

PRODUCT INFO SHEET

Nanmac Corporation

Quality • Performance • Solutions

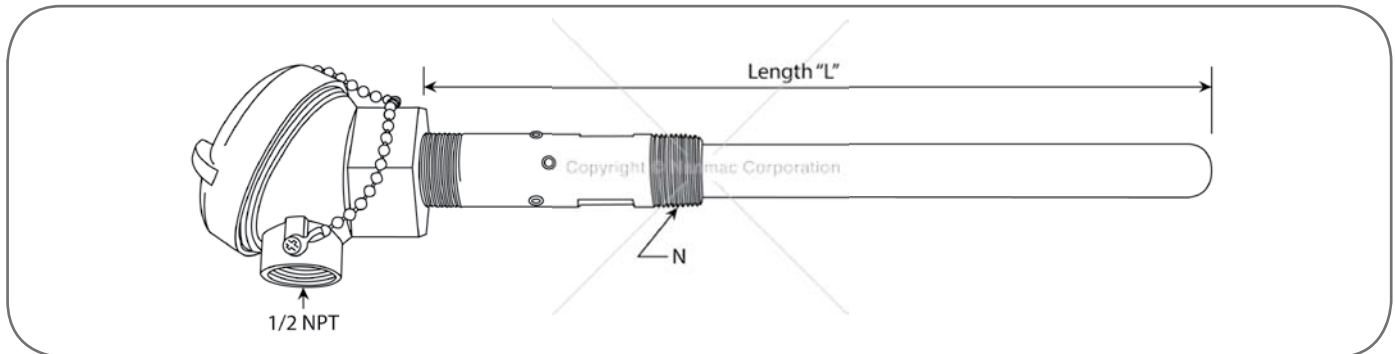
Advanced Thermocouple Assembly for Molten Aluminum A38 Series

The NC-12 protection tube is a dense, sintered ceramic especially designed for use in many molten non-ferrous metals and corrosive chemicals. It is very strong, thermally shock resistant and dimensionally stable. Additionally NC-12 is vacuum-tight and has high electrical resistance. Mechanical strength is retained at extremely high temperatures (over 1,000 degrees Celsius in air). These features together with very low wear resistance, makes NC-12 an ideal thermocouple protection tube for applications such as molten aluminum, lead, tin, and zinc. Preheating is not necessary because NC-12 has a very low thermal expansion coefficient.

Our NC-12 Protection tubes are also recommended for use in oxidizing environments to 2,200 degrees Fahrenheit. Most acids, such as hydrochloric, nitric, sulphuric, and phosphoric, do not attack NC-12. This material is also resistant to hydrogen gas. It is not recommended for use with caustic solutions and hydrofluoric acid.

NOTES:

- Standard units come with thermocouple type K installed.
- For duplex units or other calibrations contact factory.
- Standard support tube is five inches long of stainless steel.
- This support tube is of universal design. It comes in one inch NPT pipe threads.
- Complete with wrench flats for easy installation and it can accept flanges.



Specifications			
Part No.	Nominal Diameter	Length "L"	NPT "N"
A38-10	0.86"	19-1/2	1"
A38-20			
A38-30			
A38-40			

Typical Test Results of NC-12 Resistance to Molten Metals				
Material	°F	°C	Holding Time in Hours	Remarks
Aluminum	1,800	987	3,000	No Attack
Lead	752	400	144	No Attack
Tin	872	300	144	No Attack
Zinc	1,022	850	500	No Attack
Magnesium	1,382	750	20	Slightly Attacked
Copper	2,120	1,150	7	Badly Attacked

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