

STANDARD GP700

GP700 PROGRAMMABLE MAINFRAME

GENERAL INFORMATION

DiCon's GP700 General Purpose Fiberoptic Platform offers complete fiber optic switching solutions. The flexible GP700 enables the integration of multiple fiber-optic switches, attenuators, couplers, and other components in a user-friendly programmable instrument. The instrument can control up to 30 1xN switches, tunable filters, or variable attenuators, and up to 64 2x2, 1x2, or On-Off switches. Larger configurations can be accommodated using multiple housings. A wide variety of rack-mountable and benchtop chassis are available. DiCon's GP700s can be built with Corning SMF-28, Flexcor 1060 or Polarization Maintaining Panda fiber.



FEATURES

- Very low insertion loss
- Low back-reflection
- Precise repeatability
- Up to 30 1xN switches, tunable filters, or variable attenuators in a single chassis
- Up to 64 2x2, 1x2, or On-Off switches in a single chassis
- Manual, IEEE 488.2 (GPIB), and RS-232 interfaces
- Flexible fiber types and wavelength ranges



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ENVIRONMENTAL SPECIFICATIONS

Operating temperature	0°C to +40°C
Storage temperature	-20°C to +60°C
Humidity	40°C/90%RH/5 days

ELECTRICAL SPECIFICATIONS

AC Input Power Specifications	
Input power	150 W max.
Input voltage	100 VAC min., 240 VAC max.
Fuse ¹	2 A typ.
AC input leakage current	3.5 mA max.
External Trigger Specifications	
Logical high voltage	2 VDC min., 5 VDC max.
Logical low voltage	0 VDC min., 0.5 VDC max.
Input capacitance	100 pF max.
Internal load ²	900 ohm min., 1100 ohm max.
Continuous overload protection	±30 VDC typ.
ESD overload protection	±10 kV typ.
General Purpose Output Specifications	
Logical high voltage	3 VDC min., 5 VDC max.
Logical low voltage	0 VDC min., 0.4 VDC max.
Switching time low-to-high	2 ms max.
Switching time high-to-low	2 ms max.
Output current loading ³	50 mA max.
Output loading resistive	50 ohm min.
Continuous overload protection ⁴	±30 VDC typ.
ESD overload protection	±10 kV typ.
Interface Specifications	
RS-232 cable length	15.2m max.
Baud rate	1200/9600 baud
GPIB default address	3

1. DiCon recommends a 2.5-A fuse for 6U-rack mount matrix switches.
2. For fast external sources, a 50-ohm BNC in-line terminator may be connected to reduce ringing.
3. Resistive/inductive loads.
4. Protected against inductive spikes when driving relays or solenoids.

USER INTERFACE

Control	Manual, IEEE 488.2 (GPIB), and RS-232.
Display	Front-panel vacuum fluorescent display continuously shows current position of all modules within the GP700.
Mini-Programs	Internal programming instruction set allows user to enter and store up to four mini-programs via the front panel (no computer required) or remotely. Mini-programs can control switches, attenuators, filters, electrical triggers, and testing sequences.
Memory Registers	Nine memory registers capable of saving complete or partial device states.
Software Drivers	Labview drivers available. Contact DiCon for other drives.

