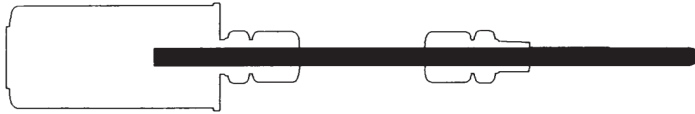


# SHEATH MATERIAL AND SIZE



Consult the material selection table below, then choose the sheath material and size and record the catalog type from the chart. For materials not listed below, consult Conax Technologies.

**J-SS12**

Example: With a .125" OD type 304 Stainless Steel sheath, the catalog number becomes \_\_\_\_\_

SHEATH MATERIALS*** and SIZES											
CATALOG TYPE	SHEATH DIA.	SHEATH WALL THICKNESS	WIRE GAGE	SHEATH MATERIAL	TEMPERATURE RANGE		REMARKS	APPLICATION ATMOSPHERE			
					MAX SERVICE	MELTING POINT		OXIDIZING	REDUCING	INERT	VACUUM
SS4	.040	.004 to .005	34 - 35	304 SST  (standard stocked probe sheath material available in all sizes)	1650°F	2600°F	Standard; most economical sheath material. Resists oxidation to 1650°F	VG	G	VG	VG
SS6	.062	.006 to .008	30 - 31								
SS12	.125	.012 to .015	24 - 25								
SS18	.187	.019 to .023	20 - 21								
SS25	.250	.025 to .030	18 - 19								
SS37	.375	.037 to .045	14 - 15								
310SS	CONSULT FACTORY			310 SST	2000°F	2600°F	Excellent resistance to oxidizing and carburizing atmospheres.	VG	G	VG	VG
316SS	CONSULT FACTORY			316 SST	1650°F	2600°F	Low carbon grade. Good weldability. Resistant to carbide precipitation.	VG	G	VG	VG
321SS	CONSULT FACTORY			321 SST	1650°F	2570°F	Excellent resistance to intergranular corrosion. Immune to organic chemical attack.	VG	G	VG	VG
INC4	.040	.004 to .005	34 - 35	INCONEL* 600  (standard stocked probe sheath material available in all sizes)	2100°F	2525°F	Excellent resistance to stress corrosion cracking. Used in chemical and aircraft industries.	VG	G	VG	VG
INC6	.062	.006 to .008	30 - 31								
INC12	.125	.012 to .015	24 - 25								
INC18	.187	.019 to .023	20 - 21								
INC25	.250	.025 to .030	18 - 19								
INC37	.375	.037 to .045	14 - 15								
HAYNES 214	CONSULT FACTORY			HAYNES** 214	2200°F	2475°F	Excellent oxidation, carbonization and chlorination resistance.	VG	G	VG	VG
COBALT L605	CONSULT FACTORY			COBALT L605	2200°F	2450°F	Resists oxidation and carbonization to 1900°F.	VG	G	VG	VG
HC	CONSULT FACTORY			HASTELLOY** C	2000°F	2380°F	Excellent corrosion resistance to 2000°F. Good chlorine resistance.	VG	VG	VG	F
HX	CONSULT FACTORY			HASTELLOY** X	2200°F	2380°F	Good strength to 2200°F. Used as sheath material in aircraft industries.	VG	G	VG	F
TI12 <sup>◇</sup>	.125	.017 to .023	22 - 24	TITANIUM	2000°F	3035°F	Resistant to acid and chemical attack. Primary uses in aircraft applications.	G to 800°F	NR	G	G
TA6 <sup>◇</sup>	.062	.008 to .012	29 - 30	TANTALUM	4500°F	5425°F	Resistant to acids and liquid metals except for fuming sulphuric and hydrochloric. Subject to hydrogen and nitrogen embrittlement.	G to 800°F	NR	VG	VG
TA12 <sup>◇</sup>	.125	.017 to .023	22 - 24								
TA18 <sup>◇</sup>	.187	.025 to .031	19 - 20								
TA25 <sup>◇</sup>	.250	.035 to .041	17 - 18								
PLT4	.040	.004 to .005	34 - 35	PLATINUM - 10% RHODIUM	3200°F	3360°F	Stronger than pure platinum. Excellent in oxidizing atmospheres.	VG	NR	VG	G
PLT6	.062	.006 to .008	30 - 31								
PLT12	.125	.012 to .015	24 - 25								

TUBEWELL MATERIALS and SIZES											
SA SIC				SILICON CARBIDE	3000°F		Resistant to corrosion, erosion and thermal shock.	VG	VG	VG	VG
AL <sub>2</sub> O <sub>3</sub>				ALUMINA	3550°F		Resistant to corrosion and erosion.	VG	VG	VG	VG
QUARTZ				FUSED QUARTZ	2700°F		Resistant to corrosion and thermal shock.	VG	VG	VG	VG
MO12	.125	.020 to .025	22-24	MOLYBDENUM	3450°F	4730°F	Excellent in hydrogen.	G to 800°F	VG	VG	VG

\* Inconel is a tradename of the international Nickel Co.  
 \*\* Haynes and Hastelloy are tradenames of Haynes International, Inc.  
 \*\*\* Two-wire material only. For 4 wire and 6-wire material, consult factory.

Conax Technologies designation TYPE TI formerly Conax Technologies TYPE TN.  
 Conax Technologies designation TYPE TA formerly Conax Technologies TYPE TANT.



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