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**PROPORTIONAL CONTROL VALVES WITH  
FORK COUPLING**



**SERIES 863T - 873T**

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**INSTALLATION, USE AND MAINTENANCE**

	= Generic danger
	= Warning
<b>ECU</b>	= IBX100 remote control unit
<b>VT</b>	= Virtual Terminal
<b>OP</b>	= Object Pool
<b>TC</b>	= Task Controller

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## • MANUAL USE MODES

The section of this manual dedicated to the installation contains information for installers. For this reason we have used technical terms without providing explanations which would be necessary for end users only.

**THE INSTALLATION MUST BE CARRIED OUT BY AUTHORIZED AND SKILLED PERSONNEL ONLY. ARAG IS NOT RESPONSIBLE FOR ANY OPERATION SPECIFIED IN THIS MANUAL CARRIED OUT BY UNAUTHORIZED OR UNSKILLED PERSONNEL.**

## • RESPONSIBILITY

The installer must carry out "workmanlike" installations and ensure to the end user the perfect operation of the whole system both with ARAG components only and other brands' components.

ARAG always recommends using its components to install control systems.

The installer will be held responsible for any malfunction if he decides to use other brands' components even without actually changing the system parts or harness.

The compatibility check with components and accessories of other manufacturers shall be carried out by the installer.

If the ARAG components installed together with other brands' components get damaged because of what stated above, no direct or indirect warranty will be provided.

## 1 SAFETY GUIDELINES



### CAUTION:

All installation and maintenance operations must be carried out by qualified personnel with circuit not under pressure and without power supply (connector disconnected).

Use suitable tools and any individual protection equipment deemed necessary.

Use ONLY clean water for spraying tests, calibrations and simulations: using chemicals during simulated spraying runs can seriously injure persons in the vicinity.

Do not operate the valve with no load for long periods of time, as this might damage the components inside the valve.

ARAG declines any responsibility for direct or indirect damage deriving from the type of fluids used in the system.

The use of such substances is made under the full responsibility of the operator, who therefore must follow the safety measures indicated by the fluid manufacturer on the package and wear suitable personal safety equipment (gloves, coverall, boots, helmet, etc.) in compliance with the law provisions.

ARAG may not in any way be held responsible for accidents or damage to persons, animals or objects caused by improper, unprotected, or non-recommended use of the products utilized.

## 2 INTENDED USE

The 863T - 873T electric valves have been designed for agricultural use.

Fitted inside a pressurized system on spraying and crop spraying machines, they allow an adjustable output of chemicals.

These valves are for professional use only.

**This device is designed to work on agricultural machinery for spraying and crop spraying applications.**

The equipment is designed and manufactured according to:

- EMC Directive 2014/30/EC and subsequent amendments;

- Machinery Directive 2006/42/EC and subsequent amendments.

• compliance with Machinery Directive is applied in the following essential requirements:

1.1.2, 1.1.3, 1.1.6, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.7, 1.3.8.1, 1.5.4, 1.5.5, 1.5.6, 1.6.1, 1.6.5, 1.7.1, 1.7.4, 1.7.4.1, 1.7.4.2, 1.7.4.3.

• this partly completed machinery shall not be placed on the market until the final machine of which it is a part is declared in conformity with the Machinery Directive 2006/42/EC.

## 3 LIMITATIONS OF USE

The 863T - 873T series electric valves may not be used:

- as safety valves;
- in systems where gases, vapors, or similar pass through;
- in systems for explosive atmospheres;
- in contact with food stuff;
- in civil systems.

## 4 PRECAUTIONS



- Do not aim water jets at the equipment.
- Do not use solvents or fuel to clean the outer surfaces.
- Do not clean equipment with direct water jets.
- Comply with the specified power voltage (12 VDC).
- In case of voltaic arc welding, remove connectors from the device and disconnect the power cables.
- Only use ARAG genuine spare parts and accessories.

**5 INSTALLATION**

- The components, pipes and valves that will be installed in the system must withstand a pressure higher than the maximum one of the system.
- Any constriction in the system may lead to a faulty over-pressure.
- Make sure that hoses, hose tails and valve flanges feature a suitable and compatible diameter.



**CAUTION:** connect the power supply connector to the valve only after having completed the hydraulic connections.

**OPERATING THE VALVE WITH ONE OR MORE INLETS/OUTLETS OPEN IS VERY DANGEROUS AND CAN CAUSE ACCIDENTS AND SERIOUS INJURIES TO THE INSTALLATION OR MAINTENANCE PERSONNEL.**



**CAUTION:** TO AVOID DAMAGING THE SYSTEM, MAKE SURE THAT NONE OF THE PARTS COMES INTO CONTACT WITH MOVING PARTS OF THE FARMING MACHINE.

**6 POSITION ON FARMING MACHINE**

**6.1 Hydraulic circuit**

The 863T and 873T valves are components designed for the distribution of chemicals. They are assembled with other elements to form electric control units with different configurations (ref. corresponding manual).



**Additional couplings, O-rings and other additional parts (valves, filters, flowmeters, etc.) must be ordered separately (general Arag catalog): when choosing the items, make sure that preset connections are correct for the valves (section 6.3 - 6.4).**

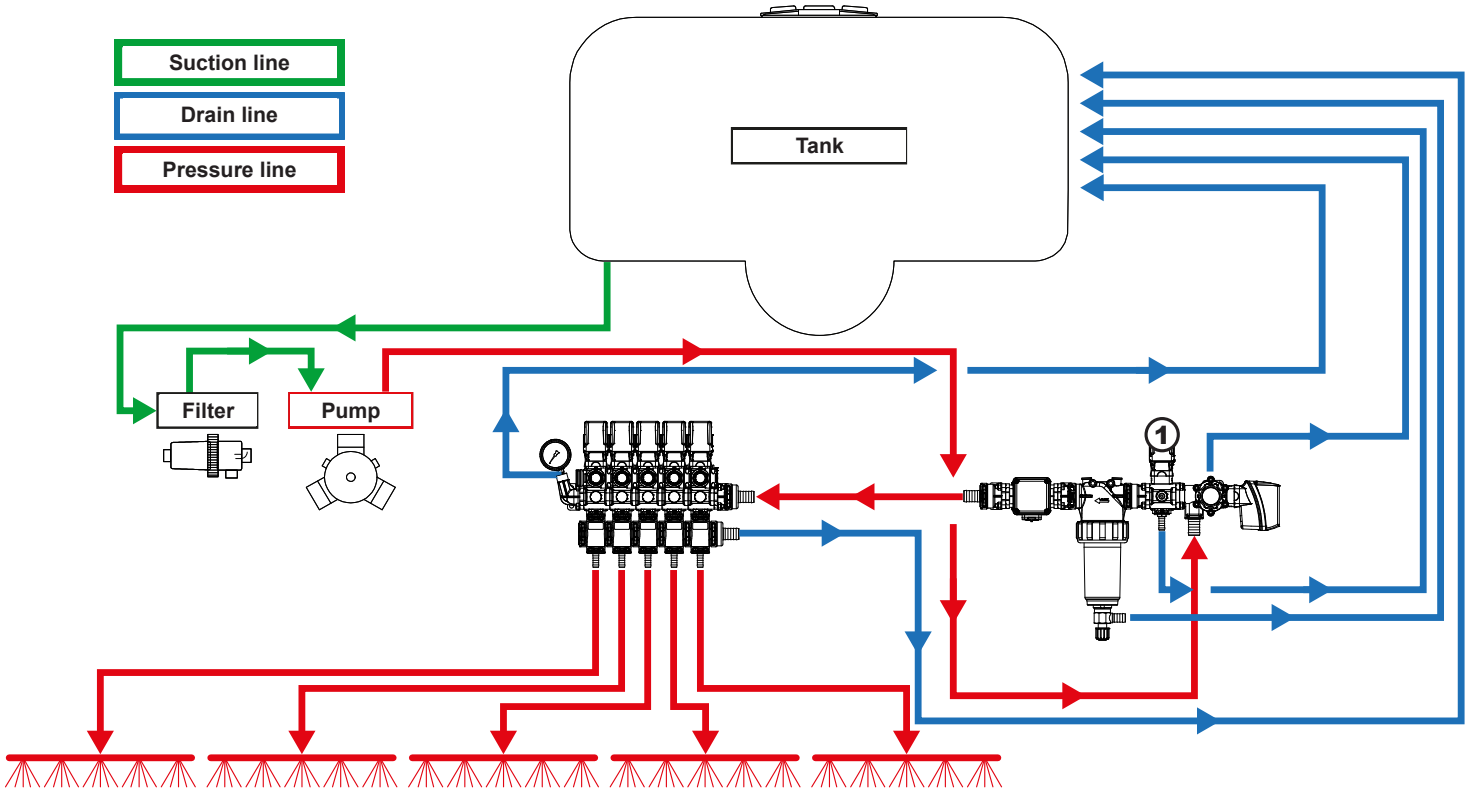


Fig. 1

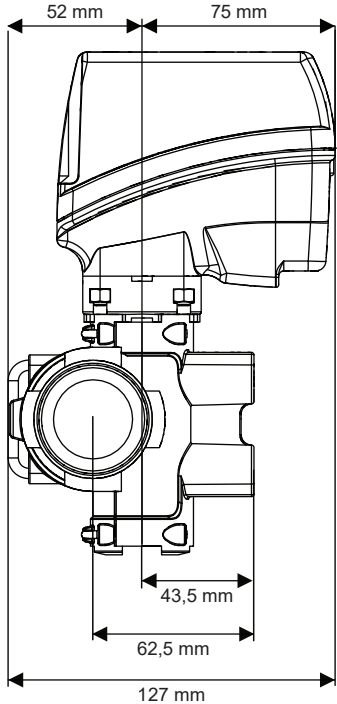
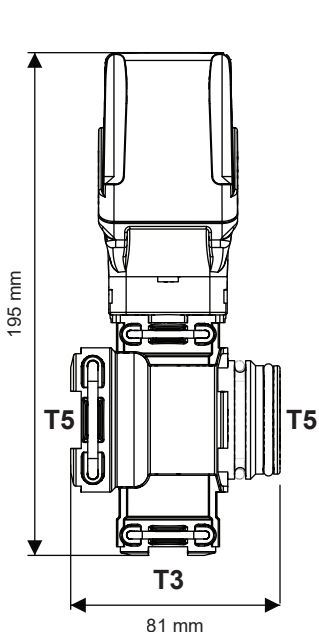
**Legend:**

**1** Proportional control electric valve

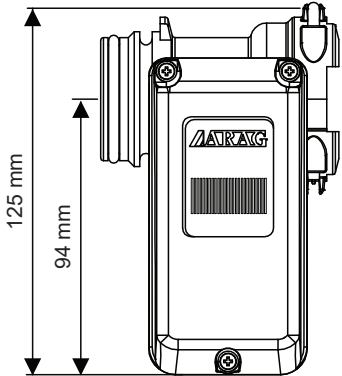
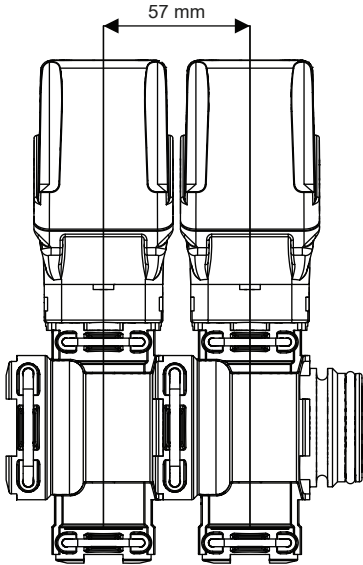
**6.2 Proportional control electric valve**

It regulates the flow in the distribution units that perform spraying operations proportional to the motor rpm (DPM). Suitably adjusted by means of the special switch on the unit control device (i.e.: control box or computer), it controls the spraying pressure: during the spraying, when the travel speed of the vehicle changes, the volume of distributed liquid per surface unit (liters/hectares) remains constant. The increase or decrease of the flowrate is proportional to the motor rpm with a tolerance of  $\pm 20\%$ .

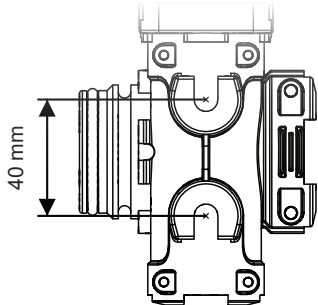
6.3 Overall dimensions - SERIES 863T



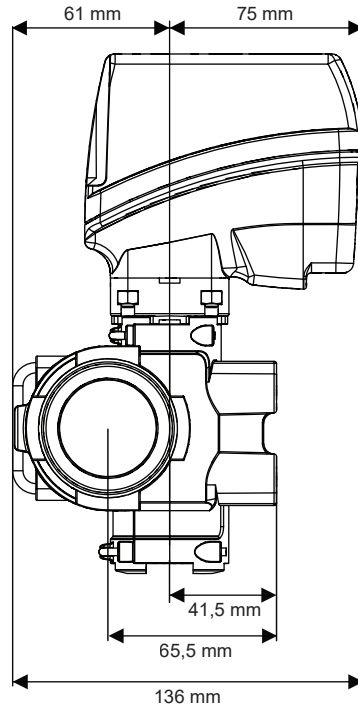
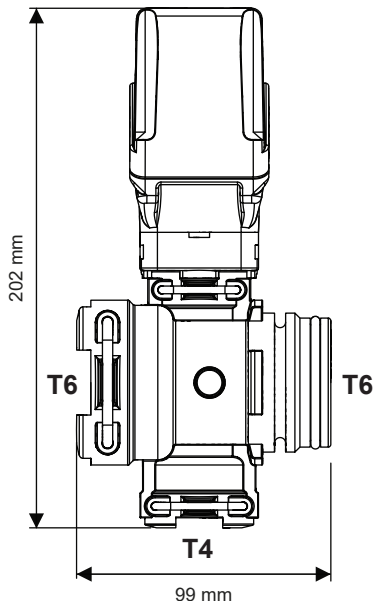
Center distance between valves



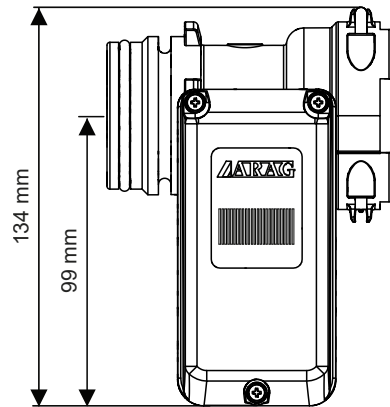
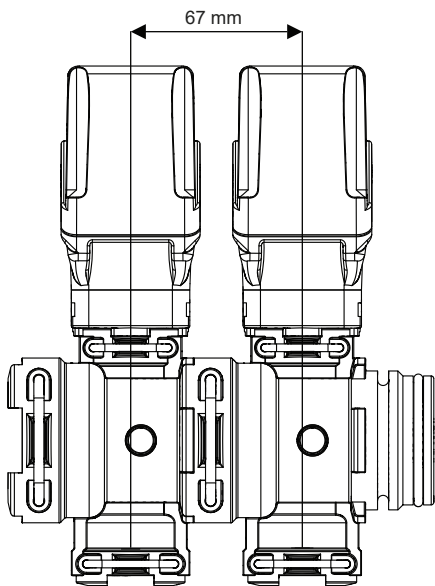
Position of the drilling points for the attachment bolts



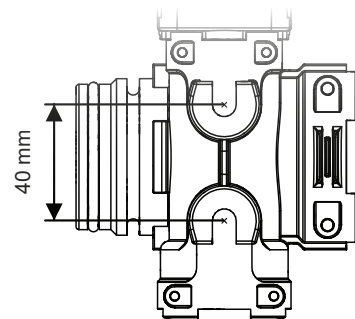
6.4 Overall dimensions - SERIES 873T



Center distance between valves



Position of the drilling points for the attachment bolts



6.5 Attachment

The valve is factory set to be attached using bolts of the indicated type:

- Insert the bolts into their respective seats and turn them to the stop position to prevent them from coming out.

It is also recommended to use a flat washer of suitable diameter (Ø 8 ISO 7089).

- Screw the nuts and tighten them firmly: **TIGHTENING TORQUE 4 Nm +/-0.5 Nm**



**No other types of coupling are permitted than those described.**

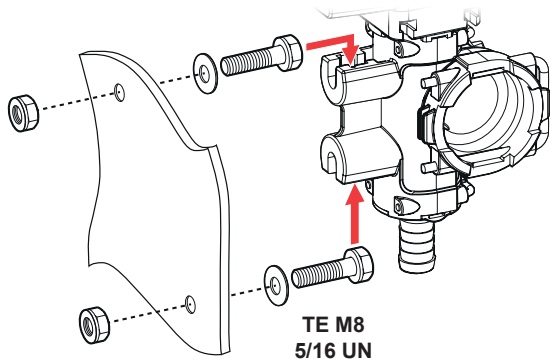


Fig. 2

7 HYDRAULIC CONNECTIONS

**ASSEMBLING AND FIXING THE COUPLINGS**



Connect the components with fork coupling as follows:

- Apply O-ring lubricant.
- Position the O-ring ON THE MALE CONNECTION OF ALL THE COUPLINGS (make sure that the position is correct).
- The couplings shown are indicative.

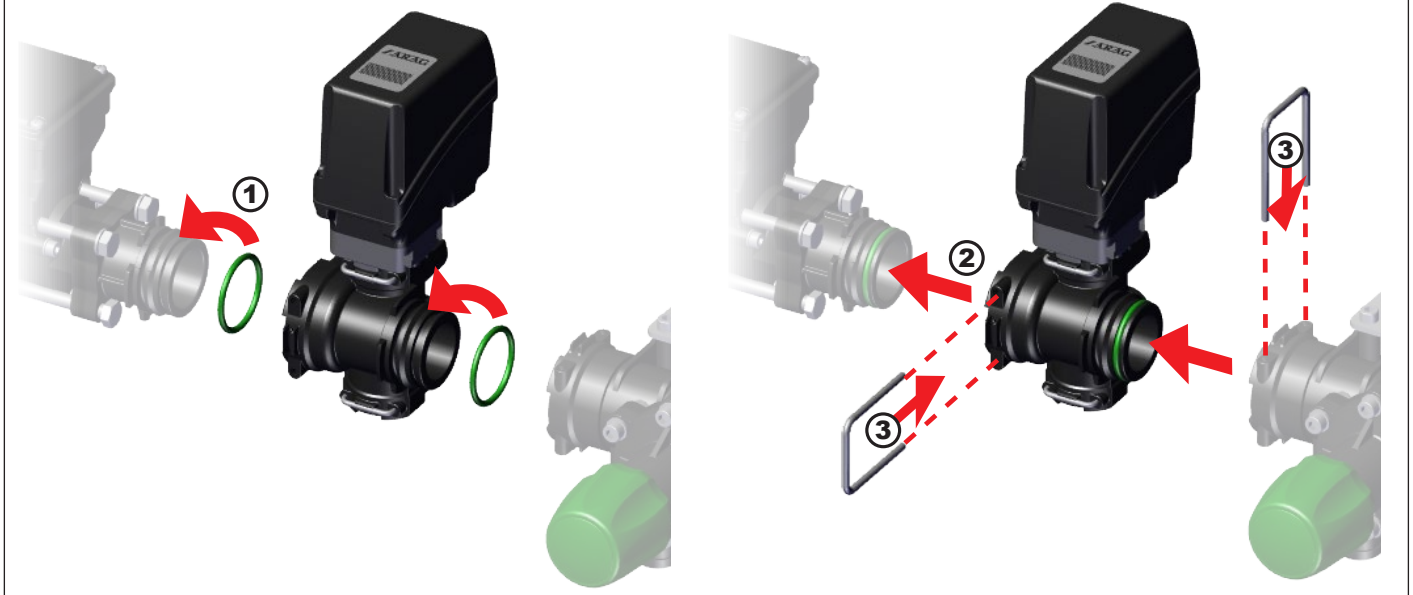


The maximum operating pressure of the valve is indicated in the technical data sheet of the product.

**ONLY** after all the hydraulic connections of the circuit to the relevant pipes have been made, put the system under pressure **ONLY WITH CLEAN WATER FIRST** to make sure that the connections are not leaking.

If, for any reason, the pipes leak at connection points, apply PTFE tape to improve sealing.

**CONNECTING THE VALVES**



## 8 WIRING CONNECTIONS



- The unit must be connected and commissioned by specialized personnel.
- Use only the cables provided with ARAG computers or control boxes.
- Take care not to break, pull, tear or cut the cables.
- Occasionally check that harness and single cables are undamaged.
- Use of unsuitable cables not provided by ARAG automatically voids the warranty.
- ARAG is not liable for any damage to the equipment, persons or animals caused by failure to observe the above instructions.

### 8.1 General precautions for a correct harness position

- **Securing the cables:**
  - secure the harness so that it does not interfere with moving parts;
  - route the harnesses so that they cannot be damaged or broken by machine movements or twisting.
- **Fitting the cables to the connection points:**
  - Do not force the connectors by pushing too hard or bending them: the contacts may be damaged and system operation may be compromised.



**Use ONLY the cables and accessories indicated in the catalog, having technical features suitable for the use to be made of them.**

### 8.2 Wiring connections

The 863T and 873T valves have been designed to be connected to ARAG control devices (computer, monitor, control boxes). The cables required for the connections are supplied, properly marked, with the control device to be used: always refer to the installation manual of the control device.

The valve must be connected by means of the connector on the geared motor. Connect the connector of the geared motor to the connector of the relevant harness; after making sure it is correctly inserted, press until it locks.



**CAUTION: CHECK THAT THE CONNECTOR IS FITTED CORRECTLY TO ENSURE A PROPER SEALING (Fig. 3). If the seal is not positioned correctly, there may be infiltrations of water in the connector and in the valve, with the consequent risk of damage to the device (Fig. 4).**

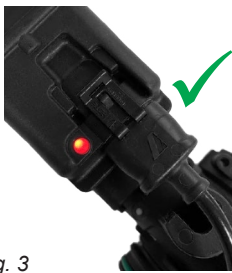


Fig. 3

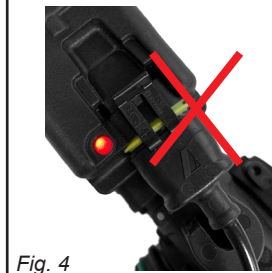
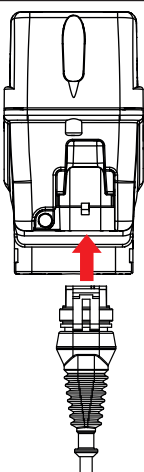
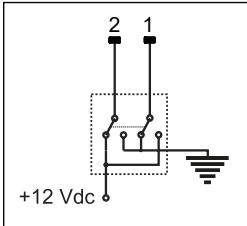
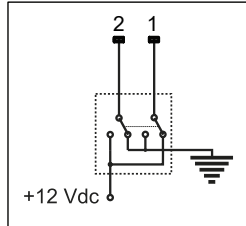
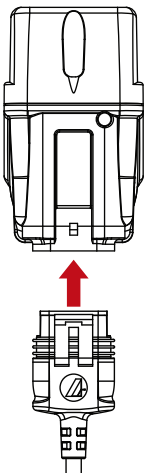
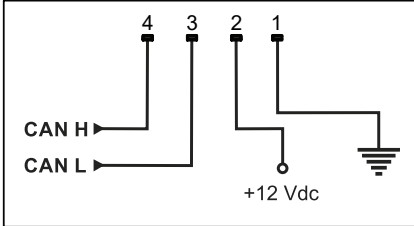


Fig. 4

CONTINUES >>>



SERIES 863T - 873T			
	<p style="text-align: center;"><b>Valve open</b></p> 	<p style="text-align: center;"><b>Valve closed</b></p> 	<ul style="list-style-type: none"> <li>• Opening/closing movement obtained by reversing the power supply polarity with a dual switch.</li> </ul>

SERIES 863T - 873T CANBUS		
		<ul style="list-style-type: none"> <li>• 12 Vdc power supply always connected.</li> </ul>

9 USE



**CAUTION:** Do not run light valve for a long time, the inside gaskets could be damaged and the valve could block up.

9.1 Controls

- For details on any operation or adjustment of the valves, ALWAYS refer to the use and maintenance manual of your own control device.
  - Power the valve using a suitable control device (refer to the technical data section for the exact absorption values)
- The specifications of A-Net and SAEJ1939 protocols to send commands to the valve can be requested by contacting the ARAG technical support department at the following address: [support@aragnet.com](mailto:support@aragnet.com).

9.2 LED signals

A LED positioned on valve connector indicates the relevant status:



2-wire operation		
LED LIGHT COLOR	VALVE POSITION	POWER SUPPLY
RED	Open	Correct
YELLOW	Closed	Correct
OFF	--	Absent



CanBus operation		
LED LIGHT COLOR	STATUS	
OFF	The valve is not powered.	
ORANGE STEADY ON	The valve is being turned on	
GREEN BLINKING	Waiting to acquire a CANBUS address. <b>After 10 seconds the LED turns green steady on, even if the address has not yet been acquired.</b>	
GREEN STEADY ON	The valve is configured and working.	
ORANGE BLINKING	The valve firmware is being updated	
RED BLINKING	<b>ERROR.</b> The error codes are indicated through blinks, which are described in section 11.2.	

**DURING THE 10 SECONDS AFTER TURNING ON**

**10 TIME TO SERVICE**



**PRECAUTIONS FOR MAINTENANCE OPERATIONS AND FOR CLEANING THE EXTERNAL PARTS**

- DISCONNECT THE POWER CABLES.
- WEAR SUITABLE PERSONAL PROTECTION EQUIPMENT, OVERALLS, GLOVES AND FACE MASK.
- DO NOT CARRY OUT ANY OPERATION ON THE SYSTEM IF INDOORS OR IN POORLY VENTILATED AREAS.
- DO NOT USE SOLVENTS OR FUEL TO CLEAN THE OUTER SURFACE.
- DO NOT USE AGGRESSIVE DETERGENTS OR PRODUCTS.
- DO NOT USE PRESSURIZED WATER JETS (PRESSURE WASHERS, ETC.).



At the end of each work shift, carry out a washing cycle of the circuit with clean water in the tank.

**CAUTION: DISPOSE OF THE LIQUID USED FOR CLEANING ACCORDING TO THE REGULATIONS IN FORCE IN THE COUNTRY OF USE.**

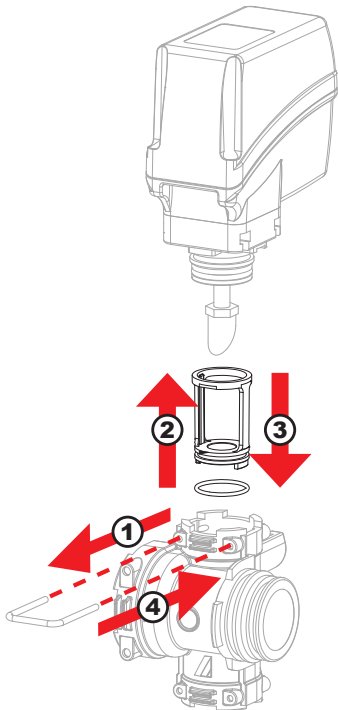
Internal cleaning can be carried out when the system to which the valve is connected is cleaned.

If the maintenance technician needs to open the valve to check the seal or for extraordinary cleaning, before fitting it back you must replace the seal of the coupling that was opened.



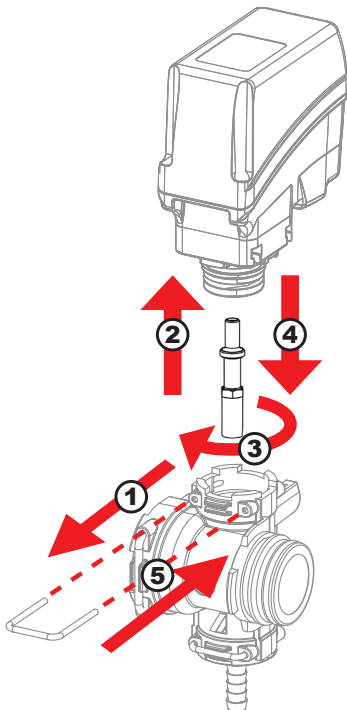
**CAUTION: fitting back the valve without replacing the seals can reduce the sealing and therefore cause leaks.**

**10.1 Proportional control valve**



**10.2.1 Internal cage replacement**

- Remove the fork and the motor/shaft unit from the seat (**1** and **2**).
- Slide the cage and O-ring out and replace them
- Reposition the motor/shaft unit (**3**).
- Reposition the fork.
- Reconnect all the hydraulic connections.
- Restore electric power supply.
- Put the system under pressure **ONLY WITH CLEAN WATER** and check that the connections are not leaking.



**10.1.1 Replacing the shaft or the motor/shaft unit**

- Close the valve using the suitable control, make sure that the motor is set to OFF and that the shaft is in the lowest possible position (shaft all the way down).
- Remove the fork and the motor/shaft unit from the seat (**1** and **2**).
- Unscrew the shaft and replace it (**3**), or replace the whole motor/shaft unit according to your needs.
- Reposition the motor/shaft unit (**4**).
- Reposition the fork.
- Reconnect all the hydraulic connections.
- Restore electric power supply.
- Put the system under pressure **ONLY WITH CLEAN WATER** and check that the connections are not leaking.

**11 TROUBLESHOOTING**

**11.1 SERIES 863T - 873T**



PROBLEM	CAUSE	SOLUTION
The valve lost efficiency with respect to the initial performance	Presence of foreign bodies	• Make sure there are no foreign bodies; if so, remove them.
	The shaft or the sealing cage are damaged	• Replace the adjustment shaft and/or the internal cage (section 10.2.1).
The valve does not work	The valve is not powered	• Check the connections and the cables. • Replace the cable. If the problem persists, contact your nearest Service Center.
	The harnesses are not connected correctly	• Check the connections and the cables.
	Power supply voltage is lower than the minimum value	• Make sure that the harnesses are suitable for the system
	Overtoltage	• The valve features an internal protection which, in case of overvoltages, automatically stops the operation: reset the valve by cutting the power off for about 20 seconds.
	Geared motor broken	• Replace the geared motor.
The valve does not stop at the preset point	Geared motor broken	• Replace the geared motor.

**11.2 SERIES 863T - 873T CANBUS**



PROBLEM	LED STATUS	NUMBER OF BLINKS	CAUSE	SOLUTION	
The valve lost efficiency with respect to the initial performance	-	-	Presence of foreign bodies.	• Make sure there are no foreign bodies; if so, remove them.	
			The shaft or the sealing cage are damaged	• Replace the adjustment shaft and/or the internal cage (section 10.2.1).	
The valve does not respond to commands	 Off	-	No power supply.	• Check the connections and the cables. • Replace the cable. If the problem persists, contact your nearest Service Center.	
			Wrong wiring harness connection.	• Check the connections and the cables.	
			Power supply voltage lower than the minimum value.	• Make sure that the harnesses are suitable for the system.	
	 Green steady on	-	Geared motor broken.	• Replace the geared motor.	
			The CAN-BUS address assigned to the valve is wrong	• Repeat the address assignment procedure.	
			The sent commands are wrong or have been sent to the wrong address	• Check the commands sent by the control device.	
			The connection between valve and control device is faulty or not suitable	• Check connections. • Make sure that the harness structure complies with the CAN-BUS 2.0 specifications. • Check for the presence and conditions of terminating resistors.	
	 Red blinking	8 and 9	Abnormal current absorption detected	• Remove the motor and make sure that the shaft can move freely; on the contrary, perform valve maintenance operations or contact your nearest Service Center. • Restart the valve.	
			4	Problem on motor control circuit	• Restart the valve; if the problem persists, contact your nearest Service Center.
			14	Hardware version not supported	• Contact the nearest Service Center.
The valve works correctly, but the red LED blinks	 Red blinking	11	Power supply voltage too high	• Check the operating conditions: under these conditions the valve could not have the specified performance.	
		12	Power supply voltage too low		
		13	Too a high temperature has been detected		

11.3 SERIES 863T - 873T CANBUS with position sensor



PROBLEM	LED STATUS	NUMBER OF BLINKS	CAUSE	SOLUTION	
The valve lost efficiency with respect to the initial performance	-	-	Presence of foreign bodies.	• Make sure there are no foreign bodies; if so, remove them.	
			The shaft or the sealing cage are damaged	• Replace the adjustment shaft and/or the internal cage (section 10.2.1).	
The valve does not respond to commands	Off	-	No power supply.	• Check the connections and the cables. • Replace the cable. If the problem persists, contact your nearest Service Center.	
			Wrong wiring harness connection.	• Check the connections and the cables.	
			Power supply voltage lower than the minimum value.	• Make sure that the harnesses are suitable for the system.	
	Green steady on	-	Geared motor broken.	• Replace the geared motor.	
			The CAN-BUS address assigned to the valve is wrong	• Repeat the address assignment procedure.	
			The sent commands are wrong or have been sent to the wrong address	• Check the commands sent by the control device.	
			The connection between valve and control device is faulty or not suitable	• Check connections. • Make sure that the harness structure complies with the CAN-BUS 2.0 specifications. • Check for the presence and conditions of terminating resistors.	
	Red blinking	-	2	Problem on position sensor	• Restart the valve; if the problem persists, contact your nearest Service Center.
			3	Geared motor shaft movement signal missing	• Remove the motor and make sure that the shaft can move freely; on the contrary, perform valve maintenance operations or contact your nearest Service Center.
			8 and 9	Abnormal current absorption detected	• Restart the valve.
			4	Problem on motor control circuit	• Restart the valve; if the problem persists, contact your nearest Service Center.
			14	Hardware version not supported	• Contact the nearest Service Center.
The valve works correctly, but the red LED blinks	Red blinking	11	Power supply voltage too high	• Check the operating conditions: under these conditions the valve could not have the specified performance.	
		12	Power supply voltage too low		
		13	Too a high temperature has been detected		

**12 TECHNICAL DATA**

**12.1 863T Proportional control valve**

**SERIES 863T**

**ELECTRICAL FEATURES**

- Valve status LED.
- Internal resettable fuse (disconnect the power supply for 20 seconds to reset).
- Power supply voltage 9 ÷ 16 Vdc
- Protection against polarity inversion Yes
- Protection against short-circuit Yes
- Absorption @ 12 Vdc 0.5 A (average absorption)
- The motor absorbs current only during valve movement

**ENVIRONMENTAL FEATURES**

- Operating temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F
- Storage temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F

**PHYSICAL FEATURES**

- Structure in fiber glass reinforced Nylon®
- Internal parts in Delrin® and AISI 303 stainless steel
- Seals in Viton®
- On/Off activation time ref. to the technical data sheet of the specific valve
- Flowrate ref. to the technical data sheet of the specific valve
- Maximum operating pressure ref. to the technical data sheet of the specific valve
- Use Crop sprayer, Low volume



**SERIES 863T CAN-BUS**

**ELECTRICAL FEATURES**

- Valve status LED.
- Integrated motor control and management electronics.
- Internal resettable fuse (disconnect the power supply for 20 seconds to reset).
- Power supply voltage 9 ÷ 16 Vdc
- Protection against polarity inversion Yes
- Protection against short-circuit Yes
- Absorption @ 12 Vdc 0.5 A (average absorption)
- Can-Bus connection port speed 250 Kbit/sec  
for valve control and diagnostics A-net protocol / Can-Bus protocol

**ENVIRONMENTAL FEATURES**

- Operating temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F
- Storage temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F

**PHYSICAL FEATURES**

- Structure in fiber glass reinforced Nylon®
- Internal parts in Delrin® and AISI 303 stainless steel
- Seals in Viton®
- Position sensor (optional)
- On/Off activation time ref. to the technical data sheet of the specific valve
- Flowrate ref. to the technical data sheet of the specific valve
- Maximum operating pressure ref. to the technical data sheet of the specific valve
- Use Crop sprayer, Low volume



**SERIES 863T CANBUS WITH POSITION SENSOR**

**ELECTRICAL FEATURES**

- Valve status LED.
- Integrated motor control and management electronics.
- Internal resettable fuse (disconnect the power supply for 20 seconds to reset).
- Power supply voltage 9 ÷ 16 Vdc
- Protection against polarity inversion Yes
- Protection against short-circuit Yes
- Absorption @ 12 Vdc 0.5 A (average absorption)
- Can-Bus connection port speed 250 Kbit/sec  
for valve control and diagnostics A-net protocol / Can-Bus protocol
- Position sensor: maximum linearity error +/- 0.1mm @ 20°C / +68 °F  
+/- 0.25mm @ 0 °C ÷ +60 °C / 32 °F ÷ +140 °F

**ENVIRONMENTAL FEATURES**

- Operating temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F
- Storage temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F

**PHYSICAL FEATURES**

- Structure in fiber glass reinforced Nylon®
- Internal parts in Delrin® and AISI 303 stainless steel
- Seals in Viton®
- Position sensor (optional)
- On/Off activation time ref. to the technical data sheet of the specific valve
- Flowrate ref. to the technical data sheet of the specific valve
- Maximum operating pressure ref. to the technical data sheet of the specific valve
- Use Crop sprayer, Low volume



12.2 873T series proportional control valve

**SERIES 873T**

**ELECTRICAL FEATURES**

- Valve status LED.
- Internal resettable fuse (disconnect the power supply for 20 seconds to reset).
- Power supply voltage 9 ÷ 16 Vdc
- Protection against polarity inversion Yes
- Protection against short-circuit Yes
- Absorption @ 12 Vdc 0.5 A (average absorption)
- The motor absorbs current only during valve movement

**ENVIRONMENTAL FEATURES**

- Operating temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F
- Storage temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F

**PHYSICAL FEATURES**

- Structure in fiber glass reinforced Nylon®
- Internal parts in Delrin® and AISI 303 stainless steel
- Seals in Viton®
- On/Off activation time ref. to the technical data sheet of the specific valve
- Flowrate ref. to the technical data sheet of the specific valve
- Maximum operating pressure ref. to the technical data sheet of the specific valve
- Use Crop sprayer, Low volume



**SERIES 873T CAN-BUS**

**ELECTRICAL FEATURES**

- Valve status LED.
- Integrated motor control and management electronics.
- Internal resettable fuse (disconnect the power supply for 20 seconds to reset).
- Power supply voltage 9 ÷ 16 Vdc
- Protection against polarity inversion Yes
- Protection against short-circuit Yes
- Absorption @ 12 Vdc 0.5 A (average absorption)
- Can-Bus connection port speed 250 Kbit/sec  
for valve control and diagnostics A-net protocol / Can-Bus protocol

**ENVIRONMENTAL FEATURES**

- Operating temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F
- Storage temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F

**PHYSICAL FEATURES**

- Structure in fiber glass reinforced Nylon®
- Internal parts in Delrin® and AISI 303 stainless steel
- Seals in Viton®
- On/Off activation time ref. to the technical data sheet of the specific valve
- Flowrate ref. to the technical data sheet of the specific valve
- Maximum operating pressure ref. to the technical data sheet of the specific valve
- Use Crop sprayer, Low volume



**SERIES 873T CANBUS WITH POSITION SENSOR**

**ELECTRICAL FEATURES**

- Valve status LED.
- Integrated motor control and management electronics.
- Internal resettable fuse (disconnect the power supply for 20 seconds to reset).
- Power supply voltage 9 ÷ 16 Vdc
- Protection against polarity inversion Yes
- Protection against short-circuit Yes
- Absorption @ 12 Vdc 0.5 A (average absorption)
- Can-Bus connection port speed 250 Kbit/sec  
for valve control and diagnostics A-net protocol / Can-Bus protocol
- Position sensor: maximum linearity error +/- 0.1mm @ 20°C / +68 °F  
+/- 0.25mm @ 0 °C ÷ +60 °C / 32 °F ÷ +140 °F

**ENVIRONMENTAL FEATURES**

- Operating temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F
- Storage temperature 0 °C ÷ +60 °C / 32 °F ÷ +140 °F

**PHYSICAL FEATURES**

- Structure in fiber glass reinforced Nylon®
- Internal parts in Delrin® and AISI 303 stainless steel
- Seals in Viton®
- On/Off activation time ref. to the technical data sheet of the specific valve
- Flowrate ref. to the technical data sheet of the specific valve
- Maximum operating pressure ref. to the technical data sheet of the specific valve
- Use Crop sprayer, Low volume



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## **13 END-OF-LIFE DISPOSAL**

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Dispose of the system in compliance with the established legislation in the country of use.

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## **14 GUARANTEE TERMS**

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1. ARAG s.r.l. guarantees this apparatus for a period of 360 days (1 year) from the date of sale to the client user (date of the goods delivery note).  
The components of the apparatus, that in the unappealable opinion of ARAG are faulty due to an original defect in the material or production process, will be repaired or replaced free of charge at the nearest Assistance Center operating at the moment the request for intervention is made. The following costs are excluded:
  - disassembly and reassembly of the apparatus from the original system;
  - transport of the apparatus to the Assistance Center.
2. The following are not covered by the guarantee:
  - damage caused by transport (scratches, dents and similar);
  - damage due to incorrect installation or to faults originating from insufficient or inadequate characteristics of the electrical system, or to alterations resulting from environmental, climatic or other conditions;
  - damage due to the use of unsuitable chemical products, for spraying, watering, crop sprayer or any other crop treatment, that may damage the apparatus;
  - malfunctioning caused by negligence, mishandling, lack of know how, repairs or modifications carried out by unauthorized personnel;
  - incorrect installation and regulation;
  - damage or malfunction caused by the lack of ordinary maintenance, such as cleaning of filters, nozzles, etc.;
  - anything that can be considered to be normal wear and tear;
3. Repairing the apparatus will be carried out within time limits compatible with the organizational needs of the Assistance Center.  
No guarantee conditions will be recognized for those units or components that have not been previously washed and cleaned to remove residue of the products used;
4. Repairs carried out under guarantee are guaranteed for one year (360 days) from the replacement or repair date.
5. ARAG will not recognize any further expressed or intended guarantees, apart from those listed here.  
No representative or retailer is authorized to take on any other responsibility relative to ARAG products.  
The period of the guarantees recognized by law, including the commercial guarantees and allowances for special purposes are limited, in length of time, to the validities given here.  
In no case will ARAG recognize loss of profits, either direct, indirect, special or subsequent to any damage.
6. The parts replaced under guarantee remain the property of ARAG.
7. All safety information present in the sales documents regarding limits in use, performance and product characteristics must be transferred to the end user as a responsibility of the purchaser.
8. Any controversy must be presented to the Reggio Emilia Law Court.

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## **15 EU DECLARATION OF CONFORMITY**

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The declaration of conformity is available at the website [www.aragnet.com](http://www.aragnet.com), in the relevant section.





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*Only use genuine ARAG accessories or spare parts to make sure manufacturer guaranteed safety conditions are maintained in time. Always refer to the Internet address [www.aragnet.com](http://www.aragnet.com)*

D20447\_GB-m00 08/2021



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