

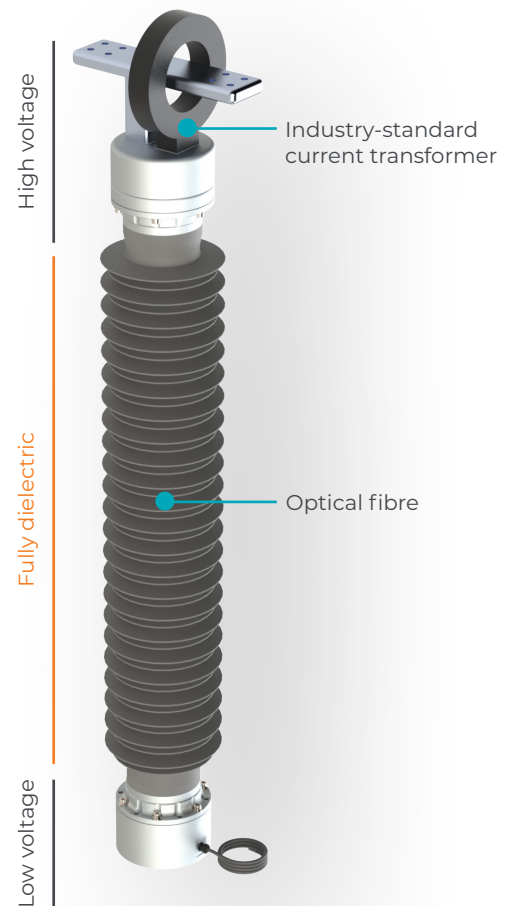
Primary Current Transducer (PCT)

Synaptec’s Primary Current Transducer (PCT) combines industry-standard current transformers (CTs) with Distributed Electrical Sensing (DES) technology, enabling remote circuits to be instrumented passively without data networks, control power, or expensive civil works.

Up to 30 PCTs can be daisy-chained per fibre within the substation, or over a distance of up to 60 km from the substation fence to obtain high-fidelity, synchronised current measurements for use in protection and control applications.

Synaptec PCTs can be configured as IEC 60044 and IEC 61869 compliant protection class devices. Measurements are available in real time within the substation firewall through Synaptec’s Interrogator unit, and can be published using the standardised IEC 61850-9-2 / IEC 61869-9 sampled values protocols.

The PCT is ideal for multi-zone differential protection, discrete auto-reclosing, and remote asset condition monitoring and early failure warning.



Specifications

Electrical	
Nominal current	User specified up to 40 kA
Accuracy class	5P / 10P
Voltage	Up to 600 kV
Insulator	User specified to match voltage rating
Environmental	
Operating temperature range	-40 to +40 (IEC 61869-1), extension to +80 available upon request
Humidity	90%
Vibration	1G
Optical	
Fibre type	Standard single mode
Fibre connection	Single mode fibre splice