



## PLD-1S DRIVER LOCKS A RESONANT OPTICAL SCANNER TO AN EXTERNAL CLOCK



### DESCRIPTION:

The **PLD-1S** driver phase locks a resonant scanner (type SC, except for the subminiature scanners) to an external clock input signal. The system can be a stand alone unit or a portable instrument, or incorporated into a system. Although the scanner can be used in a large temperature range this driver is not recommended for use in temperature sensitive applications. To lock the scanner to an external clock signal you need to specify the exact clock frequency (to 4 decimal places). The phase relationship to the clock is factory set to customer's requirements (0° to 360°).

The **PLD-1S-110** or **PLD-1S-220** driver is a boxed driver for 110V or 220V (please specify). The driver has front panel controls for amplitude and phase and internal power supplies. The dimensions of the cased driver are: 12" × 10" × 3.8"  
The **PLD-1S-110/220** is a boxed driver with a selector switch for operating from a line voltage of 110Vac or 220Vac. The **PLD-1S-PC** driver is a printed circuit board level driver which requires an external +/-15V DC power supply.

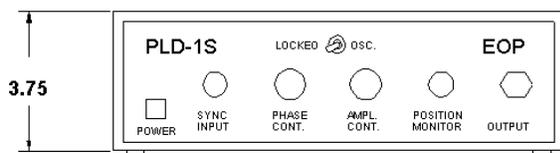
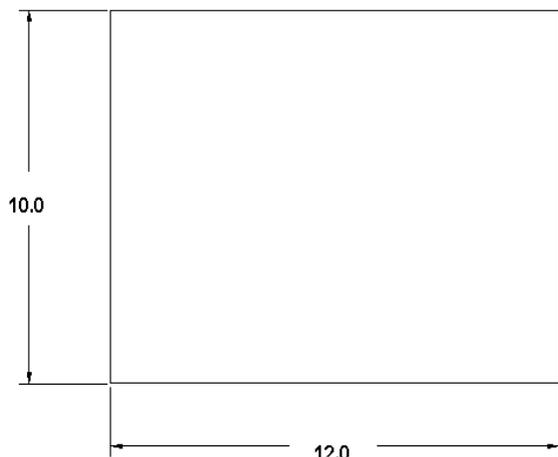
### CLOCK REQUIREMENTS

EXTERNAL CLOCK STABILITY	+/-50 PPM
EXTERNAL CLOCK ACCURACY	100 PPM

### FRONT PANEL CONTROLS

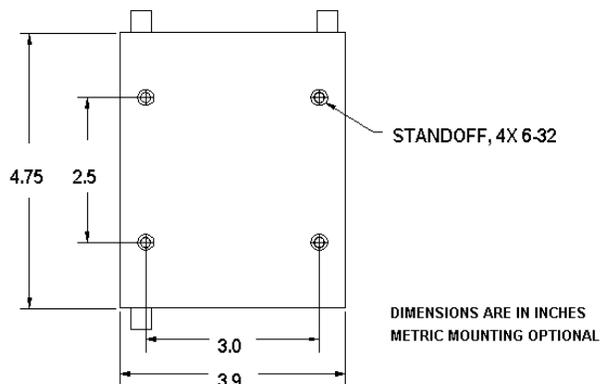
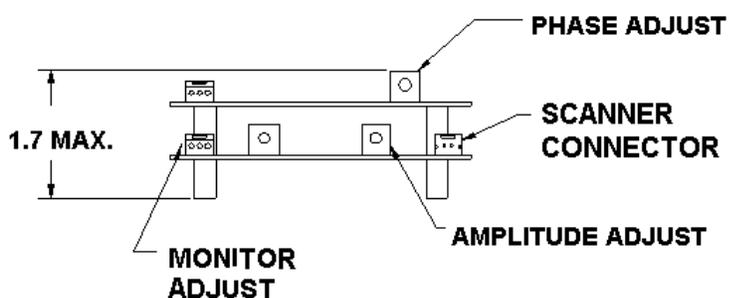
POWER	Power switch to turn the drive "ON"
CLOCK IN(PUT)	External clock input (TTL or sine wave), BNC connector
LOCKED MODE	The scanner is phase locked to the clock signal
OSCILLATOR MODE	The scanner is self oscillating at its resonant frequency (not locked to the clock input)
PHASE CONTROL POT	Phase adjustment of the scanner in relationship to the clock, +/-45° min.
POSITION MONITOR	Scanner position output, BNC connector
AMPLITUDE CONTROL	Scan amplitude adjustment POT
OUTPUT	Output connector to interconnect to the scanner

SPECIFICATIONS	
Frequency range	10 Hz to 16 kHz
External clock signal	TTL level, sine or square wave (1V PTP to 20V PTP)
External clock stability	+/-50 PPM
Scanner's amplitude stability	0.01% or better (not locked to the clock input)
Position monitor	Analog position output, +/-5V max. 1KOhm max load
Phase adjustment range	+/-45° min.
Phase stability	0.01%
Phase relationship	Factory set to customer's specifications
Operating temperature range	Room temperature only
Power input	110V ac or 220V ac, 50-60 Hz, 20W



**PLD-1S OUTLINE DRAWING**

**PLD-1S-PC OUTLINE DRAWING**



**ORDERING INFORMATION:**

**A) SCANNER INFORMATION:**

TYPE [SC-XX]; MIRROR SIZE [mm]; ANGLE [PTP deg optical]; FREQUENCY [Hz]  
 Example: PART NO. SC10-10x10-20-100. *This part number specifies the model SC-10 scanner, with a 10mm square mirror, a 20° peak to peak optical scan angle and a 100 Hz operating frequency.*

**B) DRIVER INFORMATION:**

Customer's specifications

**Special pricing for OEM applications.**