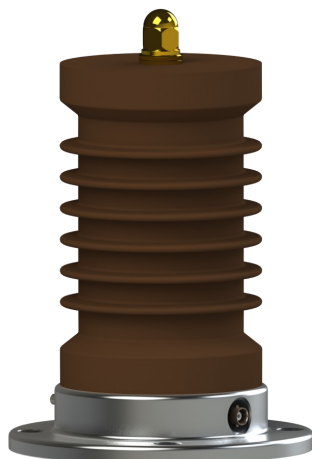


Partial Discharge Coupling Capacitor 17.5kV rms / 1000pF



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
- Compliant to IEC60034-27-2

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 and safety box in between.

The **PDC17.5-1000** 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 arrester. 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:	18.0175.1000	1x PDC17.5-1000 Coupling Capacitor
	18.3175.1000.t	3x PDC17.5-1000, 100m Coax, t for Termination box type 6x BNC Crimp on Connectors, Installation Kit
	18.4175.1000.t	4x PDC17.5-1000, 100m Coax, t for Termination box type 8x BNC Crimp on Connectors, Installation Kit
	18.6175.1000.t	6x PDC17.5-1000, 200m Coax, t for Termination box type 12x BNC Crimp on Connectors, Installation Kit
	18.9175.1000.t	9x PDC17.5-1000, 300m Coax, t for Termination box type 18x BNC Crimp on Connectors, Installation Kit

Termination boxes (t): (0) TB-004, (1) TBS-003, (2) TBS-004, (3) TB-006, (4) TB-016, (x) custom
Add „h“ marking for halogenfree coaxial cable B58 (e.g. 18.3175.1000.t.h)

Partial Discharge Coupling Capacitor 17.5kV rms / 1000pF



Technical Data

PDC17.5-1000

Electrical

Nominal Voltage:	17.5kV rms	PD Level @ Un:	< 5pC
Capacitance:	1000pF	Voltage Divider:	1:1750
Frequency Range:	50/60Hz	Signal Output Type:	BNC female
		Ground Connection:	M6
Withstand Voltage (1min): (IEC 60071-1)	38kVrms	Creeping Distance (mm):	~287
Lightning Impulse Withstand (BIL): (1.2/50us, 15p / 15n) (IEC 60060-1)	95kVp		

Environment

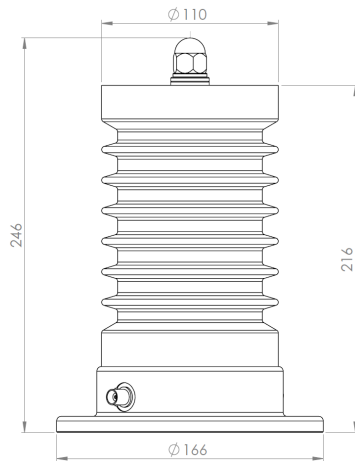
Operating Temperature Range: -20 .. +125°C

Mechanical

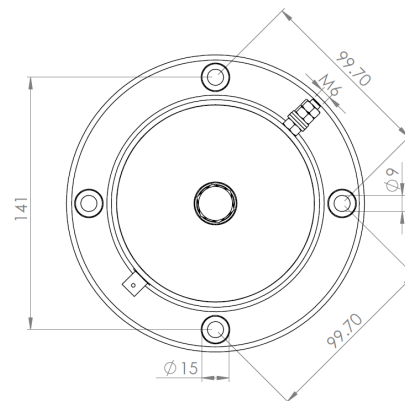
Mounting / Fixing: 4x M8 Allen Key Screws Electrical Connection: M12

Dimensions

Outline:



Fixing:



Sparks Instruments SA 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. © 2012 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