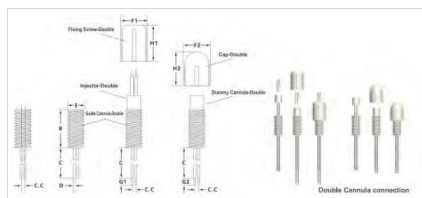




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Double Cannula



Introduction

I, II, III and IV series double cannula systems for acute and chronic intracranial drug administration in animal experiment.

- I series double cannulas: Suitable for rats or mouse, 0.48mm (outer diameter) x 0.34mm (internal diameter)
- II series double cannulas: Suitable for rats, 0.64mm (outer diameter) x 0.45mm (internal diameter)
- III series double cannulas: Suitable for mouse, 0.48mm (outer diameter) x 0.34mm (internal diameter).
- The height of the cylindrical plastic pedestal is different from I series
- IV series double cannulas: 0.41mm (outer diameter) x 0.25mm (internal diameter)

Application

Double cannula system is used for bilateral implantation, suitable for injecting one or two drugs into two different brain regions.

- A - refers to the length of the stainless steel tube above the cylindrical plastic pedestal which is 0.5mm.
- B - refers to the height of the cylindrical plastic pedestal which is 7.8mm for I series & II series and 5.5mm for III series.
- C - refers to the length of the stainless steel tube below the cylindrical plastic pedestal. The maximal is 13.7mm for I and III series, 20.0mm for II series and 10.0mm for IV series. And the length can be customized shorter.
- C.C- refers to center to center distance between the double guide cannula, internal cannula and guide cannula (the 3 values should be same in one system) and it can be customized (range: 0.5mm-3.0mm, the minimum incremental unit is ± 0.1 mm)
- D - refers to the outer diameter of stainless steel tube and it has 3 sizes: 0.48mm for I & III series, 0.64mm for II series and 0.41mm for IV series.
- E - refers to the outer diameter of the cylindrical plastic pedestal and it comes with 3.5mm and 5.0mm two sizes (It is related to the outer diameter and centre distance between the double guide cannula)
- F1 - refers to the outer diameter of fixing screw and it comes with 5.5mm (when E=3.5mm) and 7.0mm (when E=5.00mm) two size.
- H1 - refers to the height of the fixing screw which is 7.5mm;
- F2 - refers to the outer diameter of the guide cannula cap and it comes with 5.5mm (when E=3.5mm) and 7.0mm (when E=5.00mm) two sizes.
- H2 - refers to the height of the guide cannula cap and it comes with two sizes: 7.00mm (when E=3.50mm) and 7.5mm (when E=5.00mm);
- G1 - refers to the length of the protruding part after the internal cannula is inserted into the guide cannula. The default value is 5.5mm for I series, 3.5mm for II series and 7.50mm for III series and 4.0 mm for IV series. This length



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can be customized;

- G2 - refers to the length of protruding part after dummy cannula inserted into the guide cannula. The default value is 3.0mm for I series, 4.0mm for II series, 5.5 mm for III series and 4.0 mm for IV series. This length can be customized.

Ordering instructions

First, you have to decide the targeted brain region for drug administration and then set target values for C,C.C,G1 and G2 (the targeted value can't be more than the default values or the maximum values of the total length, please refer to * for detailed information). We can custom the length according to the list below:

- * C value: the maximal custom length is 13.7mm for I and III series, 20.0mm for II series and 10.0mm for IV series)
- * C.C value: the custom range is 0.5mm ~3.0mm (the minimum incremental unit is ± 0.1 mm)
- * G1: the maximal custom length is 5.5mm for I series, 3.5mm for II series, 7.5mm for III series and 4.0mm for IV series.
- * G2: the maximal custom length is 3.0 mm for I series, 4.0mm for II series, 5.5mm for III series and 4.0mm for IV series.

Ordering number

Matching	C.C.	Guiding cannula	Dummy cannula	Injector	Cap	Fixing screw
Class I Guide cannula: O.D. 0.48mm x I.D. 0.34mm Dummy cannula: O.D. 0.30mm Injector: O.D. 0.30mm x I.D. 0.14mm Cap: F2 5.5mm x H2 7.0mm (62U523) F2 7.0mm x H2 7.5mm (62U524) Fixing screw: F1 5.5mm x H1 7.5mm (62U521) F1 7.0mm x H1 7.5mm (62U522) Plastic base of Guide cannula: Height B = 7.8mm Diameter E = M3,5mm	0,5 mm	62U021	62U121	62U221	62U523	62U521
	0,6 mm	62U022	62U122	62U222		
	0,8 mm	62U023	62U123	62U223		
	1,0 mm	62U024	62U124	62U224		
	1,2 mm	62U025	62U125	62U225		
	1,3 mm	62U026	62U126	62U226		
	1,4 mm	62U027	62U127	62U227		
	1,5 mm	62U028	62U128	62U228		
	1,6 mm	62U029	62U129	62U229		
	1,8 mm	62U030	62U130	62U230		
	2,0 mm	62U031	62U131	62U231		



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Plastic base of Guide cannula Diameter E = 5.0mm	2,2 mm	62U032	62U132	62U232	62U524	62U522
	2,4 mm	62U033	62U133	62U233		
	2,6 mm	62U034	62U134	62U234		
	2,7 mm	62U035	62U135	62U235		
	3,0 mm	62U036	62U136	62U236		

Matching	C.C.	Guide cannula	Dummy cannula	Injector	Cap	Fixing screw
Class II Guide cannula: O.D. 0.64mm x I.D. 0.45mm Dummy cannula : O.D. 0.40mm Injector: O.D. 0.41mm x I.D. 0.25mm Cap: F2 5.5mm x H2 7.0mm (62U523) F2 7.0mm x H2 7.5mm (62U524) Fixing screw: F1 5.5mm x H1 7.5mm (62U521) F1 7.0mm x H1 7.5mm (62U522) Plastic base of Guide Cannula: Height B = 7.8mm Diameter E = M3,5mm	0,8 mm	62U037	62U137	62U237	62U523	62U521
	1,0 mm	62U038	62U138	62U238		
	1,2 mm	62U039	62U139	62U239		
	1,3 mm	62U040	62U140	62U240		
	1,4 mm	62U041	62U141	62U241		
	1,5 mm	62U042	62U142	62U242		
Plastic base of Guide Cannula Diameter E = 5.0mm	1,8 mm	62U043	62U143	62U243	62U524	62U522
	2,0 mm	62U044	62U144	62U244		
	2,2 mm	62U045	62U145	62U245		
	2,4 mm	62U046	62U146	62U246		
	2,5 mm	62U047	62U147	62U247		
	2,8 mm	62U048	62U148	62U248		
	3,0 mm	62U049	62U149	62U249		

Matching	C.C.	Guide cannula	Dummy cannula	Injector	Cap	Fixing screw
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Class III Guide cannula: O.D. 0.48mm x I.D. 0.34mm Dummy cannula: O.D. 0.30mm Injector: O.D. 0.30mm x I.D. 0.14mm Cap: F2 5.5mm x H2 7.0mm (62U523) F2 7.0mm x H2 7.5mm (62U524) Fixing screw: F1 5.5mm x H1 7.5mm (62U521) F1 7.0mm x H1 7.5mm (62U522) Plastic base of guide cannula: Height B = 5.5mm Diameter E = M3,5mm	0,5 mm	62U050	62U121	62U221	62U523	62U521
	0,6 mm	62U051	62U122	62U222		
	0,8 mm	62U052	62U123	62U223		
	1,0 mm	62U053	62U124	62U224		
	1,2 mm	62U054	62U125	62U225		
	1,3 mm	62U055	62U126	62U226		
	1,4 mm	62U056	62U127	62U227		
	1,5 mm	62U057	62U128	62U228		
	1,6 mm	62U058	62U129	62U229		
	1,8 mm	62U059	62U130	62U230		
	2,0 mm	62U060	62U131	62U231		

Matching	C.C.	Guide cannula	Dummy cannula	Injector	Cap	Fixing screw
Class IV Guide cannula: O.D. 0.41mm x I.D. 0.25mm Dummy cannula: O.D. 0.20mm Injector: O.D. 0.21mm x I.D. 0.11mm Cap: F2 5.5mm x H2 7.0mm (62U523) Fixing screw: F1 5.5mm x H1 7.5mm (62U521) Plastic base of guide cannula: Height B = 5.5mm Diameter E = M3,5mm	0,5 mm	62U061	62U161	62U261	62U523	62U521
	0,6 mm	62U062	62U162	62U262		
	0,8 mm	62U063	62U163	62U263		
	1,0 mm	62U064	62U164	62U264		
	1,2 mm	62U065	62U165	62U265		
	1,3 mm	62U066	62U166	62U266		
	1,4 mm	62U067	62U167	62U267		
	1,5 mm	62U068	62U168	62U268		
	1,6 mm	62U069	62U169	62U269		
	1,8 mm	62U070	62U170	62U260		
	2,0 mm	62U071	62U171	62U261		

Note: The difference between Class I and Class III is the height size of the Double Guide Cannula, the former is 7.8mm and the latter is 5.5mm, and the Class III is specially designed for mice.



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