

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

Limit switch box installed over a sanitary pneumatic actuator

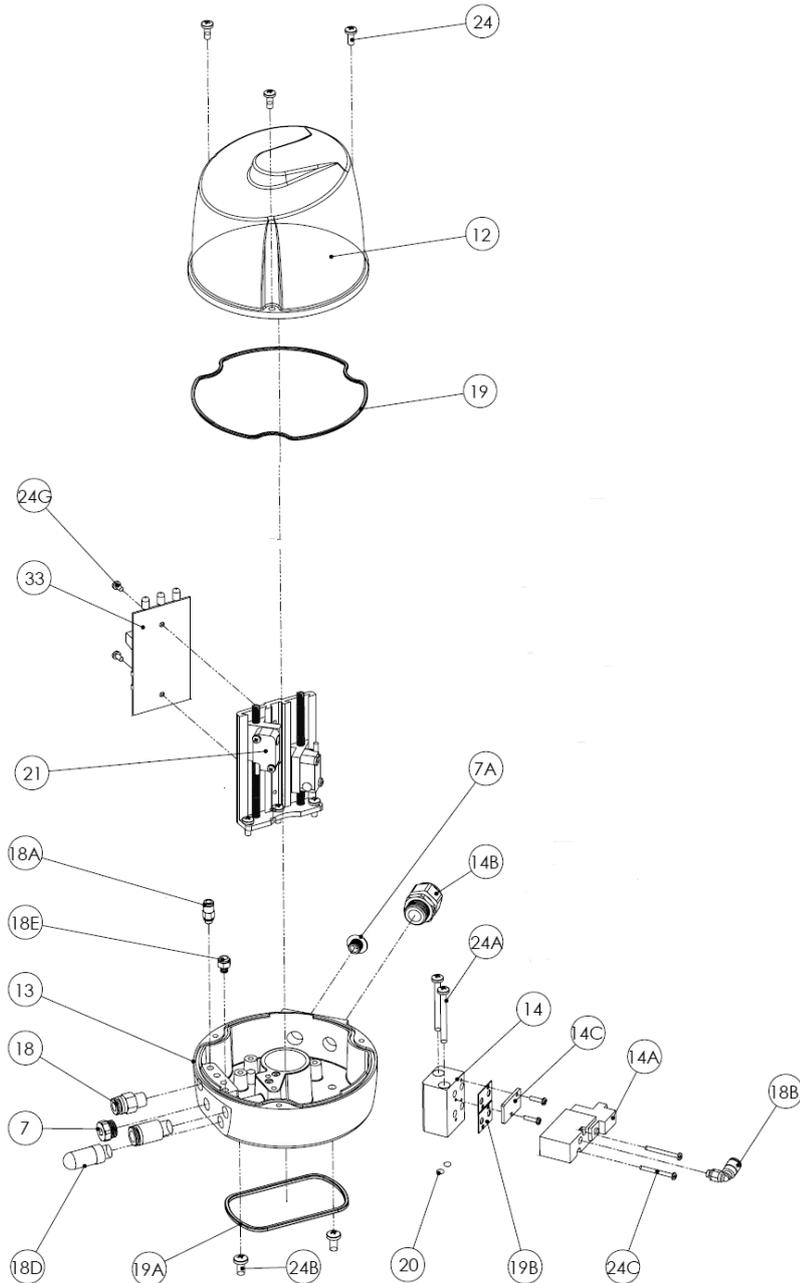


GENEBRE Reference: 5944 – 5949

Installation, operation and maintenance instructions

1. Breakdown drawing.....	3
1.1) List of components:.....	4
2. Storage.....	4
3. Installation instructions.....	5
3.1) Preparation.....	5
3.2) Installation on the valve.....	6
3.3) Electrical connection.....	6
3.4) Pneumatic connection.....	8
4. Operation instructions.....	10
4.1) Usage.....	11
4.2) Manual operation.....	11
5. Maintenance operations.....	11
6. Reparation instructions.....	12
6.1) Disassembling.....	12
6.2) Reassembling.....	13
7. Hygiene and Safety Instructions:.....	13

1) Breakdown drawing.



1.1) List of components:

Position	Name	Material
7	Plug	Stainlees Steel
7A	Plug	Plastic
12	Cover	Polycarbonate
13	Base	Polypropylene
14	Solenoid Block (*)	Aluminium
14A	Solenoid (*)	-----
14B	Cable Gland	Plastic
14C	Base Plate (*)	Aluminium
18	Air Coupling (**)	Brass
18A	Air Coupling (**)	Brass
18B	Air Coupling (**)	Brass
18D	Muffler	Plastic
19	Cover Seal	EPDM
19A	Cover Seal	EPDM
19B	Solenoid Gasket (*)	NBR
20	O'ring (*)	NBR
21	Proximity Detector	-----
24	Cover Screw	Stainlees Steel
24A	Block Screw (*)	Stainlees Steel
24B	Base Screw	Stainlees Steel
24C	Solenoid Screw (*)	Stainlees Steel
24G	Electric plate Screw	Stainlees Steel
33	Electric Plate	-----

(*) Only for 5944 02 and 5949 02 products

(*) Only for 5949 product

2) Storage

During storage it is recommended to keep the product in the included protective wrapping to avoid damages or dirt accumulation. The wrap must not be removed until element is to be installed. As much as possible, it must be stored in a dry and clean environment.



Transport and storage of these devices must be done in their original wrapping.

VISUAL INSPECTION

Check whether during transport, unloading and placement, devices have suffered no damages.

MECHANICAL INSPECTION

Check whether all mobile parts of the different devices, as well as the screws and other elements, are accomplishing their purpose.



If you notice any kind of anomaly during reception of the goods, contact immediately with GENE BRE in order to determine the possible responsibilities on the issue and make the devices fully operational.

IMPORTANT NOTE:

Before installing and/or manipulating these pneumatical elements, READ CAREFULLY these instructions for use and OBSERVE all contained information. If you fail to understand any of their content, please contact GENE BRE, S.A.

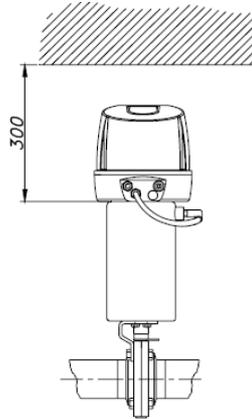


User is responsible for the safe use of these devices, as established in present instructions for use and in the specific technical documentation of the device.

3) Installation instructions

3.1) Preparation

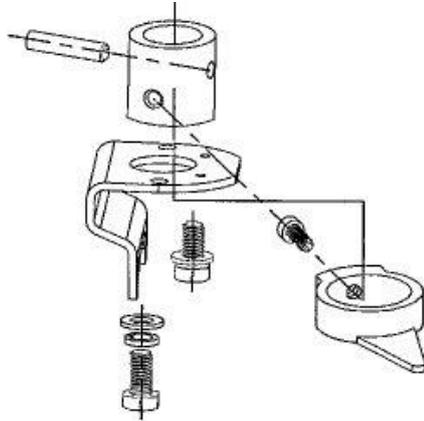
Remove any material remains of the element wrapping.
Prepare a clean working area.
Plan beforehand enough space for future maintenance operations.



It is recommended to perform this task under qualified professional surveillance.

3.2) Installation on the valve

Use the appropriate supports and coupling elements to assemble the actuator and the head with the corresponding valve.



3.3) Electrical connection

The head has been designed to support multiple voltage types, standard being the following:

24V DC

If using any other type of voltage, the user must indicate it in order to change electrical components (solenoids, sensors, etc.)

Be extremely cautious before powering the equipment and take into account the power tension for which it is designed.

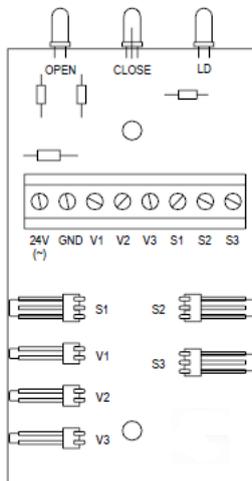
The head has three LED, which act as visual indicators to provide information about valve's position at all times:

Green LED: valve is in open position

Red LED: valve is in closed position

Yellow LED: indicates a third position in case the LED is installed in the mix-proof valve

Electrical setup is as follows:



Power supply:

24V = Pole +

GND = Neutral

Solenoid valves (output to control panel or PLC):

V1 = First solenoid (simple actuator)

V1 = Second solenoid (double actuator)

V3 = Third solenoid (Mix -proof)

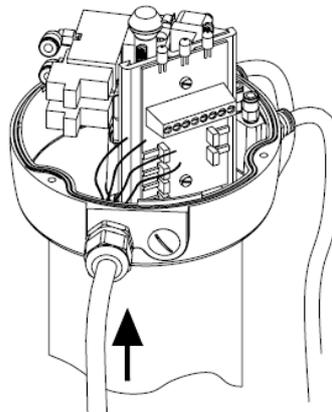
Proximity detectors:

S1 = Open position detector (green LED)

S1 = Closed position detector (red LED)

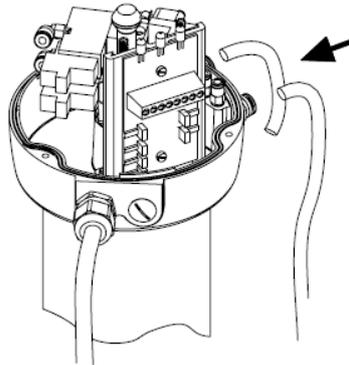
S1 = Third position detector (yellow LED)

Wiring must be done with a cable clamp:



3.4) Pneumatic connection

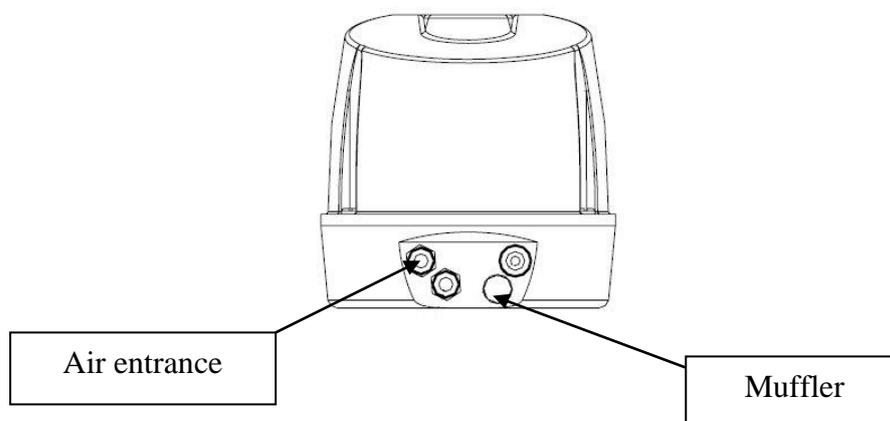
All connectors for pneumatic installation are the "quick connector" kind, for a pipe \varnothing 6 mm.



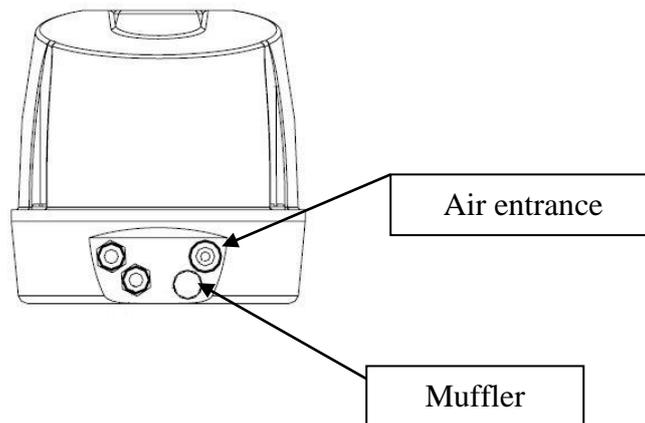
Actuators with head come by default with all internal pneumatic connections installed according to reference (5944 01 / 5944 02 / 5949 01 / 5949 02). It will only be necessary to feed externally with air the corresponding connectors.

IMPORTANT: Power air has to be **CLEAN and DRY**.
Respect minimum and maximum power pressure (1,5 – 6 bar)

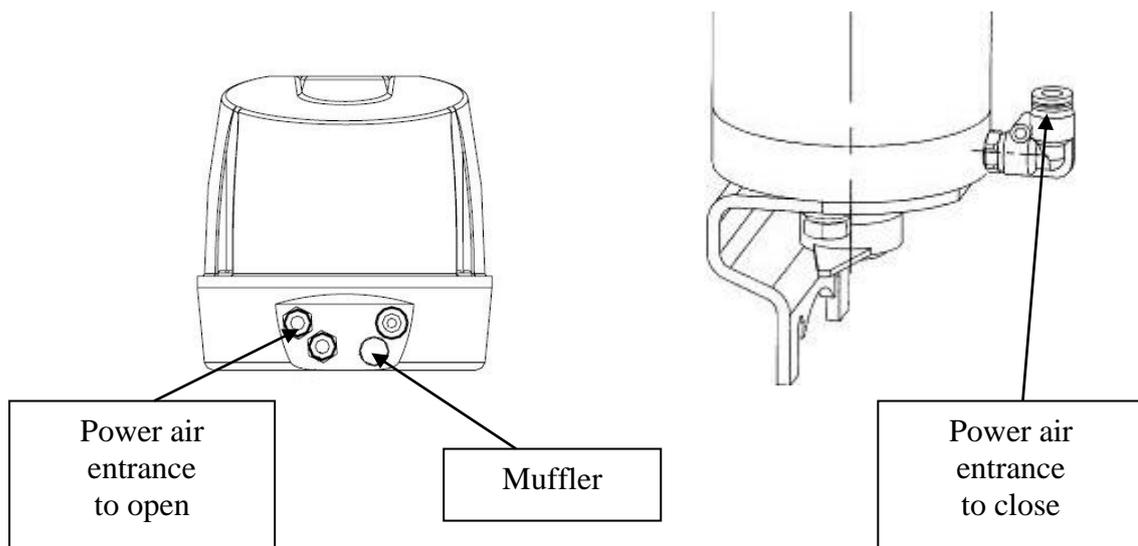
Ref. 5949 01 (Simple actuator - 2 sensors – 0 solenoid valves)



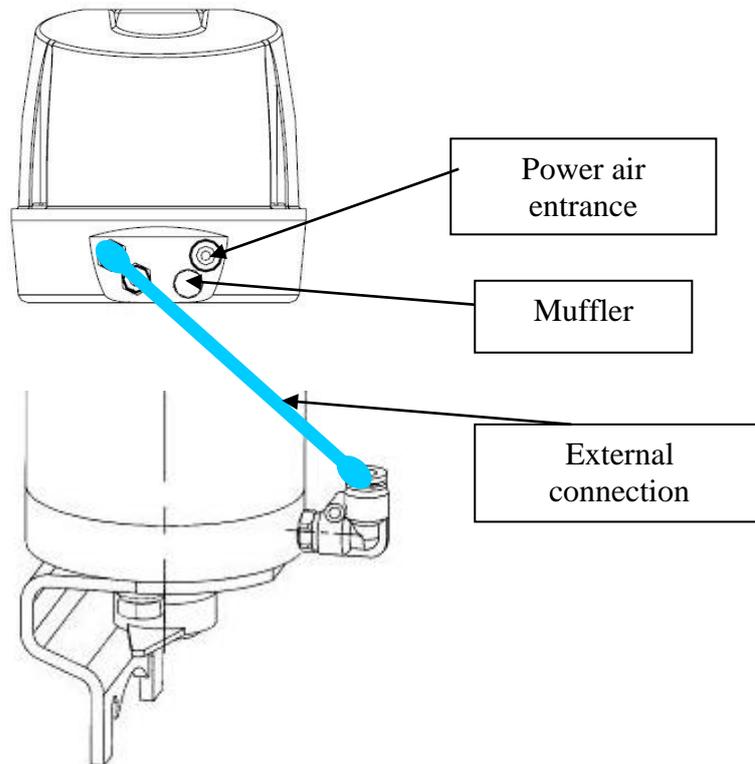
Ref. 5949 02 (Simple actuator - 2 sensors – 1 solenoid valve)



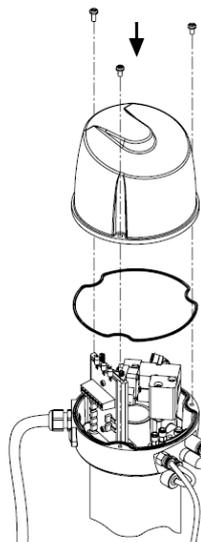
Ref. 5949 01 (Double actuator - 2 sensors – 0 solenoid valves)



Ref. 5949 02 (Double actuator - 2 sensors – 2 solenoid valves)



After installation, **ALWAYS** put back the cover to protect internal electrical components, making sure the joint that keeps together cover and base is correctly placed. Avoid spilling water inside the head.



4) Operational instructions

4.1) Usage

Before starting the equipment, you have to read the Technical Specifications and never exceed the Power limit values (electrical and air).

Never touch the valve and/or pipes in contact with surrounding fluid when the process is started; you can suffer from injuries such as burns.

4.2) Manual operation

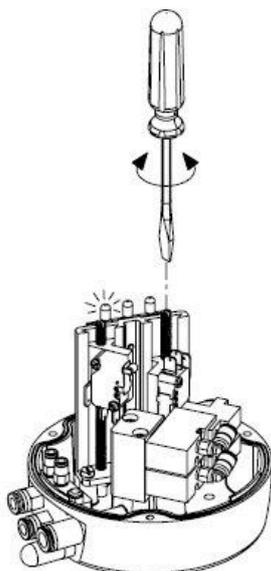
Actuator and head are composed by mobile parts, either rotary or sliding; do not approach your fingers to these areas as you can get seriously injured.

5) Maintenance operations

The head does not require maintenance.

If an internal component has been damaged, please contact Genebre S.A. to evaluate the possibility of repairing it.

Detectors position comes set by default; if you need to adjust it, proceed with the following steps:



Adjustment is done with the vertical screws that fasten the sheet supporting the detector:

- To set detector position up you have to adjust the screw clockwise.
- To set detector position down you have to loosen the screw anticlockwise.

Adjustment, if necessary, has to be done with the head connected to the power supply's correct tension, because when adjusting is correct the LED will be lighted to indicate optimal signal position.



¡Use only components/spare parts original or recommended by GENE BRE, S.A!

6.) Reparation instructions

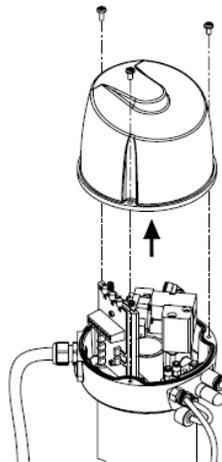
Genebre, S.A. will not be held responsible for an inappropriate operation of the element or its components.

Before starting to repair it, disconnect all pneumatic and electrical actuators.

6.1) Disassembling

Prepare a clean working area and adequate tools to perform mechanical tasks.

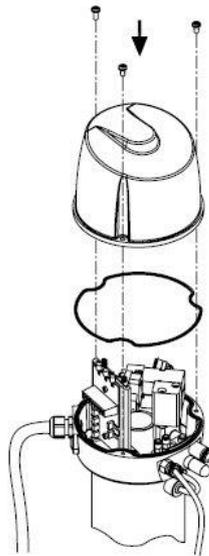
Remove the head's cover by unscrewing the three screws that fasten it to the base.



Replace the broken-down part making sure you are using the correct spare parts. When it is assembled again, cleaning is essential for assuring a long service life.

6.2) Reassembling

Once checked the correct performance of the element, put back the cover to protect internal electrical components, making sure the joint that puts together cover and base is correctly placed.



7) Hygiene and Safety Instructions:

When operating any kind of element, you must follow the security instructions and it is recommended to use personal protection gadgets:

- 1) Protect your eyes.
- 2) Wear gloves and appropriate working clothes.
- 3) Wear safety footwear.
- 4) Wear a helmet.
- 5) Have running water at hand.



Before removing a valve from a pipe, check always if the line is completely drained and depressurized.



All electrical work must be carried out by a duly authorized professional.