



SURFACE THERMOMETERS

*STANDARD DUAL MAGNET
MOUNT THERMOMETER*



*SINGLE OR DUAL MAX-MIN
LAZY HANDS*



*FOUR MAGNET INDUSTRIAL
RAILROAD THERMOMETER*



*FULLY ENCLOSED
SURFACE THERMOMETER*



*DIRECT CONTACT
SPOT CHECK®*



*SPRING HELD
PIPE-SURFACE*



*CLIP-ON PIPE-SURFACE
THERMOMETER*



*MINIATURE SPOT CHECK®
THERMOMETER*



*IR OVEN & SURFACE
THERMOMETER*



*LOW COST DIGITAL
THERMOMETERS & PROBES*



*DIGITAL THERMOMETER
WITH PROBE ATTACHED*



*DIGITAL THERMOCOUPLE
THERMOMETER*



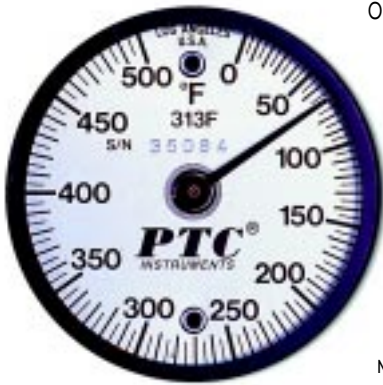
PTC
INSTRUMENTS

310-478-1134

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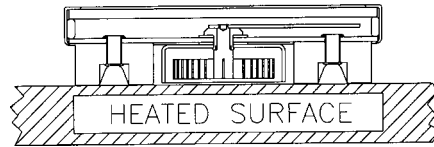
STANDARD DUAL MAGNET MOUNT



Model 313F

OVER ONE MILLION OF THESE ACCURATE, AFFORDABLE SURFACE THERMOMETERS ARE IN SERVICE THROUGHOUT THE WORLD. FOR MORE THAN FIFTY YEARS PTC® HAS BEEN MANUFACTURING THIS SERIES OF SPECIALIZED THERMOMETERS.

WITH MANY TEMPERATURE RANGES TO CHOOSE FROM, THE DUAL MAGNET SURFACE THERMOMETER IS THE LOGICAL CHOICE FOR MAKING SURFACE MEASUREMENTS.



Cross-section of our surface thermometer

	MODEL	RANGE	DIVISIONS
Fahrenheit	312F	0°F to 250°F	2°F
	313F	0°F to 500°F	5°F
	314F	50°F to 750°F	10°F
	315F	0°F to 50°F	1°F
	330F	-100°F to +160°F	2°F
Celsius	312C	-20°C to +120°C	1°C
	313C	-20°C to +250°C	2°C
	314C	10°C to 400°C	5°C
	315C	-15°C to +65°C	1°C
	330C	-70°C to +70°C	2°C

SINGLE OR DUAL MAX-MIN LAZY HANDS

SINGLE ANCILLARY HAND

THIS HANDY, RESETTABLE PEAK READING HAND IS AVAILABLE AS AN ACCESSORY ON PTC®'S DUAL MAGNET MOUNT, FOUR MAGNET MOUNT, AND TAB MOUNT SURFACE THERMOMETERS. THE ANCILLARY HAND IS RESET BY TURNING THE RESET KNOB ON THE FRONT OF THE THERMOMETER. A NON-IMPEDING MAGNETIC CLUTCH HOLDS THE HAND IN PLACE AT EITHER THE MAXIMUM OR MINIMUM TEMPERATURE REACHED DURING A CYCLE.

DUAL MAX-MIN ANCILLARY HANDS

MAX-MIN HANDS ARE AVAILABLE ON PTC®'S DUAL MAGNET MOUNT, FOUR MAGNET MOUNT, AND TAB SURFACE THERMOMETERS AS AN ACCESSORY. THE MAX-MIN HANDS REMAIN AT THE HIGHEST AND LOWEST TEMPERATURES REACHED UNTIL THEY ARE RESET. HANDS ARE RESET BY USING THE RESET KNOB AND MAGNETIC WAND (PART NUMBER 314.5 MM).

Magnetic Wand (Part number 314.5 MM).

Features

- ▶ Accuracy is $\pm 2\%$ of Full Scale Range
- ▶ 2" Diameter x 1/2" High
- ▶ Weighs only 1-1/2 oz.
- ▶ Select from Fahrenheit or Celsius Ranges
- ▶ Optional Single or Dual Max-Min Hands
- ▶ Optional Tab Mounts



Model 312F MM shown above

PTC[®]
INSTRUMENTS

FOUR MAGNET INDUSTRIAL RAILROAD



Model 350FRR

Features

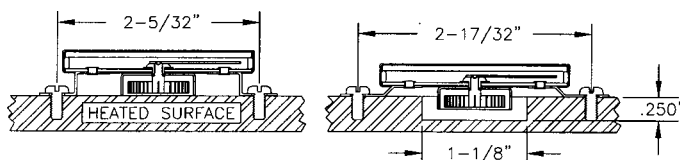
- ▶ Accuracy of $\pm 2\%$ of Full Scale Range
- ▶ 2" Diameter X 1/2" High
- ▶ Weighs only 2 oz.
- ▶ Select from Fahrenheit or Celsius Ranges
- ▶ Optional Single or Dual Max-Min Hands

	MODEL	RANGE	DIVISIONS
Fahrenheit	350FRR	-20°F TO +160°F	2°
	312FRR	0°F TO 250°F	2°
	313FRR	0°F TO 500°F	5°
	314FRR	50°F TO 750°F	10°
	315FRR	0°F TO 150°F	1°
	330FRR	-100°F TO +160°F	2°
Celsius	350CRR	-30°C TO +70°C	1°
	312CRR	-20°C TO +120°C	1°
	313CRR	-20°C TO +250°C	2°
	314CRR	10°C TO 400°C	5°
	315CRR	-15°C TO +65°C	1°
	330CRR	-70°C TO +70°C	2°

ON-SURFACE & IN-SURFACE TAB MOUNTED

TAB MOUNTS CAN BE ORDERED IN PLACE OF THE STANDARD DUAL MAGNETS. TWO TYPES OF TABS ARE AVAILABLE FOR THESE THERMOMETERS. TAB 1 IS AN ON-SURFACE MOUNT AND TAB 2 IS AN IN-SURFACE TYPE MOUNT. THE DRAWINGS SHOW BOTH STYLES OF MOUNTING.

FOR IN-SURFACE MOUNTING, A HOLE 1-1/8" DIAMETER BY 1/4" DEEP NEEDS TO BE MACHINED IN THE SURFACE TO BE MEASURED. PILOT HOLES ALSO NEED TO BE DRILLED FOR THE TAB MOUNTING SCREWS. BOTH STYLES OF TABS HAVE HOLES FOR THE SCREWS. WHEN ORDERING, PLEASE SPECIFY WHETHER TAB 1 OR TAB 2 MOUNTING IS REQUIRED.



TAB 1 On-Surface Mount TAB 2 In-Surface Mount

	MODEL	RANGE	DIVISIONS
Fahrenheit	312FT1 OR T2	0°F TO 250°F	2°
	313FT1 OR T2	0°F TO 500°F	5°
	314FT1 OR T2	50°F TO 750°F	10°
	315FT1 OR T2	0°F TO 150°F	1°
	330FT1 OR T2	-100°F TO +160°F	2°
Celsius	312CT1 OR T2	-20°C TO +120°C	1°
	313CT1 OR T2	-20°C TO +250°C	2°
	314CT1 OR T2	10°C TO 400°C	5°
	315CT1 OR T2	-15°C TO +65°C	1°
	330CT1 OR T2	-70°C TO +70°C	2°

310-478-1134

FULLY ENCLOSED SURFACE THERMOMETER



Model 310C

Features

- ▶ Fully Enclosed--Bimetal Protected from Damage
- ▶ Accuracy is $\pm 2\%$ of Full Scale Range
- ▶ 2" Diameter X 1/2" High
- ▶ Weighs only 1 oz.
- ▶ Select from Fahrenheit or Celsius Ranges

THESE HANDY SURFACE TEMPERATURE THERMOMETERS HAVE SERVED THE INDUSTRY FOR OVER FIFTY YEARS. WITH THEIR UNIQUE DESIGN, THE BIMETAL SENSOR IS PROTECTED FROM CONTAMINANTS AND DAMAGE FROM HANDLING.

WITH AN ACCURACY OF $\pm 2\%$ OF FULL SCALE RANGE, THESE THERMOMETERS GIVE FAST AND ACCURATE TEMPERATURE MEASUREMENTS WITH AN INEXPENSIVE INSTRUMENT.

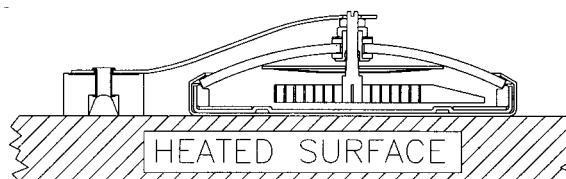
MODEL	RANGE	DIVISIONS	
309F	-50°F to +250°F	2°F	Fahrenheit
310F	0°F to 300°F	2°F	
311F	70°F to 370°F	2°F	
309C	-50°C to +110°C	2°C	Celsius
310C	-10°C to +150°C	2°C	
311C	20°C to 180°C	2°C	

ACCESSORIES

PART NO. 310.7 MAGNET & LEAF SPRING.

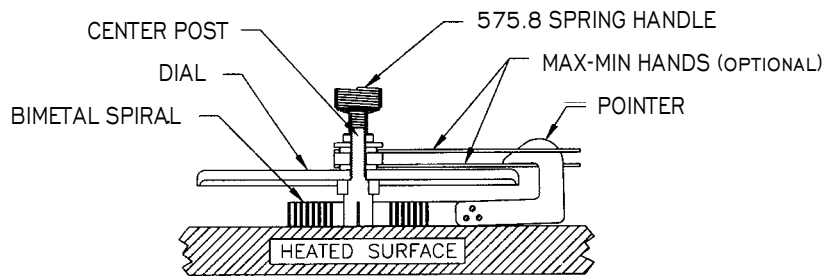
PART NO. 310.8 SILICONE GREASE ADHESIVE.

THESE ACCESSORIES CAN BE USED TO ATTACH THE THERMOMETER TO ALMOST ANY FLAT NONHORIZONTAL SURFACE. THE MAGNET & LEAF SPRING WILL HOLD THE THERMOMETER TO ANY MAGNETIC (FERROUS) SURFACE. APPLYING A THIN COAT OF THE SILICONE GREASE TO THE BACK OF THE THERMOMETER WILL HOLD IT TO A NON-MAGNETIC SURFACE.



Cross-section of fully enclosed surface thermometer shown with optional magnet & leaf spring accessory.

DIRECT CONTACT SPOT CHECK®



MODEL 573C

	RANGE	DIV	BASIC THERMOMETER MODEL NO.	WITH MAGNET & LEAF SPRING MODEL NO.	WITH MAX-MIN HANDS & 3 IO.7 MODEL NO.	WITH STAINLESS STEEL DIAL MODEL NO.
Fahrenheit	0°F TO 270°F	2°	570F	570FM	577FM	-
	50°F TO 320°F	2°	571F	571FM	578FM	-
	50°F TO 500°F	5°	572F	572FM	574FM	-
	50°F TO 1000°F	10°	573F	573FM	575FM	575FMSS
Celsius	10°C TO 160°C	1°	571C	571CM	-	-
	10°C TO 260°C	2°	572C	572CM	574CM	-
	0°C TO 525°C	5°	573C	573CM	575CM	575CMSS

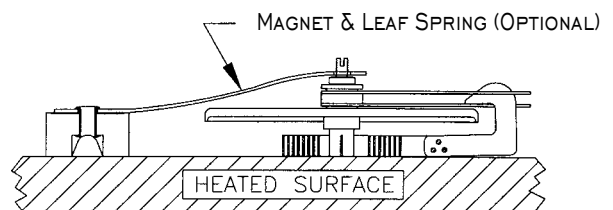
PTC®'s SPOT CHECK® SERIES OF THERMOMETERS FEATURE OUTSTANDING RESPONSE AND SENSITIVITY. THEIR EXTREMELY LOW THERMAL MASS AND WEIGHT (1/2 OUNCE), ALONG WITH A UNIQUE DESIGN, ASSURE INTIMATE CONTACT AND A VERY RAPID READOUT.

THE BASIC THERMOMETER IS INTENDED FOR HORIZONTAL OR SLIGHTLY CURVED SURFACES. THREE OPTIONS FOR THIS BASIC MODEL ARE AVAILABLE:

1. THERMOMETER WITH MAGNET & LEAF SPRING (3 IO.7) FOR ATTACHING TO NONHORIZONTAL FERROUS SURFACES
2. THERMOMETER WITH MAX-MIN HANDS AND MAGNET & LEAF SPRING (3 IO.7)
3. THERMOMETER WITH STAINLESS STEEL DIAL, MAX-MIN HANDS, AND MAGNET & LEAF SPRING (3 IO.7)

Features

- ▶ Very Fast Response Time
- ▶ Accuracy is $\pm 2\%$ of Full Scale Range
- ▶ 1-3/4" Diameter X 1/2" High
- ▶ Weighs only 1/2 oz.
- ▶ Select from Fahrenheit or Celsius Ranges
- ▶ Optional Dual Max-Min Hands



310-478-1134

SPRING HELD PIPE-SURFACE THERMOMETER

Features

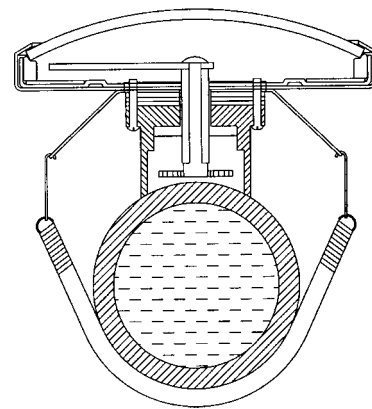
- ▶ For Pipes with O.D.'s of 3/4" and up
- ▶ Accuracy is $\pm 2\%$ of Full Scale Range
- ▶ 2" Diameter X 1" High
- ▶ Weighs only 1-1/2 oz.
- ▶ Select from Fahrenheit or Celsius Ranges
- ▶ Spring Kit Included with Each Thermometer



Model 483F shown

MODEL	RANGE	DIVISIONS	Fahrenheit
483F	0°F to 150°F	2°F	
486F	-50°F to +250°F	2°F	
487F	70°F to 370°F	2°F	
488F	70°F to 500°F	5°F	

MODEL	RANGE	DIVISIONS	Celsius
483C	-20°C to +70°C	2°C	
486C	-40°C to +120°C	2°C	
487C	20°C to 180°C	2°C	
488C	20°C to 260°C	2°C	



*Cross-section of spring held
pipe-surface thermometer shown
mounted to pipe*



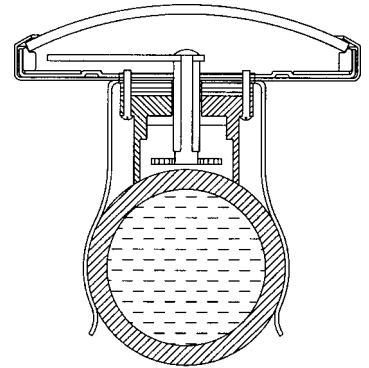
THESE HANDY PIPE-SURFACE THERMOMETERS WILL FIT PIPES HAVING O.D.'s OF 3/4" AND UP. AN INCLUDED SPRING KIT ALLOWS THE INSTRUMENT TO BE ATTACHED TO A PIPE OR CYLINDER UP TO 6" IN DIAMETER. ADDITIONAL KITS CAN BE ORDERED AND THE SPRINGS COMBINE TO ACCOMMODATE LARGER DIAMETERS. THE SPRING KIT (PART NO. 486.84) INCLUDES THREE STAINLESS STEEL SPRINGS 3/4", 2", AND 4" IN LENGTH. CLIPS ARE ALSO INCLUDED TO ATTACH THE SPRINGS TO THE THERMOMETER.

THE BIMETAL SENSOR IS PROTECTED FROM DRAFTS BY AN INSULATING CUP WHICH ALSO ACTS AS THE UNIT'S BASE. THE CUP IS MADE FROM HIGH-TEMPERATURE PLASTIC FOR THE LOWER RANGES. MODELS 488F & 488C HAVE AN ALUMINUM INSULATING CUP FOR HIGHER TEMPERATURE USE (UP TO 500°F).

CLIP-ON PIPE-SURFACE THERMOMETER



Model 484 shown with Large, Medium and Small Clip



Cross-section of clip-on pipe-surface thermometer shown mounted to pipe.

	RANGE	DIV.	FOR PIPE O.D.'s 3/4" TO 7/8"	FOR PIPE O.D.'s 1" TO 1-5/8"	FOR PIPE O.D.'s 1-5/8" TO 2-3/8"
<i>Fahrenheit</i>	0°F TO 150°F	2°	483FS	483FM	483FL
	-50°F TO +250°F	2°	484FS	484FM	484FL
	70°F TO 370°F	2°	485FS	485FM	485FL
<i>Celsius</i>	-20°C TO +70°C	2°	483CS	483CM	483CL
	-40°C TO +120°C	2°	484CS	484CM	484CL
	20°C TO 180°C	2°	485CS	485CM	485CL

CALIBRATED AND DESIGNED FOR PIPE-SURFACE TEMPERATURE MEASUREMENT, THESE THERMOMETERS CAN BE USED ON PIPES UP TO 2-3/8" DIAMETER (3/4" MINIMUM DIAMETER). FOR LARGER DIAMETER PIPES, OUR SPRING HELD THERMOMETERS ARE AVAILABLE.

EASE OF USE AND LOW COST MAKE THESE INSTRUMENTS INDISPENSABLE FOR MONITORING PIPE TEMPERATURES. THERMOMETERS HAVE AN ACCURACY OF $\pm 2\%$ OF FULL SCALE RANGE.

Features

- ▶ Accuracy is $\pm 2\%$ of Full Scale Range
- ▶ Snaps Instantly Into Place
- ▶ Sizes to Fit 3/4" to 2-3/8" O.D. Pipes
- ▶ 2" Diameter X 1" High
- ▶ Weighs Approximately 1 oz.
- ▶ Select from Six Temperature Ranges
- ▶ Fast Response Time

310-478-1134

MINIATURE SPOT CHECK® THERMOMETER



Model 675F shown actual size

Features

- ▶ 3/4" Diameter X 3/8" High
- ▶ Weighs only 0.2 oz.
- ▶ Accuracy is $\pm 2\%$ of Full Scale Range
- ▶ Select from Fahrenheit or Celsius Ranges

MODEL	RANGE	DIVISIONS
674F	0°F to 250°F	2°F
675F	0°F to 500°F	2°F
676F	50°F to 750°F	10°F

Fahrenheit

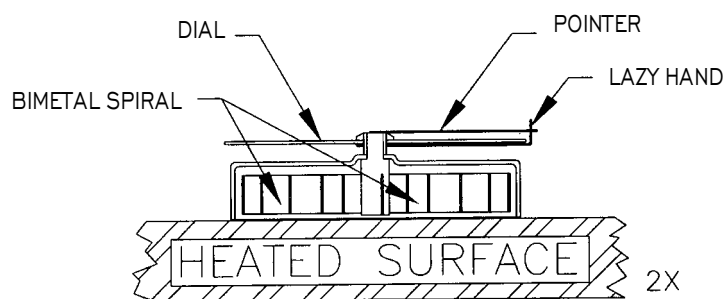
MODEL	RANGE	DIVISIONS
674C	0°C to 135°C	5°C
675C	-20°C to +250°C	5°C
676C	10°C to 400°C	5°C

Celsius

THESE THERMOMETERS WILL MEASURE SURFACE TEMPERATURES IN A SPACE AS SMALL AS 1" X 1"; WITH AN ACCURACY OF $\pm 2\%$ OF FULL SCALE RANGE. THE SMALL SIZE OF THESE INSTRUMENTS ALLOWS MINIMUM "HEAT-STEALING" FROM THE HEATED SURFACE.

THE BIMETAL SENSOR IS PROTECTED FROM DRAFTS WITH A CUP WHICH ALSO ACTS AS THE UNIT'S BASE. THE BIMETAL SENSOR COMES IN CLOSE THERMAL CONTACT WITH THE SURFACE TO BE MEASURED, PROVIDING THE THERMOMETER WITH A FAST RESPONSE TIME.

THE 675 SERIES CAN BE USED FOR TESTING THE TEMPERATURE OF ELECTRONIC PARTS. AN ISOTHERM OF AN AREA CAN BE CONSTRUCTED BY EMPLOYING SEVERAL OF THESE INSTRUMENTS AND THEN PLOTTING THE READINGS.

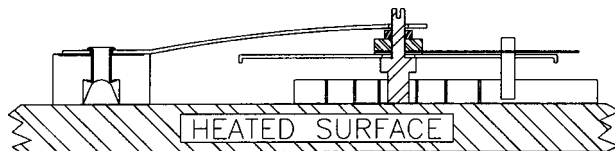


*Cross-section of thermometer
on heated surface.*

IR OVEN & SURFACE



Model 580F shown above



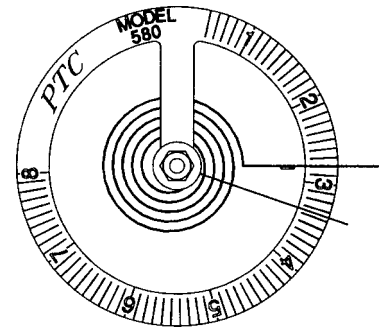
Cross-section of thermometer held in place with 310.7 magnet & leaf spring shown on heated surface.

THESE I/R THERMOMETERS ARE DESIGNED TO MEASURE THE RADIATION TEMPERATURE OF A SOURCE. ALTHOUGH SPECIFICALLY INTENDED FOR RADIATION TEMPERATURES, THESE THERMOMETERS WILL ALSO ACCURATELY MEASURE SURFACE TEMPERATURES.

RADIATION TEMPERATURES FROM SOURCES SUCH AS: CALRODS, WIRE AND RIBBON RESISTANCE HEATING ELEMENTS, GAS OPERATED HEAT TRANSFER PANELS, AND INCANDESCENT LAMPS CAN BE MEASURED.

THESE MODELS COME WITH A MAXIMUM READING HAND, WHICH WILL RETAIN THE HIGHEST TEMPERATURE REACHED DURING A CYCLE.

Fahrenheit	MODEL	RANGE	DIVISIONS
	580F	50°F to 800°F	10°F
	580FM	50°F to 800°F	10°F
	WITH 310.7		
Celsius	MODEL	RANGE	DIVISIONS
	580C	10°C to 425°C	5°F
	580CM	10°C to 425°C	5°F
	WITH 310.7		



Features

- ▶ I.R. Oven & Surface Thermometer
- ▶ Accuracy is $\pm 3\%$ of Full Scale Range
- ▶ 1-21/32" Diameter X 9/16" High
- ▶ Weighs Approximately 0.2 oz.
- ▶ Very Fast Response
- ▶ Models 580FM & 580CM Come with Magnet & Leaf Spring

310-478-1134

LOW COST DIGITAL THERMOMETER & PROBES

*Model
31308-KF
shown with
Part No.
31901-K
Immersion
Probe*



MODEL	RANGE	DIVISIONS
31308-KF	-100°F TO +1000°F	1°F
31308-KC	-120°C TO +550°C	1°C

THIS LOW COST DIGITAL MODEL FEATURES INTERCHANGEABLE PROBES FOR ALL APPLICATIONS WITH A RANGE OF -100°F TO +1000°F OR -120°C TO +550°C. INSTRUMENT INCLUDES A 9-VOLT BATTERY WHICH PROVIDES UP TO 2,000 HOURS OF OPERATION. DISPLAY IS EASY TO READ WITH 3/8" HIGH NUMERALS.

CHOOSE FROM FOUR DIFFERENT PROBE STYLES: SURFACE (31907-K), AIR (31903-K), IMMERSION (31901-K), AND BARE TIP (31905-K). PROBES ARE ANSI TYPE K WITH MINI CONNECTORS. PROBES ARE NOT INCLUDED WITH THE INSTRUMENT AND MUST BE ORDERED AS SEPARATE ITEMS.

PROBE TYPES	MODEL
SURFACE	31907-K
AIR	31903-K
IMMERSION	31901-K
BARE TIP	31905-K

DIGITAL THERMOMETER WITH PROBE ATTACHED

MODEL	RANGE	DIVISIONS
33035	-115.0°F TO +500.0°F -80.0°C TO +260.0°C	.1° OR 1°

THIS MODEL FEATURES OUTSTANDING ACCURACY AND EASE OF USE, COMBINED WITH DURABILITY AND LOW COST. THE UNIT'S DISPLAY IS SWITCHABLE BETWEEN °F AND °C READOUTS. ACCURACY IS $\pm 0.9^\circ\text{F}$ (OR $\pm 0.5^\circ\text{C}$).

THE THERMOMETER IS SEALED AGAINST MOISTURE, DIRT, AND OTHER CONTAMINANTS. THE INSTRUMENT'S HANDLE AND CABLE CAN WITHSTAND TEMPERATURES UP TO 400°F, CABLE LENGTH IS 32".



*Model 33035 Digital Thermometer
with Flat Surface Bell Probe*

DIGITAL THERMOCOUPLE THERMOMETER



Model 39658

MODEL 39658

INTERCHANGEABLE PROBES PROVIDE VERSATILITY FOR THIS ACCURATE AND DURABLE DIGITAL THERMOMETER. THE THERMOMETER IS SWITCHABLE FROM °F OR °C READINGS AND THE DISPLAY DIGITS ARE 1/2" TALL, MAKING THEM VERY EASY TO READ.

ACCURACY IS $\pm 1\%$ OF READING $\pm 1^\circ$ OVER RANGE OF -122°F TO $+1999^\circ\text{F}$ WITH THE INSTRUMENT ITSELF AT ROOM TEMPERATURE (20°C TO 30°C). THREE THERMOCOUPLE TYPES ARE AVAILABLE AND PROBE STYLES ARE LISTED BELOW.

MODEL 38653

STAINLESS STEEL HOUSING

THIS DIGITAL THERMOMETER IS RUGGED, ACCURATE, AND POCKET-SIZED. THIS THERMOMETER CAN BE SWITCHED TO READ IN EITHER °F OR °C AND CAN BE USED WITH ANY PROBE LISTED BELOW. DISPLAY IS BLACK-ON-SILVER LCD DIGITS, 0.35" TALL. THE THERMOMETER WEIGHS ONLY 5 OUNCES.

ACCURACY IS $\pm 0.7\%$ OF READING $\pm 1^\circ\text{C}$ (1.8°F). THREE DIFFERENT RANGES ARE AVAILABLE USING TYPE J, K, OR T THERMOCOUPLES.



Model 38653

TYPE RANGE

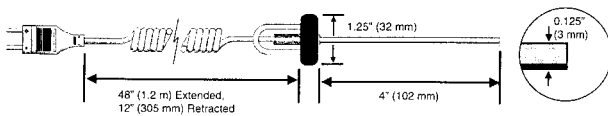
J	-112°F TO +1382°F & -80°C TO +750°C
K	-112°F TO +1999°F & -80°C TO +1100°C
T	-112°F TO +752°F & -80°C TO +400°C

TYPE RANGE

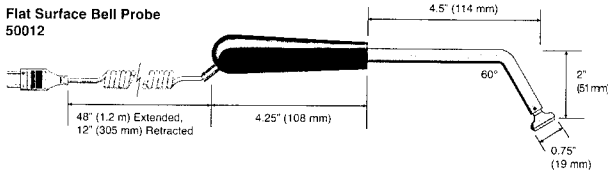
J	-76°F TO +1400°F & -60°C TO +760°C
K	-40°F TO +1832°F & -40°C TO +1000°C
T	-76°F TO +662°F & -60°C TO +350°C

PROBE TYPES FOR MODEL 39658 & 38653 DIGITAL THERMOMETERS

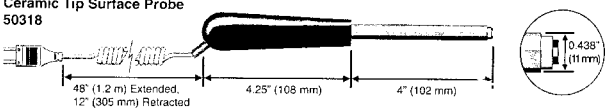
1/8" Surface/Immersion Probe - Blunt Tip
50316



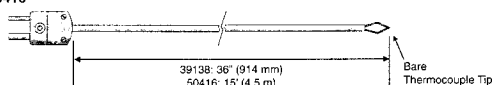
Flat Surface Bell Probe
50012



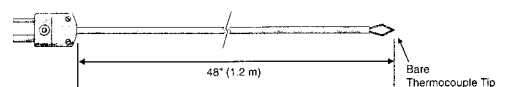
Ceramic Tip Surface Probe
50318



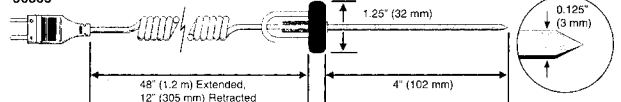
Bare Tip Probe, 36" & 15' - Teflon® Cable
39136 & 50416



Bare Tip Probe, 48" - Fiberglass Cable
49138



1/8" Diameter Needle Probe - Coiled Cable
50335



High Temperature Probe
49140



310-478-1134

PTC INSTRUMENTS

IMMERSION THERMOMETERS



RECORDING THERMOMETER
Model 615



AIR IMMERSION THERMOMETER
Model 819F with optional desk stand



OVEN RECORDING OVEN THERMOMETER
Model 618

STAINLESS STEEL
STEM THERMOMETER



AIR IMMERSION WALL THERMOMETER
Model 815F



STAINLESS STEEL
ALL-ANGLE STEM THERMOMETER