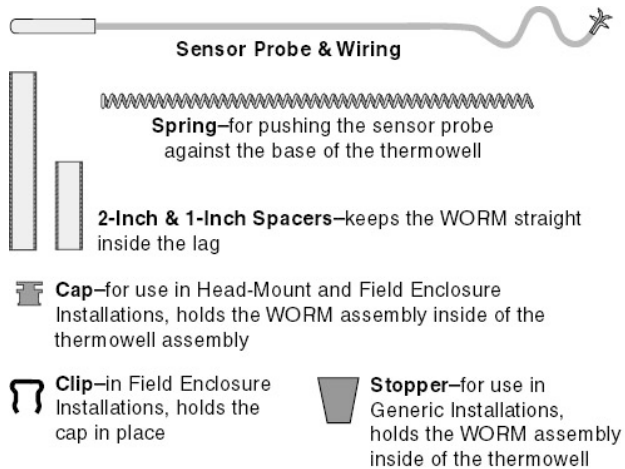


Flexible Sensors for Thermowell Temperature Assemblies

Installs in Minutes

Each of the three installation options uses different parts from the installation kit; expect to have parts left over after installation. Read through all steps for the enclosure type prior to beginning installation.

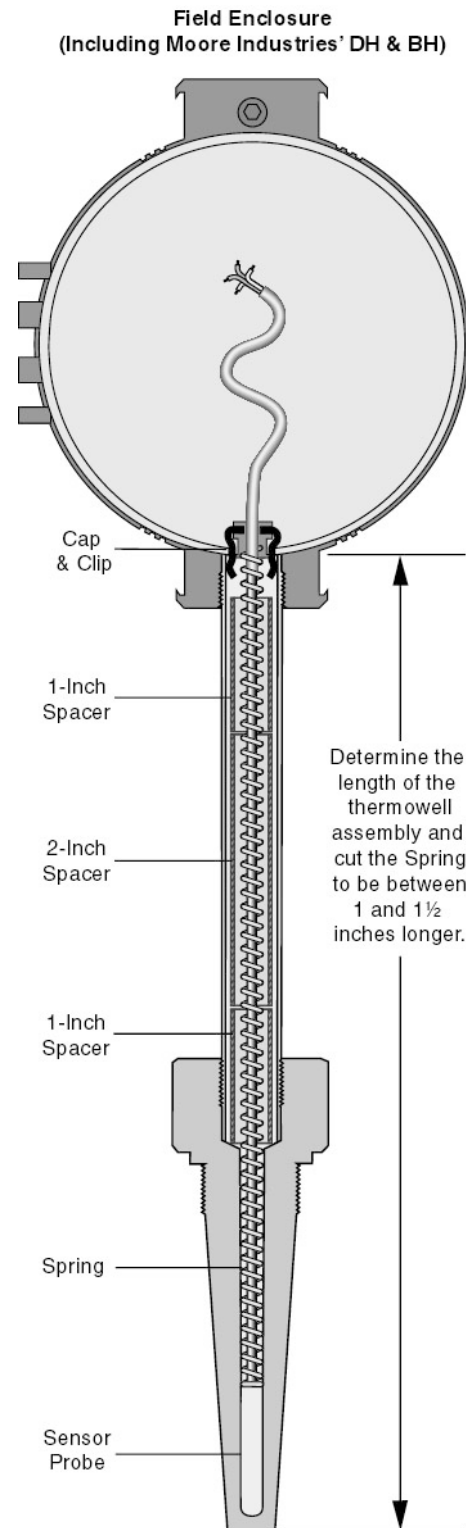
Figure 2. The WORM Kit Components



Field Enclosure Installation (Including Moore Industries' DH & BH enclosures)

Installation Components Required: Sensor Probe, Spring, Cap, Clip, and Spacer(s).

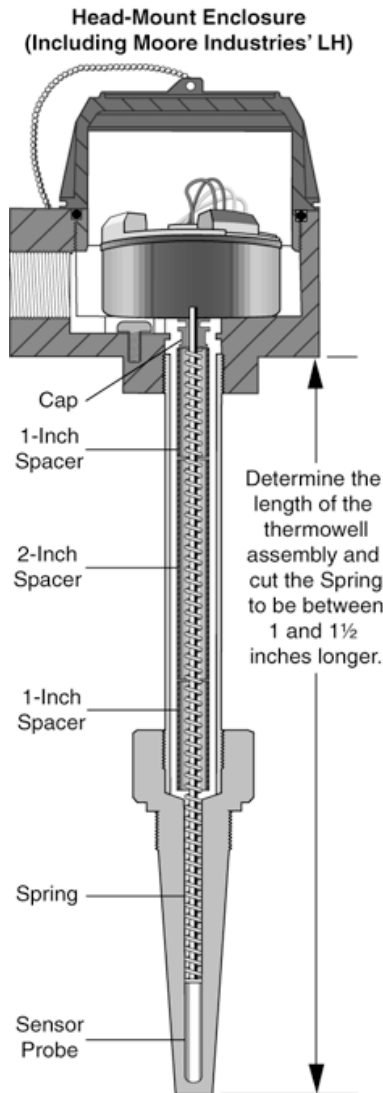
1. Determine the length of the thermowell assembly (see the illustration to the right). Cut the WORM Spring to be between 1 and 1½ inches **longer** than the length of the assembly (this is necessary so that the Spring's compression securely holds the sensor probe to the bottom of the thermowell).
2. Ensuring that the uncut portion of the Spring faces down towards the Sensor Probe, slide the Spring over the sensor wires and onto the end of the Sensor Probe.
3. Snap the Clip onto the Cap. Then slide the Cap/Clip combination over the sensor wires onto the top of the Spring.
4. Remove the instrument from the enclosure (if necessary). Insert the WORM sensor into the thermowell. Slide the appropriate length(s) and number of Spacers to keep the WORM Spring straight inside the thermowell assembly lag (Spacers may not be required).
5. Using pliers, grasp the Cap/Clip combination by the niche at the top of the Cap, and insert it into the enclosure's sensor entry port to compress the WORM Spring into the thermowell. Reinstall the instrument into the enclosure. Connect the sensor wires.



Flexible Sensors for Thermowell Temperature Assemblies

Head-Mount Enclosure Installation (Including Moore Industries' LH enclosure)

Installation Components Required: Sensor Probe, Spring, Cap, and Spacer(s).



1. Determine the length of the thermowell assembly (see the illustration to the left). Cut the WORM Spring to be between 1 and 1½ inches **longer** than the length of the assembly (this is necessary so that the Spring's compression securely holds the sensor probe to the bottom of the thermowell).

2. Ensuring that the uncut portion of the Spring faces down towards the Sensor Probe, slide the Spring over the sensor wires and onto the end of the Sensor Probe.

3. Slide the Cap over the sensor wires onto the top of the Spring.

4. Remove the instrument from the enclosure. Insert the WORM sensor into the thermowell. Slide the appropriate length(s) and number of Spacers to keep the WORM Spring straight inside the thermowell assembly lag (Spacers may not be required).

5. Reinstall the instrument into the enclosure, compressing the WORM Spring into the thermowell with the bottom of the instrument. Connect the sensor wires.

Generic Enclosure Installation

Installation Components Required: Sensor Probe, Spring, Stopper, and Spacer(s).

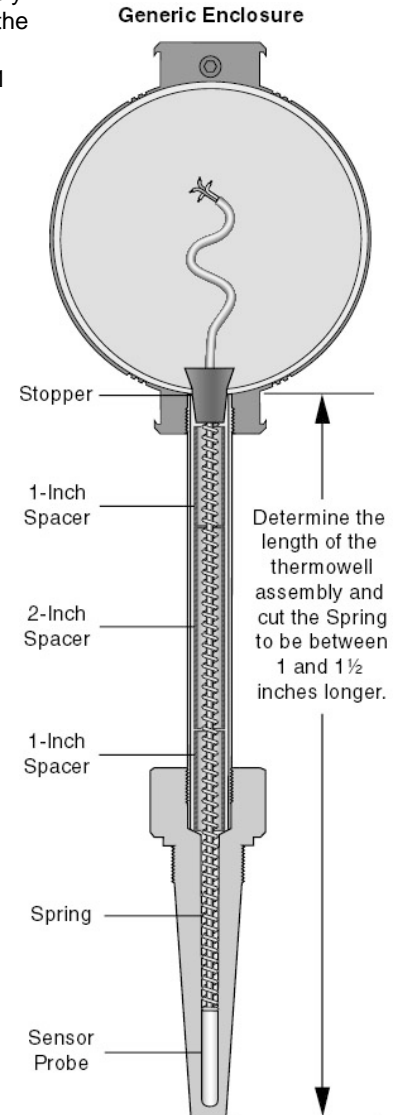
1. Determine the length of the thermowell assembly (see the illustration to the right). Cut the WORM Spring to be between 1 and 1½ inches **longer** than the length of the assembly (this is necessary so that the Spring's compression securely holds the Sensor Probe to the bottom of the thermowell).

2. Ensuring that the uncut portion of the Spring faces down towards the Sensor Probe, slide the Spring over the sensor wires and onto the end of the Sensor Probe.

3. Remove the instrument from the enclosure (if necessary). Insert the WORM sensor into the thermowell. Slide the appropriate length(s) and number of Spacers to keep the WORM Spring straight inside the thermowell assembly lag (Spacers may not be required).

4. Slide the Stopper over the sensor wires onto the top of the Spring. Push the Stopper firmly into the thermowell entry port to compress the WORM Spring into the thermowell.

5. Reinstall the instrument into the enclosure. Connect the sensor wires.





Flexible Sensors for Thermowell Temperature Assemblies

Select one from each category to order a Sensor Kit:

The WORM Sensor Kit

- SEN3** Recommended Sensor Kit includes Three Complete "the WORM" Sensor Assemblies plus Spare Assembly Parts
SEN1 Sensor Kit includes One Complete "the WORM" Sensor Assembly

Sensor Type (see IMPORTANT NOTE)

RTD SENSORS:

- WSPT14** Standard Platinum RTD; 4-Wire; 100 ohm; $\alpha = 0.00385$
WSPT104 Standard Platinum RTD; 4-Wire; 1000 ohm; $\alpha = 0.00385$

- WHPT14** High Temperature Platinum RTD; 4-Wire; 100 ohm; $\alpha = 0.00385$
WHPT104 High Temperature Platinum RTD; 4-Wire; 1000 ohm; $\alpha = 0.00385$

THERMOCOUPLE SENSORS:

- WSTCJG** Standard J-Type Thermocouple; Grounded
WSTCJU Standard J-Type Thermocouple; Ungrounded
WHTCJG High Temperature J-Type Thermocouple; Grounded
WHTCJU High Temperature J-Type Thermocouple; Ungrounded
WSTCKG Standard K-Type Thermocouple; Grounded
WSTCKU Standard K-Type Thermocouple; Ungrounded
WHTCKG High Temperature K-Type Thermocouple; Grounded
WHTCKU High Temperature K-Type Thermocouple; Ungrounded

IMPORTANT NOTE

Specify Standard (**WS**) sensors for measurements up to 205°C (400°F).

Specify High Temperature (**WH**) sensors for measurements up to 590°C (1100°F).

See "Sensor Specifications" for additional information.

T/C IDENTIFICATION

Type	Wire Color	
	+	-
J	White	Red
K	Yellow	Red

Sensor Sheath Diameter

D25 Appropriate for 0.25-inch and 6mm diameter applications

Sensor Sheath Material

S316 Stainless Steel 316

Sensor Length (See Pag 2 to Determine Total Sensor Insertion Length)

- CL24** 24-Inch Length (specify for total sensor insertion lengths of 22-inches and under)
CL36 36-Inch Length (specify for total sensor insertion lengths of 22-inches to 34-inches)

SEN3 / WSPT104 / D25 / S316 / CL36 [SEN]

Model Number Example:

SEN3 / WSPT104 / D25 / S316 / CL36 [SEN]

Accessories

Part Number	Description
231-849-00	Spare Parts Kit includes: Three (3) Spare Springs; Three (3) Clips; Three (3) Caps; Three (3) 1" Spacers; and Three (3) 2" Spacers
802-179-24	Combination Pliers/Wire Stripper facilitates installation of the WORM components and sensor connection

Sensor Specifications

Lead Wire Materials: Standard (WS) Sensors: Teflon insulated, hermetically sealed; High Temperature (WH) Sensors: Braided fiberglass

Sensor Sheath Material: Stainless Steel 316

Accuracy: RTD: $\pm 0.12\%$ at 0°C. Consult the factory for thermocouple tolerances

Stability: RTD: 0.2°C after 10,000 hrs. at maximum temperature (1 year, 51 days, 16 hours continuous)

Response Time: RTD: <5 seconds to 63.2% temperature change; Thermocouple, 4.5 sec. for ungrounded, typical; 2.0 sec. for grounded to 63.2% temperature change

Humidity: Standard (WS) sensors: Excellent moisture resistance for condensing environments; High Temperature (WH) sensors: Specify for non-condensing atmospheres

Pull Force: Wires will withstand at least 20 lbs. of pull force before separating from sensor head



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