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Partial Discharge Coupling Capacitor 17.5kV rms / 80pF

PDC17.5-0080

Key Features

- Nominal Voltage 17.5kVrms
- Build in Quadrupole with voltage reference output
- Build in Overvoltage Protection
- Capacitive floating Signal output to avoid Eddy Current Loops

Applications

- Hydro Generators
- Turbo Generators
- Windmills
- Industrial Motors

General Description

The 80pF coupling capacitor is a sensor used for online and offline partial discharge measurements on rotating machines. The sensor will be usually installed at the busbar or on the high voltage terminals of the rotating machine. Permanent or temporary partial discharge detectors / analyzer can be connected via standard RG58 BNC cables to the coupler, usually by using a termination box in between.
The PDC17.5-0080 is connected by a high voltage cable via cable lugs to the high voltage busbars of the rotating machine to pickup partial discharge signals without any loss. A specially designed measurement impedance located in the base of the sensor allows to pick up partial discharge signals as well as the line frequency. This allows to transfer partial discharge signals and line frequency signal over the same cable to the partial discharge detector/monitoring System.
The Signal output is protected via 90V surge arrestor. The 'shield' of te coaxial output is capacitive floating to avoid eddy currents in the signal cables due to high magnetic fields within the machine.

Ordering Information

Order Code: 18.0175.0080

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Technical Data

Electrical

Nominal Voltage:	17.5kV rms	PD Level @ Un:	< 1pC
Capacitance:	80pF +/-5%	Signal Output Type:	BNC female
Frequency Range:	50/60Hz	Ground Connection:	M6
Withstand Voltage (1min):	38kVrms		
Lightning Impulse Withstand (BIL): (1.2/50us, 15p / 15n)	95kVp	Creeping Distance (mm):	~310

Environment

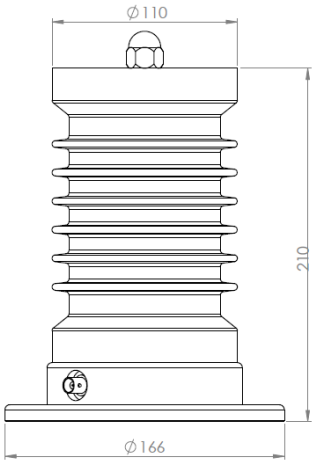
Operating Temperature Range: -20 .. +125°C

Mechanical

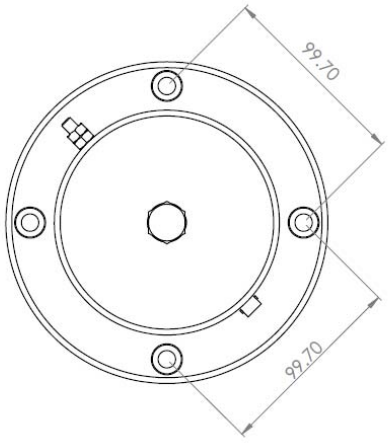
Mounting / Fixing:	4x M8 Allen Key Screws	Electrical Connection:	M12

Dimensions

Outline:



Fixing:



Contact

Sparks Instruments SA
Bodematta 12, 1714 Heitenried
Switzerland

Email: sales@sparksinstruments.com
Web: www.sparksinstruments.com

Worldwide Exclusive Sales Representative & Tech Support

MC-monitoring SA
Measuring - Consulting - Monitoring
Route André Piller 19
1762 Givisiez / Switzerland
Phone: +41 58 411 54 00
sales@mc-monitoring.com