ESP-2WIRE Wire Distance Chart

IMPERIAL

ONE DEVICE (SINGLE STATION, NO MV/PSR)

Wire Gauge	Max. wire length from controller for single device operation (ft)
18 AWG	1000
16 AWG	1600
14 AWG	2600
12 AWG	4200

TWO DEVICES (MV/PSR* + 1 STATION OR 2 STATIONS WITH NO MV/PSR)

Wire Gauge	Dist. of first device from controller (ft)	Max. wire length from controller for second device (ft)
18 AWG	50	880
	100	840
	200	760
	350	650
	500	530
16 AWG	50	1420
	100	1380
	200	1310
	350	1190
	500	1070
14 AWG	50	2280
	100	2250
	200	2170
	350	2050
	500	1940
12 AWG	50	3660
	100	3620
	200	3540
	350	3420
	500	3310

THREE DEVICES (MV/PSR* + 2 STATIONS SIMULTANEOUSLY)

Wire Gauge	Dist. of MV/PSR from controller (ft)	Max. total wire length from controller to the two stations running simultaneosly (ft)**
18 AWG	50	510
	100	510
	200	500
	350	480
16 AWG	50	820
	100	810
	200	800
	350	790
	500	770
14 AWG	50	1310
	100	1300
	200	1290
	350	1270
	500	1260
12 AWG	50	2080
	100	2080
	200	2070
	350	2050
	500	2030

*PSR must be Rain Bird Universal Pump Start Relay PSR110IC, PSR220IC, or equivalent for guaranteed operation
**Total combined wiring distance from the controller to station valves that will be operated simultaneously

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ESP-2WIRE Wire Distance Chart

METRIC

ONE DEVICE (SINGLE STATION, NO MV/PSR)

Wire Gauge	Max. wire length from controller for single device operation (m)
0.75 mm²	305
1.5 mm²	488
2.5 mm²	792
4.0 mm²	1280

TWO DEVICES (MV/PSR* + 1 STATION OR 2 STATIONS WITH NO MV/PSR)

Wire Gauge	Dist. of first device from controller (m)	Max. wire length from controller for second device (m)
0.75 mm²	15	232
	30	219
	61	195
	107	162
1.5 mm²	15	472
	30	460
	61	439
	107	402
	152	366
2.5 mm²	15	780
	30	768
	61	744
	107	710
	152	674
4.0 mm²	15	1256
	30	1244
	61	1222
	107	1186
	152	1149

THREE DEVICES (MV/PSR* + 2 STATIONS SIMULTANEOUSLY)

Wire Gauge	Dist. of MV/PSR from controller (m)	Max. total wire length from controller to the two stations running simultaneosly (m)**
0.75 mm²	15	137
	30	134
	61	131
	107	125
1.5 mm²	15	271
	30	271
	61	268
	107	262
	152	256
2.5 mm²	15	445
	30	445
	61	442
	107	436
	152	430
4.0 mm²	15	716
	30	713
	61	710
	107	704
	152	701

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