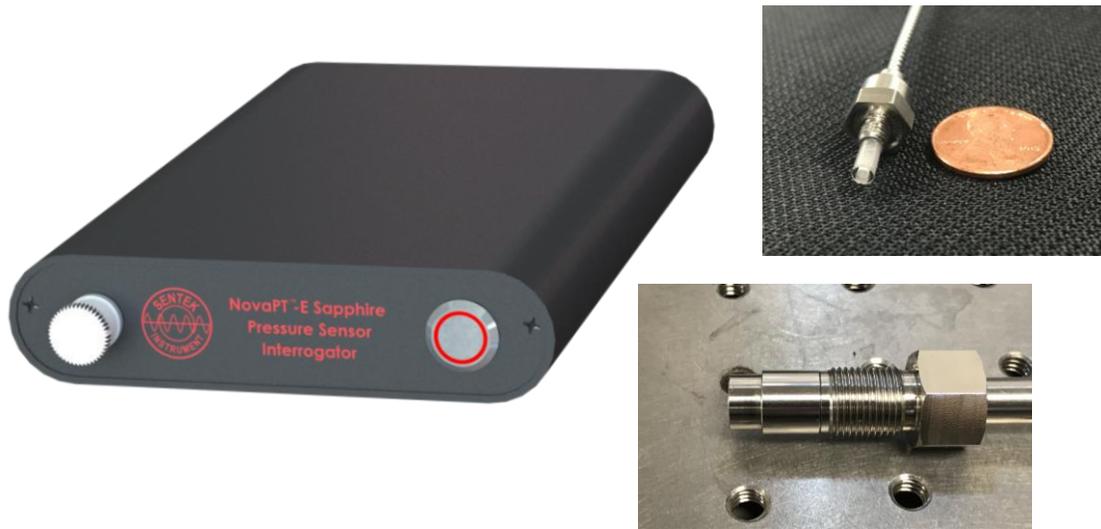


NovaPT™-E Sapphire Pressure Sensors



NovaPT™-E is Sentek's trademark sapphire fiber optic pressure sensor system. This product is based on a patented technology and provides dynamic pressure measurement with ultra-high temperature (1000°C), resolution (0.01psi) and bandwidth (400kHz resonance frequency) with a sampling rate up to 150kHz.

Dynamic pressure measurement at temperatures up to 1000°C is highly desirable in various industrial systems such as gas turbines for aviation and electric power generation. However traditional sensors do not offer sufficiently high service temperature. Current practice is to use these sensors with stand-off tubes to capture a dampened and modified version of pressure oscillations. This arrangement may provide repeatable but error-laden measurement because the stand-off tubes service as a low-pass filter which strips off the high frequency yet most valuable pressure signals. NovaPT™-E product perfectly solves this problem with its ultrahigh temperature capability.

In addition, NovaPT™-E sensor has several other important features. Owing to the unique design of the probe, interrogator and signal processing, the sensor offers perfectly linear dynamic pressure response regardless of the background pressure. Moreover, the miniature monolithic sapphire structure renders the sensor excellent measurement repeatability and resistance against thermal shock, fatigue and chemical corrosion. These combined features make this sensor a universal tool for all dynamic pressure measurement needs.

NovaPT™-E Series has two models. NovaPT™-E4 has a sensor tip diameter of 4.1mm and M5x0.8 mounting threads similar to Kulite transducers for easy plug and play applications. NovaPT™-E10 has 10mm sensor tip diameter for deep sensor insertion, compatible with Kistler 6021A and Meggitt CP505 sensors. Its installation requirements and mechanical dimensions are identical with these popular electrical probes. In addition, the miniature sensor interrogator offers a great potential of its integration into full authority engine control (FADEC) units.

SPECIFICATIONS

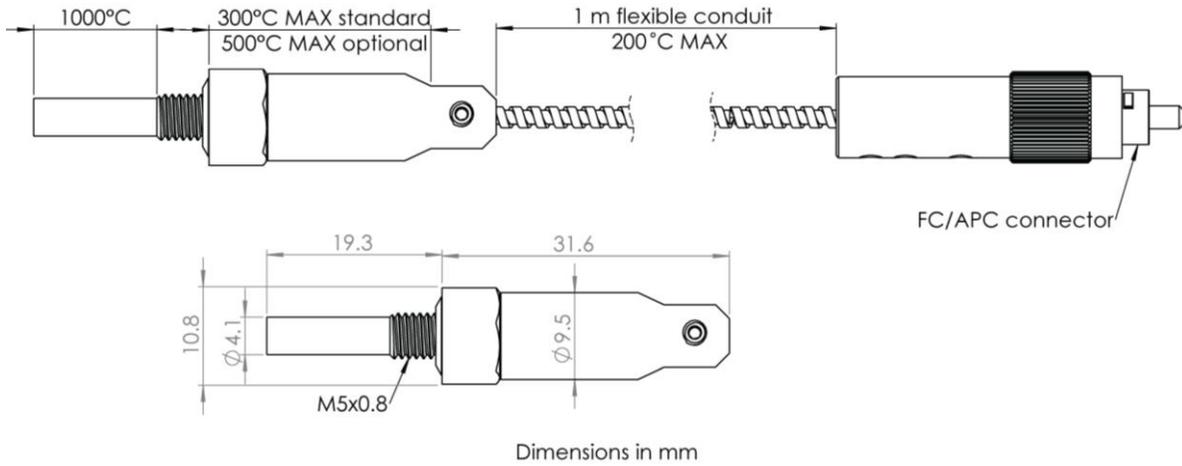
| SENSORS | | |
|--|---|-------------|
| Model | NovaPT™-E4 | NovaPT™-E10 |
| Maximum Sensor Tip Temperature | 1000°C* | |
| Background Pressure | Arbitrary up to 69bars (1000psi) | |
| Resonance Frequency | 400kHz | |
| Frequency Response | 20-4,000Hz* | |
| Pressure Resolution | <7mbar (0.1psi)* | |
| Combined Non-linearity, Hysteresis and Repeatability | <1% F.S. | |
| Sensor Tip Diameter | 4.1mm | 10mm |
| Installation Threads | M5x0.8 | M12x1mm |
| Fiber Cable Length | 1m standard, extension by a patch cord of 3, 10, 25, 50 or 100m available | |
| INTERROGATOR* | | |
| Dimensions | 26x108x180mm | |
| Power Supply | 24±4V | |
| Power Consumption | <3W | |
| Fiber Connector | FC/APC | |
| Digital Output Connector | USB | |
| Environmental Conditions | -10 to 45°C, 5-90% Humidity | |
| Software | Flexible data display and storage control | |

* Higher temperature, greater frequency response and smaller pressure resolution can be available by special request.

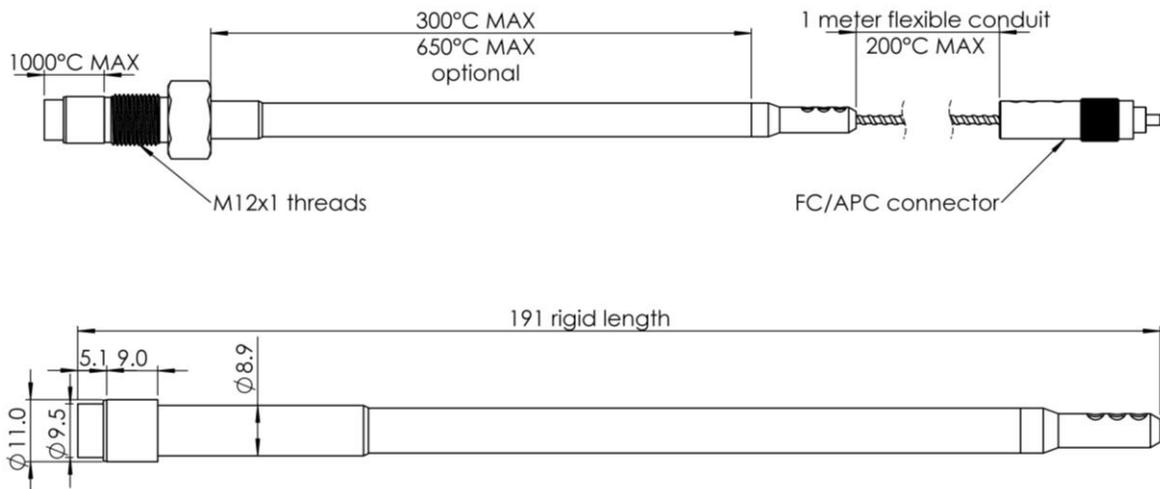
** Multiple channel interrogators available by request.

MECHANICAL DIMENSIONS
 (All dimensions in millimeters)

NovaPT™-E4 Model



NovaPT™-E10 Model



ORDERING INFORMATION

Please send your quote request to sales@sentekinstrument.com and specify model number, quantity and extension cable (patch cord) length.