Step 1 Set supply voltage option using link LK 1 and switches 5 and 6 on SW1 shown. The unit is supplied pre-set for 18-30Vdc operation. For ±15Vdc operation, remove blanking plug if fitted from terminal 2 before proceeding.

Step 2 Fit appropriate power supply label onto box.

Step 3 Select LVDT output ratio R using switches 1 and 2 on SW1 as shown.

- 0.3 output ratio
  - AF145/AF111 5mm (+±2.5mm), 15mm (+±7.5mm)
  - stroke lengths

- 0.4 output ratio
  - AF145/AF111 25mm (+±12.5mm), 50mm (+±25mm)
  - stroke lengths

- 0.6 output ratio
  - AF145/AF111 75mm (+±37.5mm), 100mm (+±50mm)
  - 125mm (+±62.5mm), 150mm (+±75mm) stroke lengths

Step 4 Set output span using switches 3 and 4 on SW1 as shown.

- 5V output span (±±2.5V and 0-36Vdc output)
- 10V output span (±±5V, 0-10V, 4-20mA output)
- 20V output span (±±10V output)

Note: 4-20mA is available on SCM100/1 only
± voltages only available with ±15V power supply

Step 5 Establish LVDT null point
Connect multimeter or output monitoring device to pins 7+8 (voltage) or pins 8+9 (current)
Connect power supply to the SCM100
(+15V to pin 1, 0V to pin 2 and -15V to pin 3 or 24V to pin 1 and 0V to pin 3)
Do not connect 24V across pins 1 and 2.

If not already connected, link pin 4 to pin 10, and pin 5 to pin 12.

Adjust the null trim pot to give the chosen mid stroke output null value i.e.
0.000V for ±10V, ±5V or ±2.5V output range
5.000V for 0-10V output range
2.500V for 0-5V output range
12.00mA for 4-20mA output range

Remove the links then connect the LVDT to the SCM100 - see page 4.

Reposition the LVDT shaft as necessary to achieve the mid-stroke output (0V, 0V, 2.5V or 12mA as above).
This shaft position corresponds to the LVDT mid stroke.

Step 6 Gain calibration
Move LVDT shaft to the electrical extend position and adjust the gain trim pot to give the desired full scale output:
+10V for ±10V or 0-10V configuration
+5V for ±5V or 0-5V configuration
+2.5V for ±2.5V configuration
+20mA for 4-20mA configuration

Move LVDT shaft to electrical retract position and verify zero.

Note: this will be approx 50mV with 24V supply.

Step 7 Slope reversal
Swap over yellow and blue LVDT connections to reverse output slope.

AF111/145 LVDT SCHEMATIC

For technical assistance contact your local distributor or Penny+Giles Controls Ltd, UK Tel: +44 (0)1202 409409