

MODEL PDC-20AC (TUBING AND CATHETERS)

In-Line Pinhole Detector for Corrugated Tubing and Catheters

- >> Reliable pinhole detection at virtually any speed
- >> Wide range of products may be tested
- >> Regulated test voltage
- >> Digital voltage display



Manufacturers of products such as corrugated tubing and medical catheters have long sought an economical method of locating pinholes and flaws during the production process.

In-line optical or laser inspection systems are costly and limited to the size hole that can be detected. Often these systems are not suitable for pinhole detection in transparent products or on convoluted surfaces.

Clinton Instrument Company introduces the Model PDC-20AC In-Line Pinhole Detector, a low cost, non-destructive electronic system that uses high voltage to instantly locate defects in dielectric (non-conductive) products and coatings.

The system works by energizing the outer surface of a product with a high voltage electrode, through which the product travels. The product rides over a grounded electrode, which can be an extension of the extrusion tooling, or a metallic mandrel or carrier, if present. If the product has a braided metallic rein-

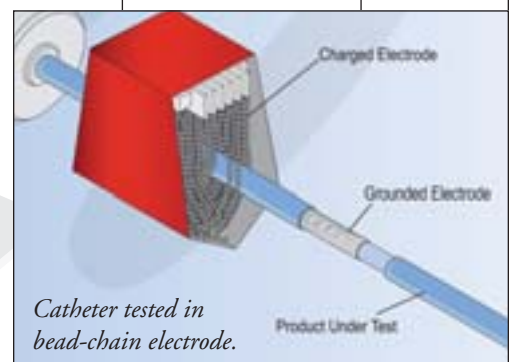
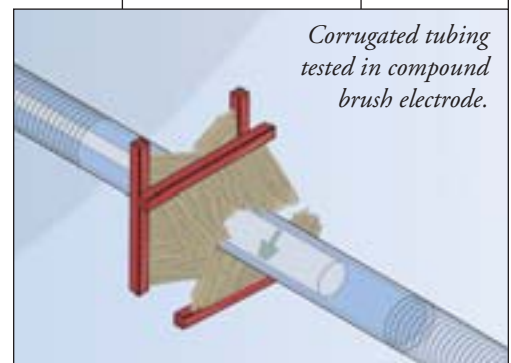
forcement, this can often be utilized as the grounded electrode.

Defect-free product will insulate these electrodes from each other. However, when a pinhole passes between the electrodes, a discharge through the hole will occur that is instantly detected and reported by the system.

Digital test voltage and fault count displays are vivid and easy to read. For operator protection, a safety interlock switch removes high voltage when the electrode cover is lifted. Wiring and setup are done externally-- there is no need to open up the unit. The form C relay contacts are accessible on a rear panel connector for easy wiring to external alarms, lights or machinery that are to be controlled by the pinhole detector.

The PDC-20AC In-Line Pinhole Detector is easy to use and is current limited for safe operation. Its advanced circuitry delivers optimum fault detection at virtually any production speed.

With over 50 years experience in high voltage pinhole and defect detection, Clinton Instrument has gained considerable expertise in the testing of a wide range of product types. Please contact the factory to discuss your specific application.



Clinton
INSTRUMENT COMPANY

PDC-20AC SPECIFICATIONS

Voltage Test Range:

PDC-20AC/AR.....1 KV to 20KV (minimum voltage varies on electrode design.)

Output Current:

PDC-20AC/AR.....0.75 milliamperes maximum.

Fault Indication.....red 3-digit 14.2mm high LED display; amber indicating light.

Fault ResponseLess than 1 millisecond.

Fault Resolution.....10 milliseconds minimum adjustable to 1 second.

Detection Sensitivity

PDC-20AC/AR.....Adjustable from 200 μ A. to 1.5mA.

Operating Modes.....Continuous HV/Remove HV on Fault. Momentary Process Control/Latch until Reset.

Process Control.....Relay, form "C" contacts rated 1 amp max @ 240VAC, 2 amps max @ 120VAC, for both NO and NC circuits. Front panel or external reset in non-latch modes, closure time is adjustable from 50ms to 2.5 seconds.

Power Requirements.....100 to 240VAC 1 amp, 49-61 Hz. Power supply is self-adjusting.

CommunicationsRS-485 Serial Interface; Analog (optional); Ethernet (optional); Profibus (optional).

SafetyCE Approved
Designed to IEC-1010

Bead Chain Assemblies (PDC-20AC & AR only):

BD-22S.....Bead Chain Assembly 2" Product Diameter.

Brush Assemblies:

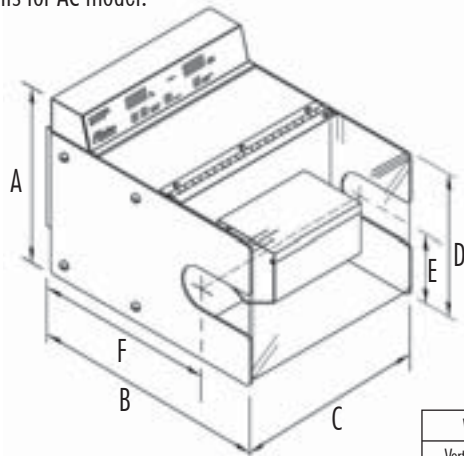
BR-1ABrush Assembly Phosphor Bronze 1" Product Diameter.

BR-3ABrush Assembly Phosphor Bronze 3" Product Diameter.

Specifications subject to change without notice. 01/07 EN

Please consult factory for help in choosing equipment for specific applications.

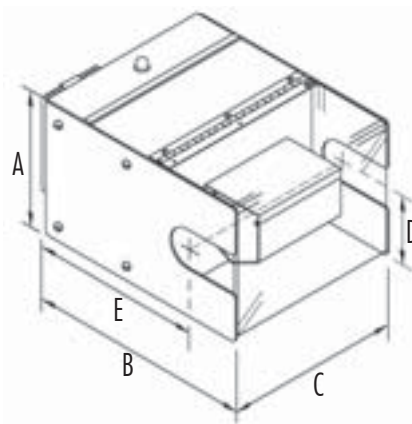
Measurements for AC model.



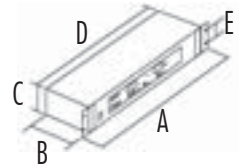
Wireline Center	
Vertical	Horizontal

	A	B	C	D	E	F
BD-12, 13, 14, BR-1A, BR-1ALZ, FB-12	9.50" [241.2mm]	13.16" [334.3mm]	11.52" [292.6mm]	7.50" [190.4mm]	3.75" [95.3mm]	10.00" [254.0mm]
BD-22S	10.50" [292mm]	15.41" [292mm]	11.59" [294.3mm]	8.52" [216.3mm]	4.28" [108.7mm]	11.00" [279.4mm]
BD-15	11.43" [290.2mm]	16.31" [414.2mm]	12.53" [318.3mm]	9.44" [239.6mm]	4.72" [119.9mm]	11.45" [290.4mm]
BR-3A, BR-3ALZ	11.43" [290.2mm]	17.81" [452.3mm]	12.53" [318.3mm]	9.44" [239.6mm]	Call Factory for Details	
BRTC-6	11.52" [292.6mm]	19.08" [484.5mm]	12.53" [318.3mm]	9.62" [244.2mm]	Call Factory for Details	

Measurements for models AR with optional ARC.



ARC display dimensions.



	A	B	C	D	E
	19.00"	5.75"	3.50"	17.00"	1.75"
Wireline Center		Vertical	Horizontal		

	A	B	C	D	E
BD-12, 13, 14, BR-1A, BR-1ALZ, FB-12	9.50" [241.2mm]	13.16" [334.3mm]	11.52" [292.6mm]	3.75" [95.3mm]	10.00" [254.0mm]
BD-22S	10.50" [292mm]	15.41" [292mm]	11.59" [294.3mm]	4.28" [108.7mm]	11.00" [279.4mm]
BD-15	11.43" [290.2mm]	16.31" [414.2mm]	12.53" [318.3mm]	4.72" [119.9mm]	11.45" [290.4mm]
BR-3A, BR-3ALZ	11.43" [290.2mm]	17.81" [452.3mm]	12.53" [318.3mm]	Call Factory for Details	
BRTC-6	11.52" [292.6mm]	19.08" [484.5mm]	12.53" [318.3mm]	Call Factory for Details	

Grounded Rod Electrode Method

