

SENSOR DATA SHEET

# Accessories

Calibration fixtures  
and  
power supplies



**KAMAN**  
PRECISION PRODUCTS

# SENSOR DATA SHEET

## Power supplies

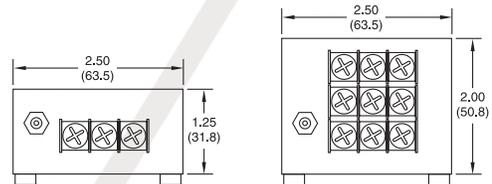
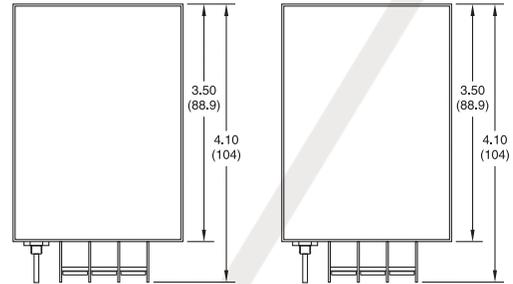
### P-3400 SERIES

For economy and reliability in a modular power supply, Kaman's P-3400 Series is unsurpassed. The regulated  $\pm 15$  Vdc output is compatible with all Kaman measuring systems requiring an external power source, or for any other use requiring a  $\pm 15$  Vdc output.

The P-3410 features 100mA output with one terminal block, and will power one measuring channel. The P-3450 features 500 mA output with three terminal blocks, and will power up to six measuring channels.

### P-3600 SERIES

Compatible with the KD-2306 and KD-2446, these switching power supplies offer clean, reliable, DC voltage output in a small, DIN-rail-mount package.



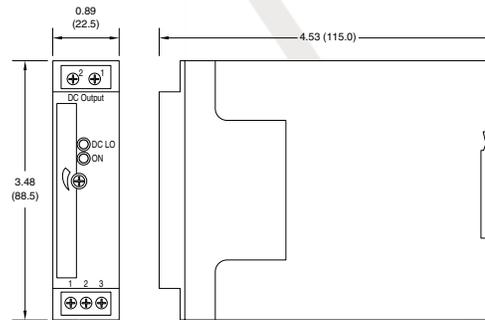
P-3410

P-3450



P-3600D15

P-3600D24



*Note: All dimensions shown in inches (mm).*

MODEL	INPUT	OUTPUT	RIPPLE	OPERATING TEMPERATURE	STORAGE TEMPERATURE	PART #
P-3410	105-125VAC 50-400Hz	$\pm 15$ VDC, 100mA	1.0mV rms	-13°F to 160°F (-25°C to 71°C)	-13°F to 185°F (-25°C to 85°C)	852531-001
P-3410A	216-265VAC 50-400Hz	$\pm 15$ VDC, 100mA	1.0mV rms	-13°F to 160°F (-25°C to 71°C)	-13°F to 185°F (-25°C to 85°C)	852531-001A
P-3450	105-125VAC 50-400Hz	$\pm 15$ VDC, 500mA	1.0mV rms	-13°F to 160°F (-25°C to 71°C)	-13°F to 185°F (-25°C to 85°C)	852531-004
P-3450A	216-265VAC 50-400Hz	$\pm 15$ VDC, 500mA	1.0mV rms	-13°F to 160°F (-25°C to 71°C)	-13°F to 185°F (-25°C to 85°C)	852531-004A
P-3600D15	90-246VAC 47-63Hz	+15VDC, 1200mA	50mV pk-pk	14°F to 158°F (-10°C to 70°C)	-13°F to 185°F (-25°C to 85°C)	827200-001
P-3600D24	90-246VAC 47-63Hz	+24VDC, 750mA	50mV pk-pk	14°F to 158°F (-10°C to 70°C)	-13°F to 185°F (-25°C to 85°C)	827200-002

# Calibration fixtures

Calibration of a displacement measuring system verifies that the system output relates to a known physical displacement. Calibration of a Kaman measuring system requires the ability to position a target at specific locations relative to the range of the sensor.

All Kaman balanced bridge-type measuring systems are calibrated prior to shipment, and ready to use out of the box. Certain requirements can necessitate the need to recalibrate the system:

- › Sensor replacement due to physical damage.
- › New calibrated range requirements.
- › Sensor/bridge change to different model.
- › Calibration check/recalibration program.

Proper sizing of a calibration fixture is based on sensor diameter. The calibration fixture has a recommended maximum sensor size for use, based on the physical size of the fixture that sets the radial distance from the sensor to the fixture itself. When a sensor larger than the recommended maximum is calibrated using the fixture, the performance of the system can be affected.

This fixture can be used with virtually any inductive type sensor manufactured in a cylindrical housing, and is provided with a rotating-shaft micrometer head with an aluminum anvil/target. If a different target material is desired, a suitably-sized piece of the target material is attached to the existing anvil.

For larger diameter sensors, Kaman offers hard impact precision ceramic calibration spacers. The set includes seven spacers, 1.5 inches in diameter in the following thicknesses: 0.050 inch, 0.100 inch, 0.200 inch, 0.300 inch, 0.400 inch, 0.500 inch and 1.00 inch. Each spacer may be purchased separately, and a 0.025 inch spacer is also available.



*Micrometer calibration fixture.*

## CALIBRATION ACCESSORIES

**Micrometer calibration fixture** (sensors up to 3U in size), digital micrometer with inch/mm display, 0-1" travel, 0.0001" display resolution.  
*Part number 855578-001.*

**Individual ceramic calibration spacers**  
 0.025 inch (0.64 mm) *Part number 811149-A025*  
 0.05 inch (1.27 mm) *Part number 811149-A050*  
 0.10 inch (2.54 mm) *Part number 811149-A100*  
 0.20 inch (5.08 mm) *Part number 811149-A200*  
 0.30 inch (7.62 mm) *Part number 811149-A300*  
 0.40 inch (10.16 mm) *Part number 811149-A400*  
 0.50 inch (12.7 mm) *Part number 811149-A500*  
 1.00 inch (25.4 mm) *Part number 811149-B000*

**Set of seven spacers** (0.05 through 1.00 inch)  
*Part number 850859-001*



