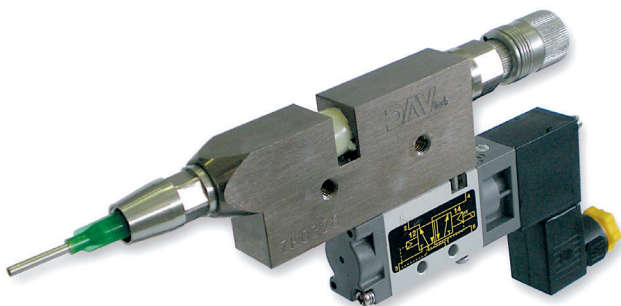


Installation and maintenance guide



DISPENSING VALVE DA 400 EV



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1 INTRODUCTION

1.1 The manual

The user guide is the document that accompanies the valve from the time of its construction and throughout the period of use, it is therefore an integral part of the valve. It requires reading the manual before taking any action involving the valve. The manual must be readily available for use by staff and maintenance of the valve. The user and the attendant use are required to know the contents of this manual.

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1.2 Warranty

The warranty is valid for a period of 12 months from the date of commissioning and no later than 15 months from the date delivery. The interventions carried out during the warranty period does not extend in any way the validity period of the guarantee. The seller is not liable for defects caused by normal wear of parts which by their nature are subject to wear.

1.3 Goods receiving

The original configuration of the valve must never be changed.

Upon receipt of the goods, check that:

- The packaging is intact
- The exact correspondence of the material ordered.

2 TECHNICAL DESCRIPTION

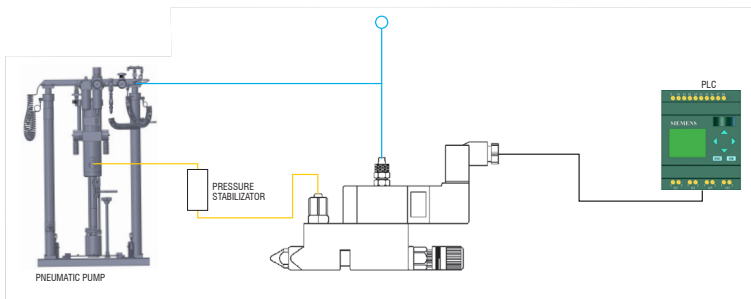
2.1 Valve Operation

The DA 400 EV dispensing valve is a pneumatic control component designed for precision dosing of low, medium or high viscosity fluids. Its rest state is normally closed, presenting a safety spring inside it. The pneumatic supply, at a pressure equal to or greater than 6 bar, together with the 24 VDC supply of the solenoid valve, causes the inside of the pin and the fluid to leak back. Fluid bleeding can be modulated, as well as with the pressure to which it is supplied, by adjusting the needle opening by adjusting the top of the DA 400 EV valve.

2.2 Technical Specification

Model	DA 400 EV
Operation mode	Double Acting
Weight	310 g
Max fluid pressure	Max 80 bar
Actuating air pressure	6 - 7 bar
Air inlet thread	M5
Fluid inlet thread	1/8 gas
Outlet Thread	Threaded nozzles, luer lock thread, steel nozzles of various shapes and sizes
Speed	Up to 300 cycles / min
Adjusting the passage	With micrometric screw or with screw and nut
Used Materials	Stainless steel, TCT, nickel plated brass and Teflon
Fluids to be used	Silicones, liquid gaskets, greases, resins, various medium-high viscosity

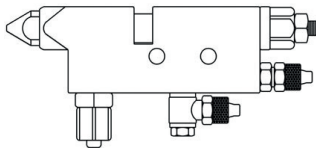
2.3 Connection diagram



3 INSTALLATION

3.1 Mounting on the machine

The 400 EV valve can be mounted using the through holes on its body. If necessary, contact us and we will be happy to provide you with the 3d models of the valve to design brackets, fasteners and check the dimensions.



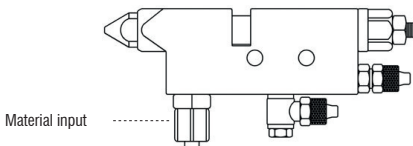
3.2 Drive the valve

The 400 EV valve works at double acting by the solenoid valve 5/2 mounted directly on board.

The solenoid valve is always kept powered at a pressure of 6 bar upwards and commanded by giving and removing 24 VDC power.

3.3 Fluid connection

The valve must be connected to a power supply unit (tank, pump or other). A hose must be connected to the fitting located at the bottom of the valve. When working at pressures above 8 bar, use high pressure connections and tubes.



3.4 Setting of the valve

The adjustment of the stroke determines together with the pressure of the material and at the opening time the amount of fluid dispensed.

> Screw Adjustment Version:

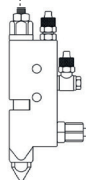
Unscrew the lock nut, located at the top of the valve, with a 10 wrench, adjust the adjustment grain with a 3 - pole wrench.

Rotate clockwise to decrease the stroke and consequently the fluid flow. Turning clockwise, reaching the end of the stroke the valve will be fully closed, so it will not flow fluid. Rotate counterclockwise to increase the stroke and then the amount of fluid. Determine the amount of product you want to tighten the lock nut with a 10-key.

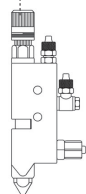
> Micrometric adjustment version:

To adjust the travel, act on the adjustment knob at the top of the valve. Turn clockwise to decrease spike stroke and consequently the amount of product. Turning clockwise, reaching the end of the stroke the valve will be fully closed, so it will not flow fluid. Rotate counterclockwise to increase the stroke and then the amount of fluid.

Adjustment grain



Adjustment knob



Do not tighten the needle setting too firmly to avoid damaging the nozzle and the needle.

3.5 Setting of the material quantity

Adjusting the amount of material is determined by:

> **Nozzle diameter (0.3 - 0.5 - 0.8 - 1.0 - 1.5) except luer lock nozzles, threaded 1/8 or with nut**

> **Fluid pressure**

> **Adjusting the stroke of the needle**

Acting on these factors, you can adjust the amount of material you want.

4 MAINTENANCE

4.1 General rules

The 400 EV valves, thanks to the construction methods and the materials used, are easy to maintain. Minimal, simple, accurate, and constant maintenance allow for long-lasting and smooth operation in valve time, while maintaining performance unchanged.

4.2 Valve Disassembly

Before disassembling the valve:

- 1) Clean it externally
- 2) Drain the pressure from the system
- 3) Remove the solenoid valve, taking care not to lose the 2 O-rings between valve body and solenoid valve
- 4) Unscrew the adjustment block with a wrench 13. Be careful because the spring is in thrust (see figure 1)
- 5) Unscrew the nozzle with a 9-key or 10-key (see figure 2)
- 6) Remove the spring
- 7) With a small pinch clamp, remove the needle (see figure 3)
- 8) Remove the plastic cover of the compass and with a screwdriver, unscrew and remove the compass from the valve body. (see Figure 4)

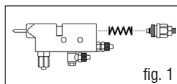


fig. 1

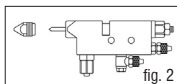


fig. 2

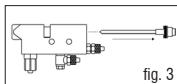


fig. 3

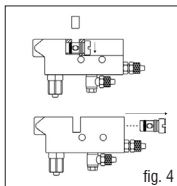


fig. 4

4.3 Re-assembly

After having thoroughly cleaned and replaced all the damaged parts (especially the gaskets and scraper mounted under the compass), reassemble following the reverse order of the disassembly by slightly lubricating the parts and gaskets with the fitting grease.

5 TROUBLESHOOTING

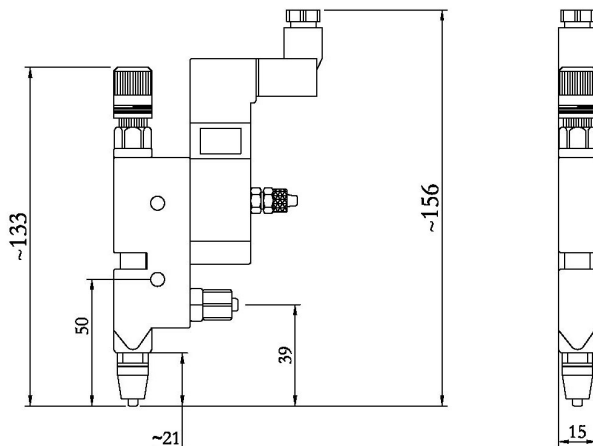
5.1 Problems and solutions

PROBLEM	POSSIBLE CAUSE	SOLUTION
Nothing or little fluid	Valve does not receive the command	Check the control (solenoid) of valve. Perform a manual test.
	The pressure of the fluid is too low or absent.	Check the pressure of the power supply fluid and possibly increase it.
	The nozzle is clogged	Remove and clean the nozzle.
	The filter is dirty (if any)	Clean or replace the filter.
	A tube is bent	Check the fluid supply pipe
	Actuating pressure is not sufficient	Verify the actuation pressure (6 bar)
	Residual fluid in the system to clean	Remove any solid particles
Flow of fluid compass	Moulded gasket damaged	Replace the molded seal
The nozzle drips also if the valve is not pilot	Presence of dirt in the nozzle	Clean or replace nozzle
	Pressure drive is not enough	Check the operating pressure (6 bar)
The valve opens late	O-ring on the piston damaged	Replace O-ring on the piston pneumatic

6 SPARE PARTS AND DIMENSIONS

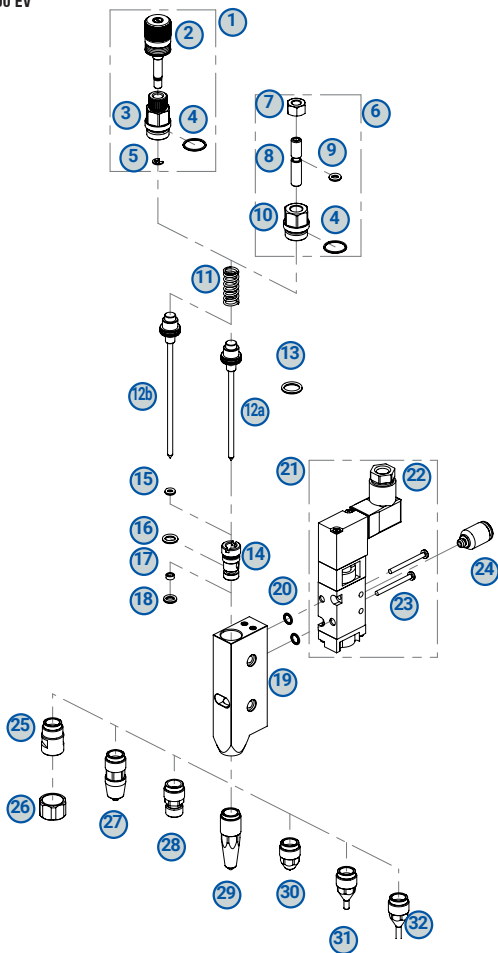
6.1 Overall dimensions

The size varies depending on the nozzle and the type of flow regulation you choose. Dimensions may vary depending on the nozzle you choose. Download 3D models from our web-site.



Installation and maintenance guide

6.2 Spare parts DA 400 EV



6.3 Spare parts list DA 400 EV

Ref.	Description	Code
1	MICROMETRIC REGULATION COMPLETE	0003.32500007
2	MICROMETRIC REGULATION TRIGGER	0003.32500008
3	MICROMETRIC REGULATION BLOCK	0003.32500009
4	ORING	0003.100X10E
5	REGULATION SEEGER	0003.200321
6	SCREW REGULATION COMPLETE	0003.32500002
7	SCREW REGULATION GRUB	0003.0006010
8	SCREW REGULATION PIN	0003.32500003
9	ORING	0003.000007E
10	SCREW REGULATION BLOCK	0003.32500004
11	SPRING	0003.000400
12a	KV NEEDLE	0003.84230103
12b	LV NEEDLE	0003.84230203
13	ORING	0003.000011E
14	BUSH	0003.83100104
15	ORING	0003.000006E
16	ORING	0003.000010E
17	VARISEAL	0003.30790T
18	ORING	0003.000008E
19	VALVE BODY	0003.000051C
20	ORING	0003.050X10E
21	SOLENOID VALVE 24 VDC	0003.000330
22	SOLENOID VALVE CONNECTOR	0003.200F01
23	SOLENOID VALVE SCREWS	0003.11250281
24	AIR FITTING	0003.RRAZ0252
25	MG NOZZLE	0003.85800101
26	MG NOZZLE COLLAR	0003.85800102
27	LUER LOCK NOZZLE	0003.85100150
28	M 1/8" NOZZLE	0003.85100180
29	LV NOZZLE	
	LV NOZZLE 03	29.1 0003.85310003
	LV NOZZLE 05	29.2 0003.85310005
	LV NOZZLE 08	29.3 0003.85310008
	LV NOZZLE 10	29.4 0003.85310010
	LV NOZZLE 15	29.5 0003.85310015
30	KV NOZZLE	
	KV NOZZLE 03	30.1 0003.85510003
	KV NOZZLE 05	30.2 0003.85510005
	KV NOZZLE 08	30.3 0003.85510008
	KV NOZZLE 10	30.4 0003.85510010
	KV NOZZLE 15	30.5 0003.85510015
31	KL NOZZLE 7 MM	
	KL NOZZLE 05	31.1 0003.85510105
	KL NOZZLE 08	31.2 0003.85510108
	KL NOZZLE 10	31.3 0003.85510110
	KL NOZZLE 15	31.4 0003.85510115
32	KL NOZZLE 10 MM	
	KL NOZZLE 05	32.1 0003.85510205
	KL NOZZLE 08	32.2 0003.85510208
	KL NOZZLE 10	32.3 0003.85510210
	KL NOZZLE 15	32.4 0003.85510215
	GASKET KIT COMPLETE	GASKETKIT-DA400-DA400EV

