

## **Partial Discharge Coupling Capacitor 24kV rms / 1000pF**



### **Key Features**

- Nominal Voltage 24kVrms
- 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

**PDC24-1000**

### **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 and safety box in between.

The **PDC24-1000** has an M12 High Voltage Terminal to connect the coupler to the high voltage terminal. The cable is usually 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 arrestor. The 'shield' of the coaxial output is capacitive floating through a 1uF Capacitor to avoid eddy currents in the signal cables due to high magnetic fields.

### **Ordering Information**

Order Code:	18.0240.1000	1x PDC24-1000 Coupling Capacitor
	18.3240.1000	3x PDC24-1000, 1x TB-004, 100m Coax 6x BNC Crimp on Connectors, Installation Kit
	18.4240.1000	4x PDC24-1000, 1x TB-004, 100m Coax 8x BNC Crimp on Connectors, Installation Kit

# Partial Discharge Coupling Capacitor 24kV rms / 1000pF



## Technical Data

**PDC24-1000**

### Electrical

Nominal Voltage:	24kV rms	PD Level @ Un:	< 5pC
Capacitance:	1000pF	Voltage Divider:	1:2000
Frequency Range:	50/60Hz	Signal Output Type:	BNC female
		Ground Connection:	M6
Withstand Voltage (1min): (IEC 60071-1)	61kVrms	Creeping Distance (mm):	~326
Lightning Impulse Withstand (BIL): (1.2/50us, 10p / 10n) (IEC 60060-1)	144kVp		

### Environment

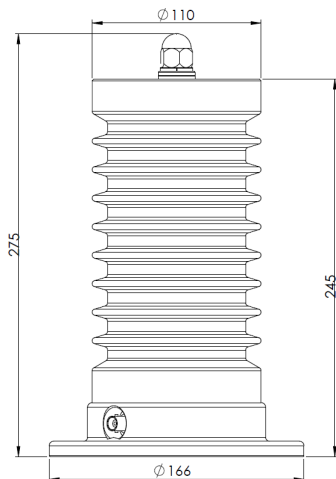
Operating Temperature Range: -20 .. +125°C

### Mechanical

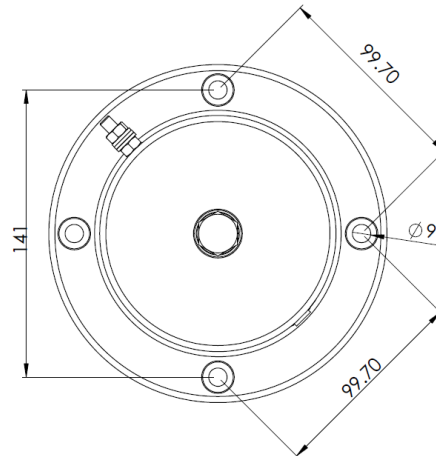
Mounting / Fixing: 4x M8 Allen Key Screws      Electrical Connection: M12

### Dimensions

Outline:



Fixing:



Sparks Instruments reserves the right, without further notice, to change the product specifications and/or the information on this document to improve reliability, functions and design of this product. © 2011 Sparks Instruments, All rights reserved.

## Contact

### Sparks Instruments SA

Route de Montena 85, CH-1728 Rossens  
Switzerland

Phone: +41 (0)26 301 30 04  
Email: sales@sparksinstruments.com  
Web: www.sparksinstruments.com

Worldwide Exclusive Sales Representative  
for Rotating Machine Market



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