

## Superscreened connectors for nucleonic systems



### Key features

- Designed to maintain the superior screening performance of superscreened cables
- Available in HNS, HN, N, PET, BNC and TNC standard mating faces
- Resistance to age degradation through unique crimped termination
- Available in small or large quantities
- Specialist assembly and fitting service available

### Overview

A key requirement of high-performance instrumentation systems is the provision of adequate interference immunity. Standard co-axial signal cables and connectors are inadequate in dealing with these problems. From Ultra Energy's extensive experience in military and civil nuclear energy, a range of matching cables and connectors have been developed.

Widely in use throughout the UK's nuclear industry, these superscreened connectors are available in a range of standard mating faces. Designed to maintain the superior screening performance of Ultra Energy's matching superscreened cables, they resist degradation to aging by virtue of a unique crimped termination.

Dimensions conform to industry standards. Body and inner body and most metal parts are brass, silver plated and passivated. Insulators are PTFE and Polypenco. Centre contact is soldered to the inner conductor of the superscreened cable. Braid connection is made using a double crimp to a ferrule.

## Technical data

Type	Mating face	Coupling	Styles	Sealing	Working voltage	Screening performance	Characteristic impedance	Ambient temperature
<b>BNC</b>	Standard BNC	Full hand tightening of locking ring required to obtain full electrical performance	Collet locking plug and bulkhead jack	No barriers or seals on plugs or jacks. Mating face sealed by silicon rubber gasket held compressed axially by locking ring. Cable jacket sealed using thermofit tube. Bulkhead socket has barrier seal using o rings.	500 V peak	Zt<20 μΩ from 200 kHz to 5MHz, Zt<20 μΩ at 30 MHz	Nominal 50 Ω	-55° to +150°C continuous
<b>HN</b>	Standard HN		Free plug, free jack and bulkhead jack		V = 2.5 kV	Zt<1 μΩ from 200 kHz to 5 MHz, Zt<10 μΩ at 30 MHz		-15° to +90°C continuous
<b>HNS</b>	Proprietary HNS				Zt<1 μΩ from 200 kHz to 5 MHz, Zt<10 μΩ at 30 MHz			
<b>TNC</b>	Standard TNC		500 V peak		Zt<20 μΩ from 200 kHz to 5 MHz, Zt<20 μΩ at 30 MHz	-55° to +150°C continuous		
<b>N</b>	Standard N		1000 V peak		Zt<10 μΩ from 200 kHz to 5 MHz, Zt<10 μΩ at 30 MHz			
<b>PET</b>	Standard PET		Free plug and bulkhead jack		2.5 kV			Zt<10 μΩ from 200 kHz to 5 MHz, Zt<20 μΩ at 30 MHz

## About Ultra Energy

Organizations working with nuclear and industrial technologies have a responsibility to safeguard people, the environment and infrastructure. We provide solutions that give our customers complete, long-term protection and control of safety critical systems, while helping them increase the net value derived from investments over their total lifespan.

Part of Ultra Group, Ultra Energy has worked with nuclear and industrial customers for over 60 years. We're embedded in strategic national infrastructure and helping organizations develop future applications. We support continuous operation of industrial sites with protection and control solutions that monitor and manage factors such as radiation, neutrons, temperature and pressure within safety critical systems.

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