

TO SPECIFY FHC METAL MICROELECTRODES:

CATALOG# **UE** 1234567890 n/n/n...

Metal micro-electrode Base Electrode Finishing Options Modifier(s)

1 Material:

- W: Tungsten
- S: Stainless Steel
- P: Platinum/Iridium 80% / 20%
- X: Special / Specify

2 Length Range:

Total Electrode Length will be range maximum (+/- 5mm) plus termination addition unless length is specified in step 9.
 S: = up to 60mm
M: = 61mm to 70mm
 L: = 71mm to 145mm
 V: = 146mm to 295mm

3 Shank Diameter:

- C: .003" / 75µm
- D: .004" / 100µm**
- E: .005" / 125µm
- F: .008" / 200µm
- G: .010" / 250µm
- H: .020" / 500µm
- X: Special / Specify

5 Microelectrode Profile:

Specialty Profiles

S: Standard Profile

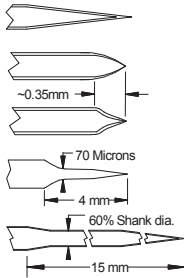
V: Short Convex

C: Short Concave

T: Short Thinned

L: Long Thinned
 Note: Profile T and L not available with Glass Insulation

X: Special / Specify

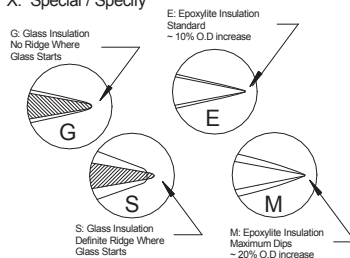


6 Insulation Options:

- E: Epoxylite Insulation
- M: Max dips: Epoxylite**
- G: Glass, immersed tip (Pt/Ir or W, only) Standard Insulation Length: 15mm from tip. See *Shank Modification Note**

- S: Glass, exposed tip (Pt/Ir, only) Standard Insulation Length: 15mm from tip See *Shank Modification Note**

- N: No Insulation
- X: Special / Specify



Modifier Note:

Any X's or numbers in the catalog # indicate that modifiers are required.

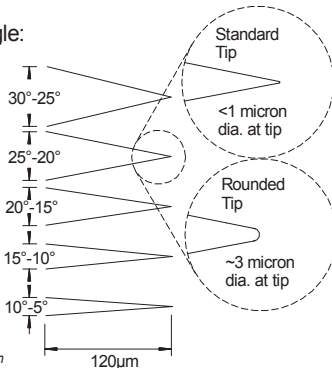
4 Final Taper Angle:

The last 120 microns

- A: Extra Blunt
- B: Rounded Extra Blunt
- C: Standard Blunt (1)
- D: Rounded Blunt
- E: Standard Medium (2)**
- F: Rounded Medium
- G: Standard Fine (3)
- H: Rounded Fine
- J: Standard Ultra-fine (4)
- K: Rounded Ultra-fine

Note: Fine and Ultra-fine tapers (G, H, J, K) not available with Glassed Tungsten

X: Special / Specify



7 Impedance:

Measured at 1000Hz

- A: 50k Ω 100k Ω 1: 1M Ω +/- 2M Ω
- B: 300k Ω 500k Ω 2: 2M Ω +/- 4M Ω
- C: 800k Ω 1.2M Ω 3: 3M Ω +/- 6M Ω
- D: 2M Ω 4M Ω 4: 4M Ω +/- 8M Ω
- E: 5M Ω 7M Ω 5: 5M Ω +/- 1M Ω
- F: 8M Ω 10M Ω 6: 6M Ω +/- 1M Ω
- G: 13M Ω 15M Ω 7: 7M Ω +/- 1M Ω**
- H: 18M Ω 20M Ω 8: 8M Ω +/- 1M Ω
- J: 22M Ω 25M Ω 9: 9M Ω +/- 1M Ω
- K: 2M Ω 5M Ω 0: 10M Ω +/- 1M Ω
- L: 9M Ω 12M Ω X: Special / Specify
- N: No Zap (High)

8 Tip Conditioning:

N: None, Standard

- P: Platinum Black Discontinued, replaced by D.ZAP
- T: Platinum Black Discontinued, replaced by D.ZAP
- X: Special / Specify

Note: D.ZAP is standard for impedances 1.2MΩ and lower (A, B, C, 1)

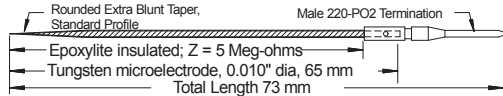
9 Shank Modifications:

Please provide required specifications for any shank modifications

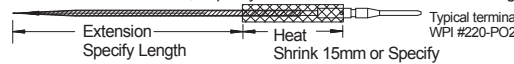
Note*: For glass insulated electrodes a shank modification of #4 Shank Enlargement with Polyimide Tubing is the default. Modifications #3, 5, and 6 also available. Standard extension (glass insulation) is 15mm. Other lengths may be specified between 5 and 20mm. Polyimide length will be total length minus the extension and termination.

N: None, standard

1: Cut electrode to a specified length +/- 2mm. (specify electrode length in mm) NOTE: If pin termination is specified in 10, total electrode length will be specified length + pin addition. (see UEWMGBSE5N1M, 65mm example below)

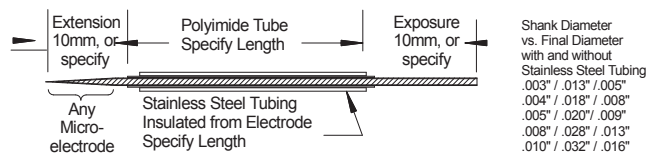


2: Heatshrink over Termination. Specify either dimension shown below in diagram



3: Shank Enlargement with Polyimide and Stainless Steel Tubing. Specify dimensions shown below in diagram. Tubing sizes are indicated on the chart unless otherwise specified

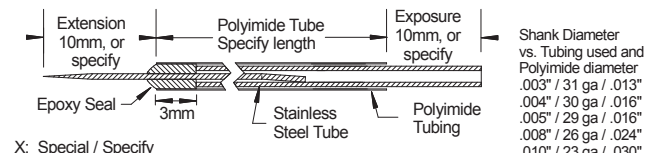
4: Shank Enlargement with Polyimide Tubing Only. Specify dimensions shown below in diagram w/ exception of SS Tube length. Tubing sizes are indicated on the chart unless otherwise specified



Shank Diameter vs. Final Diameter with and without Stainless Steel Tubing
 .003" / .013" / .005"
 .004" / .018" / .008"
 .005" / .020" / .009"
 .008" / .028" / .013"
 .010" / .032" / .016"

5: Shank Extension up to 150mm, specify dimensions shown in diagram below, Tubing sizes are indicated on the chart unless otherwise specified

6: Shank Extension from 151mm to 300mm, specify dimensions in diagram below, Tubing sizes are indicated on the chart unless otherwise specified



Shank Diameter vs. Tubing used and Polyimide diameter
 .003" / 31 ga / .013"
 .004" / 30 ga / .016"
 .005" / 29 ga / .016"
 .008" / 26 ga / .024"
 .010" / 23 ga / .030"

X: Special / Specify

10 Termination Options:

Special terminations available upon request, see *Microneurography Needle Data sheet* for additional options, specify X.

D: No pin, Insulation not stripped

E: No Pin, Insulation stripped 5mm

G: No Pin, Insulation stripped 10mm

H: No Pin, Insulation stripped 15mm

J: No Pin, Insulation stripped 20mm

M: Male 220-PO2 (Standard)

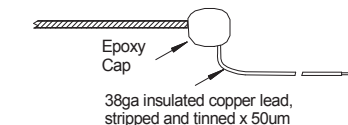
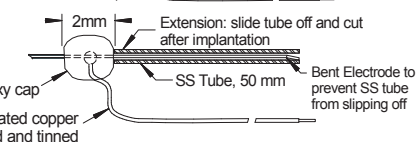
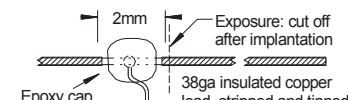
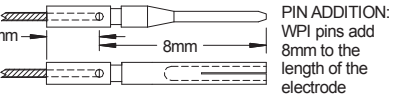
F: Female 220-S02

C: "Cut off" Chronic termination, see diagram:

K: Friction Fit Extension

L: Floating termination, see diagram:

X: Special (not listed)



(K3-73B) VL022/CAD cat pgs/UE 20130314