

GX SERIES

GROUP SWITCHING MATRICES and MULTIPLEXERS

Standard CYTEC Switch Modules are available that can switch 8, 16 or 32 signal wires simultaneously. These modules can be custom configured as Group Switches to handle large number of signals per switched crosspoint.

GROUP MULTIPLEXERS switch any one of several Groups of Input signals to a single Output Group, or the reverse, that is, one Input Group to one of several Output Groups.

GROUP MATRICES switch selected Groups of Inputs to selected Output Groups in an NxM matrix configuration.

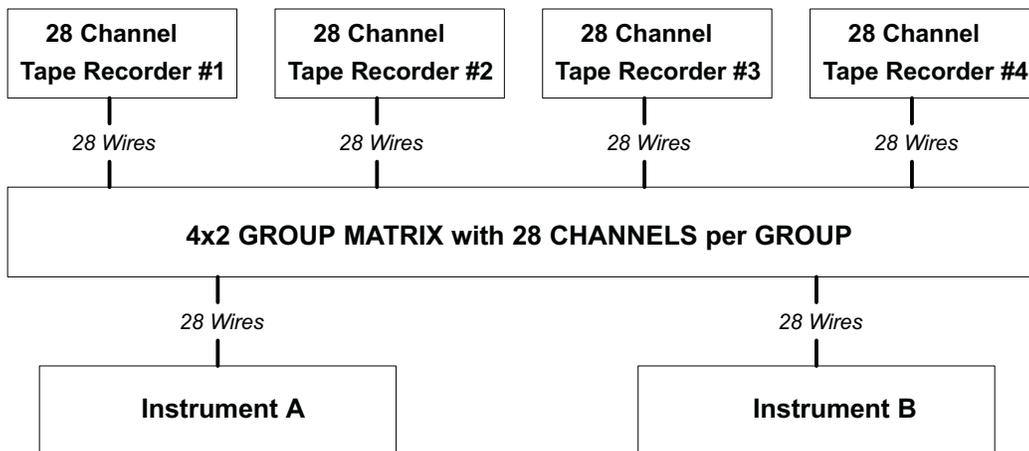
Remote computer control via IEEE488 and RS232 is standard. Optional computer controls include Parallel TTL, Ethernet LAN and USB. Manual Controls are also optionally available on both the GX Mainframes or the GX Control Units.

The Group Switch concept is best illustrated by a practical application such as the one shown below.

DATA ANALYSIS SYSTEM

Vibration Data collected on four Tape Recorders are to be analyzed by two Instruments. Each Tape Recorder has 28 channels. All 28 channels from any of the four Tape Recorders must be switched as a group to either of the two Instruments as shown below. The data frequency is 0 to 300 kHz, and the wiring is coaxial cable with BNC connectors.

The switch module selected is the **LX8B/4x2**, a four Input to two Output coaxial switch module with BNC Inputs and Outputs. Twenty-eight Modules driven in parallel are needed to switch the 28 coaxial signals in a 4x2 matrix configuration. These modules can be assembled in two **GX/16-E Expansion Chassis** and controlled from one **GX/8 Control Chassis**.



The **GX Series** is used when the required number of signals to be switched exceeds that available in Standard Product such as **RS Series** Matrices and Multiplexers, which can switch up to 25 wires per crosspoint and are designed for Data Communications Signals.

For assistance in selecting the best product series and configuration for your application, please contact our Technical Sales Department at the phone number listed below.

CONTACT 1-800-346-3117 OR WWW.CYTEC-ATE.COM FOR TECHNICAL ASSISTANCE

GX SERIES CHASSIS

The GX Series Chassis are built as either single chassis Mainframes or as Expansion Chassis controlled by one GX Series Control Unit. For larger systems having more than 16 groups, the MESA Control Unit is used to control several GX/16 Control Units.

GX MAINFRAMES

These single chassis Mainframes are built with their own dedicated power supplies, a Control Module, and have front panel status LEDs. Available Mainframes include the GX/8 controlling 8 groups of signals or the GX/16 controlling 16 groups of signals. The number of Groups being switched by a Mainframe is limited to 16.

GX/8 MAINFRAME

This Mainframe switches up to 8 groups of signals in a 4x2 or 8x1 configuration. Each group is typically made up of one or two Switch Modules.

Example: Using VX16/G2 Switch Modules with 32 wires per module, each switched group can handle up to 64 wires.

GX/16 MAINFRAME

This Mainframe switches up to 16 groups of signals in a 4x4, 8x2 or 16x1 configuration. Each group typically has one switch module.

Example: Using VX16/G2 Switch Modules with 32 wires per module, each group can have up to 32 wires.

SWITCH MODULES

The following switch modules can be assembled in GX Chassis to form Group Switches:

CX SERIES are single ended, high frequency coaxial modules built as either 4x1 or 8x1 configurations. Different CX modules have different bandpass specifications and they are built with either with Type A or Type S relays as shown in the CX Bulletin.

Example: Switching 8 groups with 8 coaxial signals per group and needing a bandpass of 1 GHz would require eight CXR/8x1-G Modules.

LX SERIES are general purpose, low to medium frequency modules. One LX8/G2 Module can switch a group of 8 pairs, or 16 single wires, as shown in Fig.1 of the LX Bulletin. The modules are built with Type S, Type M or Type LT relays.

Example: Switching 16 groups with each group consisting of four wire pairs would require eight LX8/G2 Modules.

VX SERIES are low to medium frequency switch modules. The VX16/G2 Module can switch 16 pairs, or 32 individual wires, and the VX16/G3 can switch up to 48 wires as shown in the VX Bulletin. The modules are built with Type S, Type M or Type LT relays.

Example: Switching 16 groups of 48 wires each would require sixteen VX16/G3 Modules.

WARRANTY

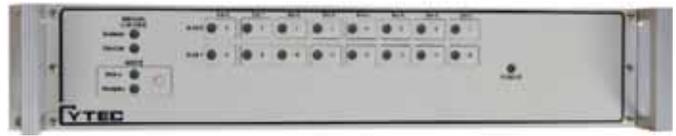
CYTEC Corp. warrants that all products are free from defects in workmanship and materials for a period of five years. Reed relays are guaranteed for 100 million operations when used within their published ratings.

GX CONTROL UNITS

One Control Unit drives several Expansion Chassis and is used for configurations requiring more than 16 switch modules. Control Units include a Control Module and the power supplies that are needed to energize a large number of Switch Modules. The following Control Units are available:

GX/8 CONTROL UNIT

This Unit controls up to 8 Groups. Each Group is typically made up of one or two switch modules and handles a large number of signals.



GX/16 Control Unit with Pushbutton Control

GX/16 CONTROL UNIT

This Unit will control up to 16 Groups, with each Group switching a large number of signals.

MESA CONTROL UNIT

When more than 16 signal Groups are required, control is achieved by using a MESA Control Unit, detailed in the MESA Bulletin, that drives up to 16 of the GX/16-E Expansion Chassis via GX/16 Control Units.

GX-E EXPANSION UNITS

These Units are designed for large Group Switches requiring more Switch Modules than can be assembled in one mainframe.

Up to 16 modules can be assembled in each chassis and up to 16 chassis can be controlled from the GX Control Unit, which also supplies power and controls via chassis interconnect cables.

Example: Using VX16/G3 Switch Modules with 48 wires per module and two GX/8-E Expansion Chassis, each group can switch 96 wires in a 16x1 multiplexer.

RELAY SPECIFICATIONS

	Type S	Type M	Type A	Type LT
Contact Rating VA	10	50	24	10
Switch Voltage V	200	500	24	100
Switch Current A	0.5	1.0	1.0	.25
Carry Current A	1.0	2.0	1.0	1.0
Breakdown Voltage V	400	1000	1000	400
Operating Time ms	1	2	10	1
Life Expectancy cycles	10 ⁸	10 ⁸	10 ⁷	10 ⁸

CONTACT 1-800-346-3117 OR WWW.CYTEC-ATE.COM FOR TECHNICAL ASSISTANCE.