

# FTA Direct Current Potential Difference (DCPD) System



Bulletin 101-02

The FTA reversing DCPD system has been specifically designed by FTA to be the most accurate and precise in the industry.

## System Details

The SV-5V20 FTA Constant Current DC Power Supply was specifically designed as an extremely stable, specialized, fully reversing constant current power supply. When combined with the DV-EN2 | DV-40K DCPD Amplifier System it forms the most advanced direct current potential difference (DCPD) system in the industry.

### SV-5V20 Reversing DCPD Constant Current Power Supply

- ▲ 5V, 20A max output
- ▲ Fully-reversing DCPD with TTL inputs
- ▲ Current stability rated at  $\pm 5\text{mA}$  at 5A
- ▲ Polarity reversal via dedicated system switch
- ▲ Selectable non-reversing current output with pulsed or manual operation
- ▲ Selectable overvoltage protection (OVP)

### DV-EN2 | DV-40K DCPD Amplifier System

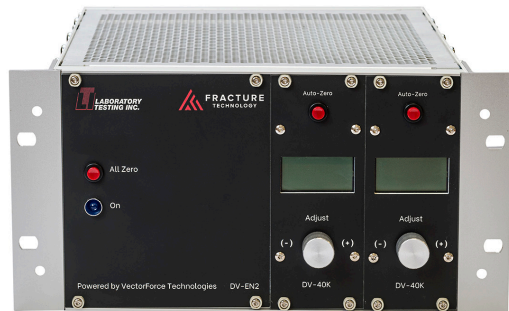
- ▲ Fully floating differential amplifier
- ▲ Gains of 500, 1k, 2k, 5k, 10k, 20k, and 40k
- ▲ 1M $\Omega$  input impedance
- ▲ (2) amplifier modules standard
- ▲ Upgraded M12 PD input connectors
- ▲ PD output low-pass filter (LPF) of 50Hz, 300Hz, and 1000Hz
- ▲ Output voltage displayed on system display
- ▲ Auto-Zero functionality

### Advantages of FTA DCPD System

- ▲ Much higher gain of 40k versus 1k for the legacy Ectron 428-O amplifier
- ▲ ~30% better current stability than legacy PD5-20 systems
- ▲ Continues to be fully compatible with the FTA FCGR and NLFT testing software
- ▲ Continues to support polarity reversing for increased voltage difference over pulsed systems



SV-5V20 FTA Constant Current DC Power Supply



DV-EN2 | DV-40K DCPD Amplifier System

- ▲ Typical crack length precision of 0.0002 inches for most common test specimens
- ▲ Compact at only 8.9 inches wide by 9.5 inches deep; standard half-rack
- ▲ Configured to accept line voltage input between 100 – 240V, 50/60Hz without modification
- ▲ Lock-out features to preserve testing parameters
- ▲ Real-time display of critical test parameters during testing
- ▲ Expedited firmware updates and RMA requests as technology is fully owned by FTA

### Warranty

All hardware items ship with a 1-year warranty from FTA.

### Find Out More

Contact us at [FTASales@labtesting.com](mailto:FTASales@labtesting.com) to find out more.