

The eDart Internal Actuator uses a linear potentiometer (pot) in its electronic feedback actuator. The pot replaces the positioner's normal rotary pot with a linear pot that is inserted down the actuator shaft.

**NEW** Wire "draw-string" pots have now replaced the linear pots to better effect!

A linear pot has a number of benefits:

1. The linearity of the electronic feedback is superior to the conventional mechanical feedback system in that there is no rotary to linear conversion required and no mechanical hysteresis.
2. The repeatability of the linear potentiometer is less than 0.5%.
3. The electronic feedback allows the positioner to be mounted separately to the actuator (within 5 metres).
  - i.e. this allows you to mount the positioner in a more accessible location.
4. The Internal Actuator is more robust because the mechanical feedback linkages have been removed.
5. It is very easy to install safety guards around the valve-actuator coupling with the Internal Actuator because there are no long feedback linkages. This is of particular concern for long stroke actuators.
6. The electronic potentiometer is housed within the actuator, where it is protected from dirt and damage.
7. Due to the costs involved, it is recommend that electronic feedback is considered on EDA300 and larger, or where your strokes are longer than 300 mm.

The positioners need to be specially ordered to cater for this sensor.

