



Product Model Identification Data

2 Otter Court, Raymond, New Hampshire 03077 •Tel. (603) 895-4761 •FAX (603) 895-6785 •www.geminivalve.com

Your Gemini model may consist of a manually (hand operated) ball valve with a lever, wing or oval style handle. Shown below are each of the Series we offer with the lever style handle;



or an automated valve with an pneumatic or electric actuator;



A512D / A522D
Double Acting



A512SR / A522SR
Spring Return



B411D / B412D / A421D / A422D
Double Acting



B412SR / A422SR
Spring Return



79 Series
Spring Return & Double Acting
(98 Series Valves Only)



600 Series
Electric



94 Series
Electric



92 Series
Electric

The pneumatic actuator may also have an optional;



LS-1 Limit Switch



4GP / 3GP Series
Pilot Valves

Note: Other brands of pilot valves not shown may also be used with your Gemini actuator.

Not Shown

VDI / VDE 3845
Accessory Mounting Interface
For Mounting Positioners, Beacon Indicators, Prox Switches etc...

Ball Valves

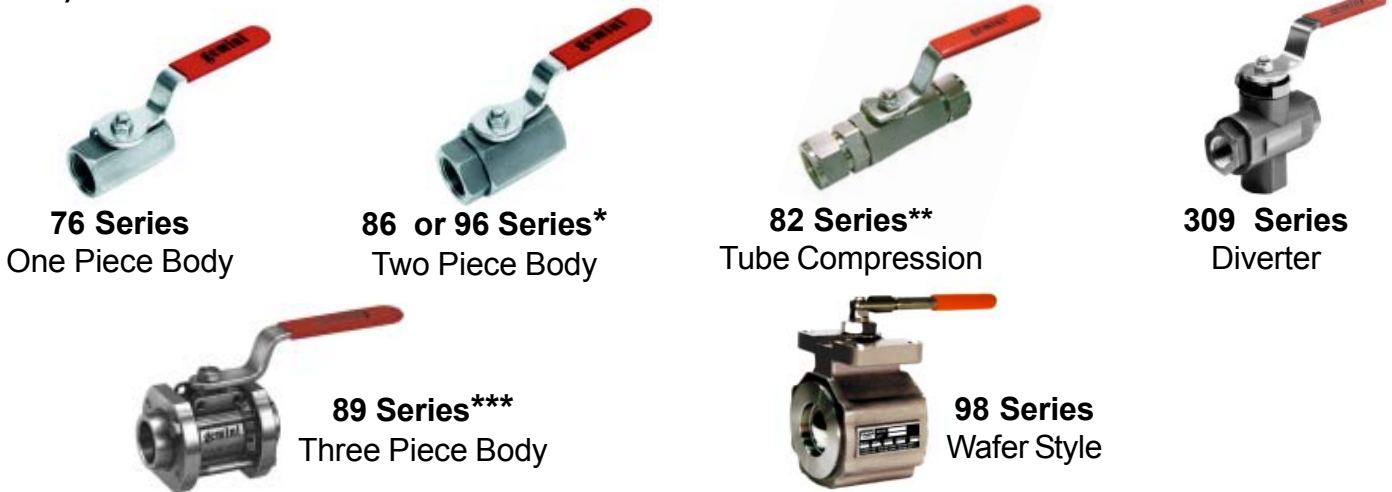


Each ball valve has a model number etched / marked on the side of the valve body. If this model number can be found, proceed to Step 4.)

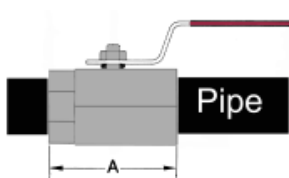


For an automated valve, the model number may be partially blocked by the strap that holds the valve to the actuator. If the actuator can be removed safely, the complete model number can be read.

Model Number Cannot Be Found 1.) Determine Valve Series

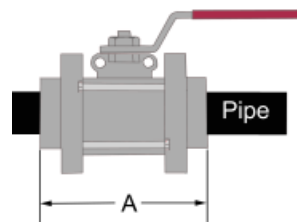


* To determine 86 or 96 Series, measure valve body (both pieces) and refer to the chart below after determining pipe size, Step 2.)



86	96	A
1/4 & 3/8	-	2.22
1/2	-	2.61
3/4	1/2	2.94
1	3/4	3.32
1-1/4	1	3.70
1-1/2	1-1/4	4.25
2	1-1/2	4.57

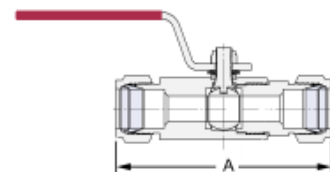
*** To determine 89 standard or full port model, measure valve body (three pieces) and refer to the chart below after determining pipe size, Step 2.)



STD. PORT	FULL PORT	A
1/2	1/4 & 3/8	3.18
3/4	1/2	3.38
1	3/4	3.74
1 1/4	1	4.57
1 1/2	1 1/4	4.65
2	1 1/2	5.12

** To determine 82 Series, measure between compression nuts and refer to the chart on the right)

Tube Size OD	A Dimensions - Inches
1/4	3.72
3/8	3.70
1/2	3.94
3/4	4.17
1	4.92



2.) Determine Valve Size

The easiest way to determine the pipe / valve size is by measuring the outside diameter **OD** of the pipe attached to the valve then refer to the chart below:

Pipe OD	0.54"	0.675"	0.840"	1.05"	1.315"	1.66"	1.90"	2.375"	3.50"
Pipe Size	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	3"

3.) Determine Valve Materials

The following suggestions are based upon the valve being unplated, unpainted, and having a clean surface.

Brass = Golden / Bronze in Color

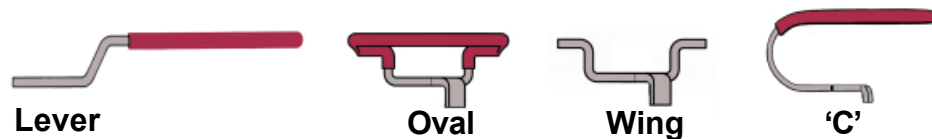
Carbon Steel = Gray in Color, magnetic

Stainless Steel = Gray in Color, non-magnetic (Standard Materials for 89 & 98 Series)

Alloy 20 & Monel, you must confirm materials by etch on valve body

4.) Determine Valve Operator; Manual, Automated - Pneumatic or Electric

Manual;



Not shown: Latching Lockable Lever, Actuator Drive Key **Z** or **Z1** for valve to be used with actuator.

Automated - Pneumatic;

The base model number of the actuator can be found on the actuator nameplate. After obtaining the base model number add either D for double-acting and SR for spring-return. The 79 Series (red units) do not have base model numbers. Note for 400 Series Double-Acting models with NAMUR interface vs. standard (2) 1/8" NPT ports add suffix N.



4.) Determine Valve Operator; Manual, Automated - Pneumatic or Electric (continued)

Pneumatic - Options;

Pilot Valves

Controls the cycling of air to the pneumatic actuator via means of a three-way solenoid valve for spring-return models and a four-way solenoid valve for double-acting models. Each pneumatic actuator requires a pilot valve either direct mounted (NAMUR) or can be remote piloted i.e. airline(s) to the actuator.



3GP Series Three Way Pilot (solenoid) Valves for Spring-Return Actuators. 4GP Series Four Way Pilot (solenoid) Valves for Double-Acting Actuators.

To determine the model see the nameplate. For the voltage of the operating coil, see the coil.

4GP / 3GP Series Pilot Valves

The illustration show the male DIN connection. Available female DIN x terminal connections are DIN x Wire Strain Relief, DIN x 1/2" Conduit Hub and DIN x Automotive (Field Bus M12) (DA) . Others style available, consult factory.

Note: Other brands of pilot valves may be used with your Gemini pneumatic actuator. Normally the model number can be found on the body. Gemini recommends the use of our 3GP & 4GP Series pilot valves for Gemini pneumatic actuators. Important: When specifying a replacement pilot valve be sure that the voltage and enclosure meet the application requirements.



LS-1
Limit Switch

Limit Switch

The Gemini LS-1 Limit Switch, easily mounted to any Gemini pneumatic actuator, provides means to display valve position remotely or to interconnect the valve with associated equipment such as pumps or other valves.

The LS-1 utilizes two mechanical S.P.D.T. (Single-Pole, Double-Throw) microswitches which respond to actuators' fully open or fully closed position by mean of a cam fitted to the actuator top shaft.

Automated - Electric

Series 600 & 94 are commonly used with valve Series, 76, 86, 82, 96, & 89. Series 92 are commonly used with valve Series 98. The model number can be found on the namplate or label on the top of the actuator.



600 Series



94 Series



92 Series



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Raymond, NH 03077

5.) Assemble the model number of the valve, actuator, pilot valve, limit switch or automated valve assembly by using the ' How To Order data sheets.

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Specifications subject to change without notice and without obligation on the part of the manufacturer.

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