

Comparison of REED Contact Digital Thermometers



MODEL	R2000	R2222	R2400	R1640	R2450SD	C-370
Measuring Range	-40 to 450°F (-40 to 230°C)	-40 to 482°F (-40 to 250°C)	-58 to 2000°F (-50 to 1300°C) 223 to 2000K	-328 to 2401°F (-200 to 1372°C)	Type K: -148 to 2372°F (-100 to 1300°C) Type J: -148 to 2102°F (-100 to 1150°C) Type T: -148 to 752°F (-100 to 400°C) Type E: -148 to 999.9°F (-100 to 900°C) Type R: 32 to 3092°F (0 to 1700°C) Type S: 32 to 2732°F (0 to 1500°C) RTD: -327.9 to 1562°F (-199.99 to 850°C)	-148 to 572°F (-100 to 300°C)
Accuracy	<0°F (-17.8°C): ±3.6°F (2.0°C) 0 to 230°F (-17.8 to 110°C): ±1°F (0.5°C) >230°F (110°C): ±3.6°F (2.0°C)	±1.5% rdg +2°	-58 to 32°F: ±4°F 32 to 2000°F: ±(0.5% rdg +2°F); -50 to 0°C: ±2°C 0 to 1000°C: ±(0.5% rdg +1°C) 1000 to 1300°C: ±(0.8% rdg +1°C); 223 to 273K: ±5K 273 to 2000K: ±(1.0% rdg +2K)	> -148°F (-100°C): ±0.05% rdg + 1.8°F (1°C) < -148°F (-100°C): ±2.7°F (1.5°C)	Type K: ±(0.4% +1°F/0.5°C) Type J: ±(0.4% +1°F/0.5°C) Type T: ±(0.4% +1°F/0.5°C) Type E: ±(0.4% +1°F/0.5°C) Type R: ±(0.5% +2°F/1°C) Type S: ±(0.5% +2°F/1°C) RTD: ±(0.4% +1.8°F/1°C)	±0.1% rdg + 0.8°F (0.4°C)
Resolution	0.1°F/°C	0.1°F/°C	0.1 or 1°F/°C, 1K	0.1°F/°C	0.1 or 1°F/°C	0.1°F/°C
Type	Stem	Stem	Single Input Thermocouple Type K	2-Channel Thermocouple	4-Channel Thermocouple, 2-Channel RTD	Single Input RTD
Response Time	2 sec	2 sec	1x/sec	1x/sec	1x/sec	2x/sec
Stem Material	Stainless Steel	Stainless Steel	N/A	N/A	N/A	N/A
Stem Length	4.75" (121mm)	4.65" (118mm)	N/A	N/A	N/A	N/A
Display	3 1/2-digit LCD	3 1/2-digit LCD	3 1/2-digit LCD	Multi-line EBTN LCD	Quad LCD	3 1/2-digit LCD
Display Backlight	N/A	N/A	Yes	Yes	Yes	Yes
Data Hold	N/A	Yes	Yes	Yes	Yes	Yes
Min	N/A	Yes	N/A	N/A	Yes	Yes
Max	N/A	Yes	Yes	N/A	Yes	Yes
Average	N/A	N/A	N/A	N/A	N/A	Yes
Relative Mode	N/A	N/A	N/A	N/A	N/A	Yes
Differential Measurement (T1-T2)	N/A	N/A	N/A	N/A	Yes	N/A
Overrange Indicator	N/A	N/A	Yes	Yes	N/A	N/A
Datalogging Capabilities	N/A	N/A	N/A	Yes (w/ Smart Series App)	Yes	N/A
Real-Time Clock and Date Stamp	N/A	N/A	N/A	Yes (w/ Smart Series App)	Yes	N/A
Selectable Sampling Rate	N/A	N/A	N/A	Yes (customizable)	Yes (1, 2, 5, 10, 30, 60, 120, 300, 600, 1800, 3600s)	N/A
Internal Memory	N/A	N/A	N/A	N/A	N/A	N/A
External Memory	N/A	N/A	N/A	N/A	Yes, expandable up to 16Gb with SD card (optional)	N/A
Auto Shut-off	Yes (after 10 mins)	Yes (after 20 mins)	Yes (after 15 mins)	Yes (adjustable)	Yes (after 10 mins)	Yes (after 30 mins)
Kick Stand	N/A	N/A	Yes	N/A	Yes	N/A
Tripod Mountable	N/A	N/A	Yes	Yes	Yes	N/A
Magnetic Backing	N/A	N/A	N/A	Yes	N/A	N/A
Low Battery Indicator	N/A	N/A	Yes	Yes	Yes	Yes
Power Supply	1 x LR44 Battery	1 x LR44 Battery	1 x 9V Battery	4 X AAA Batteries	6 x AA Batteries or AC Adapter (optional)	3 x AAA Batteries
Battery Life	N/A	N/A	N/A	Approx 50 hours (Sampling Time Dependent)	N/A (Sampling Time Dependent)	Approx 100 hours (Alkaline)
Output	N/A	N/A	N/A	Bluetooth® 5.0	Yes (AC)	N/A
Bluetooth® Range	N/A	N/A	N/A	Up to 246' (75m)	N/A	N/A
Max # of Connected Devices	N/A	N/A	N/A	6	N/A	N/A
PC Connectivity	N/A	N/A	N/A	N/A	N/A	N/A
Software	N/A	N/A	N/A	REED Smart Series App	N/A	N/A
Software OS Compatability	N/A	N/A	N/A	IOS, Android	N/A	N/A
Product Certifications	NSF, CE	CE	CE	CE, UKCA, FCC, IC ID	CE	IP67, CE
Operating Temperature	N/A	N/A	32 to 104°F (0 to 40°C)	32 to 122°F (0 to 50°C)	32 to 104°F (0 to 40°C)	32 to 104°F (0 to 40°C)
Storage Temperature	N/A	N/A	14 to 140°F (-10 to 60°C)	14 to 122°F (-10 to 50°C)	14 to 140°F (-10 to 60°C)	14 to 140°F (-10 to 60°C)
Operating Humidity	N/A	N/A	10 to 90% RH	10 to 90% RH	10 to 90% RH	10 to 90% RH
Dimensions	5.8 x 1.8 x 1.3" (146 x 45 x 32mm)	8.3 x 1.3 x 0.8" (211 x 32 x 19mm)	6.4 x 3.0 x 1.5" (162 x 76 x 38.5mm)	6.4 x 1.5 x 1" (163 x 38 x 25mm)	7.0 x 2.7 x 1.9" (177 x 68 x 45mm)	5.9 x 2.6 x 1.2" (150 x 66 x 31mm)
Weight	1.1 oz (32g)	1.2 oz (35g)	7.4 oz (210g)	3.3 oz (95g)	1.2 lb (515g)	6.2 oz (175g)

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