

3500/9468 SERIES

INSTALLATION AND OPERATING INSTRUCTIONS

3500/9468 Series - ATEX certified GC Ex nA with Mag-Pac module



SIRA 08 ATEX 4279X
Ex nA IIC T3 Gc

The equipment may be used in a CAT 3 environment in the presence of flammable gases and vapours only.

The apparatus groups cover IIA, IIB and IIC with temperature classes of T1, T2 and T3 with an ambient temperature range -20 to +70°C.

This document details an identical build that can be manufactured and sold in different locations. For this reason the product has two series numbers as indicated below:

- Series 3500
- Series 9468

The valve position monitor provides three methods of end of travel indication by the means of two sealed bifurcated integral switches and input circuit LED's which are located in the Mag-Pac module and an external visual indicator (if fitted).

The enclosure comprises of a two parts, a cover and housing. This series is available in two enclosure materials, aluminium and 316 stainless steel. The Mag-Pac module is located within the enclosure.

The housing can offer up to three of the following conduit entries: M20 x 1.5p, M25 x 1.5p, 1/2" - 14NPT or 3/4" - 14 NPT cable entries for connection to an external power source via appropriate certified cable glands.

Note: before installation of this product, please ensure that the product and its certification is suitable for the intended application. This product uses medium Nitrile O-rings and an Eastar Copolyester visual indicator - if fitted.

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.

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

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.

With regards to safety it is not necessary to check for correct operation.

WARNING

Do not open when energized or following site procedures, ensure that the local surrounding is free of explosive atmosphere.

WARNING

Electrostatic hazard, clean only with damp cloth.

WARNING

Ensure that this product is not located in areas, when in use, where propagating brush discharge can occur such as near door ways, fans or fast moving air flow.

The certification is compliant against the following standards

EN 60079-0:2006	Electrical apparatus for explosive gas atmospheres - Part 0 - General requirements
EN 60079-15:2005	Electrical apparatus for explosive gas atmospheres - Construction, test and marking of type of protection 'n' electrical apparatus

3500/9468 SERIES

INSTALLATION AND OPERATING INSTRUCTIONS

1 MOUNTING INSTRUCTIONS

- 1.1 Attach the mounting bracket and adaptor (if required) to the Accutrak housing and shaft with the fasteners provided with the mounting kit.
- 1.2 To ensure that the Accutrak is mounted correctly, it may be necessary to stroke the actuator to the fully closed position.

WARNING

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

- 1.3 With the actuator in the correct position, attach the Accutrak / bracket to the actuator using the hardware provided in the mounting kit.
- 1.4 To release the cover, loosen the cover retaining screws. Twist the cover approx 45° and lift up. See Figure 1.
- 1.5 To set switches, lift the bottom cam and turn until the switch has activated (LED lit) 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.

- 1.6 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.

- 1.7 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 1.5 to 1.7. See Figure 2.

FIGURE 1

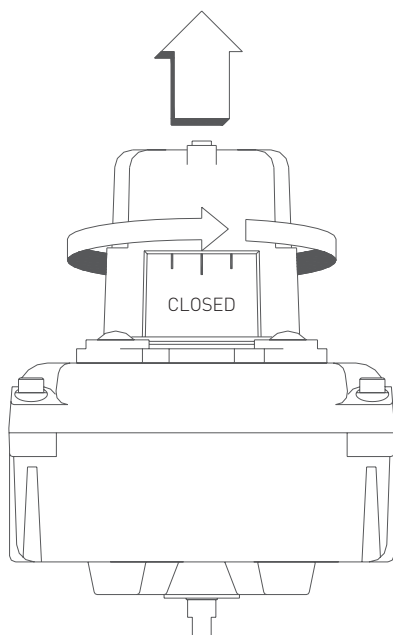
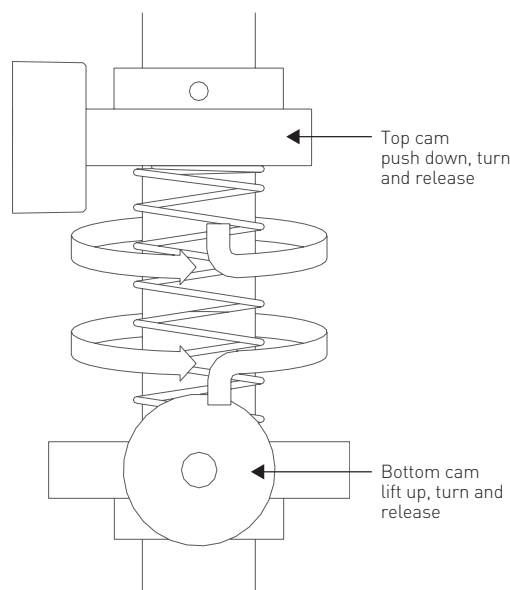


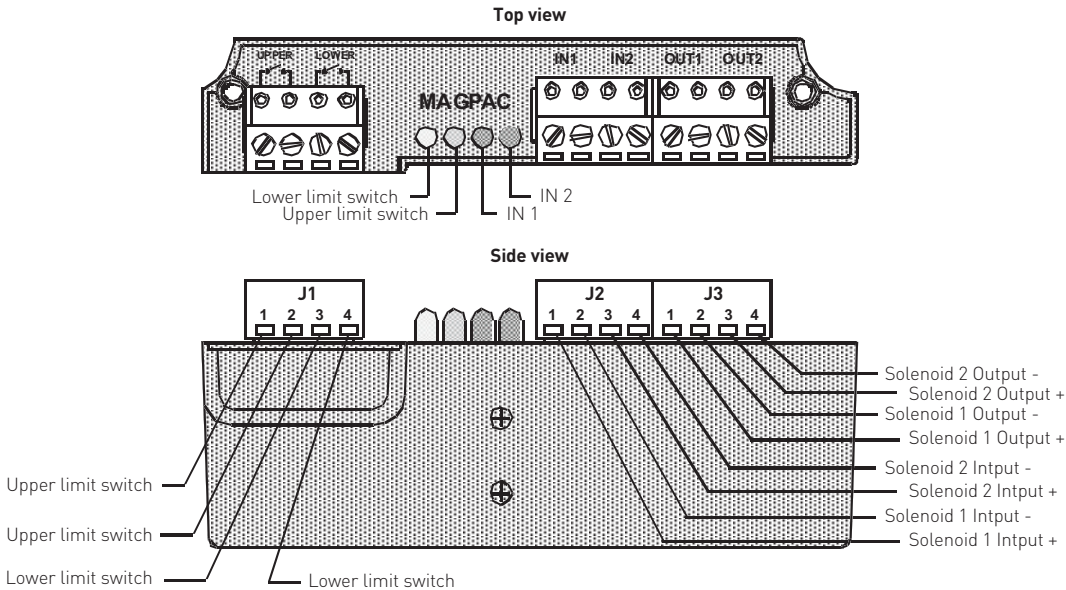
FIGURE 2



3500/9468 SERIES

INSTALLATION AND OPERATING INSTRUCTIONS

2 FIELD WIRING AND INSTALLATION



WARNING

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.

Note: the valve monitors shall be connected to a device which prevents supply voltage transients in excess of 40% occurring at the apparatus power supply.

The Mag-Pac has high reliability hermetically sealed bifurcated switches with LED indication for open and closed limits and indication of which solenoid is being operated.

Contact	(2) Normally open
Rated voltage (J1) (input switches)	12 - 24 VDC (polarity insensitive)
Rated current (J1) (input switches)	
Minimum	2 mA to light LED
Maximum	Max. 500 mA
Voltage drop max.	5 VAC / VDC
Operating time	4 ms or less
Releasing time	2 ms or less
Operating temp	-40°C - +85°C

2.1 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.

2.2 Installation of this product shall be carried out by competent personnel in accordance with the applicable code of practice such as EN 60079-14.

ATTENTION

Each Mag-Pac connector screw that has been used must be sealed with an RTV type sealant to maintain reliable screw contact pressure.

3500/9468 SERIES

INSTALLATION AND OPERATING INSTRUCTIONS

- 2.3** The position monitor housing can offer up to three of the following conduit entries: M20 x 1.5p, M25 x 1.5p, 1/2"-14 NPT, 3/4"-14 NPT or Pg 13.5. These entries are detailed on the product I.D label found on the product cover.
Please see Figure 3 for conduit positions.
- 2.4** The certification applies to equipment without cable glands. When mounting the enclosure in the hazardous area, only suitably ATEX Ex e certified glands must be used maintaining IP66/67.
- 2.5** All unused cable entries must be plugged with a suitably rated IP66/67 blanking devices.
- 2.6 Westlock nomenclature - 3500**
The first two digits of the nomenclature signifies the 3500 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
354*	Beacon
356*	Flat

Westlock nomenclature - 9468

The 9468 series is available in aluminium and stainless steel. Please contact the sales office for the part number 'P' code suffix number that is applied to the end of the catalog code that details aluminium or stainless steel. 01200 = aluminium enclosure only and 00124 = stainless steel enclosure only.
Please note that if any other special build is included, then these suffix numbers will change.

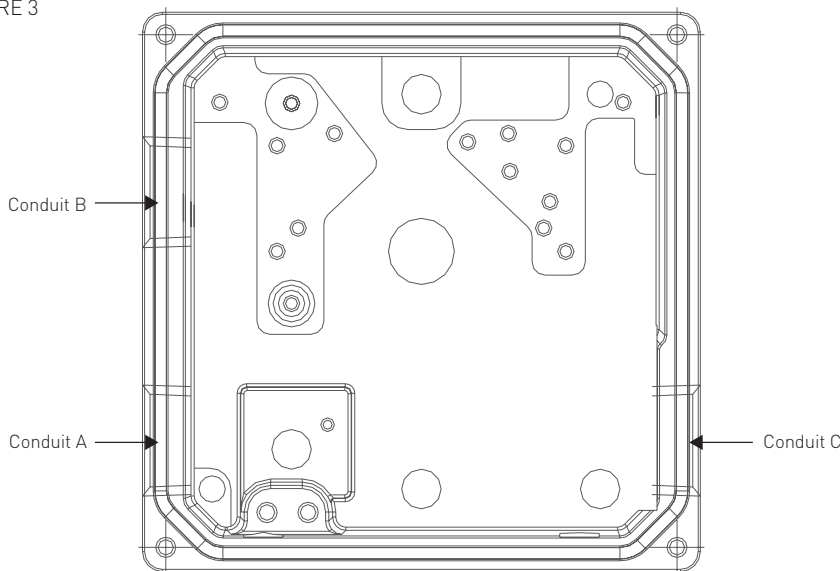
- 2.7** Tighten the cover retaining screws hand tight using a standard size Allen key / screw driver as indicated below:
- 3500 series uses a 4 mm A/F allen key
 - 9468 series uses a correctly sized slotted screwdriver.

- 3.2** The equipment is not intended to be repaired by the user. The repair of this equipment is to be carried out by the manufacturer, or their approved agents, in accordance with the applicable code of practice such as EN 60079-19.
- 3.3** The equipment contained within this product can be replaced with like for like parts / assemblies.
- 3.4** 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.
- 3.5** Replacement parts must be purchased through Westlock Controls or via an approved Westlock Controls distributor.

3 PRODUCT REPAIR AND SERVICE

- 3.1** Inspection of this product shall be carried out periodically by suitably trained personnel in accordance with the applicable code of practice such as EN 60079-17 to ensure that it is maintained in a satisfactory condition.

FIGURE 3



These installation and operating instructions are based on document TECHUK-47 Rev 0 used for ATEX certification of the Westlock 3500/9468 Series

Translations

Where translated the copy is taken from the original English document VCIOM-04109-EN as checked by the relevant notified certification body and therefore the original English document will prevail. No rights or liability can be derived from any translation.