EXPO
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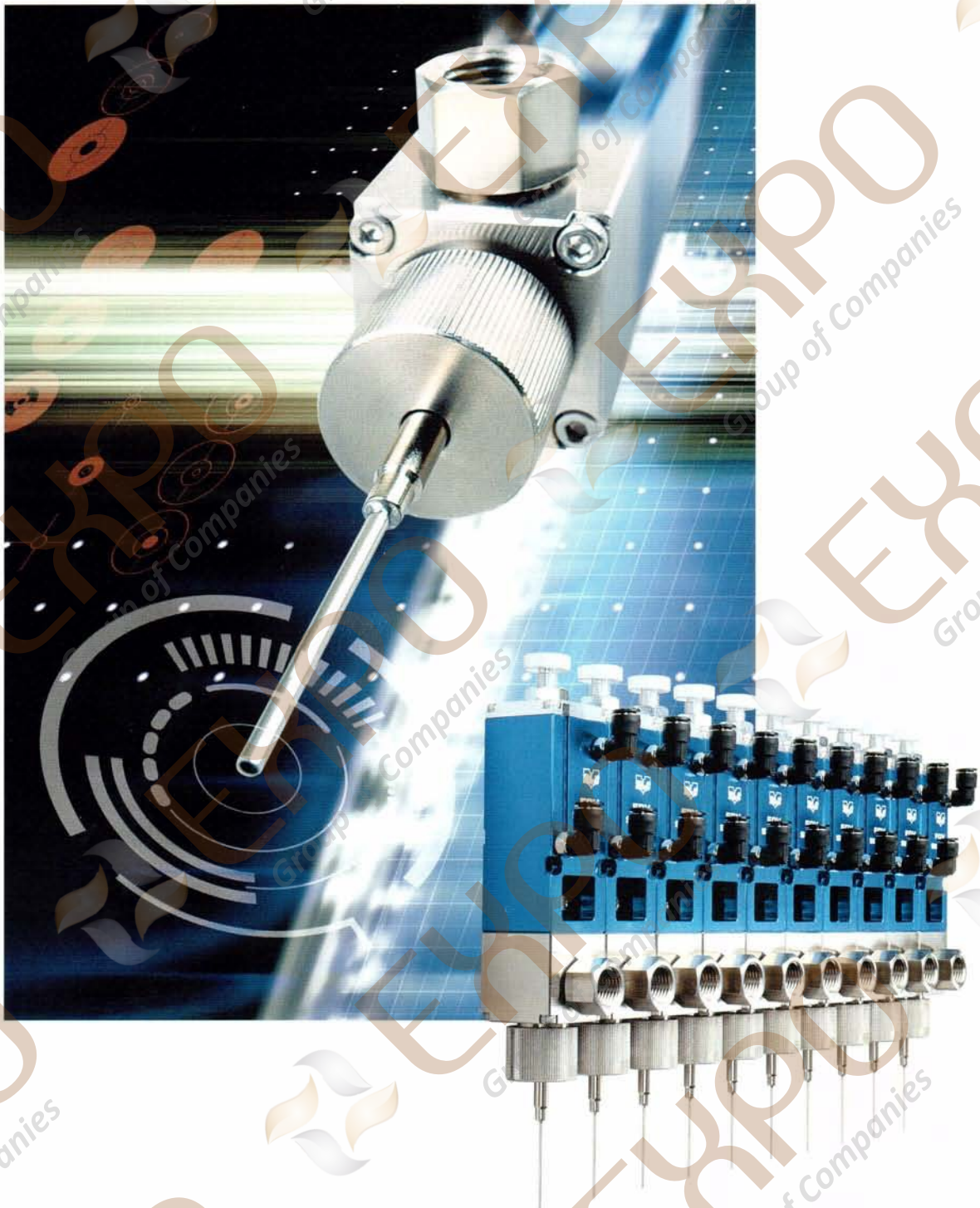
Liquid Discharging Valves for Dispensers

VALVES

Dosing Valves | Flow Valves | Shutoff Valves



ISO 9001
JET-0160

ISO 14001
E01-235

NLC Naka Liquid Control

Dosing Valves

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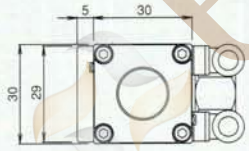
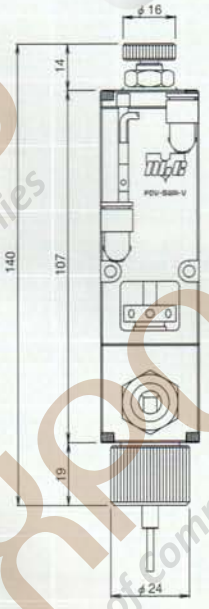
FDV-SWA-V

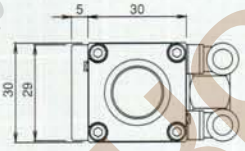
- Square valve for multi-component dispensing system or mounting on a robot.
- Standard model suitable for small-volume dispensing of high viscosity resins.

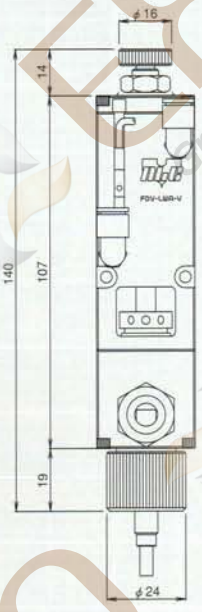




FDV-LWA-V

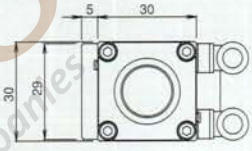
- Has the largest orifice diameter (4.5) as a dosing valve. Suitable for large-volume dispensing of single-component and 2-component resins.

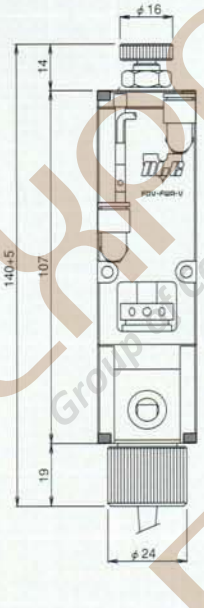




FDV-FWA-V

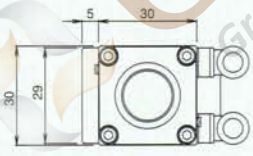
- Can be used for anaerobic resins that react to metal.
- Parts that come in contact with liquid are made of resin materials such as Teflon.

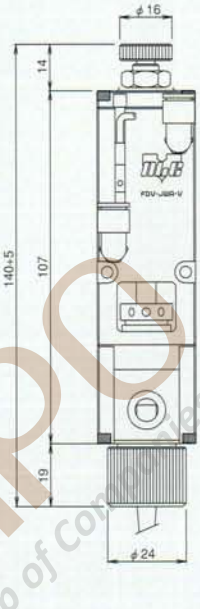




FDV-JWA-V

- For UV cure resins.
- Parts that come in contact with liquid are made of resin materials such as DURACON.





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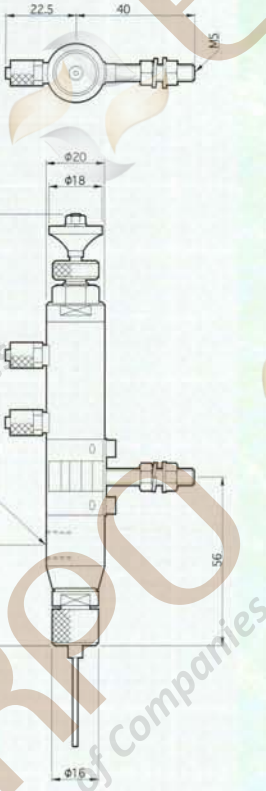
Flow Valves

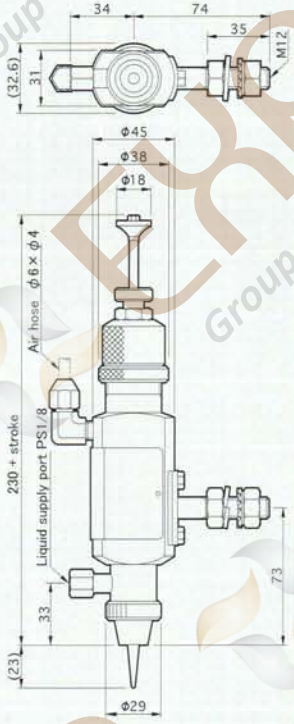
DV-MWA

- Slim and compact valve designed for space saving.
- Double-acting type capable of handling high viscosity resins. Suitable for small-volume dispensing.



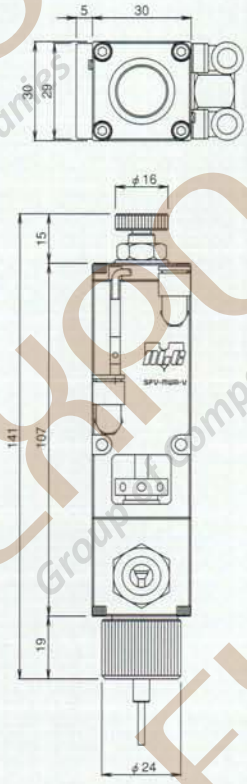
DV-S

- General-purpose valve for versatile applications.
- Simple structure for easy maintenance.



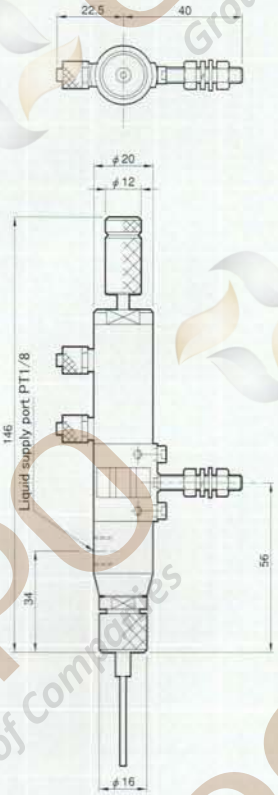
SFV-MWA-V

- Structured to seal up by pulling up the needle.
- Suitable for constant volume dispensing of viscous resins which cause cobwebbing.



FV-MWA

- Slim and compact valve designed for space saving.
- Suitable for constant small-volume dispensing of smooth liquids.



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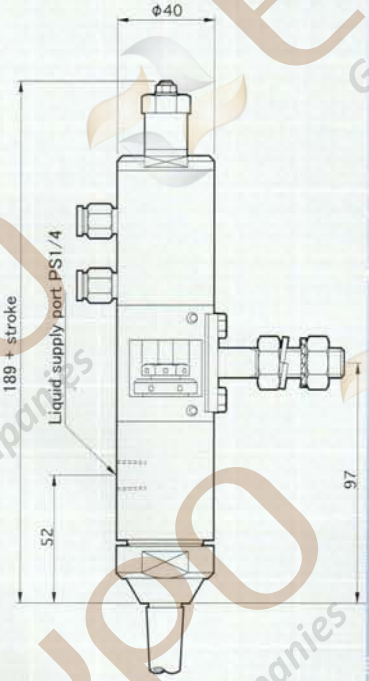
Shutoff Valves

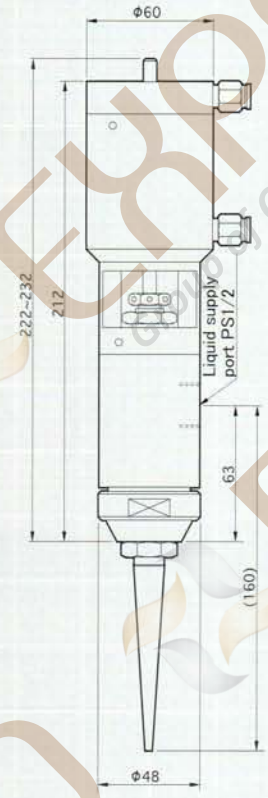
FV-SWA

- General-purpose valve for versatile applications.
- Suitable for constant large-volume dispensing of single-component and 2-component resins.



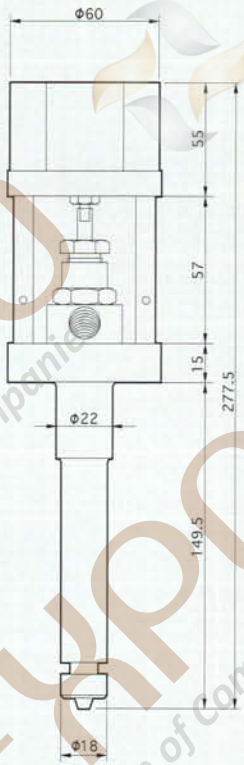
FV-LWA

- Has the largest orifice diameter (20) as a liquid discharging valve for dispensers.
- Suitable for constant large-volume dispensing.



DV-V

- Dedicated to vacuum encapsulation. Nozzle tip is sealed to minimize drippings.
- Custom-made valves for specific application are also available.



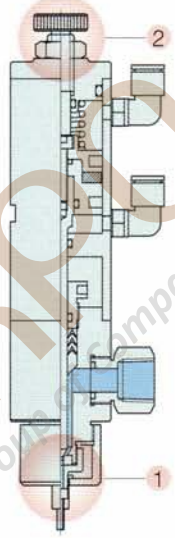
Liquid Discharging Valves for Dispensers

EXPO Group of Companies

VALVES

Simply constructed, yet very durable. NLC liquid discharging valves support a wide range of application and enable high accuracy dispensing.

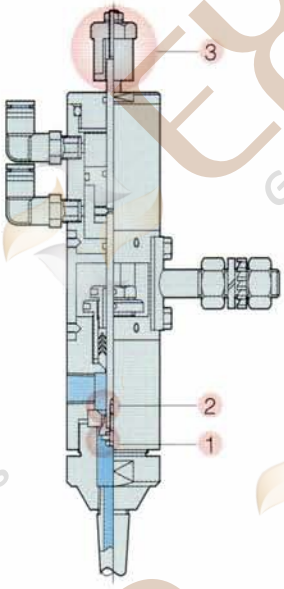
Our unique valve mechanism using tapered needles at valve point prevents liquid drippings after dispensing. Also, the volume can be changed easily by stroke adjustment, enabling stable dispensing. Select an appropriate model according to the liquid used, dispensing volume and application.



Dosing Valves

Structure and Features

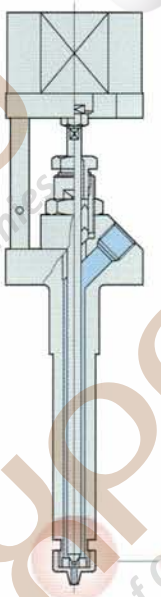
1. Tapered needle holds to seal up the liquid path (hole) to prevent leakage from the nozzle.
2. Stroke adjustment mechanism enables liquid volume control.
3. Provide excellent durability. Parts that come in contact with liquids can be disassembled easily, facilitating maintenance work.
4. Stainless steel is used for parts that come in contact with liquids to handle various liquids.
5. A variety of models are available to handle various applications including anaerobic and 2-component resins, in addition to single-component resins.



Flow Valves

Structure and Features

1. Contrary to the dosing valves, the needle is pulled up to seal the liquid path. Liquid at the nozzle tip is drawn in.
2. Suitable for large volume dispensing because of larger orifice diameter.
3. Stroke adjustment mechanism enables liquid volume control.
4. Provide excellent durability. Parts that come in contact with liquids can be disassembled easily, facilitating maintenance work.
5. Stainless steel is used for parts that come in contact with liquids to handle various liquids.
6. Can be used for 2-component resins, as well as single-component resins.



Shutoff Valves

Structure and Features
(for Vacuum Encapsulation)

1. Nozzle tip is sealed by the needle to prevent drippings in the vacuum chamber.
2. Simple construction with excellent durability. Parts that come in contact with liquids can be disassembled easily, facilitating maintenance work.
3. Stainless steel is used for parts that come in contact with liquids to handle various liquids.
4. Can be used for 2-component resins, as well as single-component resins.

Specifications

Valve type	Dosing valves						Flow valves				Shutoff valve
Model	FDV-SWA-V	FDV-LWA-V	FDV-FWA-V	FDV-JWA-V	DV-MWA	DV-S	SFD-MWA-V	FV-MWA	FV-SWA	FV-LWA	DV-V
Orifice dia. (mm)	ϕ 1.8	ϕ 4.5	ϕ 2.0	ϕ 2.0	ϕ 2.5	ϕ 2.5	ϕ 1.8	ϕ 2.5	ϕ 10.2	ϕ 20	ϕ 4.5
Acting type	Double-acting	Double-acting	Double-acting	Double-acting	Double-acting	Single-acting	Double-acting	Double-acting	Double-acting	Double-acting	Double-acting
Weight (g)	430	460	300	300	170	400	420	160	930	1,650	1,400
Applicable resin	1&2-component Low-medium viscosity	1&2-component Low-high viscosity	Anaerobic resin	Anaerobic resin	1component Low-mediam viscosity	1-component Low-mediam viscosity	1-component Mediam-high viscosity	1-component Low-mediam viscosity	1&2-component Mediam-high viscosity	1&2-component Mediam-high viscosity	1&2-component Low-high viscosity
Material of parts in contact with liquid	SUS, PA, Teflon	SUS, PA, Teflon	PP, Teflon	PP, Teflon, DURACON	SUS, PP, Teflon	SUS, PA, Teflon	SUS, PP, Teflon	SUS, Teflon	SUS, Teflon	SUS, Teflon	SUS, Teflon, PCTFE
Operating pressure	0.3 - 0.7 MPa										

OPTIONS Various optional accessories are available to support a wide range of liquids or applications.

Flushing Attachment

Used to connect a hose for flushing. Can be connected to the valve quickly and easily. Flushing can be performed safely.

Air Blow Nozzle Unit

Used to spray low-viscosity liquids with the dosing valve. The unit can be attached to the valve easily and support 2-component liquids, too.

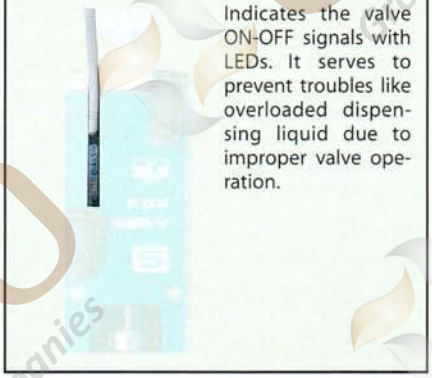
Multi-nozzle

Used for uniform filling to the work of complicated shape or for multiple-line dispensing at a time. NLC manufactures valves of various configurations according to application.

Handy Switch (Gun Type)

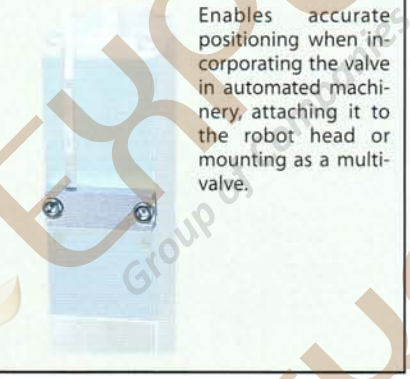
Suitable for dispensing while moving the valve to above the work. Easy-to-hold gun type with switch improves work efficiency remarkably.

Auto Switch



Indicates the valve ON-OFF signals with LEDs. It serves to prevent troubles like overloaded dispensing liquid due to improper valve operation.

Positioning Plate



Enables accurate positioning when incorporating the valve in automated machinery, attaching it to the robot head or mounting as a multi-valve.

Main Body B Heater

Used when dispensing high viscosity liquids. Heating the liquid lowers viscosity to enable smooth dispensing.

Valve Stand

Used for independent dispensing with a fixed valve. Valve height can be adjusted easily according to the work shape or dispensing condition.

Slide Cap

Used to attach a multi-needle nozzle. Nozzle can be attached to the cap easily by just inserting the boss to the cut part.

* Design and specifications are subject to change without prior notice. * For details of the products and services, consult with the nearest sales office.

Developing the future technology of liquid handling

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