BLOOMY®

The Leader in Automated Test, Data Acquisition and Control Systems

Bloomy VDT/Resolver Simulation Module

Cost-effective, precise VDT conditioning for SLSC

The SLSC VDT/Resolver Simulation Module offers eight channels of variable differential transformer (VDT) sensor simulation at an unmatched price point. Its highly-flexible nature allows each channel to be configured independently for simulation of a linear variable differential transformer (LVDT), a rotary variable differential transformer (RVDT), or a resolver. Versatile, separate E1 and E2 returns allow each channel to be connected in a 4-, 5- or 6-wire configuration. The included VeriStand SLSC driver also allows each channel to simulate two 4-wire sensors where shared excitation is acceptable.

Transformers for each channel provide both isolation between channels and inductive loads to the unit under test. Relays on the inputs and returns allow insertion of open-circuit faults. The same relays provide the ability to connect each simulation to the calibration bus of the SLSC chassis to allow high-precision calibration of the module. Open circuit faults and calibration are configured using the module's included SLSC API.

Connectors are standard 44-pin D-sub connectors and are designed with a symmetric layout to aid troubleshooting. The connector pinouts are compatible with other Mil/Aero System Interconnections for SLSC, including SLSC modules from SET and Bloomy, as well as Bloomy's ThroughPoint™ I/O panels and cabling.

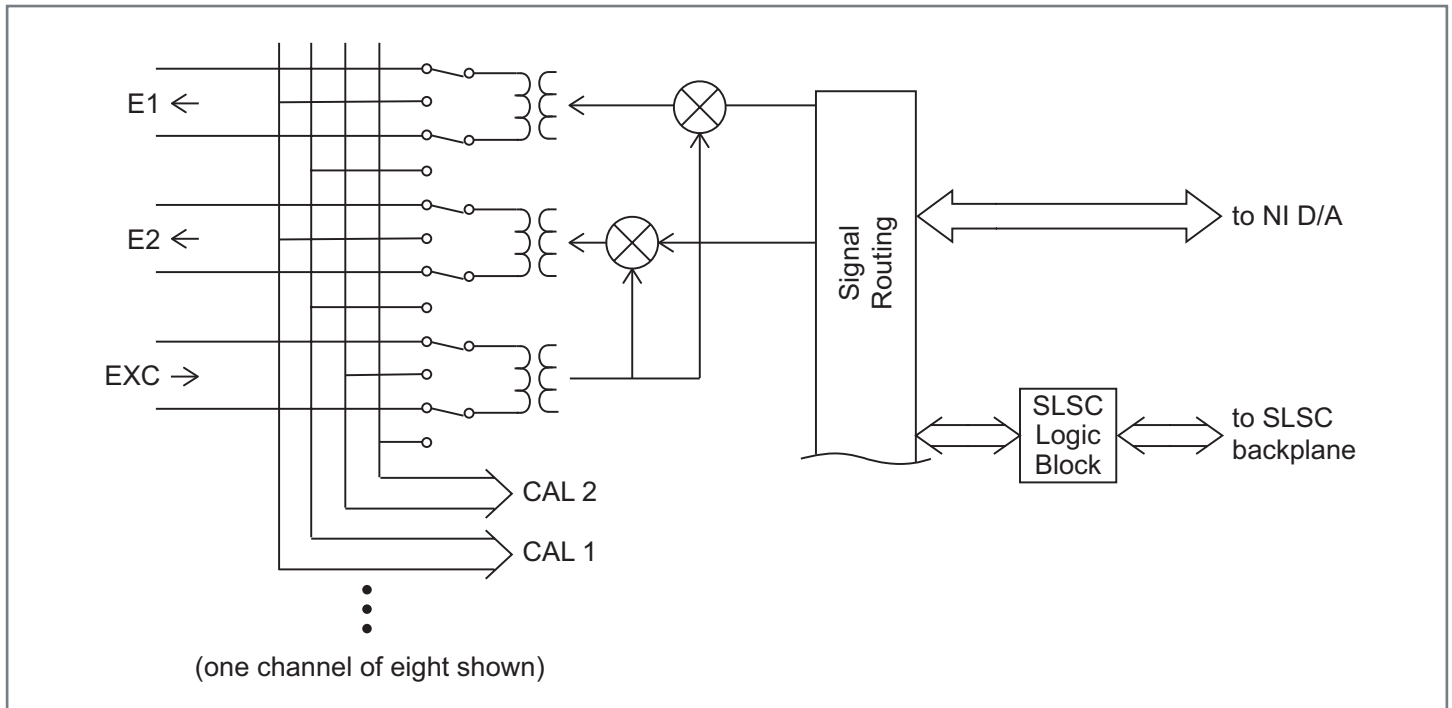This module requires the use of a PXIe-6738 high-density analog output or better.

APPLICATIONS

- Real-time hardware-in-the-loop (HIL)/closed-loop test systems
- Electronic engine control (EEC) test systems
- Flight control computer (FCC) test systems
- Environmental control test systems

FEATURES

- 8 channels of LVDT, RVDT, or resolver simulation
- 4-, 5- and 6-wire configurations, configurable on a per-channel basis
- Complete transformer isolation
- Automatic calibration of signal conditioning path using SLSC calibration resources as references
- Independent control of E1 and E2 returns; simulates nominal and faulty sensors
- On-board open-circuit fault injection capability
- Optional low-frequency (400Hz) configuration
- Custom configurations available upon request

FUNCTIONAL DIAGRAM

(one channel of eight shown)

SPECIFICATIONS

INSTRUMENTATION	
Meets National Instruments SLSC Module Specification	
Requires	NI PXIe-6738 (or better)
Channels	8 LVDT, RVDT or resolver, configurable per-channel
Accuracy	0.1% (est.)
Excitation Frequency	1.5kHz-4kHz (400Hz-1kHz opt.)
Excitation and Return Voltage Range	7.0V$_{rms}$ max. (higher voltage ranges -optional)
Update Rate	all channels 20kHz
Connectors	HD44F x 2, Symmetric Pinout
SOFTWARE	
Software Interface	LabVIEW driver 2015+ VeriStand driver 2015+

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1200-00019-00	8-Channel VDT/Resolver Simulator Module for SLSC, 1.5kHz-4kHz, 7V$_{rms}$
1200-00019-01	8-Channel VDT/Resolver Simulator Module for SLSC, 400Hz-1.5kHz, 14V$_{rms}$ other configurations available on request

Call 860-298-9925 or visit
www.bloomy.com

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