

## BCU2C, BCU2D Bushings coupling units



- Allows measurements of partial discharge (PD), transfer impedance, and loss factor
- Tailor-made to fulfil customer-specific needs
- Suitable for permanent indoor and outdoor use
- Robust housing made of cast aluminium
- Dust tight and protected against water according to Ingress Protection class 66

### DESCRIPTION

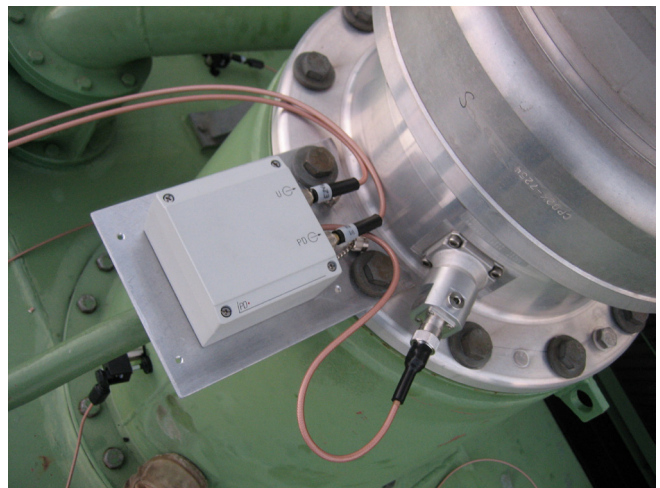
Partial discharge activity is a prominent indicator for ongoing degradation of electrical insulation systems, so continuous on-line partial discharge monitoring, or scheduled on-line measurements using portable instruments, help to detect incipient failure within the insulation of distribution and power transformers.

Analysing the discharge activity requires the installation of coupling devices, which preferably take the signals from the capacitive tap of the transformer bushings. Bushing Coupling Units (BCU), in combination with a matching bushing adapter, make different signals available for measurement and monitoring.

Power Diagnostix offers two different models: BCU2C for the output of a PD and a voltage signal, and BCU2D for the output of a voltage signal and a PD signal with superimposed voltage signal. The voltage range and the bushing capacitances of the transformer determine the type of coupling units to be used. Power Diagnostix offers tailor-made units matching the customer's specific requirements, so the voltage range and bushing capacitances (C1 and C2) have to be specified when you order. We will be happy to help you with the determination and calculation of the values that fit for your specific application. Please contact us at [support@pdix.com](mailto:support@pdix.com) for support.

### KEY FEATURES AND OPTIONS

- IP66 protected housing
- For indoor and outdoor installation
- Special stainless steel enclosure for offshore applications
- Covers a broad frequency bandwidth: 40 kHz to 10 MHz or 2 MHz to 20 MHz (switchable)



# BCU2C, BCU2D Bushing coupling units

## TECHNICAL DATA

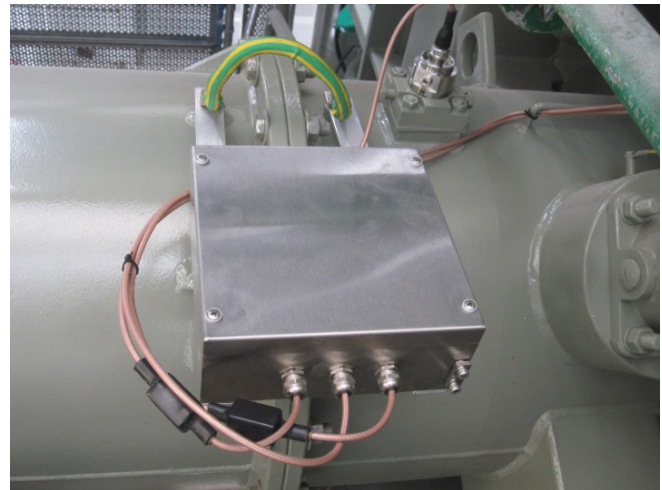
Divider capacity:	0.22 $\mu$ F–4.5 $\mu$ F ( $\pm$ 5 %) to be specified
Max. output voltage:	100 V RMS
Typ. output voltage:	60 V RMS
PD coupling:	High frequency current transformer (HFCT) and quadrupole (selectable)
Frequency range	
with HF CT:	2 to 20 MHz (jumper closed/on)
with quadrupole:	40 kHz to 10 MHz (jumper open/off)
Operation temperature:	-40 °C to +80 °C
Storage temperature:	-40 °C to +100 °C
Weight:	Approx. 1.2 kg

## Housing

Material:	Aluminium enclosure with multi-layer painting class C2 (stainless steel protection box available on request)
Colour:	RAL7038 or RAL9006 (stainless steel box is without colouring)
Protection class:	IP66
Dimensions (W x D x H):	100 mm x 100 mm x 60 mm (without connectors) 117 mm x 100 mm x 60 mm (with connectors)

## Connectors

Input connector:	Type N (connects to the voltage tap of the bushing via a bushing adapter)
Output connectors:	TNC female connectors
BCU2C:	1x U (voltage), 1x PD
BCU2D:	1x U (voltage), 1x PD and U (voltage, superimposed)
Connection:	40 cm PTFE insulated RG142 input cable with N connectors (different lengths available on request)
Grounding:	Via M4 screws on the box



## ORDERING INFORMATION

Description	Order no.	Options	Order no.
Bushing coupling unit BCU2C	PX13314	Stainless steel coupling unit enclosure CUE1	PX12092
Bushing coupling unit BCU2D	PX13528		
Including RG142 cable, 40 cm, with N connectors			

## SALES OFFICE

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## BCU\_DS\_E1.01

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Technical changes reserved  
 ISO 9001, ISO 14001  
 ISO 17025, ISO 45001

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