

## **HOW DO I DETERMINE DEW POINT FROM MY PROBE TEMPERATURE AND MILLIVOLT OUTPUT?**

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These Dew point charts assume the following conditions:

CO of 20%

Hydrogen of 40%

Dew Point Process Factor adjustment of 150.

Drastic differences in your measurements may not be the probe. The dew point control system may be trying to control with a catalyst or water jacket problem, or “peak shaving” source gas.

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# Marathon Sensors, Inc.

## Dewpoint Chart

### Temperature in F

MV	1300	1325	1350	1375	1400	1425	1450	1475	1500
1025	108.91	106.24	103.68	101.21	98.82	96.52	94.30	92.15	90.07
1030	105.00	102.43	99.95	97.56	95.26	93.03	90.88	88.80	86.79
1035	101.15	98.67	96.27	93.96	91.73	89.58	87.50	85.49	83.54
1040	97.35	94.95	92.64	90.41	88.26	86.18	84.17	82.22	80.34
1045	93.60	91.29	89.06	86.90	84.82	82.81	80.87	78.99	77.17
1050	89.90	87.67	85.52	83.44	81.43	79.49	77.62	75.80	74.05
1055	86.26	84.10	82.03	80.02	78.08	76.21	74.40	72.65	70.95
1060	82.65	80.58	78.58	76.64	74.78	72.97	71.22	69.53	67.89
1065	79.10	77.10	75.17	73.31	71.51	69.77	68.08	66.45	64.87
1070	75.59	73.67	71.81	70.02	68.28	66.60	64.98	63.41	61.88
1075	72.13	70.28	68.49	66.76	65.09	63.48	61.91	60.40	58.93
1080	68.71	66.93	65.21	63.55	61.94	60.39	58.88	57.42	56.01
1085	65.34	63.63	61.97	60.38	58.83	57.33	55.89	54.48	53.12
1090	62.01	60.36	58.78	57.24	55.76	54.32	52.92	51.57	50.27
1095	58.72	57.14	55.62	54.14	52.72	51.33	50.00	48.70	47.44
1100	55.47	53.96	52.50	51.08	49.71	48.39	47.10	45.86	44.65
1105	52.26	50.81	49.41	48.06	46.74	45.47	44.24	43.05	41.89
1110	49.10	47.71	46.37	45.07	43.81	42.59	41.41	40.26	39.15
1115	45.97	44.64	43.36	42.11	40.91	39.74	38.61	37.52	36.45
1120	42.88	41.61	40.38	39.19	38.04	36.93	35.84	34.80	33.78
1125	39.82	38.61	37.44	36.31	35.21	34.14	33.11	32.11	31.13
1130	36.81	35.65	34.54	33.45	32.40	31.39	30.40	29.44	28.52
1135	33.83	32.73	31.66	30.63	29.63	28.66	27.72	26.81	25.93
1140	30.88	29.84	28.82	27.84	26.89	25.97	25.08	24.21	23.37
1145	27.97	26.98	26.02	25.09	24.18	23.31	22.46	21.63	20.83
1150	25.10	24.16	23.24	22.36	21.50	20.67	19.87	19.08	18.32
1155	22.26	21.37	20.50	19.67	18.85	18.07	17.30	16.56	15.84
1160	19.45	18.61	17.79	17.00	16.23	15.49	14.77	14.06	13.38
1165	16.67	15.88	15.11	14.36	13.64	12.94	12.26	11.60	10.95
1170	13.93	13.18	12.46	11.76	11.08	10.42	9.77	9.15	8.54
1175	11.22	10.52	9.84	9.18	8.54	7.92	7.32	6.73	6.16
1180	8.53	7.88	7.24	6.63	6.03	5.45	4.89	4.34	3.80
1185	5.88	5.27	4.68	4.11	3.55	3.01	2.48	1.97	1.47
1190	3.26	2.70	2.14	1.61	1.09	0.59	0.10	-0.38	-0.84
1195	0.67	0.15	-0.36	-0.86	-1.34	-1.81	-2.26	-2.70	-3.13
1200	-1.89	-2.38	-2.85	-3.30	-3.74	-4.17	-4.59	-5.00	-5.39
1205	-4.43	-4.87	-5.30	-5.72	-6.12	-6.52	-6.90	-7.27	-7.64
1210	-6.93	-7.34	-7.73	-8.11	-8.48	-8.84	-9.19	-9.53	-9.86
1215	-9.41	-9.78	-10.13	-10.48	-10.81	-11.13	-11.45	-11.76	-12.06
1220	-11.87	-12.19	-12.51	-12.82	-13.12	-13.41	-13.69	-13.96	-14.23
1225	-14.29	-14.58	-14.86	-15.13	-15.40	-15.66	-15.91	-16.15	-16.39
1230	-16.69	-16.94	-17.19	-17.43	-17.66	-17.88	-18.10	-18.32	-18.52

# Marathon Sensors, Inc.

## Dewpoint Chart

### Temperature in F

MV	1300	1325	1350	1375	1400	1425	1450	1475	1500
1235	-19.07	-19.28	-19.49	-19.70	-19.90	-20.09	-20.28	-20.46	-20.64
1240	-21.41	-21.60	-21.77	-21.94	-22.11	-22.27	-22.43	-22.59	-22.74
1245	-23.74	-23.88	-24.03	-24.17	-24.30	-24.44	-24.56	-24.69	-24.81
1250	-26.04	-26.15	-26.26	-26.37	-26.47	-26.58	-26.68	-26.77	-26.87
1255	-28.31	-28.39	-28.47	-28.55	-28.62	-28.70	-28.77	-28.83	-28.90
1260	-30.56	-30.61	-30.66	-30.71	-30.75	-30.79	-30.84	-30.88	-30.92
1265	-32.79	-32.81	-32.83	-32.84	-32.86	-32.87	-32.89	-32.90	-32.92
1270	-35.00	-34.98	-34.97	-34.96	-34.94	-34.93	-34.92	-34.91	-34.90
1275	-37.18	-37.13	-37.09	-37.05	-37.01	-36.97	-36.93	-36.90	-36.86
1280	-39.34	-39.26	-39.19	-39.12	-39.06	-38.99	-38.93	-38.86	-38.80
1285	-41.48	-41.37	-41.27	-41.18	-41.08	-40.99	-40.90	-40.81	-40.73
1290	-43.59	-43.46	-43.33	-43.21	-43.09	-42.97	-42.86	-42.74	-42.64
1295	-45.69	-45.53	-45.37	-45.22	-45.08	-44.93	-44.79	-44.66	-44.53
1300	-47.76	-47.58	-47.39	-47.22	-47.05	-46.88	-46.71	-46.56	-46.40
1305	-49.81	-49.60	-49.39	-49.19	-49.00	-48.80	-48.62	-48.44	-48.26
1310	-51.85	-51.61	-51.38	-51.15	-50.93	-50.71	-50.50	-50.30	-50.10
1315	-53.86	-53.60	-53.34	-53.09	-52.84	-52.60	-52.37	-52.14	-51.92
1320	-55.85	-55.56	-55.28	-55.01	-54.74	-54.48	-54.22	-53.97	-53.73
1325	-57.83	-57.51	-57.21	-56.91	-56.62	-56.33	-56.05	-55.78	-55.52
1330	-59.78	-59.44	-59.11	-58.79	-58.48	-58.17	-57.87	-57.58	-57.30
1335	-61.72	-61.35	-61.00	-60.66	-60.32	-59.99	-59.67	-59.36	-59.06
1340	-63.63	-63.25	-62.87	-62.51	-62.15	-61.80	-61.46	-61.13	-60.80
1345	-65.53	-65.12	-64.73	-64.34	-63.96	-63.59	-63.23	-62.88	-62.53
1350	-67.41	-66.98	-66.56	-66.15	-65.75	-65.36	-64.98	-64.61	-64.25
1355	-69.28	-68.82	-68.38	-67.95	-67.53	-67.12	-66.72	-66.33	-65.95
1360	-71.12	-70.65	-70.18	-69.73	-69.29	-68.86	-68.44	-68.03	-67.63
1365	-72.95	-72.45	-71.97	-71.50	-71.04	-70.59	-70.15	-69.72	-69.31
1370	-74.76	-74.24	-73.74	-73.25	-72.77	-72.30	-71.84	-71.40	-70.96
1375	-76.55	-76.02	-75.49	-74.98	-74.48	-74.00	-73.52	-73.06	-72.61
1380	-78.33	-77.77	-77.23	-76.70	-76.18	-75.68	-75.19	-74.71	-74.24
1385	-80.09	-79.51	-78.95	-78.40	-77.87	-77.35	-76.84	-76.34	-75.85
1390	-81.83	-81.24	-80.66	-80.09	-79.54	-79.00	-78.47	-77.96	-77.45
1395	-83.56	-82.95	-82.35	-81.77	-81.19	-80.64	-80.09	-79.56	-79.04
1400	-85.28	-84.64	-84.03	-83.42	-82.84	-82.26	-81.70	-81.15	-80.62
1405	-86.97	-86.32	-85.69	-85.07	-84.46	-83.87	-83.30	-82.73	-82.18
1410	-88.65	-87.99	-87.33	-86.70	-86.08	-85.47	-84.88	-84.30	-83.73
1415	-90.32	-89.64	-88.97	-88.31	-87.68	-87.05	-86.44	-85.85	-85.27
1420	-91.97	-91.27	-90.58	-89.92	-89.26	-88.62	-88.00	-87.39	-86.79
1425	-93.61	-92.89	-92.19	-91.50	-90.83	-90.18	-89.54	-88.92	-88.30
1430	-95.23	-94.50	-93.78	-93.08	-92.39	-91.72	-91.07	-90.43	-89.81
1435	-96.84	-96.09	-95.36	-94.64	-93.94	-93.25	-92.59	-91.93	-91.29
1440	-98.44	-97.67	-96.92	-96.19	-95.47	-94.77	-94.09	-93.42	-92.77
1445	-100.02	-99.23	-98.47	-97.72	-96.99	-96.28	-95.58	-94.90	-94.23

# Marathon Sensors, Inc.

## Dewpoint Chart

### Temperature in F

MV	1525	1550	1575	1600	1625	1650	1675	1700	1725
1450	-101.58	-100.78	-100.00	-99.24	-98.50	-97.77	-97.06	-96.37	-95.69
1025	88.06	86.11	84.22	82.39	80.62	78.90	77.23	75.61	74.04
1030	84.84	82.95	81.13	79.36	77.64	75.98	74.36	72.79	71.27
1035	81.66	79.84	78.07	76.36	74.69	73.08	71.52	70.00	68.52
1040	78.52	76.75	75.04	73.39	71.78	70.22	68.70	67.23	65.80
1045	75.41	73.71	72.05	70.45	68.89	67.38	65.92	64.49	63.11
1050	72.34	70.69	69.10	67.55	66.04	64.58	63.16	61.78	60.44
1055	69.31	67.72	66.17	64.67	63.22	61.81	60.44	59.10	57.81
1060	66.31	64.77	63.28	61.83	60.43	59.06	57.74	56.45	55.20
1065	63.34	61.86	60.42	59.02	57.66	56.35	55.07	53.82	52.61
1070	60.41	58.98	57.59	56.24	54.93	53.66	52.42	51.22	50.06
1075	57.51	56.13	54.79	53.49	52.23	51.00	49.81	48.65	47.52
1080	54.64	53.31	52.02	50.77	49.55	48.37	47.22	46.10	45.02
1085	51.80	50.52	49.28	48.07	46.90	45.76	44.66	43.58	42.53
1090	49.00	47.77	46.57	45.41	44.28	43.19	42.12	41.08	40.07
1095	46.22	45.04	43.89	42.77	41.69	40.63	39.61	38.61	37.64
1100	43.48	42.34	41.24	40.16	39.12	38.11	37.12	36.16	35.23
1105	40.76	39.67	38.61	37.58	36.58	35.61	34.66	33.74	32.84
1110	38.08	37.03	36.01	35.02	34.06	33.13	32.22	31.34	30.47
1115	35.42	34.42	33.44	32.49	31.57	30.68	29.81	28.96	28.13
1120	32.79	31.83	30.90	29.99	29.11	28.25	27.42	26.60	25.81
1125	30.19	29.27	28.38	27.51	26.67	25.85	25.05	24.27	23.51
1130	27.61	26.74	25.89	25.06	24.25	23.47	22.71	21.96	21.24
1135	25.07	24.23	23.42	22.63	21.86	21.11	20.38	19.67	18.98
1140	22.55	21.75	20.98	20.22	19.49	18.78	18.08	17.41	16.75
1145	20.05	19.29	18.56	17.84	17.15	16.47	15.81	15.16	14.54
1150	17.58	16.86	16.16	15.48	14.82	14.18	13.55	12.94	12.34
1155	15.14	14.46	13.79	13.15	12.52	11.91	11.32	10.74	10.17
1160	12.72	12.08	11.45	10.84	10.24	9.67	9.10	8.55	8.02
1165	10.33	9.72	9.13	8.55	7.99	7.44	6.91	6.39	5.88
1170	7.96	7.38	6.83	6.28	5.75	5.24	4.74	4.25	3.77
1175	5.61	5.07	4.55	4.04	3.54	3.06	2.58	2.12	1.68
1180	3.29	2.78	2.29	1.81	1.35	0.89	0.45	0.02	-0.40
1185	0.99	0.52	0.06	-0.39	-0.82	-1.25	-1.66	-2.06	-2.46
1190	-1.29	-1.73	-2.15	-2.57	-2.98	-3.37	-3.75	-4.13	-4.50
1195	-3.54	-3.95	-4.35	-4.73	-5.11	-5.47	-5.83	-6.18	-6.52
1200	-5.78	-6.15	-6.52	-6.87	-7.22	-7.56	-7.88	-8.21	-8.52
1205	-7.99	-8.33	-8.67	-8.99	-9.31	-9.62	-9.92	-10.22	-10.50
1210	-10.18	-10.49	-10.80	-11.09	-11.38	-11.67	-11.94	-12.21	-12.47
1215	-12.35	-12.63	-12.91	-13.17	-13.44	-13.69	-13.94	-14.18	-14.42
1220	-14.49	-14.75	-15.00	-15.24	-15.47	-15.70	-15.92	-16.14	-16.36
1225	-16.62	-16.85	-17.07	-17.28	-17.49	-17.69	-17.89	-18.08	-18.27

# Marathon Sensors, Inc.

## Dewpoint Chart

Temperature in F

MV	1525	1550	1575	1600	1625	1650	1675	1700	1725
1230	-18.73	-18.92	-19.12	-19.30	-19.49	-19.66	-19.84	-20.01	-20.17
1235	-20.81	-20.98	-21.15	-21.31	-21.47	-21.62	-21.77	-21.92	-22.06
1240	-22.88	-23.02	-23.16	-23.30	-23.43	-23.56	-23.68	-23.81	-23.93
1245	-24.93	-25.04	-25.16	-25.27	-25.37	-25.48	-25.58	-25.68	-25.78
1250	-26.96	-27.05	-27.13	-27.22	-27.30	-27.38	-27.46	-27.54	-27.61
1255	-28.97	-29.03	-29.09	-29.15	-29.21	-29.27	-29.33	-29.38	-29.44
1260	-30.96	-31.00	-31.03	-31.07	-31.11	-31.14	-31.18	-31.21	-31.24
1265	-32.93	-32.95	-32.96	-32.97	-32.98	-33.00	-33.01	-33.02	-33.03
1270	-34.89	-34.88	-34.87	-34.86	-34.85	-34.84	-34.83	-34.82	-34.81
1275	-36.82	-36.79	-36.76	-36.72	-36.69	-36.66	-36.63	-36.60	-36.57
1280	-38.74	-38.68	-38.63	-38.57	-38.52	-38.47	-38.41	-38.36	-38.32
1285	-40.64	-40.56	-40.48	-40.41	-40.33	-40.26	-40.19	-40.12	-40.05
1290	-42.53	-42.43	-42.32	-42.23	-42.13	-42.04	-41.94	-41.85	-41.77
1295	-44.40	-44.27	-44.15	-44.03	-43.91	-43.80	-43.69	-43.58	-43.47
1300	-46.25	-46.10	-45.96	-45.82	-45.68	-45.54	-45.41	-45.29	-45.16
1305	-48.08	-47.91	-47.75	-47.59	-47.43	-47.28	-47.13	-46.98	-46.84
1310	-49.90	-49.71	-49.53	-49.35	-49.17	-49.00	-48.83	-48.66	-48.50
1315	-51.71	-51.49	-51.29	-51.09	-50.89	-50.70	-50.51	-50.33	-50.15
1320	-53.49	-53.26	-53.04	-52.82	-52.60	-52.39	-52.18	-51.98	-51.79
1325	-55.26	-55.01	-54.77	-54.53	-54.29	-54.07	-53.84	-53.62	-53.41
1330	-57.02	-56.75	-56.48	-56.23	-55.97	-55.73	-55.49	-55.25	-55.02
1335	-58.76	-58.47	-58.19	-57.91	-57.64	-57.38	-57.12	-56.86	-56.62
1340	-60.49	-60.18	-59.88	-59.58	-59.29	-59.01	-58.74	-58.47	-58.20
1345	-62.20	-61.87	-61.55	-61.24	-60.93	-60.63	-60.34	-60.05	-59.77
1350	-63.89	-63.55	-63.21	-62.88	-62.56	-62.24	-61.93	-61.63	-61.34
1355	-65.58	-65.21	-64.86	-64.51	-64.17	-63.84	-63.51	-63.19	-62.88
1360	-67.24	-66.86	-66.49	-66.13	-65.77	-65.42	-65.08	-64.75	-64.42
1365	-68.90	-68.50	-68.11	-67.73	-67.36	-66.99	-66.64	-66.29	-65.94
1370	-70.54	-70.12	-69.72	-69.32	-68.93	-68.55	-68.18	-67.81	-67.46
1375	-72.16	-71.73	-71.31	-70.90	-70.49	-70.10	-69.71	-69.33	-68.96
1380	-73.78	-73.33	-72.89	-72.46	-72.04	-71.63	-71.23	-70.83	-70.45
1385	-75.38	-74.91	-74.46	-74.01	-73.58	-73.15	-72.73	-72.33	-71.93
1390	-76.96	-76.48	-76.01	-75.55	-75.10	-74.66	-74.23	-73.81	-73.39
1395	-78.53	-78.04	-77.55	-77.08	-76.61	-76.16	-75.71	-75.28	-74.85
1400	-80.09	-79.58	-79.08	-78.59	-78.11	-77.64	-77.19	-76.74	-76.30
1405	-81.64	-81.12	-80.60	-80.10	-79.60	-79.12	-78.65	-78.18	-77.73
1410	-83.18	-82.64	-82.11	-81.59	-81.08	-80.58	-80.10	-79.62	-79.15
1415	-84.70	-84.14	-83.60	-83.07	-82.55	-82.04	-81.54	-81.05	-80.57
1420	-86.21	-85.64	-85.08	-84.53	-84.00	-83.48	-82.96	-82.46	-81.97
1425	-87.71	-87.12	-86.55	-85.99	-85.44	-84.91	-84.38	-83.87	-83.36
1430	-89.19	-88.60	-88.01	-87.44	-86.88	-86.33	-85.79	-85.26	-84.75
1435	-90.67	-90.06	-89.46	-88.87	-88.30	-87.74	-87.18	-86.65	-86.12
1440	-92.13	-91.51	-90.89	-90.29	-89.71	-89.13	-88.57	-88.02	-87.48

# Marathon Sensors, Inc.

## Dewpoint Chart

### Temperature in F

<b>MV</b>	<b>1525</b>	<b>1550</b>	<b>1575</b>	<b>1600</b>	<b>1625</b>	<b>1650</b>	<b>1675</b>	<b>1700</b>	<b>1725</b>
<b>1445</b>	-93.58	-92.94	-92.32	-91.71	-91.11	-90.52	-89.95	-89.38	-88.83
<b>1450</b>	-95.02	-94.37	-93.73	-93.11	-92.50	-91.90	-91.31	-90.74	-90.17

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