Hypodermic and Mini Hypodermic Probes
Thermocouple and RTD Elements

OMEGA® Hypodermic Needle
Temperature Probes are designed for industrial, laboratory, manufacturing and chemical research applications. Five probe types are available, with diameters from 0.2 to 1.65 mm (0.008 to 0.065”). The HYP0, HYP1 and HYP2 have type T (Copper-Constantan) thermocouple elements, while the HYP3 is available in J, K, T or E calibration, and the HYP4 has a 100 Ω Platinum RTD (a = 0.00385).

The HYP0 is a mini-hypodermic probe, with a needle diameter of only 0.2 mm (0.008”) is the least likely to disturb the surrounding insertion area. Binocular microscope micro-manufacturing techniques result in an extremely small type T (Copper-Constantan) thermocouple being implanted in a 33 gage, 25 mm (1”) long stainless steel hypodermic needle. The HYP0 has the fastest response of the hypodermic probes, and has a continuous temperature rating of 200°C (400°F). It has 1.5 m (5’) long PFA coated, 36 AWG leads with an SMP type subminiature connector.

The HYP0 Mini Hypodermic probe with a needle diameter of only 0.2 mm (0.008") is the least likely to disturb the surrounding insertion area. Binocular microscope micro-manufacturing techniques result in an extremely small type T (Copper-Constantan) thermocouple being implanted in a 33 gage, 25 mm (1") long stainless steel hypodermic needle. The HYP0 has the fastest response of the hypodermic probes, and has a continuous temperature rating of 200°C (400°F). It has 1.5 m (5') long PFA coated, 36 AWG leads with an SMP type subminiature connector.

**Thermocouple Probe Model HYP0**

The HYP0 mini-hypodermic probe with a needle diameter of only 0.2 mm (0.008") is the least likely to disturb the surrounding insertion area. Binocular microscope micro-manufacturing techniques result in an extremely small Type T (Copper-Constantan) thermocouple being implanted in a 33 gage, 25 mm (1") long stainless steel hypodermic needle. The HYP0 has the fastest response of the hypodermic probes, and has a continuous temperature rating of 200°C (400°F). It has 1.5 m (5’) long PFA-coated, 36 AWG leads with an SMP-type miniature connector.

**Dimensions: mm (inch)**

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<th>mm</th>
<th>inch</th>
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<tr>
<td>With shrink tubing not shown</td>
<td>18.25</td>
<td>0.72</td>
</tr>
<tr>
<td>1.57</td>
<td>0.062 D.O.D.</td>
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<td>0.30</td>
<td>0.012 D.O.D.</td>
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To Order

Model No. ANSI Color Code

HYP0-33-1-()-(*)-G-60-SMPW-M

* Specify calibration: K, T, or E. K = CHROMEGA®-ALOMEGA®, T = Copper-Constantan, E = CHROMEGA®-Constantan

For lead wire lengths over 1.5 m (60") at an additional cost/300 mm (12") and modify model number.

Ordering Example: HYP0-33-1-T-G-60-SMPW-M, mini hypodermic probe with Type T grounded thermocouple, 1.5 m (5’) long bead wire, and a miniature SMPW male connector.

**Thermocouple Probe Model HYP1**

OMEGA® Research, autoclavable probe is designed to give instant readings in plants, other semi-solids and liquids. A 30 gage x 15 mm needle provides this very fast response. The measurable temperature range is cryogenic to 200°C (400°F). This is a Type T (Copper-Constantan) grounded-junction probe with PFA insulated extension wire and a subminiature male connector termination. The entire assembly is steam autoclavable to a temperature of 160°C (325°F). All probes have 1.5 m (5’) leads.

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Model No. ANSI Color Code

HYP1-30-1/2-(*)-G-60-SMPW-M

* Specify calibration: K, T, or E. K = CHROMEGA®-ALOMEGA®, T = Copper-Constantan, E = CHROMEGA®-Constantan

For lead wire lengths over 1.5 m (60") at an additional cost/300 mm (12") and modify model number.

Thermocouple Probe Model HYP2 and HYP5
The HYP2 and HYP5 Probes have Natural Science, Industrial and Food Processing uses. These assemblies come complete with a Type T (Copper-Constantan) element, 1.2 m (4') PFA insulated lead wires, and uses a standard (21 gage) hypodermic needle 38 mm (1.5") long. 1.2 m (4') lead wire is standard. Standard size male connector terminates the lead wire.

### Model No. ANSI Color Code
- HYP2-21-1-1/2-(*)-G-48-OSTW-M
- HYP2-21-1-1/2-(*)-G-48-SMPW-M
- HYP5-21-1-1/2-(*)-G-SMPW-M

† HYP5 does not have lead wires
* Specify calibration: J, K, T, or E.
** Specify measuring junction style: U or G

**Specify calibration: J, K, T, or E.
J = Iron-Constantan
K = CHROMEGA®-ALOMEGA®
T = Copper-Constantan
E = CHROMEGA®-Constantan

Easy grip handle, add “EGH” suffix, for additional cost.
For lead wire lengths over 1.2 m (48") at an additional cost/300 mm (12") and modify model number.

**Ordering Example:** HYP2-21-1-1/2-T-G-48-OSTW-M, Type T grounded junction probes.

Thermocouple Probe Model HYP3
OMEGA® Industrial Hypodermic Probe uses a 16 gage x 38 mm (1.5") long needle and may contain J, K, T, E calibrations; they may have a grounded or ungrounded junction, and come with stainless steel overbraided extension wire. The stainless steel overbraiding adds flexibility and extends the probe life. These probes are not autoclavable. They are designed for heavy-duty service. 1.2 m (4') lead wire is standard. Maximum tip temperature is 200°C (400°F).

### Model No. ANSI Color Code
- HYP3-16-1-1/2-(*)-(**)-48-RP

When ordering, specify calibration and whether grounded or ungrounded junction is desired
* Specify calibration: J, K, T, or E.
** Specify measuring junction style: U or G

Also Available: R and S (platinum)—consult factory for price and delivery.

Easy Grip Handle, add “EGH” suffix, for additional cost
For lead wire lengths over 1.2 m (48") at an additional cost/300 mm (12") and modify model number.
To add an SMPW male connector add suffix “-SMPW-M” to model number for additional cost.

RTD Probe Model HYP4
The RTD Hypodermic Probes are offered for Industrial, Natural Sciences and Food Processing use. These probes contain a 100 Ω platinum RTD (α = 0.00385) within a 16 gage x 38 mm (1.5") hypodermic needle, and come with 1.2 m (4') PFA insulated lead wire.

### Model No. ANSI Color Code
- HYP4-16-1-1/2-100-EU-48-RP

All probes were designed for industrial, laboratory, manufacturing and chemical research only. **They are not intended for medicinal use, or on humans.** OMEGA assumes no responsibility if these products are used for medicinal purposes, or on humans, or are misused in any way.

For lead wire lengths over 1.2 m (48") at an additional cost/300 mm (12") and modify model number.

For a male straight M8 plug add “M8-S-M” to the model number for additional cost, for a male right-angled M12 plug add “M12-S-M” to the model number for additional cost.

Ordering Example: HYP4-16-1-1/2-100-EU-48-MTP-M, RTD hypodermic probe with 1.2 m (48") leads and MPT-U male connector.