



# Hydrometers & Thermometers for the Brewing Industry



**WEBER SCIENTIFIC**

800-328-8378

[www.weberscientific.com](http://www.weberscientific.com)

**For Determining Extract Of Beer And Wort Specified And Described In  
*Methods of Analysis from The American Society of Brewing Chemists***





# RASCHER & BETZOLD

## A.S.B.C. Top Reading Pyrex® Brand Glass Hydrometers

Readings are made on hydrometers at the top of the meniscus when overflowing in a clean special PYREX® brand glass cylinder. They check laboratory determinations made with the Boot or Reischauer pycnometer. All instruments and cylinders must be kept clean. We have found chromic-sulfuric acid (Cleaning Solution) most satisfactory for this purpose.

All A.S.B.C. hydrometers are guaranteed to be accurate, with a maximum error not exceeding one smallest division of the hydrometer scale or one-half smallest division of the thermometer scale.

Directions for using these hydrometers are given in Methods of Analysis of the American Society of Brewing Chemists.

Hydrometers are supplied combined form with thermometer in body. Temperature of standardization 20°C. Thermometer scale range 0 to 30°C., with temperature correction scale.



## A.S.B.C. High Precision Top Reading Hydrometers Standardization Temperature 20°C

Catalog No.	Liquid Tested	Scale Range %Plato	Divisions %Plato	Length	Outside Diameter
<i>A.S.B.C. Small Laboratory Type / 110 ml of Sample Needed</i>					
R164978	BEER/WORT	*-2 to 6	0.1	270mm /10.6"	20mm
R164980	BEER/WORT	0 to 8	0.1	270mm /10.6"	20mm
R165000	BEER/WORT	8 to 16	0.1	270mm /10.6"	20mm
R165020	BEER/WORT	16 to 24	0.1	270mm /10.6"	20mm
<i>A.S.B.C. Large Laboratory Type / 240 ml of Sample Needed</i>					
R165030	BEER/WORT	0 to 8	0.1	330mm/13"	25mm
R165030	BEER/WORT	8 to 16	0.1	330mm/13"	25mm
R165034	BEER/WORT	16 to 24	0.1	330mm/13"	25mm
<i>A.S.B.C. Large Plant Type / 430 ml of Sample Needed</i>					
R165040	BEER/WORT	0 to 14	0.1	406mm/16"	32mm
R165060	BEER/WORT	12 to 26	0.1	406mm/16"	32mm
<i>A.S.B.C. Large Strong Plant Type / 430 ml of Sample Needed</i>					
R165160	BEER/WORT	2 to 8	0.1	406MM/16"	32mm
R165161	BEER/WORT	8 to 14	0.1	406MM/16"	32mm
R165162	BEER/WORT	10 to 16	0.1	406MM/16"	32mm
R165168	BEER/WORT	0 to 10	0.1	432MM/17"	32mm
R165170	BEER/WORT	10 to 20	0.1	432MM/17"	32mm
<i>A.S.B.C. Special Strong Plant Type / 370 ml of Sample Needed</i>					
R165078	BEER/WORT	*-1 to 2	0.05	356mm/14"	32mm
R165082	BEER/WORT	2 to 5	0.05	356mm/14"	32mm
R165089	BEER/WORT	6 to 9	0.05	356mm/14"	32mm
R165092	BEER/WORT	9 to 12	0.05	356mm/14"	32mm
R165096	BEER/WORT	11 to 14	0.05	356mm/14"	32mm
R165097	BEER/WORT	12 to 15	0.05	356mm/14"	32mm
R165100	BEER/WORT	14 to 17	0.05	356mm/14"	32mm

# PRECISION HYDROMETERS

- Measures The Density of Liquid To The Density Of Pure Water
- At The Same Temperature
- Standard Temperature Is 60°F/60°F (15.6°C/15.6°C)
- Plain Form or With Thermometer (Spirit Filled)
- Other Temperature Standards Available
- Suitable For Certification
- Several Other Range Available

## SPECIFIC GRAVITY HYDROMETERS

Catalog No.	Scale Range %Brix	Divisions %Brix	Length	Outside Dia.
<i>Plain Form W/O Thermometer</i>				
<b>GW2534</b>	0.895 to 1.000	0.001	300mm/12"	20mm
<b>GW2535</b>	0.650 to 1.000	0.005	300mm/12"	20mm
<b>GW2540</b>	1.000 to 1.220	0.002	300mm/12"	20mm
<b>GW2541</b>	2.000 to 1.425	0.002	300mm/12"	20mm
<i>Plain Form W Thermometer (Spirit Filled) 20 To 120F</i>				
<b>GW2534C</b>	0.895 to 1.000	0.001	380mm/15"	22mm
<b>GW2535C</b>	0.650 to 1.000	0.005	380mm/15"	22mm
<b>GW2540C</b>	1.000 to 1.220	0.002	380mm/15"	22mm
<b>GW2541C</b>	2.000 to 1.425	0.002	380mm/15"	22mm

## ALCOHOL HYDROMETERS

- Tralle Scale Measures The % Of Alcohol
- Proof Scale Measures % Of Alcohol By Volume
- Internal Revenue Specification Proof Scales
- Plain Form and With Thermometer (Spirit Filled)
- Other Temperature Standards Available
- Suitable For Certification

Catalog No.	Scale Range %Brix	Divisions %Brix	Length	Outside Dia.
<i>Alcohol Hydrometer, W/O Thermometer, Calibrated At 60°F</i>				
<b>GW2510</b>	0 to 100% Tralle	1%	300mm/12"	17mm
	0 to 200% Proof	2%		
<i>Alcohol Hydrometer, W/Thermometer, 10 To 100F, Calibrated At 60°F</i>				
<b>GW2510CS</b>	0 to 100% Tralle	1%	330mm/13"	22mm
	0 to 200% Proof	2%		

Catalog No.	IRS Size	Range %Proof	Divisions %	Tolerances ±%	Length
<i>Alcohol Hydrometers, Irs Specifications, Proof Scales, Calibrated At 60°F W/O Thermometer</i>					
<b>GW2601</b>	IRS SZ. F	0 to 20%	0.2%	0.3	305mm/12"
<b>GW2602</b>	IRS SZ. G	20 to 40%	0.2%	0.4	305mm/12"
<b>GW2603</b>	IRS SZ. H	40 to 60%	0.2%	0.4	305mm/12"
<b>GW2604</b>	IRS SZ. I	60 to 80%	0.2%	0.3	305mm/12"
<b>GW2605</b>	IRS SZ. K	75 to 95%	0.2%	0.3	305mm/12"
<b>GW2606</b>	IRS SZ. L	90 to 100%	0.2%	0.2	305mm/12"
<b>GW2607</b>	IRS SZ. M	105 to 125%	0.2%	0.2	305mm/12"
<b>GW2608</b>	IRS SZ. N	125 to 145%	0.2%	0.2	305mm/12"
<b>GW2609</b>	IRS SZ. P	145 to 165%	0.2%	0.2	305mm/12"
<b>GW2610</b>	IRS SZ. Q	165 to 185%	0.2%	0.2	305mm/12"
<b>GW2611</b>	IRS SZ. R	185 to 206%	0.2%	0.2	305mm/12"
<b>GW2612</b>	IRS SZ. A	0 to 100%	1.0%	1.0	230mm/9"
<b>GW2613</b>	IRS SZ. B	80 to 120%	0.5%	0.5	230mm/9"
<b>GW2614</b>	IRS SZ. C	100 to 140%	0.5%	0.5	230mm/9"
<b>GW2615</b>	IRS SZ. D	130 to 170%	0.5%	0.5	230mm/9"
<b>GW2616</b>	IRS SZ. E	160 to 206%	0.5%	0.5	230mm/9"



## BRIX HYDROMETERS

- Measure The Percent Of Sugar (Degrees Brix)
- 1° Brix = 1 Gram In 100G Of Solution
- Each Scale Division = % Of Sucrose By Weight
- Temperature Standard Is 20°C/20°C
- Temperature Correction Factor On The Thermometer Scale
- Plain Form or With Thermometer (Spirit Filled)
- Other Temperature Standards Available
- Suitable For Certification

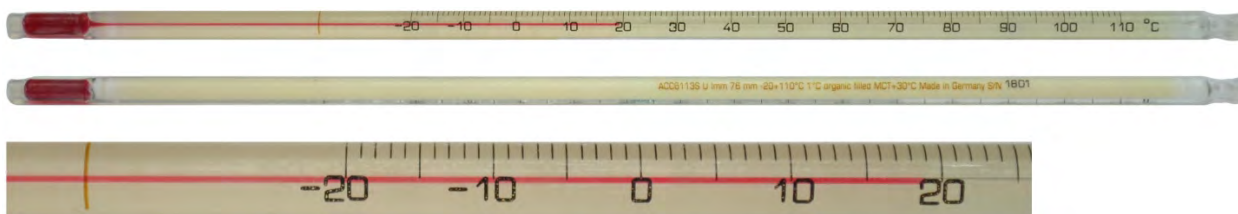
Catalog No.	Scale Range %Brix	Divisions %Brix	Length	Outside Dia.
<i>BRIX % SUGAR , CAL 20C, W/O THERMOMETER</i>				
<b>GW2740</b>	*-5/+5	0.1	300mm/12"	24mm
<b>GW2741</b>	5/+15	0.1	300mm/12"	24mm
<b>GW2742</b>	0/6	0.1	300mm/12"	24mm
<b>GW2743</b>	6/12	0.1	300mm/12"	24mm
<b>GW2516</b>	0/12	0.1	300mm/12"	24mm
<b>GW2517</b>	9/21	0.1	300mm/12"	24mm
<b>GW2518</b>	19/31	0.1	300mm/12"	24mm
<b>GW2519</b>	29/41	0.1	300mm/12"	24mm
<b>GW2520</b>	39/51	0.1	300mm/12"	24mm
<b>GW2521</b>	49/61	0.1	300mm/12"	24mm
<b>GW2522</b>	59/71	0.1	300mm/12"	24mm
<b>GW2522X</b>	69/81	0.1	300mm/12"	24mm
<b>GW2523</b>	0/35	0.5	300mm/12"	24mm
<b>GW2524</b>	35/70	0.5	300mm/12"	24mm
<i>BRIX % SUGAR , CAL 20C, W/THERMOMETER 0 to 50C</i>				
<b>GW2740C</b>	*-5/+5	0.1	330mm/13"	22mm
<b>GW2741C</b>	5/+15	0.1	330mm/13"	22mm
<b>GW2742C</b>	0/6	0.1	330mm/13"	22mm
<b>GW2743C</b>	6/12	0.1	330mm/13"	22mm
<b>GW2516C</b>	0/12	0.1	330mm/13"	22mm
<b>GW2517C</b>	9/21	0.1	330mm/13"	22mm
<b>GW2518C</b>	19/31	0.1	330mm/13"	22mm
<b>GW2519C</b>	29/41	0.1	330mm/13"	22mm
<b>GW2520C</b>	39/51	0.1	330mm/13"	22mm
<b>GW2521C</b>	49/61	0.1	330mm/13"	22mm
<b>GW2522C</b>	59/71	0.1	330mm/13"	22mm
<b>GW2522XC</b>	69/81	0.1	330mm/13"	22mm
<b>GW2523C</b>	0/35	0.5	330mm/13"	22mm
<b>GW2524C</b>	35/70	0.5	330mm/13"	22mm

## BALLING HYDROMETERS

- Measure The Percent Of Sugar In Beer and Wort
- Temperature Standard Is 17.5°C and 14° Reaumur
- Temperature Correction Factor On The Thermometer Scale
- Tolerances ± 0.1
- With Spirit Filled Thermometer
- Other Temperature Standards Available
- Suitable For Certification

Catalog No.	Scale Range %Brix	Divisions %Brix	Length	Outside Dia.
<i>Balling % Sugar , 14° Reaumur (17.5°C), w/ Thermometer 0 to 50°C</i>				
<b>GW2512C</b>	0 to 8.5	0.1	330mm/13"	22mm
<b>GW2513C</b>	7.5 to 15	0.1	330mm/13"	22mm
<b>GW2514C</b>	15 to 24	0.1	330mm/13"	22mm
<b>GW2515C</b>	0 to 14	0.1	330mm/13"	22mm
<b>GW2515CB</b>	0 to 22	0.2	330mm/13"	22mm
<i>Triple Scale Hydrometer, Balling, % Alcohol, Specific Gravity w/o Thermometer</i>				
<b>GW9557</b>	0 to 39 Balling	0.50%	250mm/10"	17mm
	0 to 23 Alcohol	1.00%		
	0.99 to 1.17 S/G	0.5 S/G		

## SAFETY COAT PRECISION - Spirit Filled Laboratory Thermometers



- **NIST Traceable**
- Thermometers are Completely Sealed in a PTEF Jacket
- Safety Jacket Contains Liquid & Glass if Breakage Occurs
- Thermometer Impervious to Acids and Alkalis
- Individually Serialized



### Partial Immersion

Catalog No.	Range	Div.	Immersion	Length
ACC6093SSC	-35 to 50°C	1°C	76mm	305mm
ACC6113SSC	-20 to 110°C	1°C	76mm	300mm
ACC6133SSC	-20 to 150°C	1°C	76mm	300mm
ACC6153SSC	-10 to 200°C	1°C	76mm	305mm
ACC6173SSC	-10 to 260°C	1°C	76mm	405mm
ACC6083SSC	-30 to 120°F	1°F	76mm	305mm
ACC6103SSC	0 to 230°F	2°F	76mm	300mm
ACC6123SSC	0 to 300°F	2°F	76mm	300mm
ACC6143SSC	20 to 400°F	2°F	76mm	305mm
ACC6013SC	-50 to 50°C	1°C	76mm	305mm
ACC6033SC	-100 to 50°C	1°C	76mm	305mm

### Total Immersion

Catalog No.	Range	Div.	Immersion	Length
ACC609SSC	-35 to 50°C	1°C	TOTAL	305mm
ACC611SSC	-20 to 110°C	1°C	TOTAL	305mm
ACC613SSC	-20 to 150°C	1°C	TOTAL	305mm
ACC608SSC	-30 to 120°F	1°F	TOTAL	305mm
ACC610SSC	0 to 230°F	2°F	TOTAL	305mm
ACC612SSC	0 to 300°F	2°F	TOTAL	305mm
ACC601SC	-50 to 50°C	1°C	TOTAL	305mm
ACC603SC	-100 to 50°C	1°C	TOTAL	305mm

## PRECISION ARMORED - Spirit Filled Thermometers



- Red Spirit Filled Thermometers
- Precision Thermometer in Nickel Plated Brass Armors
- Accurate to Within NIST Tolerances
- Armors have Slotted Fronts for Ease of Reading
- Armors Have Suspension Rings
- Replacement Thermometers Available
- (See Chart)

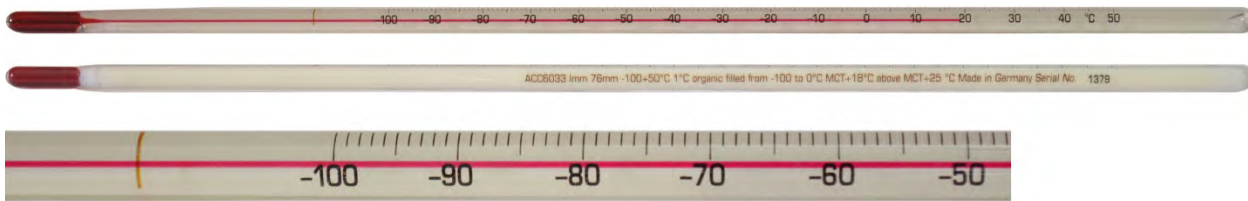
With Armor Catalog No.	Refill Only Catalog No.	Range	Div.	Immersion	Length
ACC517SA	ACC517S	-35 to 50°C	1°C	76mm	305mm
ACC519SA	ACC519S	-20 to 110°C	1°C	76mm	305mm
ACC521SA	ACC521S	-20 to 150°C	1°C	76mm	305mm
ACC525SA	ACC525S	-10 to 200°C	1°C	76mm	305mm
ACC527SA	ACC527S	-10 to 260°C	1°C	76mm	405mm
ACC516SA	ACC516S	-30 to 120°F	1°F	76mm	305mm
ACC518SA	ACC518S	0 to 230°F	2°F	76mm	305mm
ACC522SA	ACC522S	30 to 300°F	2°F	76mm	305mm

Catalog No.	Length
ACC6ARM	150mm (6")
ACC8ARM	200mm (8")
ACC12ARM	305mm (12")
ACC14ARM	355mm (14")
ACC16ARM	405mm (16")
ACC18ARM	458mm (18")
ACC24ARM	610mm (24")

### Nickel Plated Brass Replacement Armors



## SAMA PRECISION - Spirit Filled Laboratory Thermometers



- **NIST Traceable**
- *Total and Partial Immersion*
- *Red Spirit Filled Thermometers*
- *Individually Serialized*

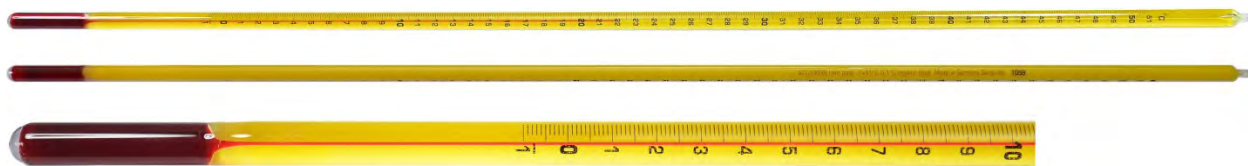
### Partial Immersion

Catalog No.	Range	Div.	Immersion	Length
ACC6093S	-35 to 50°C	1°C	76mm	305mm
ACC6113S	-20 to 110°C	1°C	76mm	305mm
ACC6133S	-20 to 150°C	1°C	76mm	305mm
ACC6153S	-10 to 200°C	1°C	76mm	305mm
ACC6173S	-10 to 260°C	1°C	76mm	305mm
ACC6083S	-30 to 120°F	1°F	76mm	305mm
ACC6123S	0 to 300°F	2°F	76mm	305mm
ACC6123XS	30 to 300°F	1°F	76mm	355mm
ACC6143S	20 to 400°F	2°F	76mm	305mm
ACC6013	-50 to 50°C	1°C	76mm	305mm
ACC6033	-100 to 50°C	1°C	76mm	305mm

### Total Immersion

Catalog No.	Range	Div.	Immersion	Length
ACC609S	-35 to 50°C	1°C	TOTAL	305mm
ACC611S	-20 to 110°C	1°C	TOTAL	305mm
ACC613S	-20 to 150°C	1°C	TOTAL	305mm
ACC608S	-30 to 120°F	1°F	TOTAL	305mm
ACC610S	0 to 230°F	2°F	TOTAL	305mm
ACC612S	0 to 300°F	2°F	TOTAL	305mm
ACC601	-50 to 50°C	1°C	TOTAL	305mm
ACC603	-100 to 50°C	1°C	TOTAL	305mm
ACC605	-200 to 30°C	1°C	TOTAL	305mm

## EXTREME FRACTIONAL DEGREE PRECISION - Spirit Filled Laboratory Thermometers



### Partial Immersion

Catalog No.	Range	Div.	Immersion	Length
ACC10033S	-1 to 51 °C	0.1°C	76mm	460mm
ACC10053S	-1 to 101°C	0.1°C	76mm	610mm
ACC10073S	-1 to 201°C	0.2°C	76mm	610mm

### Total Immersion

Catalog No.	Range	Div.	Immersion	Length
ACC1003S	-1 to 51°C	0.1°C	TOTAL	460mm
ACC1005S	-1 to 101°C	0.1°C	TOTAL	610mm
ACC1007S	-1 to 201°C	0.2°C	TOTAL	610mm

## PRECISION POCKET TEST THERMOMETER - Spirit Filled Thermometer In Armor Case

- **NIST Traceable**
- *Red Spirit Filled Thermometers*
- *Total Immersion*
- *Individually Serialized*
- *Metal Case w/ Pocket Clip*
- *Refills Available - See Chart*



Closed Case Catalog No.	Open Face Catalog No.	Refill Only Catalog No.	Range	Div.	Length
ACC532PXS	ACC532AXS	ACC532XS	+30 to 120°F	1°F	165mm
ACC532PS	ACC532AS	ACC532S	-30 to 120°F	2°F	165mm
ACC534PS	ACC534AS	ACC534S	0 to 220°F	2°F	165mm
ACC533PS	ACC533AS	ACC533S	-35 to 50°C	1°C	165mm
ACC535PS	ACC535AS	ACC535S	-15 to 105°C	1°C	165mm

# Digital Stem Thermometers

## LABORATORY LONG STEM Digital Thermometer



### ACC3105DIG

- 5" Stainless Steel Stem w/Probe Cover
  - NIST Traceable w/Certificate
  - C/F Switchable
  - Range: -50°/150°C (-58°/302°F)
  - Resolution: 0.1°
  - Accuracy: +/- 1.0°C between -20° to 120°C
- "SUPRA" model... +/- 0.2° 0.5° @ Test Points  
**Catalog No. ACC3105SUP**

### ACC310DIG

- 8" Stainless Steel Stem w/Probe Cover
  - NIST Traceable w/Certificate
  - C/F Switchable
  - Range: -50°/300°C (-58°/572°F)
  - Resolution: -20° to 200° = 0.1°, outside range 1.0°
  - Accuracy: +/- 1.0°C between -30° to 150°C
- "SUPRA" model... +/- 0.2° 0.5° @ Test Points  
**Catalog No. ACC310SUP**



### ACC310DMM

- Range: -50°/300°C (-58°/572°F)
  - 8" Stainless Steel Stem w/Probe Cover
  - NIST Traceable w/Certificate
  - Minimum/Maximum Recall
  - Resolution: -20° to 200° = 0.1°, outside range 1.0°
  - Accuracy: +/- 1.0°C between -20° to 150°C
- "SUPRA" model +/- 0.2° & 0.5° @ Test Points  
**Catalog No. ACC310MMSUP**

### ACC3108DIG

- Range: -50°/200°C (-58°/392°F)
  - 8" Stainless Steel Stem w/Probe Cover
  - NIST Traceable w/Certificate
  - C/F Switchable
  - Resolution: 0.1°
  - Accuracy: +/- 1.0°C between -20° to 120°C
- "SUPRA" model +/- 0.2° & 0.5° @ Test Points  
**Catalog No. ACC3108SUP**

### ACC310DLS

- Range: -50°/300°C (-58°/572°F)
  - 12" Stainless Steel Stem w/Probe Cover
  - NIST Traceable w/Certificate
  - Minimum/Maximum Recall
  - Resolution: -20° to 200° = 0.1°, outside range 1.0°
  - Accuracy: +/- 1.0°C between -30° to 150°C
- "SUPRA" model +/- 0.2° & 0.5° @ Test Points  
**Catalog No. ACC310DLSUP**

## WATERPROOF POCKET Digital Thermometers



### ACC600DIG

- Range: -50°/150°C (-58°/302°F)
  - 4 1/2" Stainless Steel Stem w/Probe Cover
  - Min - Max & Hold Function
  - Waterproof
  - NIST Traceable w/Certificate
  - C/F Switchable
  - Resolution: 0.1°
  - Accuracy: +/- 1.0°C between -20° to 120°C
- "SUPRA" model +/- 0.2° & 0.5° @ Test Points  
**Catalog No. ACC600SUP**



### ACC655DIG

- Range: -50° to 300°C (-58°/572°F)
  - 4 1/2" Stainless Steel Stem w/Probe Cover
  - Waterproof
  - NIST Traceable w/Certificate
  - C/F Switchable
  - Resolution: -20° to 200° = 0.1°, outside range 1.0°
  - Accuracy: +/- 1.0°C between -20° to 120°C
- "SUPRA" model +/- 0.2° & 0.5° @ Test Points  
**Catalog No. ACC655SUP**



### ACC6558DIG

- Range: -50° to 300°C (-58°/572°F)
  - 8" Stainless Steel Stem w/Probe Cover
  - Min - Max & Recall Function
  - Waterproof
  - NIST Traceable w/Certificate
  - C/F Switchable
  - Resolution: -20° to 200° = 0.1°, outside range 1.0°
  - Accuracy: +/- 1.0°C between -20° to 120°C
- "SUPRA" model +/- 0.2° & 0.5° @ Test Points  
**Catalog No. ACC6558SUP**

## DELUXE WATERPROOF POCKET Digital Thermometer



### ACC370DIG

- 3 1/2" Stainless Steel Stem w/Probe Cover
  - Waterproof
  - Minimum/Maximum Function
  - NIST Traceable w/Certificate
  - C/F Switchable
  - Range: -50°/300°C & -58°/572°F
  - Resolution: -20° to 200° = 0.1°, outside range 1.0°
  - Accuracy: +/- 1.0°C between -20° to 120°C
- "SUPRA" model +/- 0.2° & 0.5° @ Test Points  
**Catalog No. ACC370SUP**



## DUAL TEMP PRO - Infrared Thermometer



Dual Temp Pro combines two temperature measuring devices in one. The Flip Probe measures core temperature while the Infrared measures the surface temperature without contact.

### FEATURES:

- Non-Contact measurement and core temperature in one instrument.
- Dual Display: Simultaneous display of both measured values.
- HACCP-LED indicates HI/LO-Level for food
- Adjustable Emissivity
- White LED illuminates target spot
- C°/F°- Switchable
- Max-Min Memory
- Automatic Hold
- Lock-Mode for continues measurements
- IP65 Waterproofed
- Automatic Power OFF



### Catalog No.

### DESCRIPTION

ACCD0413IR

DUAL TEMP PRO  
Infrared Thermometer

### Specifications:

**Measuring range:** -33/220°C (Infrared)  
-55/220°C (Thermocouple)

**Accuracy:** ±1°C or 1%

**Response time:** .05 sec.

**Working temperature:** 0°C to 50°C

**Storage temperature:** -20°C to 50°C

**Emissivity:** Adjustable 0.10 to 1.0

**Distance: Spot size:** 2.5 : 1

**Power supply:** 2 x AAA size

**Housing:** Plastic

**Dimensions:** 22 x 38 x 190 mm

**Weight:** 160g

## AccuTherm Infrared Thermometers

All IR Thermometers CE Marked "NIST Traceable"



### TCT8530.

Small, lightweight, economical precision infrared thermometer. Design permits one handed point and read. Laser sighting permits precise targeting to measuring surface. NIST traceable certificate is provided for assured accuracy. Belt holster and 9v battery included.  
CE marked

### TCT8011T



High temperature precision infrared thermometer with adjustable emissivity providing widest range for accurate measurement of different surfaces. One-handed point and read design laser sighting permits precise targeting to measuring surface. NIST Traceable Certificate is provided for assured accuracy. Belt holster and 9v battery included.  
CE marked

