

## FIBER-OPTIC CONNECTORS

### NANOxtreme® Ruggedized Small Form Factor Optical Connector

NANOxtreme® is a miniature optical connector qualified for military and aeronautics applications where high levels of performance, compact dimensions, and low weight are critical.

It does not require any adaptor. It establishes a secure point-to-point optical connection as short as **22.6 mm in length** and as small as **6.5 mm in diameter**, for a very low weight of **3.55 g**.

The NANOxtreme® connector has been qualified for operation under shocks and vibration conditions. It has also been qualified under dynamic variations of the temperature from -55 °C to +125 °C. Besides, it has zero-outgassing as it is made of stainless-steel and Zirconia materials. Hence it is resistant to high-temperature and corrosion, and it is fully adapted to vacuum applications.

The NANOxtreme® connector is offered with a 1.25 mm ceramic (Zirconia) ferrule with either a PC or APC end-face polishing. It accepts single-mode and multimode fibers with a 125 µm cladding.

NANOxtreme® can be mounted with any type of fiber protections smaller than 1 mm in diameter including hytel, peek and metal tubing.

Please contact us to discuss your specific requirements.



*As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.*  
DTSNANOX September 2020

#### KEY FEATURES

- Small form factor
- Very low weight
- Ruggedized
- Versatile
- Zero outgassing materials
- Resistant to corrosion and high-temperatures
- PC or APC polish
- PM, SM or MM fibers up to 125 µm cladding

#### APPLICATIONS

- Military
- Aeronautics

#### QUALITY

- ISO 9001:2015

## NANOxtreme®

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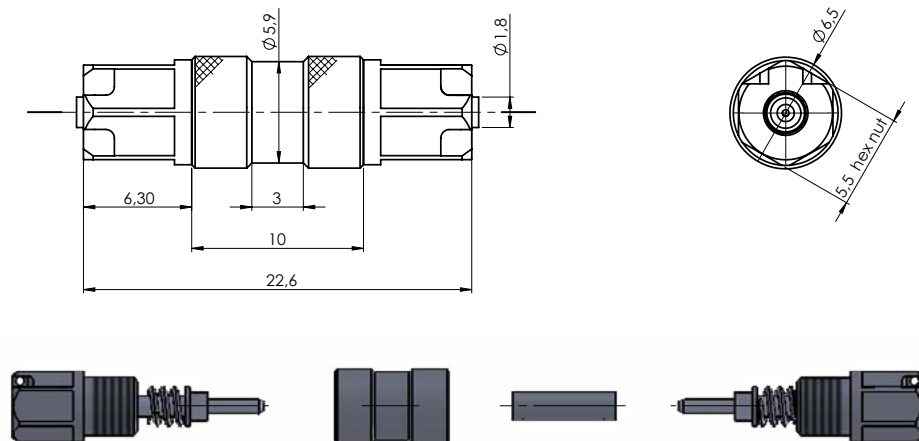
#### STANDARD PRODUCT SPECIFICATIONS

Parameters	NANOxtreme®	
Ferrule end-face	PC (convex polishing)	APC (8° angle polishing)
Insertion loss	< 0.5 dB max., 0.15 dB typ.	< 0.7 dB max., 0.3 dB typ.
Return loss	< -45 dB typ.	< -65 dB typ.
Ferrule	Ø1.25 mm ceramic (Zirconia)	
Fiber type	PM, SM GI50/125, GI62.5/125 LCH50/125, LCH105/125	
Nut	5.5 mm stainless steel hexagon nut	
Spring	stainless steel	
Connector body	stainless steel	
Torque	0.75 Nm	
Durability	> 500 cycles	
Operating temperature range	-55°C to +125°C	
Storage temperature range	-55°C to +170°C connector alone; otherwise depending on the fiber type	

Test configuration consisted of a complete junction between two NANOxtreme connectors.

#### MECHANICAL SCHEMES

NANOxtreme® connector



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