

TEMPERATURE HITESTER 3441, 3442

# Wide Measurement Range from -100°C to 1300°C\*



## ■ 3441/3442 Extended Operation, Max/Min Temperature Recording, Water-resistant Construction (3442 only)

- The 3442 has a water-resistant construction.
- Measurement in damp environments is possible by using the thermometer in combination with the 9472 or 9475 temperature probe. (-100°C to 1300°C)\*
- Choose from 9 different temperature probes (optional), according to your application.
- Recording of maximum temperature and minimum temperature



The **3441** and **3442** support temperature management by recording maximum and minimum temperatures in memory. By pressing the MAX/MIN key, you can switch to display of the current maximum and minimum temperatures at any time.

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\* Measurable temperature range varies according to temperature sensor type.



## 3441/3442 Specifications (Accuracy guaranteed for 6 months, Post-adjustment accuracy guaranteed for 6 months/ Accuracy at 23°C ±5°C, 80% rh or less

Measurement sensor :	Type K thermocouple	Operating envir
Measurement range :	-100°C to 1300°C (-148°F to 2372°F)	Ambient con
Resolution :	0.1°C (100.0 to 199.9°C), 1°C (200 to 1300°C)/	
	0.1°F (-148°F to 392°F), 1°F (393°F to 2372°F)	for
Accuracy :	±0.1% rdg. ±0.8°C (from -100.0 to 199.9°C)/	Applicable.ste
(Period of guaranteed	±0.1% rdg. ±1.4°F (-148°F to 392°F)	Applicable sta
accuracy:6 months)	±0.2% rdg. ±1°C (from 200 to 1300°C)/	
	±0.2% rdg. ±1.8°F (393°F to 2372°F)	
	(Accuracy of temperature sensor is added.)	Power supply
Temperature coefficient :	0.03°C/°C (from -100.0 to 199.9°C) / 0.05°F/°F (-148°F to 392°F)	
	0.05°C/°C (from 200 to 1300°C) / 0.09°F/°F (393°F to 2372°F)	Maximum rate
Sampling rate :	2 / second	Continuous opera
Display :	LCD display	Dimensions
Reference contact compensation :	Automatic	mass
Functions :	Max/Min temperature recording and display, display data hold, sensor	Accessories
	discontinuity display (), over-range display (O.F, - O.F), auto power	Accessories
	save (operates after 30 min, can be disabled), low battery warning	

Operating environment :	Indoors, at altitude up to 2000 m
Ambient conditions	
for use:	0 to 40°C (32°F to 104°F), 80% rh or less (non-condensating)
for storage:	-10 to 50°C (14°F to 122°F), 80% rh or less (non-condensating)
Applicable standards :	Safety, EN61010, Pollution level 2
	EMC, EN61326
	Water resistance: IP54 (EN60529)
Power supply :	LR6 alkaline battery $\times$ 4
	R6P manganese battery $\times$ 4
Maximum rated power:	35 mVA
Continuous operating time :	200 hours or more (using manganese batteries)
Dimensions and :	Approx. 74(W) × 155(H) × 24(D) mm (2.91×6.10×0.94
mass	in), approx. 160g (5.6 oz) (not including batteries or probe)
Accessories :	R6P manganese battery $\times$ 4, Strap band, Instruction manual

## Choose from a wide range of temperature sensors for various applications (optional)

9474 / 9475 SHEATH TYPE

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<u>110 (4 33")</u> 8 (0.31")

100 (3.94\*)

1000 (39.4"

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1000 (39.4")

φ2.3 (0.09"): **9474** φ4.8 (0.19"): **9475** 

100 (3.94\*)

9181 SURFACE TYPE

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Protective cap \$\sqrt{\phi13}(0.51")

#### TEMPERATURE PROBE for 3441 / 3442 ...water--resistant structure

### 9180 / 9183 SHEATH TYPE

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unit=mm (inch)

#### 9476 SURFACE TYPE



Probe specifications	(9472.	9473.	9474.	9475:	Waterproof construction)

1000 (39.4")

2000 (78.8")

100 (3.94")

55 (2.17")

φ8 (0.34")

30

9472 / 9473 SHEATH TYPE

150 (5.9") : 9472 300 (11.8"): 9473

9182 SHEATH TYPE

\$3.2 (0.13")

500 (19.7\*)

6 (0.24"

φ2.3 (0.09") : 9472 φ4.8 (0.19") : 9473

Model	9472	9473	9474	9475	9476		
Material type		K type thermocouple (Chromel / Almel)					
Contact type	Non-grounded	Non-grounded	Non-grounded	Non-grounded	Grounded		
Tolerance		*	*3				
Response (90%)*1	About 5 sec	About 10 sec	About 5 sec	About 10 sec	About 3 sec		
Size of Sheath (mm), (inch)	$\begin{array}{c} \phi \ 2.3 \times 150 \ (mm) \\ \phi \ 0.09 \times 5.91 \ (in) \end{array}$	$\begin{array}{c} \phi \ 4.8 \times 300 \ (mm) \\ \phi \ 0.19 \times 11.81 \ (in) \end{array}$	$\begin{array}{c} \phi \ 2.3 \times 100 \ (mm) \\ \phi \ 0.09 \times 3.94 \ (in) \end{array}$	$\begin{array}{c} \phi \ 4.8 \times 100 \ (mm) \\ \phi \ 0.19 \times 3.94 \ (in) \end{array}$	φ 20 (mm) φ 0.79 (in)		
Compensation lead	Conventional type (-20 to 90°C, -4 to 194°F), 1m (3.28 ft)						
Grip heat resistance	80 °C (176 °F)						
Measurement temperature	-100 to 300°C -148 to 572°F	0 to 800°C 32 to 1472°F	-100 to 300°C -148 to 572°F	-100 to 500°C -148 to 932°F	-40 to 500°C -40 to 932°F		
*1 Sheath type: Resp	onsiveness in ice wa	ter at 0°C (32°F) and	in boiling water at 10	00°C (212°F)			

 $\begin{array}{l} Surface type: Responsiveness on a metal surface at 0^{\circ}C (32^{\circ}F) and at 100^{\circ}C (212^{\circ}F) \\ *2 At -40^{\circ}C (-40^{\circ}F) and more, the greater of \pm1.5^{\circ}C (\pm2.7^{\circ}F) and \pm0.4 \% of the measured value \\ *3 \pm2.5^{\circ}C [(T+3) \leq 100^{\circ}C) ] - .003 \times 1^{\circ}C (to \pm2.5^{\circ}C [100^{\circ}C < (T+3)], \\ T : measured temperature (-40^{\circ}C to 500^{\circ}C), Ts : environmental temperature (0^{\circ}C to 40^{\circ}C) \end{array}$ 

Due to short range ordering, type K thermocouples exhibit increased thermal electromotive force when used to measure temperatures from 250°C to 600°C.

Probe spec	cifications							
Model	9180, 9183	9181 9182						
Material type		K type thermocouple (Chromel / Almel)						
Contact type	Non-grounded	Grounded	Non-grounded					
Tolerance	9180 : *4 9183 : *2	±2.5 °C (±4.5 °F ) [(T-Ts) ≤ 100 °C (180 °F )] −0.035×T °C to +2.5 °C [100 °C (180 °F ) < (T-Ts)] T: measurement temp. (-50°C to 400°C) Ts: environment temp. (0°C to 50°C)	*4					
Response (90%)*1	About 5 sec	About 3 sec	About 5 sec					
Size of Sheath (mm), (inch)	$\phi 3.2 \times 150 \text{ (mm)} \\ \phi 0.13 \times 5.91 \text{ (in)}$	φ 13 (mm) φ 0.51 (in)	$\phi 3.2 \times 500 \text{ (mm)} \\ \phi 0.13 \times 19.69 \text{ (in)}$					
Compensation lead	Conventional type (-20 to 90°C, -4 to 194°F), 1m (3.28 ft) Heat resisting type (0 to 150° 32 to 302°F) 2m (6.56 ft)							
Grip heat resistance	150°C (302°F), Grip	90°C (194°F), clamp size φ 8 × 30 mm (φ 0.31 × 1.18 in)						
Measurement temperature	-50 to 750°C -58 to 1382°F	-50 to 400°C -58 to 752°F	-50 to 750°C -58 to 1382°F					
*1 Sheath type: Resp Surface type: Resp	onsiveness in ice water at	0°C (32°F) and in boiling water at 100°C (2 face at 0°C (32°F) and at 100°C (212°F)	212°F)					

\*2 At -40°C (-40°F) and more, the greater of ±1.5°C (±2.7°F) and ±0.4% of the measured value \*4 At -40°C (-40°F) and more, the greater of ±2.5°C (±4.5°F) and ±0.75% of the measured value

TEMPERATURE HITESTER	Mod	el No.	(Order Code)	(Note)		
These products cannot perform measurement alone.	24/	14	3441	(°C only)		
Please purchase a temperature probe separately.	3441		3441-02	(°C/°F selectab	le)	
	344	12	3442	( °C only, Water	proof coi	struction)
Options for 3441(-02) 3442		SHEA	ATH TYPE TEMPE	ERATURE PROBE	9472	
		SHEA	ATH TYPE TEMPE	ERATURE PROBE	9473	
SHEATH TYPE TEMPERATURE PROBE	9180	SHEA	TH TYPE TEMPE	ERATURE PROBE	9474	
SURFACE TYPE TEMPERATURE PROBE	9181	SHEA	TH TYPE TEMPE	ERATURE PROBE	9475	
SHEATH TYPE TEMPERATURE PROBE	9182	SURF	ACE TYPE TEM	PERATURE PROBE	9476	
SHEATH TYPE TEMPERATURE PROBE	9183	CARF	RYING CASE		9386-01	

Note: Company names and	Product names appearing i	n this catalog are traden	narks or registered trade	marks of various companies
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