

## **Partial Discharge Coupling Capacitor** **17.5kV rms / 1000pF**



### **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

**PDC17.5-1000**

### **General Description**

The 1000pF 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 / analyzers can be connected via standard RG58 BNC cables to the coupler, usually by using a termination box in between.

The PDC17.5-1000 has an integrated high voltage cable which will be connected 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 (1:2000). This allows to transfer partial discharge signals and line frequency signal over the same cable to the partial discharge detector. The Signal output is protected via 90V surge arrester. The 'shield' of the coaxial output is capacitive floating to avoid eddy currents in the signal cables due to high magnetic fields.

### **Ordering Information**

Order Code: 18.0175.1000

# Partial Discharge Coupling Capacitor

## 17.5kV rms / 1000pF



### Technical Data

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**PDC17.5-1000**

#### Electrical

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Nominal Voltage:	17.5kV rms	PD Level @ Un:	< 1pC
Capacitance:	1000pF	Voltage Divider:	1:2000
Frequency Range:	50/60Hz	Signal Output Type:	BNC female
		Ground Connection:	M6
Withstand Voltage (1min):	38kVrms		
Lightning Impulse Withstand (BIL):	95kVp	Creeping Distance (mm):	~310
(1.2/50us, 15p / 15n)			

#### Environment

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

#### Mechanical

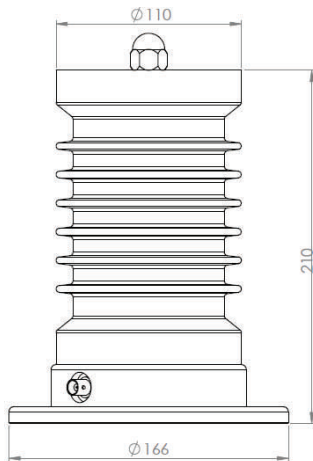
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Mounting / Fixing: 4x M8 Allen Key Screws      Electrical Connection: M12

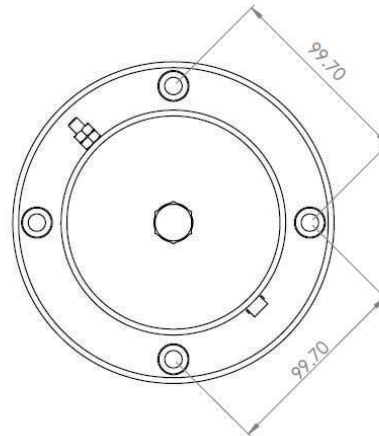
#### Dimensions

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Outline:



Fixing:



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### Contact

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