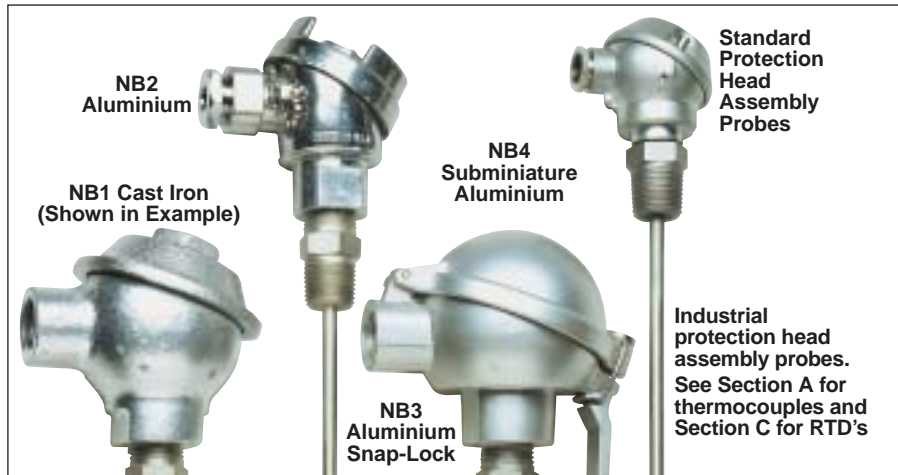
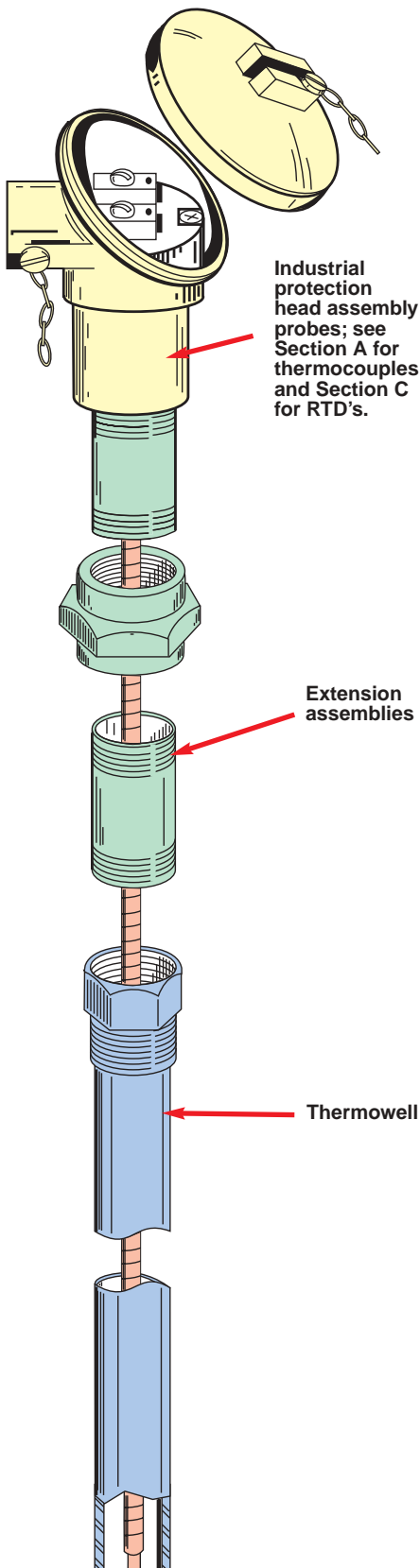


# Head and Well Assemblies

## Industrial Protection Head Assembly Probes Inserted into Thermowells



The 1/2" BSPT mounting thread allows 6mm (or 1/4" OD) industrial protection head assemblies to be put directly into OMEGA® thermowells whose bore is 6.6mm without having to use any additional hardware. In this case, the probe length must be the same as the element (stem) length of the desired thermowell.

When an extension assembly is desired, a type 3 extension assembly can be inserted to separate the protection head from the thermowell. In this case the probe length would be the same as the element length (stem length) of the desired thermowell plus the assembled extension assembly length.

### Spring Loaded Assemblies

Using spring loaded industrial protection head assemblies guarantees a positive contact between the sensitive portion of the temperature probe and the bottom of the thermowell, reducing response time. See Section A for more information on spring loading. OMEGA also recommends the use of a thermally conductive grease, such as our OT-201, to further aid in reducing response time, See Page E-7.

### How To Order

Ordering an HWA assembly is easy. Simply follow the part number format below:

**Example:** HWA / **NB1-CASS-M60G-300-TBSL** / **3M-150** / **1/2-260S-UM100-304SS**

**NB1-CASS-M60G-300-TBSL** .....£51

NB1 type thermocouple, type K, 304 SS sheath, 6mm O.D., grounded junction, 300mm length, with spring-loaded terminal block. Thermocouples as well as RTD assemblies with a 6mm diameter can be used. Length should equal the stem (element) length of the desired thermowell plus the assembled length of the Type 3 extension assembly if any. (See thermowell pages, for stem [element] lengths.)

**3M-150** .....£6.60

Type 3 extension assembly; 150mm long assembled. A Type 3 extension assembly is common in this configuration. If no extension assembly is needed, omit this portion of the HWA part number.

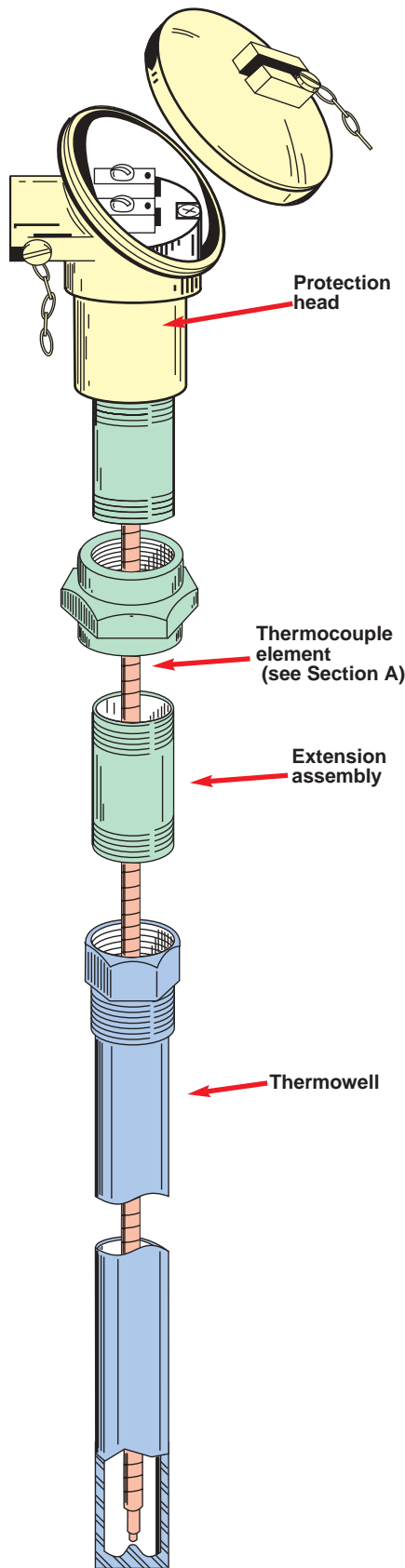
**1/2-260S-UM100-304SS** .....£21.75

Standard threaded well for 6mm element, BSPT thread, 100mm insertion length, 304SS material. For a complete listing of thermowells, see OMEGA® thermowells individual pages for details.

**Total HWA assembly price** .....£79.35



# Ceramic Insulated Thermocouple Elements Inserted into Thermowells



Available Element Types	
Bare Element	
	Single Hole (SH) Series
	Double Hole (DH) Series (DH-1-14-K-M300 in example)
	Fish Spine (FS) Series
	Double Hole Oval (OV) Series
See Section A for Insulated Thermocouple Elements	

Ceramic insulated thermocouple elements can be used to make HWA assemblies. Here, the protection head is attached to the thermowell with a Type 2 extension assembly. The thermocouple element is housed inside and is wired to the terminal block inside the protection head. Spring loading is not available in this configuration.

A Type 4 extension assembly can also be used in this type of HWA assembly. This nipple-union-nipple extension assembly allows for disassembly of the unit without having to spin the protection head (which may be hooked up to conduit).

## How To Order

Follow the format below to order this type of head and well assembly:

### Example:

HWA / **NB1-2** / **2M-75** / **DH-1-14-K-M300** / **1-385H-UM100-304SS**

**NB1-2** ..... £21.25

NB1 type cast iron protection head with a two-position terminal block. See thermocouple head selection guide for a complete listing of available protection heads.

**2M-75** ..... £4.10

Type 2 extension assembly; 75mm long assembled. Either a Type 2 or Type 4 extension assembly can be used with this style HWA. See thermocouple head selection guide for complete selection of extension assemblies.

**DH-1-14-K-M300** ..... £14

Double hole ceramic insulated thermocouple element, type K, 1.6mm diameter wire, 300mm length. See Section A. The length of this thermocouple should be the element (stem) length of the thermowell desired (150mm), plus the extension assembly length (75mm), plus 75mm, for a 300mm total.

**1-385H-UM100-304SS** ..... £34.50

Heavy duty thermowell, 1" BSPT thread, 9.8mm bore for up to 9.6mm (3/8") dia. elements. 100mm insertion length, 150mm stem/element length. The bore size of the well (9.8mm in this case) must exceed the outside dimensions of the ceramic insulators

**Total HWA price** ..... £73.85