22.22	33.33		
2.00	2.50	3.33	4.00	5.00	6.67	8.33	10.00	12.50	16.67	20.00	25.00	33.33	50.00	8.08	1%
2.67	3.33	4.44	5.33	6.67	8.89	11.11	13.33	16.67	22.22	26.67	33.33	44.44	66.67		
3.33	4.17	5.56	6.67	8.33	11.11	13.89	16.67	20.83	27.78	33.33	41.67	55.56	83.33		
4.00	5.00	6.67	8.00	10.00	13.33	16.67	20.00	25.00	33.33	40.00	50.00	66.67	100.00	8.16	2%
4.67	5.83	7.78	9.33	11.67	15.56	19.44	23.33	29.17	38.89	46.67	58.33	77.78			
5.33	6.67	8.89	10.67	13.33	17.78	22.22	26.67	33.33	44.44	53.33	66.67	88.89			
6.00	7.50	10.00	12.00	15.00	20.00	25.00	30.00	37.50	50.00	60.00	75.00	100.00		8.24	3%
6.67	8.33	11.11	13.33	16.67	22.22	27.78	33.33	41.67	55.56	66.67	83.33				
7.33	9.17	12.22	14.67	18.33	24.44	30.56	36.67	45.83	61.11	73.33	91.67				
8.00	10.00	13.33	16.00	20.00	26.67	33.33	40.00	50.00	66.67	80.00	100.00			8.32	4%
8.67	10.83	14.44	17.33	21.67	28.89	36.11	43.33	54.17	72.22	86.67					
9.33	11.67	15.56	18.67	23.33	31.11	38.89	46.67	58.33	77.78	93.33					
10.00	12.50	16.67	20.00	25.00	33.33	41.67	50.00	62.50	83.33	100.00				8.4	5%
10.67	13.33	17.78	21.33	26.67	35.56	44.44	53.33	66.67	88.89						
11.33	14.17	18.89	22.67	28.33	37.78	47.22	56.67	70.83	94.44						
12.00	15.00	20.00	24.00	30.00	40.00	50.00	60.00	75.00	100.00						
12.67	15.83	21.11	25.33	31.67	42.22	52.78	63.33	79.17							
13.33	16.67	22.22	26.67	33.33	44.44	55.56	66.67	83.33							
14.00	17.50	23.33	28.00	35.00	46.67	58.33	70.00	87.50							
14.67	18.33	24.44	29.33	36.67	48.89	61.11	73.33	91.67							
15.33	19.17	25.56	30.67	38.33	51.11	63.89	76.67	95.83							
16.00	20.00	26.67	32.00	40.00	53.33	66.67	80.00	100.00							
16.67	20.83	27.78	33.33	41.67	55.56	69.44	83.33								
17.33	21.67	28.89	34.67	43.33	57.78	72.22	86.67								
18.00	22.50	30.00	36.00	45.00	60.00	75.00	90.00								
18.67	23.33	31.11	37.33	46.67	62.22	77.78	93.33								
19.33	24.17	32.22	38.67	48.33	64.44	80.56	96.67								
20.00	25.00	33.33	40.00	50.00	66.67	83.33	100.00								