

## **TEMPERATURE SENSOR ASSEMBLY SYSTEM FOR THE MAINTENANCE PROFESSIONAL**

### **How to build a part number:**

The basic Sensor Box™, part number EK1000, comes complete with the common parts listed below, along with your choice of any 6 of the sensor pods listed on this page, e.g., "EK1000 with (3) RT1260, (1) MI1113JU and (2) MI1113KU."

### **EK1000 Common Parts:**

<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
HS2524	Housing, 0.250" O.D. x 24" long, 316 stainless steel	6
PH02	Aluminum terminal head for NEMA 4, 1/2" NPT process connection and 3/4" conduit connection with 4-post ceramic terminal block.	3
AC1087	Spring-loading kit for PH02 head	6
NC1002	Nipple, 1/2" NPT x 2" long, carbon steel	6
UC1011	Union, 1/2" NPT, carbon steel	3
TS1092	Wire guide grommet for housing	1 bag of 10
Tools:	Crimper, tube cutter, screwdriver, tape measure, wire stripper	1 each

### **Standard Sensor Pods\* (pick 6, any combination)**

<b>Part Number</b>	<b>Description</b>
RT1260	100-ohm platinum RTD, 3-wire, Teflon® insulation
RT1254	100-ohm platinum RTD, 3-wire, fiberglass insulation
MI1113_U	Ungrounded thermocouple, fiberglass leads, specify calibration (J, K, E, T) – e.g., MI1113JU
MI1113_G	Grounded thermocouple, fiberglass leads, specify calibration (J, K, E, T) – e.g., MI1113JG
MI1113TF_U	Ungrounded thermocouple, Teflon® leads, specify calibration (J, K, E, T) – e.g., MI1113TFJU
MI1113TF_G	Grounded thermocouple, Teflon® leads, specify calibration (J, K, E, T) – e.g., MI1113TFJG

### **Options:**

Many parts can be added to the basic EK1000 to address specific needs. See page 4-1b for a listing of additional parts.



### **\*Notes:**

- Standard pods are 4" long and have 48" leads; designed to fit into 0.250" housings.
- Pods with fiberglass leads are rated to 900°F; those with Teflon® leads are rated to 400°F.

# THE SENSOR BOX™ EK1000

## AVAILABLE ACCESSORIES

<b>RTD Sensor Pods (100-ohm, Class B, 0.00385 alpha with 48" leads)</b>	
Part Number	Description
<i>Pods for 0.250" O.D. Housings</i>	
RT1254	3-wire, fiberglass insulation (std)
RT1260	3-wire, Teflon® insulation (std)
RT1257	4-wire, Teflon® insulation
RT1276	4-wire, fiberglass insulation
<i>Pods for 0.188" O.D. Housings</i>	
RT1184	3-wire, fiberglass insulation
RT1256	3-wire, Teflon® insulation
<b>Thermocouple Sensor Pods* (standard limits of error with 48" leads)</b>	
<i>Pods for 0.250" O.D. Housings</i>	
MI1113_U	Ungrounded junction, fiberglass insulation (specify J, K, E or T calibration; e.g., MI1113KU)
MI1113_G	Grounded junction, fiberglass insulation (specify J, K, E or T calibration; e.g., MI1113KG)
MI1113TF_U	Ungrounded junction, Teflon® insulation (specify J, K, E or T calibration; e.g., MI1113TFJU)
MI1113TF_G	Grounded junction, Teflon® insulation (specify J, K, E or T calibration; e.g., MI1113TFJG)
<i>Pods for 0.188" O.D. Housings</i>	
MI1115_U	Ungrounded junction, fiberglass insulation (specify J, K, E or T calibration; e.g., MI1115KU)
MI1115_G	Grounded junction, fiberglass insulation (specify J, K, E or T calibration; e.g., MI1115KG)
MI1115TF_U	Ungrounded junction, Teflon® insulation (specify J, K, E or T calibration; e.g., MI1115TFJU)
MI1115TF_G	Grounded junction, Teflon® insulation, 48" long (specify J, K, E or T calibration; e.g., MI1115TFJG)
*For dual element, specify as JJ, KK, EE or TT	
<b>Housings (stainless steel, one closed end)</b>	
HS2512	0.250" O.D. x 12" long
HS2524	0.250" O.D. x 24" long (std. with kit)
HS2536	0.250" O.D. x 36" long
HS2548	0.250" O.D. x 48" long
HS1812	0.188" O.D. x 12" long
HS1824	0.188" O.D. x 24" long
HS1836	0.188" O.D. x 36" long
HS1848	0.188" O.D. x 48" long
<b>Compression Fittings</b>	
<i>For 0.250" housings</i>	
PF65	1/4" NPT, 316 stainless steel body and ferrule
PF66	1/4" NPT, 316 stainless steel body; Teflon® ferrule
PF73	1/2" NPT, 316 stainless steel body and ferrule
PF74	1/2" NPT, 316 stainless steel body; Teflon® ferrule
<i>For 0.188" housings</i>	
PF55	1/4" NPT, 316 stainless steel body and ferrule
PF56	1/4" NPT, 316 stainless steel body; Teflon® ferrule
PF59	1/2" NPT, 316 stainless steel body and ferrule
PF60	1/2" NPT, 316 stainless steel body; Teflon® ferrule
<b>Unions (1/2" NPT)</b>	
UC1011	Carbon steel, ordinary location
US1011	Stainless steel, ordinary location
HF1091	Plated steel, explosion-proof

<b>Terminal Heads with 4-Post Terminal Block Included (1/2" NPT process conn.)</b>		
Part Number	Conduit Connection	Description
PH01	1/2"	Aluminum, ordinary locations
PH02	3/4"	Aluminum, ordinary locations (Std. with kit)
PH04	1/2"	Cast iron, ordinary locations
PH05	3/4"	Cast iron, ordinary locations
PH23	3/4"	Black polypropylene, ordinary locations
PH24	3/4"	White polypropylene, ordinary locations
PH47	3/4"	316 stainless steel, ordinary locations
PH50	1/2"	Aluminum, explosion-proof, 3-post block
PH51	3/4"	Aluminum, explosion-proof, 3-post block
<b>Terminal Blocks</b>		
Part Number	Description	
PH44	4-post, ceramic	
PH48	3-post, ceramic, for PH50 and PH51 heads	
<b>Carbon Steel Nipples (1/2" NPT)</b>		
NC1001	1" long	
NC1002	2" long	
NC1003	3" long	
NC1004	4" long	
NC1006	6" long	
<b>Stainless Steel Nipples (1/2" NPT)</b>		
NS1001	1" long	
NS1002	2" long	
NS1003	3" long	
NS1004	4" long	
NS1006	6" long	
<b>Spring-Loaded Kits</b>		
AC1088	For 0.188" housings	
AC1087	For 0.250" housings	
<b>Spring-Loaded Hex Fittings</b>		
PF14	Stainless steel, for 0.250" housings	
PF13	Stainless steel, for 0.188" housings	
<b>Plugs and Jacks</b>		
PT05-	Thermocouple plug (specify J, K, E or T); e.g., PT05-J	
PT05-3	3-pin RTD plug	
PT06-	Thermocouple jack (specify J, K, E or T); e.g., PT06-K	
PT06-3	3-pin RTD jack	
PT10	Wire clamp	
B1250	Brass crimp insert, for 0.250" housings	
B1188	Brass crimp insert, for 0.188" housings	
<b>Strain Reliefs (Bag of 10)</b>		
TS1092	Nylon grommet for 0.250" housings	
TS1094	Teflon® strain relief for 0.188" housings	
<b>Armor Cable Kit</b>		
TS1093	3' stainless armor and adaptor for 0.250" housings	

Note: Pods with fiberglass insulation are rated to 900°F; those with Teflon® leads are rated to 400°F.  
**Note: Many non-standard options, including additional sheath diameters and materials, may also be available - consult AST for specific requirements.**