

## Installation and operating instructions for Westlock 2600 Accutrak series valve position monitor with mechanical switches, inductive proximity sensors or Magnum proximity switches



INTERTEK 11 ATEX 17438X

Ex d IIC Gb T\* Tamb -\*°C to +\*°C

Ex tb IIIC Db T\*°C Tamb -\*°C to +\*°C IP6X

Ambient variation: -60°C to +110°C (T4/T130°C); -60°C to +80°C (T5/T95°C);

-60°C to +65°C (T6/T80°C)

Environmental parameters: 80 kPa (0.8 bar) to 110 kPa (1.1 bar). Air with normal oxygen content, typically 21%.

### 1 Product description

The 2600 series valve position monitor provides two methods of end of travel indication by the means of mechanical switches, inductive proximity sensors or proximity switches and an external visual indicator.

For applications that require position feed back, ancillary components such as a 4-20 mA current signal transmitter or a resistive signal feed back can be installed.

The 2600 series enclosure is available in two materials; cast Aluminium or 316 stainless steel.

The enclosure construction comprises of a housing with a screwed cover.

The housing has the option of upto three cable entries for connection to an external power source via appropriate ATEX certified cable glands:

M20 x 1.5p, M25 x 1.5p, 1/2" - 14NPT or 3/4" - 14 NPT.

The 2600 certification is compliant against the following standards:

EN 60079-0 : 2011 (Ed 6)	Electrical apparatus for explosive gas atmospheres – Part 0 - General requirements
EN 60079-1 : 2007	Electrical apparatus for explosive gas atmospheres – Part 1 - Flameproof enclosures 'd'
EN 60079-31 : 2009	Electrical apparatus for use in the presence of combustible dust – Part 31 - Protection by enclosure 't'

**Note:** Before installation of this product, please ensure that the product and its certification is suitable for the intended application. This product uses various 'O'ring material and an Eastar Copolyester visual indicator.

If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection provided by the equipment is not compromised.

Installation of any cable entry devices, conduit entry devices or blanking devices shall not compromise the degree of ingress protection level IP6X for use in the presence of combustible dusts.

The unit has an ingress protection of IP66/67 and therefore any conduit device fitted must maintain this.

**Note:** These products have been certified with a cable entry temperature rise of 4°C.

Ensure that this is taken into consideration when selecting suitable cabling for the ambient temperature in which the product is to be used.

**Note:** These products are not intended to be assembled directly to process pipe work etc that is heated or cooled to temperatures outside of the range as indicated above.



#### Warning

Do not open when energised or when an explosive atmosphere is present.



#### Warning

Electrostatic hazard, clean only with damp cloth.

# Westlock 2600 Accutrak Series - ATEX certified

## Installation & Operating Instructions

### 2 Mounting instructions

- 2.1 Attach a mounting bracket to the housing base with the M8 fasteners provided with the mounting bracket. Install shaft adaptor / coupler, as appropriate to either the actuator pinion or Accutrak shaft.
- 2.2 To ensure that the 2600 series Accutrak is mounted correctly, it may necessary to stroke the actuator to the fully closed position.



#### Warning

Before stroking the actuator to the fully closed position, please ensure that the process is safe to do so.

- 2.3 With the actuator in the correct position, attach the 2600 series Accutrak / bracket to the actuator using the hardware provided in the mounting kit.
- 2.4 Unscrew the cover (Fig. 1) and keep in a safe place. Ensure that the Jack screw [M4 socket head cap screw] remains in the housing (Fig. 2).
- 2.5 To set the switches, lift the bottom cam and turn until the switch has activated and then release. The spring will push the cam back onto the splined shaft.



#### Warning

Before stroking the actuator, please ensure that the process is safe to do so and that all hands are kept away from the moving shaft.

- 2.6 Stroke the actuator to the opposite end of travel. Set the top cam by pushing down and turning the cam until the switch is activated.



#### Warning

Before stroking the actuator, please ensure that the process is safe to do so and that all hands are kept away from the moving shaft.

- 2.7 Stroke the actuator from one end of stroke to the other several times to check the switch operation. If the switches require adjustment, repeat steps 2.5 to 2.7.
- 2.8 Beacon setting – if fitted  
Loosen the beacon fixing screw, see Fig. 1, rotate beacon window (outer beacon) to indicate appropriate open or closed text as corresponding to actuator position.
- 2.9 Tighten beacon fixing screw sufficiently to prevent movement of window.

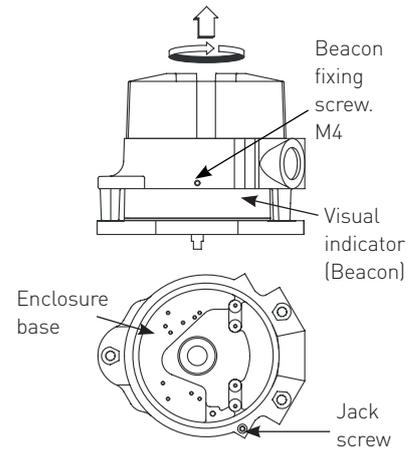


Figure 1 - Standard enclosure

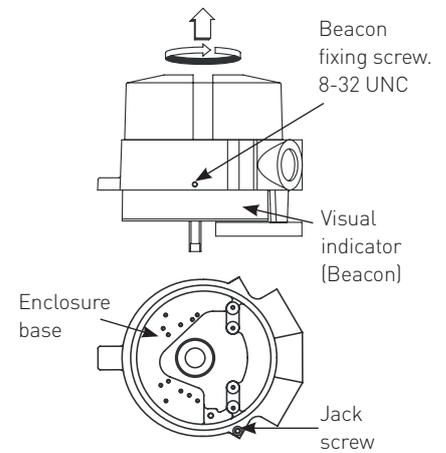


Figure 2 - Alternative enclosure

### 3 Field wiring & installation



#### Warning

The 2600 series should always be handled with care when the cover is removed and wired to electrical power source.

**Note: Before electrical installation, please read and follow the wiring diagram located inside the cover. The electrical ratings can be found on the product I.D label.**

- 3.1 Field wiring must be carried out in accordance with site, local and national electrical codes / requirements. This includes special attention to earth bond to the aluminium enclosure using the internal and external earth points provided.
- 3.2 Installation of this product shall be carried out by competent personnel in accordance with the applicable code of practice such as EN60079-14.
- 3.3 The 2200 control monitor housing can offer up to three of the following conduit entries; M20 x 1.5p, M25 x 1.5p, 1/2" - 14 NPT or 3/4" - 14 NPT. These entries are detailed on the product I.D label found on the product housing. Please see Fig. 4 for conduit positions.

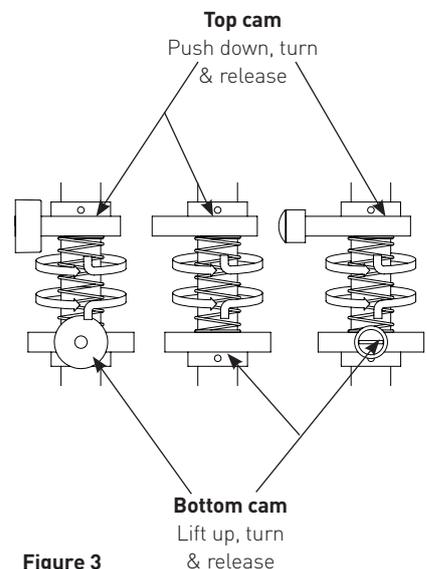
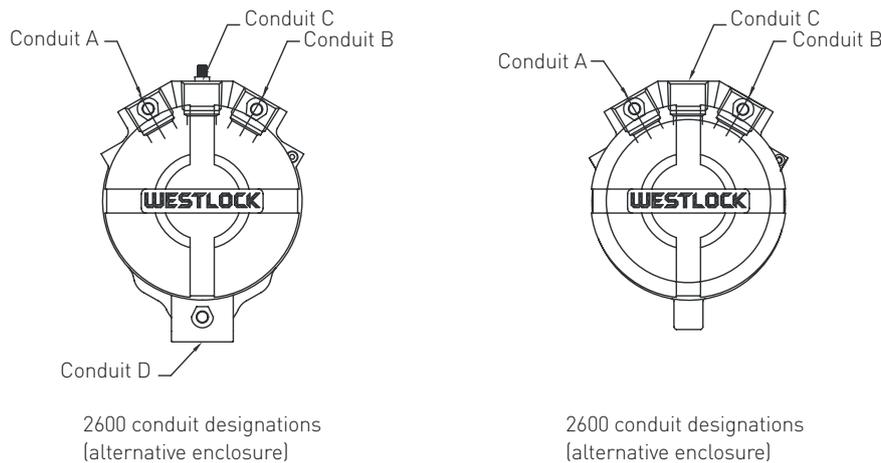


Figure 3

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**Figure 4**

- 3.4 The certification applies to equipment **without** cable glands. When mounting the flameproof enclosure in the hazardous area, only suitably rated IP66/67 ATEX certified flameproof glands **must be used**.
- 3.5 All unused cable entries **must** be plugged with a suitably rated IP66/67 ATEX certified blanking devices.
- 3.6 The first two digits of the Westlock nomenclature signifies the series with the third digit defining whether the product has a visual beacon or not. The table below details the applicable ambient ranges:

Series code	Cover type	T class	Ambient temperature range aluminium or stainless steel
264*	Beacon	T6 (80°C)	-60°C to +65°C
264*	Beacon	T5 (95°C)	-60°C to +80°C
264*	Beacon	T4 (130°C)	-60°C to +110°C
266*	No Beacon	T6 (80°C)	-60°C to +65°C
266*	No Beacon	T5 (95°C)	-60°C to +80°C
266*	No Beacon	T4 (130°C)	-60°C to +110°C

- 3.7 The fourth digit designates the switch / sensor type. The following table details the most common switch / sensor types together with their electrical ratings.

Series code/Switch designation	Electrical rating
26*5 Mechanical (SPDT)	15 A - 125 or 250 V AC; 0.5 A - 125 V DC; 0.25 A - 250 V DC
26*6 Mechanical (DPDT)	10 A - 125 or 250 V AC; 10 A - 28 V DC; 0.2 A - 125 V DC
26*7 Inductive proximity sensors	
26*9 Magnum ratings	3 A - 120 V AC; 1.5 A - 240 V AC or 2 A - 24 V DC

**Note:** The series code signifies the maximum electrical rating of the product, suitable overloading protection must be provided to prevent these values being exceeded.

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- 3.8 The 2600 series valve position monitor has the option for position feedback by the means of a resistive signal (RS) or current signal (CS).

The RS transmitter electrical ratings are – 1 K Ohms (standard) or 5 K or 10 K Ohms (optional).

See I.O.M TECH-084.

The CS transmitter electrical ratings are – current loop 4-20 mA at 18 to 24 V DC.

See I.O.M TECHUK-301

- 3.9 Before replacing the enclosure cover, ensure that both of the housing and cover threads are clean and undamaged. Screw the cover onto the housing ensuring that it is not cross threaded and turns freely. Continue tightening the cover until metal to metal condition is achieved between the bottom edge of the cover and the housing surface.

Lock the cover as follows:

Using a 3 mm A/F Allen key / wrench, rotate the Jack screw in an anti-clockwise direction until sufficient pressure has been applied to the bottom edge of the cover to prevent the cover from being removed by hand.

#### 4 Product repair & service

- 4.1 Inspection of this product shall be carried out by suitably trained personnel in accordance with the applicable code of practice such as EN60079-17.
- 4.2 In the event of any repairs that may be required such tasks must be carried out by suitably trained / competent personnel in accordance with the applicable code of practice such as EN60079-19.
- 4.3 The certification of this product has been approved based on the material of construction as per the drawings listed in the schedule within this certificate. Any replacement parts that are not made in accordance to the listed drawing will invalidate the approval / certification.
- 4.4 Replacement parts must be purchased through Westlock Controls UK Ltd or via an approved Westlock Controls distributor.

Alternative Manufacturing location:

Westlock Controls Corporation

280 Midland Avenue

Saddle Brook

New Jersey

07662