AUTOMATIC GAIN CONTROL DRIVER (AGC)

DESCRIPTION:
The AGC driver, a feedback amplifier, operates a broad range of resonant optical scanners and resonant optical choppers at their natural frequency. The AGC Driver has an Automatic Gain Control circuit, which automatically regulates the motion amplitude of the resonant device. It improves amplitude stability by approximately 10 times compared to the unregulated drivers and provides precise control for a wide temperature range.

CONTROLS:
- Both sine wave and TTL level square wave are provided as reference signals.
- A trimpot control permits the user to adjust the phase of the reference signals with respect to the position of the mirror or the vane. The adjustable range is 180°.
- A second trimpot provides amplitude adjustment in the range of 20% to 100% of the full amplitude.

CONFIGURATIONS:
The AGC type driver is available as:
Model AGC-PC: a board level driver requiring an external +/-12V to +/-15V dc power supply.
Model AGC-110 or Model AGC-220: a cased driver, 5.3”x5.3”x2”, operating from a line voltage of 110V ac or 220V ac. (AGC-110 or AGC-220)
Model AGC-110/220: a cased driver 5.3”x5.3”x2”, with a selector switch for operating from a line voltage of 110V ac or 220V ac. Each of these drivers can be available in the following features:
-VC: A driver which regulates and controls the amplitude of the resonant device via external dc voltage (0 to 5V). There is no additional cost for the added feature.

SPECIFICATIONS:
Input Voltage: +/-12V to +/-15V dc, 0.3 Amp max. for the AGC-PC Driver
110V ac or 220V ac, 10W for the AGC-110 and the AGC-220.
Frequency range: 5 Hz to 20 kHz
Amplitude regulation: 0.01% or better typical (depending on temperature range)
Amplitude adjustment range: 10% to 100% of full amplitude
Reference output: Sine and TTL level square wave
Phase adjustment range: 180°
Voltage control input: 0V dc to 5V dc input into 10K ohm, for the AGC-VC.
AGC-PC HOOK UP DIAGRAM:

AGC-VC-PC HOOK UP DIAGRAM:

FRONT PANEL CONTROLS:

AGC-110/220:

AGC DRIVER
MONITOR
PHASE ON
AMPL.
OUTPUT
SINE
GND
TTL
REFERENCE OUTPUT
PHASE
ADJUSTMENT
TRIM POT

AGC-VC-110/220:

AGC DRIVER
MONITOR
PHASE ON
AMPL.
OUTPUT
SINE
GND
TTL
REFERENCE OUTPUT
PHASE
ADJUSTMENT
TRIM POT

DIMENSIONS ARE IN INCHES