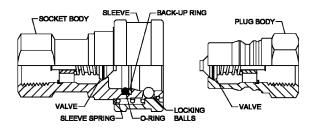
# Series HK ISO 7241-1 Series B



### Series 1-HK to 8-HKP





Series HK Couplings are designed for general purpose hydraulic service. Some are suitable for use with various liquids, chemicals, steam, gases and vacuum. Series HK couplings conform to the dimensional requirements of ISO 7241-1 Series B. Body sizes range from 1/8" to 2½".

### **Features**

- Brass, steel and stainless steel construction available in all sizes; polypropylene available in 1/4" body size
- End connections are female NPTF, BSPP and SAE o-ring boss
- UL listed couplings for use on LP gas fueled lift trucks and tractors available in 1/8", 1/4" and 3/8" body sizes
- Heavy duty steel couplings for use in high impulse service available in most sizes
- Steam coupling available in 3/8" body size

### **Standard Materials**

- Brass, zinc-plated steel, stainless steel and polypropylene (1/4" only) construction
- · Stainless steel springs, balls and retaining rings
- Buna-N (Nitrile) seals
- Teflon back-up rings in 1-HK through 8-HKP steel and stainless steel sockets

### Options

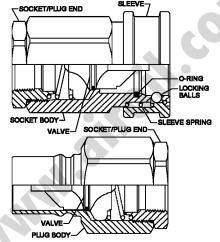
- Non-valved socket and plug
- Valve actuator in socket or plug
- Bleeder-style plug
- Sleeve lock
- Seals: Teflon, Neoprene, Viton, Buna-N, EPDM and Kalrez (See Elastomer Selection Guide, page 71)

#### **Accessories**

- Dust caps and dust plugs (See page 68)
- · Release clamp with chain

### Series 10-HK, 12-HK & 20-HK

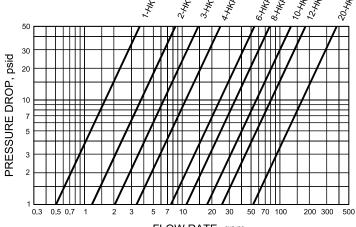




Rated Pressure and Flow Capacity

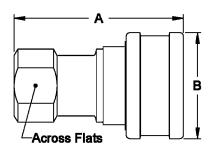
|    |        |                  | Brass |     | Ste       | el     | Stainle | ss Steel |
|----|--------|------------------|-------|-----|-----------|--------|---------|----------|
| 5  | Series | <b>Body Size</b> | PSI   | BAR | PSI       | BAR    | PSI     | BAR      |
| 1  | -HK    | 1/8"             | 3,000 | 207 | 4,000     | 275    | 5,000   | 344      |
| 2  | -HK    | 1/4"             | 2,700 | 186 | 5,000     | 345    | 3,700   | 255      |
| *  | P2-HK  | 1/4"             | 50    | 4   | (+35°F to | 150°F) |         |          |
| 3  | -HK    | 3/8"             | 2,200 | 152 | 3,700     | 255    | 3,700   | 255      |
| 4  | -HKP   | 1/2"             | 2,250 | 155 | 5,000     | 345    | 4,250   | 293      |
| 6  | -HKP   | 3/4"             | 2,000 | 138 | 4,000     | 275    | 3,500   | 242      |
| 8  | -HKP   | 1"               | 1,500 | 103 | 4,000     | 275    | 2,500   | 173      |
| 1  | 0-HK   | 11/4"            | 1,200 | 83  | 1,700     | 118    | 1,700   | 118      |
| 1: | 2-HK   | 1½"              | 1,500 | 104 | 2,200     | 152    | 2,200   | 152      |
| 2  | 0-HK   | 2¾"              | 700   | 49  | 1,500     | 104    | 1,500   | 104      |

<sup>\*</sup> Polypropylene Construction



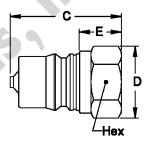


# Series 1-HK to 8-HK ISO 7241-1 Series B



## **SOCKETS**

| Dark   |           |                  |          |                     |                             |                  |                                  |                     |          | Dimon | alaya (i |                 |
|--------|-----------|------------------|----------|---------------------|-----------------------------|------------------|----------------------------------|---------------------|----------|-------|----------|-----------------|
| Body   | ъ         |                  |          |                     | 04-1-1                      | 01 1             | <b>T</b> 1                       | .1.0! (6            |          | Dimer | sions (i |                 |
| Size   | Standard  | ass<br>UL Listed | Standard | eel<br>High Impulse | 303                         | ess Steel<br>316 | NPTF                             | d Size (fen<br>BSPP | SAE      | Α     | В        | Across<br>Flats |
| (inch) |           |                  |          | nigii iiiipuise     |                             |                  |                                  | DOFF                | SAE      |       |          |                 |
| 1/8    | B1-H11    | UL1-H11          | 1-H11    |                     | LL1-H11                     | ML1-H11          | 1/8-27                           |                     | _        | 1.91  | 0.98     | 0.56            |
| 1/8    | _         |                  | 1-H4     | _                   | LL1-H4                      |                  |                                  |                     | 7/16-20  | 2.06  | 0.98     | 0.69            |
| 1/4    | B2-H16    | UL2-H16          | 2-H16    | 2-H16               | LL2-H16                     | ML2-H16          | 1/4-18                           | _                   |          | 2.26  | 1.17     | 0.75            |
| 1/4    | B2-H16BS  | 1                | 2-H16BS  |                     | LL2-H16BS                   | ML2-H16BS        | ١                                | 1/4-19              |          | 2.26  | 1.17     | 0.75            |
| 1/4    |           | 1                | 2-H6     | 2-H6                | LL2-H6                      |                  | l                                |                     | 9/16-18  | 2.40  | 1.17     | 0.88            |
| 3/8    | B3-H21    | UL3-H21          | 3-H21    | 3-H21C              | LL3-H21                     | ML3-H21          | 3/8-18                           |                     |          | 2.56  | 1.42     | 0.88            |
| 3/8    | B3-H21BS  | 1                | 3-H21BS  | _                   | LL3-H21BS                   | ML3-H21BS        | I                                | 3/8-19              |          | 2.56  | 1.42     | 0.88            |
| 3/8    |           | ı                | 3-H8     | 3-H8C               | LL3-H8                      |                  |                                  |                     | 3/4-16   | 2.74  | 1.42     | 1.00            |
| 1/2    | B4-HP26   |                  | 4-HP26   | 4-HP26              | LL4-HP26                    | ML4-HP26         | 1/2-14                           | _                   |          | 2.96  | 1.86     | 1.13            |
| 1/2    | B4-HP26BS | _                | 4-HP26BS | 4-HP26BS            | LL4-HP26BS                  | ML4-HP26BS       |                                  | 1/2-14              | _        | 2.96  | 1.86     | 1.13            |
| 1/2    |           | -                | 4-HP10   | 4-HP10              | LL4-HP10                    | _                |                                  | _                   | 7/8-14   | 3.05  | 1.86     | 1.25            |
| 3/4    | B6-HP31   | 1                | 6-HP31   | 6-HP31              | LL6-HP31                    | ML6-HP31         | 3/4-14                           | _                   | -        | 3.48  | 2.22     | 1.31            |
| 3/4    | B6-HP31BS |                  | 6-HP31BS | 6-HP31BS            | LL6-HP31BS                  | ML6-HP31BS       | 1                                | 3/4-14              | -        | 3.48  | 2.22     | 1.31            |
| 3/4    | 1         | 1                | 6-HP12   | 6-HP12              | LL6-HP12                    | 1                |                                  | _                   | 11/16-12 | 3.67  | 2.22     | 1.38            |
| 1      | B8-HP36   | _                | 8-HP36   | 8-HP36              | LL8-HP36                    | ML8-HP36         | 1-11 <sup>1</sup> / <sub>2</sub> | _                   |          | 4.13  | 2.61     | 1.75            |
| 1      | B8-HP36BS |                  | 8-HP36BS | 8-HP36BS            | LL8-HP36BS                  | ML8-HP36BS       | Ė                                | 1-11                | _        | 4.13  | 2.61     | 1.75            |
| 1      |           | _                | 8-HP16   | 8-HP16              | LL8-HP16                    |                  |                                  | _                   | 15/16-12 | 4.13  | 2.61     | 1.88            |
|        |           |                  |          | A = Ove             | erall Length $\mathbf{B} =$ | Maximum Diamete  | r                                |                     |          |       |          |                 |



## **PLUGS**

| Body<br>Size | l         | ass       | St         | eel                  | Stainle       | ess Steel              | Thre                             | ad Size (fe | male)    | Di   | mensio | ns (incl | Dimensions (inches) |  |  |  |
|--------------|-----------|-----------|------------|----------------------|---------------|------------------------|----------------------------------|-------------|----------|------|--------|----------|---------------------|--|--|--|
| (inch)       |           | UL Listed | Standard   | High Impulse         |               | 316                    | NPTF                             | BSPP        | SAE      | С    | D      | È        | HEX                 |  |  |  |
| 1/8          | B1-K11    | UL1-K11   | 1-K11      |                      | LL1-K11       | ML1-K11                | 1/8-27                           | _           | _        | 1.26 | 0.65   | 0.44     | 0.56                |  |  |  |
| 1/8          |           |           | 1-K4       | _                    | LL1-K4        | _                      | _                                |             | 7/16-20  | 1.41 | 0.79   | 0.59     | 0.69                |  |  |  |
| 1/4          | B2-K16    | UL2-K16   | 2-K16      | 2-K16C               | LL2-K16       | ML2-K16                | 1/4-18                           | _           | _        | 1.52 | 0.87   | 0.56     | 0.75                |  |  |  |
| 1/4          | B2-K16BS  |           | 2-K16BS    | _                    | LL2-K16BS     | ML2-K16BS              |                                  | 1/4-19      |          | 1.52 | 0.87   | 0.56     | 0.75                |  |  |  |
| 1/4          |           | _         | 2-K6       | 2-K6C                | LL2-K6        |                        |                                  |             | 9/16-18  | 1.66 | 1.01   | 0.70     | 0.88                |  |  |  |
| 3/8          | B3-K21    | UL3-K21   | 3-K21      | 3-K21C               | LL3-K21       | ML3-K21                | 3/8-18                           |             |          | 1.76 | 1.01   | 0.61     | 0.88                |  |  |  |
| 3/8          | B3-K21BS  | _         | 3-K21BS    |                      | LL3-K21BS     | ML3-K21BS              |                                  | 3/8-19      | 1        | 1.76 | 1.01   | 0.61     | 0.88                |  |  |  |
| 3/8          |           |           | 3-K8       | 3-K8C                | LL3-K8        | ı                      | I                                |             | 3/4-16   | 1.94 | 1.15   | 0.79     | 1.00                |  |  |  |
| 1/2          | B4-KP26   | _         | 4-KP26     | 4-KP26               | LL4-KP26      | ML4-KP26               | 1/2-14                           |             |          | 2.03 | 1.30   | 0.76     | 1.13                |  |  |  |
| 1/2          | B4-KP26BS |           | 4-KP26BS   | 4-KP26BS             | LL4-KP26BS    | ML4-KP26BS             | 1                                | 1/2-14      | l        | 2.03 | 1.30   | 0.76     | 1.13                |  |  |  |
| 1/2          | _         |           | 4-KP10     | 4-KP10               | LL4-KP10      | _                      | -                                |             | 7/8-14   | 2.11 | 1.37   | 0.84     | 1.19                |  |  |  |
| 3/4          | B6-KP31   | _         | 6-KP31     | 6-KP31               | LL6-KP31      | ML6-KP31               | 3/4-14                           | -           | -        | 2.36 | 1.52   | 0.71     | 1.31                |  |  |  |
| 3/4          | B6-KP31BS | _         | 6-KP31BS   | 6-KP31BS             | LL6-KP31BS    | ML6-KP31BS             | _                                | 3/4-14      |          | 2.36 | 1.52   | 0.71     | 1.31                |  |  |  |
| 3/4          |           |           | 6-KP12     | 6-KP12               | LL6-KP12      | I                      | ı                                |             | 11/16-12 | 2.54 | 1.59   | 0.89     | 1.38                |  |  |  |
| 1            | B8-KP36   | _         | 8-KP36     | 8-KP36               | LL8-KP36      | ML8-KP36               | 1-11 <sup>1</sup> / <sub>2</sub> | _           | _        | 2.85 | 1.88   | 0.97     | 1.63                |  |  |  |
| 1            | B8-KP36BS | _         | 8-KP36BS   | 8-KP36BS             | LL8-KP36BS    | ML8-KP36BS             |                                  | 1-11        |          | 2.85 | 1.88   | 0.97     | 1.63                |  |  |  |
| 1            | _         |           | 8-KP16     | 8-KP16               | LL8-KP16      | _                      | _                                | _           | 15/16-12 | 2.85 | 2.17   | 0.97     | 1.88                |  |  |  |
|              |           | <u> </u>  | C - Overal | III enath <b>D</b> - | Maximum Diame | ter <b>E</b> = Exposed | Length whe                       | n Connec    | ted      |      |        |          |                     |  |  |  |

All dimensions in inches.

**Dimensions** 

1.76 1.01 0.61 0.88

E HEX

D

# Series 1-HK to 8-HK

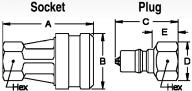
ISO 7241-1 Series B



### Series P2-HK Plastic Coupling

The Series P2-HK coupling is intended for use with air, water and various chemicals at low pressure. It is designed for use where an economical, light weight, corrorion resistant coupling is desired. All components, except springs and seals, are molded from natural polypropylene with a UV inhibitor. Valve springs are 316 stainless steel. Viton seals are standard. EPDM (192) seals are optional.

|          | Thread Size | D    | imensio | ns   |
|----------|-------------|------|---------|------|
| Part No. | NPTF        | Α    | В       | HEX  |
| PP2-H25F | 1/4-18      | 2.38 | 1.45    | 0.88 |

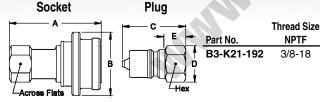


|   |          | Thread Size |      | Dime | ension | s    |
|---|----------|-------------|------|------|--------|------|
| г | Part No. | NPTF        | С    | D    | E      | HEX  |
| ) | PP2-K25F | 1/4-18      | 1.65 | 1.01 | 0.67   | 0.88 |

### Series 3-HK Steam Coupling

The Hansen Steam Coupling has a large diameter flange on the sleeve to aid gripping while the user wears heavy gloves. EPDM (192) seals are standard, and can be used with steam at temperatures up to 350°F. Options are BSPP threads, sleeve lock, EPDM (236) seals, for use with steam at temperatures above 350°F, and Viton (143) seals.

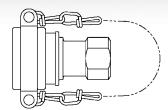
|          |             | Di   | imensi | ons    |
|----------|-------------|------|--------|--------|
|          | Thread Size |      |        | Across |
| Part No. | NPTF        | Α    | В      | Flats  |
| B3-H21Y  | 3/8-18      | 2.56 | 1.75   | 0.88   |



### Release Clamp with Chain

When fluid lines may be subjected to a damaging pull, couplings can be mounted to disconnect automatically, sealing both ends of a line against fluid loss. The socket sleeve can be anchored to a stationary bracket, either directly or with a chain. Excessive pull on the plug end of the line moves the socket body forward relative to the sleeve, and the plug is released without damage to the line. Release Clamp Assembly Kits are available for Series 1-HK through 8-HKP sockets.

|   | Series | Kit Part No. |
|---|--------|--------------|
|   | 1-HK   | 1-HRC-K      |
| 4 | 2-HK   | 2-HRC-K      |
| d | 3-HK   | 3-HRC-K      |
|   | 4-HKP  | 4-HRC-K      |
|   | 6-HKP  | 6-HRC-K      |
| 1 | 8-HKP  | 8-HRC-K      |
|   |        |              |



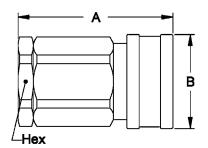
### **Bleeder-Style Plugs**

Bleeder-style plugs can be used on air lines to prevent hose whip when disconnecting a line by reducing the exhaust velocity of air. Bleeder-style plugs can be used on hydraulic lines to prevent static pressure from building up in disconnected lines. Valves of these plugs are manufactured such that a small leak path exists when the plug is disconnected. Bleeder-style plugs are available in Series 1-HK through 6-HKP.

| Series | Plug Part No. |
|--------|---------------|
| 1-HK   | B1-K11-VB     |
| 2-HK   | B2-K16-VB     |
| 2-HK   | 2-K16C-VB     |
| 3-HK   | B3-K21-VB     |
| 3-HK   | 3-K21-VB      |
| 3-HK   | 3-K21C-VB     |
| 4-HKP  | 4-KP26-VB     |
| 6-HKP  | B6-KP31-VB    |
| 6-HKP  | 6-KP31-VB     |

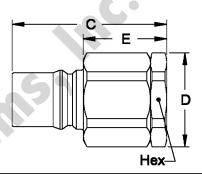


# Series 10-HK/12-HK/20-HK ISO 7241-1 Series B



## **SOCKETS**

| Body<br>Size                         |           | St       | eel   | 303 Stainless    | Thread Siz                           | Dimensions (inches)  |      |      |      |
|--------------------------------------|-----------|----------|---|------------------|--------------------------------------|----------------------|------|------|------|
| (inch)                               | Brass     | Standard | High Impulse  | Steel            | NPTF                                 | BSPP                 | Α    | В    | HEX  |
| <b>1</b> <sup>1</sup> / <sub>4</sub> | B10-H41   | 10-H41   | ı   | LL10-H41         | 1 <sup>1</sup> /4-11 <sup>1</sup> /2 | -                    | 4.51 | 2.73 | 2.38 |
| 1 <sup>1</sup> / <sub>4</sub>        | _         | 10-H41BS | _   | LL10-H41BS       | _                                    | 1 <sup>1</sup> /4-11 | 4.51 | 2.73 | 2.38 |
| <b>1</b> <sup>1</sup> / <sub>2</sub> | B12-H41   | 12-H41   | 12-H41C   | LL12-H41         | 1 <sup>1</sup> /4-11 <sup>1</sup> /2 |                      | 4.82 | 3.23 | 2.38 |
| <b>1</b> <sup>1</sup> / <sub>2</sub> | B12-H41BS | 12-H41BS | _   | LL12-H41BS       | _                                    | 11/4-11              | 4.82 | 3.23 | 2.38 |
| <b>1</b> <sup>1</sup> / <sub>2</sub> | B12-H46   | 12-H46   | 12-H46C   | LL12-H46         | 1 <sup>1</sup> /2-11 <sup>1</sup> /2 | _                    | 4.82 | 3.23 | 2.38 |
| <b>1</b> <sup>1</sup> / <sub>2</sub> | B12-H46BS | 12-H46BS |   | LL12-H46BS       | _                                    | 1 <sup>1</sup> /2-11 | 4.82 | 3.23 | 2.38 |
| 2 <sup>1</sup> / <sub>2</sub>        | B20-H51   | 20-H51   | 20-H51C   | LL20-H51         | 2-11 <sup>1</sup> / <sub>2</sub>     | _                    | 5.55 | 4.11 | 3.75 |
| 21/2                                 | B20-H51BS | 20-H51BS | _   | LL20-H51BS       | _                                    | 2-11                 | 5.55 | 4.11 | 3.75 |
| 21/2                                 | B20-H56   | 20-H56   | 20-H56C   | LL20-H56         | 21/2-8                               | _                    | 6.14 | 4.11 | 3.75 |
| 21/2                                 | B20-H56BS | 20-H56BS | _   | LL20-H56BS       |                                      | 21/2-11              | 6.14 | 4.11 | 3.75 |
| 21/2                                 | B20-H61   | 20-H61   | 20-H61C   | LL20-H61         | 3-8                                  | _                    | 7.00 | 4.11 | 4.00 |
| 2 <sup>1</sup> / <sub>2</sub>        | B20-H61BS | 20-H61BS | _   | LL20-H61BS       | _                                    | 3-11                 | 7.00 | 4.11 | 4.00 |
|                                      |           |          | $\mathbf{A} = \text{Overall Length}  \mathbf{B} = \mathbf{B}$ | Maximum Diameter |                                      |                      |      |      |      |



### **PLUGS**

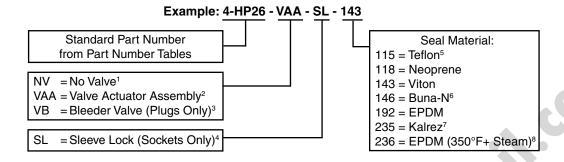
| Body<br>Size                  |           | Steel              |                             |                        | Thread Size (female)                 |                      | Dimensions (inches) |      |      |      |
|-------------------------------|-----------|--------------------|-----------------------------|------------------------|--------------------------------------|----------------------|---------------------|------|------|------|
| (inch)                        | Brass     | Standard           | Standard High Impulse       |                        | NPTF                                 | BSPP                 | С                   | D    | Е    | HEX  |
| 11/4                          | B10-K41   | 10-K41             |                             | LL10-K41               | 11/4-111/2                           |                      | 4.25                | 2.73 | 2.33 | 2.38 |
| 11/4                          | -0.       | 10-K41BS           |                             | LL10-K41BS             | _                                    | 1 <sup>1</sup> /4-11 | 4.25                | 2.73 | 2.33 | 2.38 |
| 1 <sup>1</sup> / <sub>2</sub> | B12-K41   | 12-K41             | 12-K41C                     | LL12-K41               | 11/4-111/,                           | _                    | 4.76                | 3.02 | 2.67 | 2.38 |
| 1 <sup>1</sup> / <sub>2</sub> | B12-K41BS | 12-K41BS           |                             | LL12-K41BS             | _                                    | 1 <sup>1</sup> /4-11 | 4.76                | 3.02 | 2.67 | 2.38 |
| 11/2                          | B12-K46   | 12-K46             | 12-K46C                     | LL12-K46               | 1 <sup>1</sup> /2-11 <sup>1</sup> /2 | 1                    | 4.76                | 3.02 | 2.67 | 2.38 |
| 1 <sup>1</sup> / <sub>2</sub> | B12-K46BS | 12-K46BS           | _                           | LL12-K46BS             | _                                    | 1 <sup>1</sup> /2-11 | 4.76                | 3.02 | 2.67 | 2.38 |
| 21/2                          | B20-K51   | 20-K51             | 20-K51C                     | LL20-K51               | 2-11 <sup>1</sup> / <sub>2</sub>     | 1                    | 5.49                | 4.31 | 2.97 | 3.75 |
| 21/2                          | B20-K51BS | 20-K51BS           | _                           | LL20-K51BS             | _                                    | 2-11                 | 5.49                | 4.31 | 2.97 | 3.75 |
| 21/2                          | B20-K56   | 20-K56             | 20-K56C                     | LL20-K56               | 21/2-8                               |                      | 6.08                | 4.31 | 3.56 | 3.75 |
| 21/2                          | B20-K56BS | 20-K56BS           |                             | LL20-K56BS             |                                      | 2 <sup>1</sup> /2-11 | 6.08                | 4.31 | 3.56 | 3.75 |
| 21/2                          | B20-K61   | 20-K61             | 20-K61C                     | LL20-K61               | 3-8                                  | 1                    | 6.94                | 4.31 | 4.42 | 4.00 |
| 21/2                          | B20-K61BS | 20-K61BS           | _                           | LL20-K61BS             | _                                    | 3-11                 | 6.94                | 4.31 | 4.42 | 4.00 |
|                               | •         | C = Overall Length | <b>D</b> = Maximum Diameter | E = Exposed Length who | en Connecte                          | ed                   | •                   |      |      |      |

<sup>\*\*</sup>ISO 7241-1 Series B does not include 1-1/4 inch body size couplings; therefore, Hansen Series 10-HK is not covered by this standard

# Series HK Special Ordering Instructions



How to build a socket or plug part number with options:



#### Notes:

- 1) The NV option should be specified for a socket **and** a plug when a non-valved coupling is desired. Non-valved Series 1-HK through 8-HKP plugs do not contain seals. Do not specify a seal material.
- 2) The VAA option should be specified for a socket or a plug when a one-way coupling is desired.
- 3) The VB option can be ordered for Series 1-HK through 6-HKP plugs to prevent pressure build-up in disconnected hydraulic lines or to reduce hose whip when disconnecting pneumatic lines.
- 4) The Sleeve Lock device prevents accidental disconnection. Not available on sockets with prefix UL.
- 5) Series HK couplings are designed for use with elastomer seals. Teflon is not an elastomer. It is rigid and not resilient. Couplings with Teflon seals may leak and/or be difficult to connect. Force to connect may be reduced by heating connected couplings in hot water; then, cooling before disconnecting. Teflon seals are available for Series 1-HK through 8-HKP, except Series P2-HK.
- 6) The 146 seal option may be specified for fuels and hydraulic fluids that are known to cause standard Buna-N seals to swell excessively.
- 7) Couplings with Kalrez seals are available by special quotation.
- 8) The 236 seal option should be ordered for use with steam at or above 350°F. The 192 seal option should be ordered for hot water above 180°F and steam below 350°F.
- 9) Some part numbers may be subject to minimum order quantities.
- 10) Some options may be available only by special quotation. Consult your Hansen distributor.

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