

# HFCT – High Frequency Current Transformer

HVPD's range of wideband, High Frequency Current Transformer (HFCT) sensors are used to measure partial discharge in power cables and in remotely connected HV plant such as rotating HV machines and transformers.

The sensors are attached around the cable's earth connections in the switchgear, rotating machine or transformer's HV cable terminal box.

## Permanent



Permanent HFCT sensors are installed inside the HV cable box (of the switchgear, transformer or rotating machine) to enable OLPD testing and/or monitoring of in-service MV/HV cable circuits without the need for an outage. We also supply Ex/ATEX versions of this permanent HFCT sensor for use in hazardous gas zones in the oil & gas industry.

## Portable



Portable, split-core HFCT sensors are used when the earth connections of the HV cable are outside of the cable box. The sensors can also be installed inside the de-energised and isolated cable boxes of switchgear, transformers or rotating machines for temporary testing or monitoring if the earth connections are not available outside the cable box (requires an outage).

## High-Current



High-current HFCT sensors have been designed for applications where there are high conductor currents (350 A and 1000 A versions of this sensor are available from HVPD). Specifically designed for the application of OLPD monitoring of large rotating HV machines, the high-current HFCT sensors are suitable for the measurement of PD in machines rated up to 20 MVA and above.

## Permanent Installation Kit



3-phase, permanent HFCT sensor installation kits are ideal in situations where MV/HV plant outages are rare. The kit includes three HFCT sensors with silicone mounting collars, TEV sensor, sensor terminal box and all accessories.

## Ex/ATEX Installation Kit



Our Ex/ATEX HFCT Sensor Installation Kit is suitable for installation in hazardous, explosive gas environments. The kit includes three Ex/ATEX-rated HFCT sensors with silicone mounting collars, signal cables, Ex/ATEX-rated sensor terminal box and all accessories.

## Silicone Mounting Collars



HVPD use carefully selected silicone mounting collars with our permanent HFCT sensors to provide both electrical isolation from the cable under tests, and also as a mechanical fixing – to secure the HFCT sensors in place on the HV cable termination.



Product	HFCT50	HFCT75	HFCT100	HFCT140	HFCT220
Internal Aperture	20 mm	40 x 25 mm	45 mm	94 mm	140 mm
External Aperture	50 x 64 mm	90 x 120 mm	110 - 150 mm	180 mm	237 mm
Installation Type	Permanent	Permanent	Portable & Permanent	Portable & Permanent	Portable & Permanent
High Current Version	★	★	★	★	★
Aluminium Housing Version (For improved screening from RF noise)	★	★	★	★	★
Outdoor Version	★	★	★	★	★
Ex/ATEX Certified Version	★	★	★	★	★

Yes  No 

