

# Heads

## Thermocouple Heads

### Introduction

Thermocouple heads provide the means for making connection between thermocouple and extension wire, and protect the connection against corrosion, abrasion and breakage caused by handling. Thermocouple heads are easy to install and are convenient for checking purposes. An outlet for conduct connection is provided with a selection of threaded outlet sizes for the protection tube.

### General Purpose Heads

Available in aluminum or cast iron, these heads are superior in durability and convenience. A quick acting, tempered wire clamp holds the molded cover tightly against a gasket, making a positive seat. Aluminum head weighs 10 ounces; cast iron head weighs 27 ounces.

### Weatherproof Head with Internal Threads

Weatherproof heads provide complete protection from weather in outdoor locations. In sheltered areas they provide greater protection in chemical and petroleum plants. The screw on cover, with close fitting threads, tightens against a gasket. The internal threads are protected from ambient atmosphere by the gasket seal. Double lugs, integral with the cast cover provide for removal by means of a screwdriver or wrench. Weighs 52 ounces.

### Explosionproof Heads

HD11 is cast iron body, and copper free aluminum screw on cover for hazardous areas. Class I, groups C and D; class II, groups E, F, and G; class III. One outlet for element and two outlets for conduit connectors. Weighs 40 ounces.

HD16 is aluminum, single conduit connector head; class I, II groups A, B, C, D, E, F, G.

### Plastic Weatherproof Head

The 1/4 NPT fitting will accept two, three or four 16 gauge wires. Weighs 3 ounces.

### Miniature Connecting Head

The natural finish aluminum head is drilled to receive a 1/8 NPT fitting or protection tube through which the thermocouple wires are run to make a solder connection with the lead wire binding screw posts. The cover is attached to the head by means of two screws. Weighs two ounces.

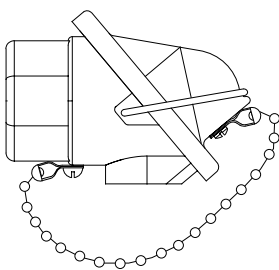
### Open Terminal Head

(Available August 31, 1997)

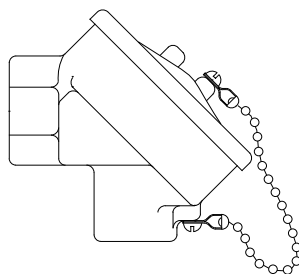
Generally for platinum thermocouples, this solid brass head is ideally suited for laboratory and many process applications. External terminal screws, with polarity encoded on heads, permit rapid change of lead wires for test purposes.

### Open Ceramic Wafer Head

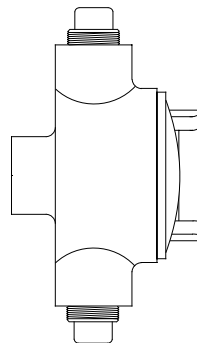
The open wafer head is designed for locations where protection is not required. The open head allows extension wires to be removed and replaced quickly and easily. Maximum temperature is 1000F°. Accepts 0.040", 0.062", 0.125", 0.188", and 0.250" diameter tubes. Weighs one ounce.



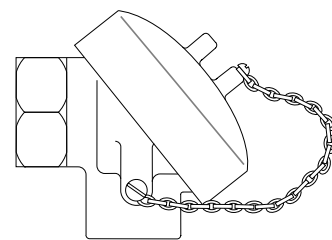
General Purpose  
Code HD01, Cast Iron  
Code HD03, Aluminum



Weatherproof,  
Code HD04, Cast Iron  
Code HD12, Aluminum



Explosion Proof  
Cast Iron Body,  
Aluminum Cover  
Code HD11



Explosion Proof  
Class I, II; Groups  
A, B, C, D, E, F, G  
Code HD16

# Heads

## Ordering Information

**Model No. H D**   -  **0**   **0** -    - **0 - 0 0**  
 Field No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

**Schedule: S6**

Compose model number from this list; obtain price from table on next page.

**Fields 1, 2. BASE MODEL**

HD - Head

**Fields 3, 4. STYLE**

- 01 - Cast iron general purpose
- 03 - Aluminum general purpose
- 04 - Cast iron, internal threads, weatherproof
- 05 - Open ceramic wafer
- 06 - Miniature connecting head
- 08 - Plastic weatherproof, 350°F maximum
- 09 - Plastic weatherproof, 800°F maximum
- 11 - Cast iron explosionproof (Fields 7 and 8 must be same NPT)
- 12 - Aluminum, internal threads, weatherproof
- 14 - Brass open head, without process mount threads
- 15 - Brass open head, with process mount threads
- 16 - Aluminum explosionproof (extended lead time)
- 17 - Aluminum, transmitter ready

**Field 5. TERMINAL BLOCK**

- 0 - None
  - 1 - Single, 2 wire
  - 2 - Dual, 4 wire
- Applicable only codes 14, 15, 16, 17 in Fields 3,4**
- 3 - Single, 3 wire
  - 4 - Dual, 6 wire

**Field 6. RESERVED**

**Fields 7. TUBE NPT**

- 0 - Not applicable.
- 1 - 1/8"
- 2 - 1/4"
- 4 - 1/2"
- 6 - 3/4"
- 8 - 1"

**Field 8. CONDUIT NPT**

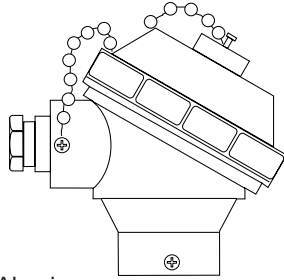
- 4 - 1/2"
- 6 - 3/4"

**Field 9. RESERVED**

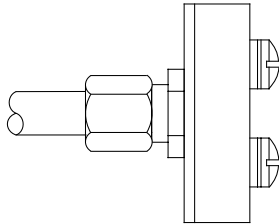
**Fields 10, 11, 12. TUBE SIZE**

- 000 - Not applicable – other than Ceramic Wafer style.
- 040 - Ceramic Wafer style only - 0.040" tube
- 062 - Ceramic Wafer style only - 0.0625" tube
- 125 - Ceramic Wafer style only - 0.125" tube
- 188 - Ceramic Wafer style only - 0.188" tube
- 250 - Ceramic Wafer style only - 0.250" tube

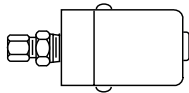
**Fields 13, 14, 15. RESERVED**



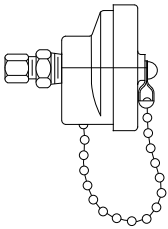
Aluminum ,  
Transmitter Ready  
Code HD17



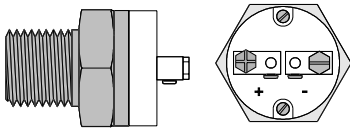
Ceramic Wafer  
Code HD05



Miniature  
Code HD06



Plastic Weatherproof  
Codes HD08, HD09



Open Terminal  
Code HD14  
Code HD15 (illustrated)

Filled cell = not compatible; blank cell = compatible

Fields 3, 4	Field 7				Field 8					
	0	1	2	4	6	8	0	2	4	6
01										
03										
04										
05										
06										
08										
09										
11										
12										Note
14										
15										
16										
17										

Note: 3/4" conduit connector with 1/2" reducing bushing supplied.

# Heads

## Thermocouple Head Assembly Prices

### Schedule: S6

HD01-00X40-000-0-00  
HD01-10X40-000-0-00  
HD01-20X40-000-0-00

HD03-00X40-000-0-00  
HD03-10X40-000-0-00  
HD03-20X40-000-0-00

HD04-00XX0-000-0-00  
HD04-10XX0-000-0-00  
HD04-20XX0-000-0-00

HD05-10000-XXX-0-00

HD06-10100-000-0-00  
HD06-20100-000-0-00  
HD08-20220-000-0-00  
HD09-20220-000-0-00

HD11-00X40-000-0-00  
HD11-10X40-000-0-00  
HD11-20X40-000-0-00

HD12-00X40-000-0-00  
HD12-10X40-000-0-00  
HD12-20X40-000-0-00

HD14-10X00-000-0-00  
HD14-20X00-000-0-00  
HD14-30X00-000-0-00  
HD14-40X00-000-0-00

HD15-10X00-000-0-00  
HD15-20X00-000-0-00  
HD15-30X00-000-0-00  
HD15-40X00-000-0-00

HD16-10X60-000-0-00  
HD16-20X60-000-0-00  
HD16-40X60-000-0-00

HD17-00X60-000-0-00  
HD17-10X60-000-0-00  
HD17-20X60-000-0-00  
HD17-30X60-000-0-00  
HD17-40X60-000-0-00