DAIRYLAND ELECTRICAL INDUSTRIES

ALWAYS RUGGED. ALWAYS RELIABLE.

PCRX

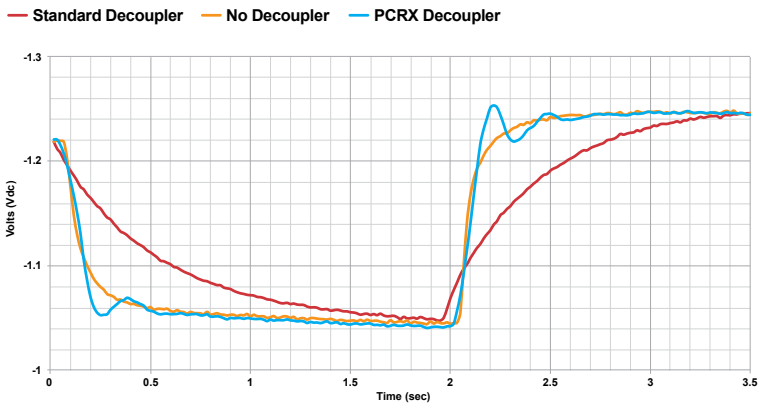
Data Sheet

PCRX: A breakthrough in decoupling technology
Like all Dairyland decouplers, the PCRX is a solid-state device designed to simultaneously provide DC decoupling and AC continuity/grounding when used with cathodically protected structures.

Why the PCRX is a breakthrough:
An interrupted survey is typical practice in many pipeline applications and obtaining accurate cathodic protection potential readings can be difficult. The key to obtaining accurate readings is to remove all outside interference sources, such as neighboring pipeline rectifiers, foreign crossing bonds, and even decouplers prior to conducting the survey. This can prove to be time-consuming and labor intensive during the staging phase. Moreover, there are negative implications to either choice of removing decouplers or not during an interrupted survey, including, but not limited to, safety and the rate at which readings are able to be taken.

With the PCRX, efficiencies can be gained during both staging and measurement phases. It is not necessary to electrically isolate the PCRX before a survey. By making itself invisible to interrupted surveys, the PCRX virtually eliminates capacitive discharge effects that have historically caused instant-off potentials to be excessively negative. Without this potential error present, the PCRX allows safe, accurate, and often quicker measurements to be taken. See the chart below.

INSTANT-OFF WAVEFORM COMPARISON
Standard Decoupler vs. No Decoupler vs. PCRX



For model numbers, options and accessories, see full technical literature at dairyland.com.

Features:
- Electronic camouflage from interrupted survey measurements
- Fail-safe design assures bonding/grounding
- Certified for hazardous locations, electrical grounding
- Higher blocking voltage than polarization cells
- Inherent over-voltage protection provided to structure
- No maintenance or testing required

Typical Applications:
- Isolation Joint Protection
- AC Voltage Mitigation
- Decoupling Electric Equipment Grounding Systems

RATINGS AND CERTIFICATIONS:

AC Fault Current Rating (AC rms)

PCRX Model	Rating at 30 cycles 50/60Hz
PCRX-5kA	5,000
PCRX-10kA	10,000
PCRX-15kA	15,000

DC Operating Voltage Rating (AC rms)

Model Number	Induced AC Steady State	DC Operating Range
PCRX-XXX-3.0/0.5	45A rms	-3.0V...+0.5V
	0A rms	-4.5V...+2.0V
PCRX-XXX-3.5/0.5	45A rms	-3.5V...+0.5V
	0A rms	-5.0V...+2.0V
PCRX-XXX-4.5/0.5	45A rms	-4.5V...+0.5V
	0A rms	-6.0V...+2.0V

AC Steady-State Current (amperes - rms): 50/60Hz
45A

Lightning Impulse Current:
100kA crest (8 x 20 µs waveform)

Environmental rating:
NEMA 4X: Rain-proof
Ambient Temperature Range: -40°C to +50°C"

Hazardous Location Certifications:

Rating	Certification Agency
Class I, Division 2, Groups A, B, C, D Temp Code T5	UL, C-UL