PROTECT ASSETS & PERSONNEL
BLOCKS DC TO REDUCE CATHODIC CORROSION, WHILE GROUNDING FAULT CURRENT.

SOLID-STATE DECOUPLETERS
The decoupler will perform two electrical functions simultaneously.
DC ISOLATION AND AC GROUNDING.

WHY USE DAIRYLAND DECOUPLETERS?

CATHODIC PROTECTION
AC FAULT PROTECTION
LIGHTNING PROTECTION
AC CURRENT MITIGATION

SSD
SOLID-STATE DECOUPLER

PCR
POLARIZATION CELL REPLACEMENT

Contact Anode Engineering for further information
1800 446 400 | www.anodeengineering.com
CATHODIC PROTECTION:

Cathodic Protection (CP) systems are necessary to prevent corrosion of a pipeline or other metallic structures. A CP system provides corrosion protection by applying a low voltage negative DC bias to the structure. Safety grounding systems connected to a structure can short this CP current to ground and may compromise the efficiency of the CP system.

A decoupler functions to isolate or block the flow of DC current to other equipment or grounding materials, eliminating any negative influence on your CP system caused by equipment or grounding materials.

AC FAULT PROTECTION:

Failure of nearby equipment can be a safety hazard and generate an AC fault current. This AC current could transmit through a pipeline, endangering personnel or causing damage. When this occurs, the decoupler instantly conducts fault current to ground, taking the AC current away from the pipeline for immediate protection.

LIGHTNING PROTECTION:

When lightning occurs, it presents a safety hazard to a pipeline and possibly workers. The decoupler works the same way as when protecting AC fault. It channels the high-voltage DC current lightning to ground, safely protecting the pipeline and personnel. After the event, the decoupler automatically switches back to its DC isolation/cathodic protection task.

AC CURRENT MITIGATION:

Pipelines are usually buried along a shared right-of-way with high-voltage power lines, inducing AC current in the pipeline. This is a safety hazard but can also cause corrosion and related issues. Decouplers such as the PCR or SSD are designed to repeatedly conduct induced AC current to ground, mitigating this risk while at the same time isolating your Cathodic Protection system.

In AC mitigation applications, a zinc or copper mitigation wire is laid next to the buried pipeline and is electrically connected to it. The job of the mitigation wire is to safely channel induced AC to ground.