



# TeslatronPT™

An integrated Cryofree® superconducting magnet system.

**Flexible** – a wide range of experimental inserts to suit many applications

**Configurable** – match the system capability to suit your needs and budget

**Powerful** – get millikelvin temperature in your standard system

**Upgradeable** – start with a simple system and add extra capability as your experiments evolve.

## Why choose TeslatronPT?

Whatever your experimental need for variable magnetic field and temperature is, **TeslatronPT** – the **Cryofree** integrated magnet system has the solution. The wide range of different experimental inserts enables you to configure your measurement platform for cutting-edge applications, such as 2D materials, nano-structures and superconducting devices.

## Unique system features, by design:

- Wide range of standard magnets with fields up to 14 T (up to 18 T available on request) in a compact geometry
- Fine filament Nb<sub>3</sub>Sn superconducting wire offers the minimum field hysteresis via remnant field, and reduces flux jumping at low fields
- Integrated variable temperature insert providing sample temperatures between 1.5 and 300 K



## MercuryiTC temperature controller and MercuryiPS magnet power supply

- Optimised for integration with the **TeslatronPT**
- Intuitive touch screen interfaces and remote software control allowing direct and remote control of your **TeslatronPT** system
- The **MercuryiTC** programmable temperature controller has the best-in-class measurement capability via constant voltage excitation
- The **MercuryiPS** features a bi-polar, high-stability, four quadrant power supply and on board temperature sensing for diagnostic monitoring of magnet temperature
- Connectivity and control via multiple remote interfaces

### Insert features and options:

- Wide range of high performance sample rods with height adjustment and rotation options
- Select from different options for DC and RF wiring to the sample
- Special rotation probes for graphene research with sample in vacuum and 400 K upper temperature
- Extend the base temperature range to < 300 mK with the **HelioxVT** <sup>3</sup>He refrigerator
- The **KelvinoxJT** dilution refrigerator provides a fully cryogen free system with a temperature range of < 25 mK to 300 K

### Our support to you

Because Oxford Instruments is unique in designing and manufacturing the complete system, we offer unrivalled support and expertise for your **TeslatronPT** system through our regional Customer Support teams backed by unmatched factory expertise.

Visit [nanoscience.oxinst.com/dry-systems/products/teslatronpt](https://nanoscience.oxinst.com/dry-systems/products/teslatronpt) or email [nanoscience@oxinst.com](mailto:nanoscience@oxinst.com)

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