Maxon Series 8000 Air Actuated Valves

- **Air actuated valves** with integral control, quick exhaust and powerful closing spring for reliable shut-off
- **Compact design** simplifies piping and minimizes space requirements
- **Factory Mutual (FM) approved** general-purpose shut-off valves for fuel gas service
  Non-incendive for Class I, Division 2 approval pending; Intrinsically-safe for Class I, Division 1 approval pending
- **360-degree visual position indication**
- **Cast iron, carbon steel and stainless steel body assemblies** with internal trim options to handle general purpose or corrosive fluids; oxygen compatibility available
- **Ambient temperature ranges** of -40°F (-40°C) to 140°F (60°C)
- **Application flexibility** provided with 3/4" through 4" diameter line sizes (6" size pending) and line pressures up to 225 psig. Actuator assemblies available in 120VAC 50/60 Hz, 240VAC 50/60 Hz, and 24VDC.
- **Field replaceable actuator** for easier maintenance and reduced downtime. Actuator rated for NEMA 1, 3, 3S, 4, and 12 (NEMA 4X pending)
- **Unique bonnet design** eliminates packing adjustments, reducing maintenance and minimizing drag on closing
- **Series 8000 Valves meet ANSI B16.104 Class VI seat leakage**

Contact Esys for more information about this product:
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Maxon Series 8000 Air Actuated Valves

Design Features and Operating Concepts

Normally-closed shut-off valves use instrument air to open in approximately four seconds. Removal of electrical signal allows release of control air through solenoid and quick exhaust valve allowing the powerful closing spring in the Series 8000 Valve to close the valve in less than one second.

Series 8011, 8012 & 8013
require 40-100 psig instrument air
Series 8111, 8112 & 8113
require 65-100 psig instrument air

Normally-open vent valves use instrument air to close in approximately four seconds. Removal of electrical signal allows release of control air through solenoid and quick exhaust valve allowing the Series 8000 Valve to open in less than one second.

Series 8021, 8022 & 8023
require 45-100 psig instrument air
Series 8121, 8122 & 8123
require 70-100 psig instrument air

Series 8000 valve enclosures meet NEMA 1, 2, 3, 3R, 4 & 12. NEMA 4X approval pending.

FM Approved for Hazardous Locations (pending)
Class I, Division 2, Groups A,B,C,D
Class II, Division 2, Groups F,G
Class I, II, II, Division 1, Groups A,B,C,D,E,F,G

Actuator assembly can be rotated or replaced in the field for piping convenience.

Cast iron, carbon steel and stainless steel body assemblies feature metal-to-metal seating that meets ANSI B16.014 Class VI seat leakage. Industrial-strength PEEK seats and followers are available for corrosive fluids that contain traces of H_2S and CO_2. Contact Maxon with your specific application details.

Series Designations and Available Sizes

Normally-Closed Shut-off Valves		*Normally-Open Vent Valves*	
Series 8011 General Purpose **Series 8012** Class I, II, Div.2 * **Series 8013** Class I, Div. 1 * Standard MOPD ratings CP body only 2.5" through 4" sizes	**Series 8111** General Purpose **Series 8112** Class I, II, Div.2 * **Series 8113** Class I, Div. 1 * High pressure MOPD ratings All bodies .75" through 4" sizes	**Series 8021** General Purpose **Series 8022** Class I, II, Div.2 * **Series 8023** Class I, Div. 1 * Standard MOPD ratings CP body only 2.5" through 4"	**Series 8121** General Purpose **Series 8122** Class I, II, Div.2 * **Series 8123** Class I, Div. 1 * High pressure MOPD ratings All bodies .75" through 4" sizes

** FM Approval pending*

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Valve Model Number Description

Every Maxon Series 8000 Valve can be accurately identified by the model number shown on the valve nameplate. The example below shows a typical Series 8000 Valve model number, along with the available choices for each item represented in the model number. The first five choices determine the valve's configured item number. Valve body and actuator options are identified by the next eight characters in the model number.

Configured Item Number						Valve Body					Actuator			
Valve Size	Flow Capacity	Pressure Rating	Normal Position	Area Classification		Body Connection	Body Seals & Bumper	Body Material	Internal Trim Package		Primary Voltage	Switch Option	Enclosure Rating	Secondary Language
300	C	81	1	1	–	A	A	1	1	–	B	1	A	A

Valve Size
075 – .75"
100 – 1"
125 – 1.25"
150 – 1.5"
200 – 2"
250 – 2.5"
300 – 3"
400 – 4"
600 – 6" *(future availability)*

Flow Capacity
S – Standard
C – CP Body Construction

Pressure Rating
80 – Pneumatic Standard Pressure
81 – Pneumatic High Pressure

Normal Position
1 – Normally-Closed Shut-Off Valve
(also actuator only)
2 – Normally-Open Vent Valve
(also actuator only)

Area Classification
1 – General Purpose
2 – Non-incendive, Class I Div. 2
(future availability)
3 – Intrinsically Safe, Class I Div. 1
(future availability)
4 – Valve Body Only *(future availability)*

Body Connection
A – ANSI Threaded
B – ANSI Flanged
C – ISO Threaded
D – DIN Flanged
E – Socket Welded Nipple
F – Socket Welded Nipple
w/ANSI Class 150 Flanges
G – Socket Welded Nipple
w/ANSI Class 300 Flanges
X – Special
* - Actuator Only

Body Seals & Bumper
A – Buna N
B – Viton
C – Ethylene Propylene
X – Special
* - Actuator Only

Body Material
1 – Cast Iron
2 – Carbon Steel
5 – Stainless Steel
X – Special
* - Actuator Only

Internal Trim Package
1 – Trim Package 1
2 – Trim Package 2
3 – Trim Package 3
4 – Trim Package 2, Oxy Clean
5 – Trim Package 3, Oxy Clean
X – Special
* - Actuator Only

Primary Voltage
A – 120VAC 50Hz
B – 120VAC 60Hz
D – 240VAC 50Hz
E – 240VAC 60Hz
G – 24VDC
X – Special
* - Valve Body Only

Switch Option
0 – None
1 – VOS1/VCS1
2 – VOS2/VCS2
X – Special
* - Valve Body Only

Enclosure Rating
A – NEMA 4
B – NEMA 4X
(future availability)
X – Special
* - Valve Body Only

Secondary Language
A – French
* - Valve Body Only

Valve Body Assembly Options & Specifications

Series 8000 Normally-Closed Shut-Off Valves

Nominal Pipe Size	Flow Capacity	Actuator Pressure Class	Body Connections Available	Body Material	Trim Package Options	Cv Rating	MOPD Rating (psig)
.75"	Std.	High Press.	A, C	1, Cast Iron	1, 2, 3	19	200
1"	Std.	High Press.	A, C	1, Cast Iron	1, 2, 3	20	200
			A, C, E, F, G	2, Carbon Steel			255
				5, Stainless Steel			
1.25"	Std.	High Press.	A, C	1, Cast Iron	1, 2	45	200
1.5"	Std.	High Press.	A, C	1, Cast Iron	1, 2, 3	53	200
			A, C, E, F, G	2, Carbon Steel			255
				5, Stainless Steel			
2"	Std.	High Press.	A, B, C, D	1, Cast Iron	1, 2, 3	86	200
			A, C, E, F, G	2, Carbon Steel			255
				5, Stainless Steel			
2.5"	Std.	High Press.	A, B, C, D	1, Cast Iron	1	127	150
	CP	Std.		1, Cast Iron	1, 2, 3	304	50
			B, D	2, Carbon Steel			
				5, Stainless Steel			
		High Press.	A, B, C, D	1, Cast Iron			175
			B, D	2, Carbon Steel			
				5, Stainless Steel			
3"	Std.	High Press.	A, C	1, Cast Iron	1	173	150
	CP	Std.	A, B, C, D	1, Cast Iron	1, 2, 3	423	40
			B, D	2, Carbon Steel			
				5, Stainless Steel			
		High Press.	A, B, C, D	1, Cast Iron			135
			B, D	2, Carbon Steel			
				5, Stainless Steel			
4"	CP	Std.	B, D	1, Cast Iron	1, 2, 3	490	40
				2, Carbon Steel			
				5, Stainless Steel			
		High Press.		1, Cast Iron			135
				2, Carbon Steel			
				5, Stainless Steel			

Body Connections:
- **A** – ANSI Threaded
- **B** – ANSI Flanged
- **C** – ISO Threaded
- **D** – DIN Flanged
- **E** – Socket Welded Nipple
- **F** – Socket Welded Nipple w/150 lb. ANSI Flange
- **G** – Socket Welded Nipple w/300 lb. ANSI Flange

Body Material:
- **1** – Cast Iron
- **2** – Carbon Steel
- **5** – Stainless Steel

Trim Package Options and Typical Material:
- **1 –** 400 Series Stainless Steel Seat, Hardened Cast Iron Disc, Nickel Plated Carbon Steel Follower Ring
- **2** – Hard Faced 300 Series Stainless Steel Seat, Chrome Plated Cast Iron Disc, Chrome Plated Follower Ring
- **3** – PEEK Seat, 300 Series Stainless Steel Disc, PEEK Follower Ring

Body Seals and Bumper:
All configurations allow for Buna-N, Viton, or Ethylene Propylene elastomers as standard. Kalrez is available for special services. Consult Maxon for proper application.