

# Multipin Design Thermocouple Connectors

Style: MTC with 200°C  
Maximum Service Temperature

See Page 112  
for Multipair  
Wire

- ✓ Thermocouple Alloy Pins
- ✓ Air and Moisture Resistant Connection
- ✓ Removable Crimp Contacts
- ✓ 20-24 AWG Stranded Wire
- ✓ Aluminium Shells
- ✓ Black Anodised Finish
- ✓ Threaded Coupling

From  
**£33<sup>50</sup>**

For Five-Cavity  
Female Flanged Connector-  
Pins Sold Separately

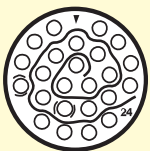
Recommended for Use  
With Stranded Wire



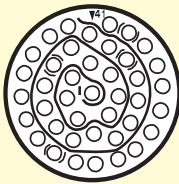
5-Pin



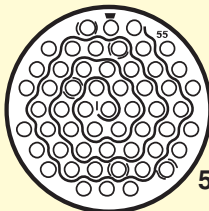
12-Pin



24-Pin

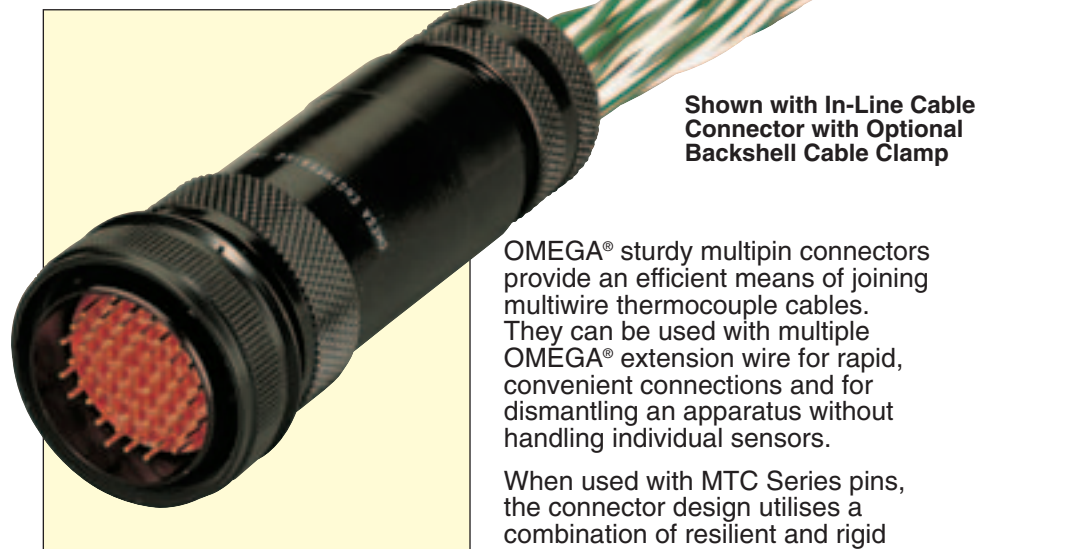


41-Pin



55-Pin

Contact cavities are identified with a spiral guide line indicating cavity sequence. The first and last cavities are numbered and every tenth cavity is bracketed.



Shown with In-Line Cable  
Connector with Optional  
Backshell Cable Clamp

Although MTC PINS do not carry a MIL. SPEC. NUMBER, they do meet the performance requirements of MIL-C-26500E and are intermateable with MIL-C-26500 connectors.

OMEGA® sturdy multipin connectors provide an efficient means of joining multiwire thermocouple cables. They can be used with multiple OMEGA® extension wire for rapid, convenient connections and for dismantling an apparatus without handling individual sensors.

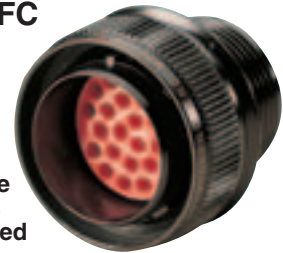
When used with MTC Series pins, the connector design utilises a combination of resilient and rigid dielectric insulators to eliminate internal air voids and prevent the passage of air and moisture into or through the connector. Connectors can withstand ambient temperatures to 200°C, contributing to an extended connector life.

Style  
FF



Flange  
mounted  
receptacle  
with threaded  
coupling. Uses  
sockets only.

Styles  
MC and FC



In-line cable  
connectors  
with threaded  
couplings.  
Style MC uses pins;  
style FC uses sockets.

## Multipin Connector Bodies\*

### To Order (Specify Model Number)

| Number of Cavities | MC Male Cord | Price  | FC Female Cord | Price  | FF Female Flanged | Price  | Backshell Cable Clamp** | Price  |
|--------------------|--------------|--------|----------------|--------|-------------------|--------|-------------------------|--------|
| 5                  | MTC-5-MC     | £35.50 | MTC-5-FC       | £62.00 | MTC-5-FF          | £33.50 | MTC-5-SHL               | £33.00 |
| 12                 | MTC-12-MC    | 37.50  | MTC-12-FC      | 48.50  | MTC-12-FF         | 37.50  | MTC-12-SHL              | 24.50  |
| 24                 | MTC-24-MC    | 43.50  | MTC-24-FC      | 57.00  | MTC-24-FF         | 49.00  | MTC-24-SHL              | 25.50  |
| 41                 | MTC-41-MC    | 52.00  | MTC-41-FC      | 72.00  | MTC-41-FF         | 56.00  | MTC-41-SHL              | 29.50  |
| 55                 | MTC-55-MC    | 57.00  | MTC-55-FC      | 85.00  | MTC-55-FF         | 63.00  | MTC-55-SHL              | 27.00  |

\*Contacts not included. Order from next page.

\*\*Backshell cable clamps provide effective support for the cable at the male or female connector and prevent twisting and pulling.



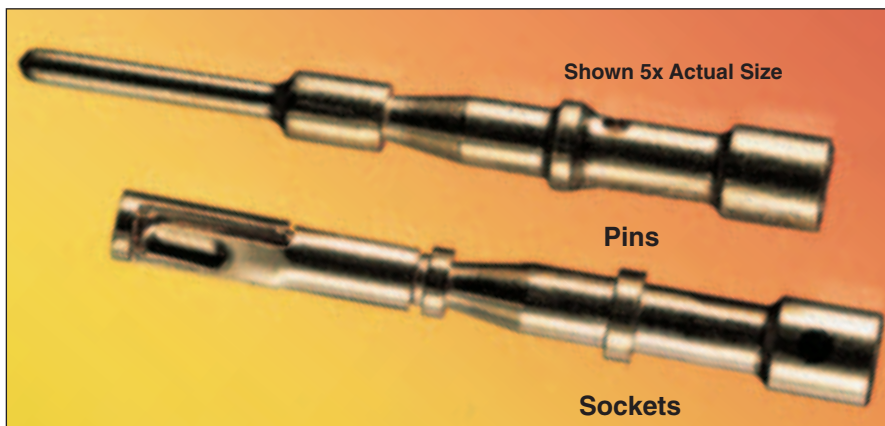
# Thermocouple Contacts

## Precision CNC Machined Type MTC

For Connector Dimensions  
See [omega.co.uk](http://omega.co.uk)

- ✓ Crimp-Type Attachment
- ✓ Contacts Are Colour-Coded
- ✓ Accessories Available
- ✓ High Performance Design

OMEGA® push-in crimp style contacts are manufactured from thermocouple alloy materials and are generically colour-coded for easy identification. Contacts are crimp-terminated outside the connector assembly and inserted into the appropriate cavity by means of an insertion tool. They can be readily removed from the connector assembly using a special removal tool. Sealing plugs are available to seal unused positions in lieu of pin or socket.

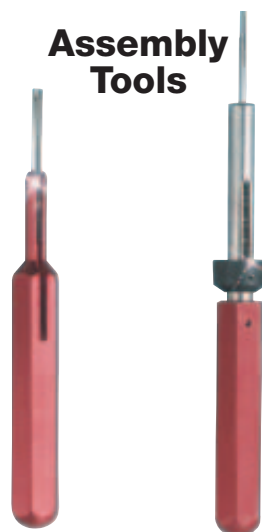


| Material             | Thermocouple Type (IEC/ANSI Symbol) |
|----------------------|-------------------------------------|
| Iron/Constantan      | J                                   |
| CHROMEPA™/ALOMEGA™   | K                                   |
| Copper/Constantan    | T                                   |
| CHROMEPA™/Constantan | E                                   |
| OMEGA-P™/OMEGA-N™    | N                                   |

| Pin and Socket Quantity Discounts |     |
|-----------------------------------|-----|
| 1–10 units.....                   | Net |
| 11–24 units.....                  | 10% |
| 25–49 units.....                  | 15% |
| 50–99 units.....                  | 20% |
| 100 and up.....                   | 25% |

Thermocouple Alloy and Gold-Plated Copper Contacts for Multipin Connectors

### Assembly Tools



Insertion Tool  
MTC-IT  
£40

Removal Tool  
MTC-RT  
£51

### To Order (Specify Model Number)

| Alloy Type                   | Pins (Male) | Coding Colour Letter       | Price Each | Sockets (Female) | Coding Colour Letter        | Price Each |
|------------------------------|-------------|----------------------------|------------|------------------|-----------------------------|------------|
| Iron (+)                     | MTC-IR-P    | BLK M                      | £13        | MTC-IR-S         | BLK M                       | £21        |
| Constantan (-)               | MTC-CO-P    | YEL N                      | 21         | MTC-CO-S         | YEL N                       | 21         |
| Copper (+)                   | MTC-CU-P    | RED C                      | 17         | MTC-CU-S         | RED C                       | 17         |
| CHROMEPA™ (+)                | MTC-CH-P    | WHT P                      | 14         | MTC-CH-S         | WHT P                       | 21         |
| ALOMEGA™ (-)                 | MTC-AL-P    | GRN R                      | 14         | MTC-AL-S         | GRN R                       | 21         |
| OMEGA-P™(+)                  | MTC-OP-P    | Orange OP                  | 20         | MTC-OP-S         | Orange OP                   | 25         |
| OMEGA-N™(-)                  | MTC-ON-P    | Blue ON                    | 20         | MTC-ON-S         | Blue ON                     | 25         |
| *Gold-Plated (Uncompensated) | MTC-AU-P    | Colour Bands RED, YEL, BRN | .65        | MTC-AU-S         | Colour Bands RED, BLUE, BLK | 1.05       |

Sealing Plugs, model MTC-HP, £0.40 each.

\*For use with non-thermocouple wire in the same body.

Grommets available. Consult Sales Department for price and delivery.

### To Order

Specify Connector Body, Contacts and Backshell (See Note 1).

Example: Cord-to-Cord connectors for 6 type J (Iron-Constantan) thermocouple circuits (pairs).

Male Connector Assembly

1. Body: **MTC-12-MC**
2. Pins: (+) Pos. Alloy, **MTC-IR-P**, 6 ea.  
(-) Neg. Alloy, **MTC-CO-P**, 6 ea.
3. Backshell: **MTC-12-SHL**

Female Connector Assembly

1. Body: **MTC-12-FC**
2. Sockets:  
(+) Pos. Alloy, **MTC-IR-S**, 6 ea.  
(-) Neg. Alloy, **MTC-CO-S**, 6 ea.
3. Backshell: **MTC-12-SHL**



**Easy-to-Use Ratchet Action!** Specially designed MS standard crimping tool MUST be used to crimp wires properly to pins and sockets. Ratchet action ensures a complete crimp every time.

#### Important Notes

1. MS Standard Assembly Tools are required to crimp and assemble connectors properly. Order with first purchase.
2. Match pins and sockets to thermocouple alloys—Example: A 12-cavity connector carries 6 thermocouple circuits (pairs)

requiring: 6 positive alloy pins or sockets and 6 negative alloy pins or sockets per body.

3. Order bodies in mating pairs. Style MC mates with both style FF and style FC.
4. Backshell cable clamps are recommended with each cord style connector.