## Fix Threaded

STANDARD SPECIFICATIONS

MIEPL make MTT03 Thermocouples are the most common, convenient, and versatile devices used to measure temperature. They convert units of heat into useable engineering units that serve as input signals for process controllers and recorders. A thermocouple consists of a welded 'hot' junction between two dissimilar metals, usually wires and a reference junction at opposite ends of the parent materials. This type of Thermocouple have Fixed Threaded Connector. Mainly used in Power, Chemical, steel and Oil Industries.



## **FEATURES**

- Fixed extension
- Mineral insulated
- Transmitter mountable
- Exchangeable insert
- Spring loaded design

## **APPLICATION**

- Chemical & petrochemical
- Oil & gas application
- Water, waste-water treatment
- Power & Utilities

# **REFERENCE**

IEC-584.2 / ANSI MC-96.1

#### Element : Type K (NiCr-Ni) Accuracy : Standard to ISA & ANSI MC96.1 No. of sensors : Simplex Hot junction : Ungrounded Sheath material : AISI 316 SS Sheath diameter : 6.0 mm Terminal head type : Threaded, weatherproof, IP-65 : Die-cast aluminum Terminal head material Cable entry : 3/4" ET (F), 1 No. **Head extension** : Fixed threaded connection Head extension length : AISI 304 SS

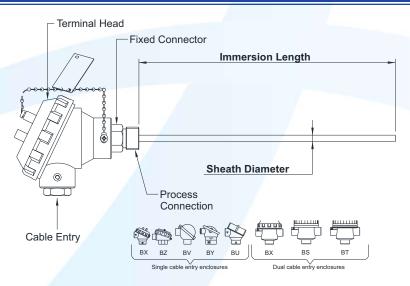
: ½" NPT (M) / ½" BSP (M)

: 150 mm

# **DRAWING**

Immersion length

**Process connection** 





# MTT03 INDUSTRIAL THERMOCOUPLE ASSEMBLY MIEPL



| ORDERING (            | CODE                                  | MTT03 | - k -                       | P - | V - | U - | MF - | M60 | - BZ |
|-----------------------|---------------------------------------|-------|-----------------------------|-----|-----|-----|------|-----|------|
|                       | Type K (NiCr-Ni)                      |       | K                           |     |     |     |      |     |      |
|                       | Type J (Fe-CuNi)                      |       | J                           |     |     |     |      |     |      |
|                       | Type N (NiCrSi-NiSi)                  |       | N                           |     |     |     |      |     |      |
|                       | Type E (NiCr-CuNi)                    |       | Е                           |     |     |     |      |     |      |
| 1. ELEMENT            | Type T (Cu-CuNi)                      |       | Т                           |     |     |     |      |     |      |
|                       | Type R (Pt-13%Rh/Pt)                  |       | R                           |     |     |     |      |     |      |
|                       | Type S (Pt-10%Rh/Pt)                  |       | S                           |     |     |     |      |     |      |
|                       | Type B (Pt/30%Rh-Pt/6%Rh)             |       | В                           |     |     |     |      |     |      |
| 5 400UD40V            | Standard                              |       |                             | Р   |     |     |      |     |      |
| 2. ACCURACY           | Special                               |       |                             | Q   |     |     |      |     |      |
| 3. NO. OF<br>SENSORS  | Simplex                               |       |                             |     | V   |     |      |     |      |
|                       | Triplex                               |       |                             |     | X   |     |      |     |      |
|                       | Duplex                                |       |                             |     | W   |     |      |     |      |
|                       | Ungrounded                            |       |                             |     |     | U   |      |     |      |
|                       | Grounded                              |       |                             |     |     | G   |      |     |      |
| 4. HOT JUNCTION       | AISI 316 SS                           |       |                             |     |     |     | MF   |     |      |
|                       | AISI 310 SS                           |       |                             |     |     |     | ME   |     |      |
|                       | AISI 316L SS                          |       |                             |     |     |     | MG   |     |      |
|                       | Inconel 600                           |       | G  MF  ME  MG  MQ  M30  M50 |     |     |     |      |     |      |
| 5. SHEATH<br>MATERIAL | 3.0 mm                                |       |                             |     |     |     |      | M30 |      |
|                       | 5.0 mm                                |       |                             |     |     |     |      | M50 |      |
|                       | 6.0 mm                                |       |                             |     |     |     |      | M60 |      |
|                       | 8.0 mm                                |       |                             |     |     |     |      | M80 |      |
|                       | WP, IP 65, threaded cover             |       |                             |     |     |     |      |     | BZ   |
|                       | WP, IP 67, threaded cover             |       |                             |     |     |     |      |     | вх   |
|                       | Flame proof, IP 67, Gr IIA, IIB       |       |                             |     |     |     |      |     | BS   |
| 6. SHEATH<br>DIAMETER | Explosion proof, IP 67, Gr IIC        |       |                             |     | ВТ  |     |      |     |      |
|                       | WP, IP 65, Hinged type                |       |                             |     |     |     |      |     | BV   |
|                       | WP, IP 65, cover fitted with 2 screws |       |                             |     |     |     |      |     | BY   |
|                       | Ex-Proof to CSA,FM,ATEX [EEx-d]       |       |                             |     |     |     |      |     | BU   |
|                       |                                       |       |                             |     |     |     |      |     |      |



# MTT03 INDUSTRIAL THERMOCOUPLE ASSEMBLY



| ORDERING C                       | CODE   |        |                                  | ML - | CO -          | МС  | - 4NM |  |  |
|----------------------------------|--|--------|----------------------------------|------|---------------|-----|-------|--|--|
|                                  | Die-cast aluminum  |        |                                  | ML   | 1             |     |       |  |  |
| 8. ENCLOSURE<br>MATERIAL         | AISI 304 SS  |        |                                  | МС   | 1             |     |       |  |  |
|                                  | AISI 316 SS  |        |                                  | MF   |               |     |       |  |  |
| 9. CABLE ENTRY                   | ³⁄₄" ET (F), 1 No.   |        |                                  |      | CO            |     |       |  |  |
|                                  | ½" NPT (F), 1 No.  |        |                                  |      | C1            |     | ı     |  |  |
|                                  | M20 x 1.5mm (F), 1 No.   |        |                                  |      | <sub>C2</sub> |     |       |  |  |
|                                  | <sup>3</sup> ⁄ <sub>4</sub> " NPT (F), 1 No.   |        |                                  |      | C3            |     |       |  |  |
|                                  | <sup>3</sup> ⁄ <sub>4</sub> " ET (F), 2 Nos.   |        |                                  |      | C5            |     |       |  |  |
|                                  | ½" NPT (F), 2 Nos.   |        |                                  |      | C6            |     |       |  |  |
|                                  | M20 x 1.5mm (F), 2 Nos.  |        |                                  |      | C8            |     | I     |  |  |
|                                  | <sup>3</sup> ⁄ <sub>4</sub> " NPT (F), 2 Nos.  |        |                                  |      | <sub>C9</sub> |     |       |  |  |
| 10. HEAD<br>EXTENSION<br>MATERIA | AISI 304 SS  |        |                                  |      |               | MC  |       |  |  |
|                                  | AISI 316 SS  |        |                                  |      |               | MF  |       |  |  |
| 11. IMMERSION<br>LENGTH (IL)     | 50 mm up to 10,000 mm  |        |                                  |      | 1             |     |       |  |  |
| 12. PROCESS<br>CONNECTION        | ½" NPT (M)   |        |                                  |      |               |     | 4NM   |  |  |
|                                  | 3/4" NPT (M)   |        |                                  |      |               |     | 5NM   |  |  |
|                                  | M20 X 1.5 mm (M)   |        |                                  |      | 1             |     | 4MM   |  |  |
|                                  | ½" BSP (M)   |        |                                  |      |               |     | 4BM   |  |  |
| 1                                | <sup>3</sup> ⁄ <sub>4</sub> " BSP (M)  |        |                                  |      |               |     | 5BM   |  |  |
|                                  | Calibration Certificate  | SB     | SC, cable gland, AISI 316 SS WP  |      |               |     | JH    |  |  |
|                                  | Tag plate, AISI 304 SS   | WF     | DC, cable gland, AISI 316 SS WP  |      |               |     | JI    |  |  |
| 1                                | SC, cable gland, Ni-brass WP   | JD     | SC, cable gland, AISI 316 SS FP  |      |               |     | JN    |  |  |
|                                  | DC, cable gland, Ni-brass WP   | JE     | DC, cable gland, AISI 316 SS FP  |      |               |     | JO    |  |  |
| 13. OTHER<br>OPTIONS             | SC, cable gland, Ni-brass FP   | JJ     | Plug fitting for CE, AISI 304 SS |      |               |     | JB    |  |  |
|                                  | DC, cable gland, Ni-brass FP   | JK     | Plug fitting for CE, AISI 316 SS |      | 1             |     | JC    |  |  |
|                                  | SC, cable gland, AISI 304 SS WP  | JF     | Plug fitting for CE, Aluminum    |      | i             |     | JU    |  |  |
|                                  | DC, cable gland, AISI 304 SS WP  | JG     | SS base plate for transmitter    |      |               |     | JS    |  |  |
|                                  | SC, cable gland, AISI 304 SS FP  | JL     | Head mount transmitter           |      | 1             | 1 1 | JT    |  |  |
|                                  | DC, cable gland, AISI 304 SS FP  | JM     |                                  |      |               |     |       |  |  |
|                                  |  |        |                                  |      |               |     |       |  |  |
|                                  |  |        |                                  |      |               |     |       |  |  |
|                                  |  | cample |                                  |      |               |     |       |  |  |
|                                  | MTT03 - MTT01 - K - P - V - U - MF - M60 - BZ - ML - C0 - MC - 4NM  1. Other sheath diameters, connections are available, please contact factory for details                 |        |                                  |      |               |     |       |  |  |
|                                  | 2. WP = Weatherproof, FP = Flame proof, SC = Single Compression, DC = Double Compression, CE = Cable Entry   |        |                                  |      |               |     |       |  |  |
|                                  | 3. Transmitter output shall be 420 mA as standard, any other output required, please contact factory for details.  4. NUN assembly in ASTM A105 is provided with Cd plating. |        |                                  |      |               |     |       |  |  |
|                                  |  |        |                                  |      |               |     |       |  |  |
|                                  |  |        |                                  |      |               |     |       |  |  |