



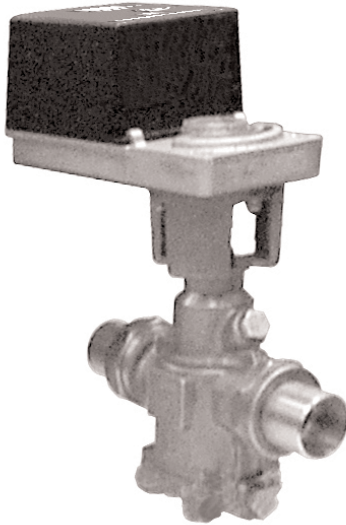
DESCRIPTION

PRESSURE INDEPENDENT CONTROL VALVES

NELSON CONTROLS



Description



The Nelson Control GP series of valves are dynamic temperature control valves for use in HVAC applications to control the rate of fluid flow to a specific terminal unit or coil.

The Nelson Controls GP includes a self-adjustment feature which enables each valve to be continuously self balancing. This ensures delivery of precise flow rate required by each terminal unit, independently of pressure fluctuations in the hydronic system, providing balancing at any point at and below the maximum flow rate.

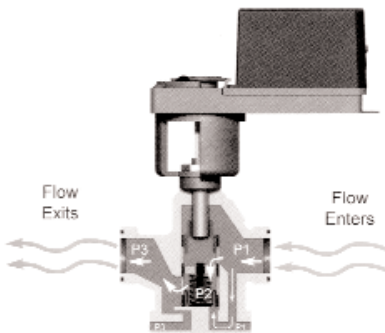
Each valve has an adjustable maximum flow rate setting to enable flow limitation at maximum input control signal. The maximum flow rate is set by a combination of dip switches in the actuator.

The flow can then be modulated between the maximum flow setting and shut-off by varying the input control signal.

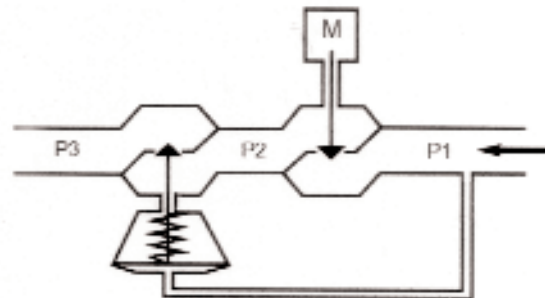
Function

On close examination of the inner workings of the Nelson Controls GP valve, the function is best described as two valves in one. The first valve regulates the pressure differential across the second valve by means of a rolling diaphragm element counteractivated by a helical coil spring. The second valve is a calibrated variable orifice device adjusted by the actuator (similar to a standard-modulation control valve). The total flow rate through the valve is determined by the combination of orifice areas in the pressure differential regulation unit and the actuator-driven variable orifice.

Combined Valves



Separated Valves



SPECIFICATIONS & NOMENCLATURE

PRESSURE INDEPENDENT CONTROL VALVES

NELSON CONTROLS

General Specifications

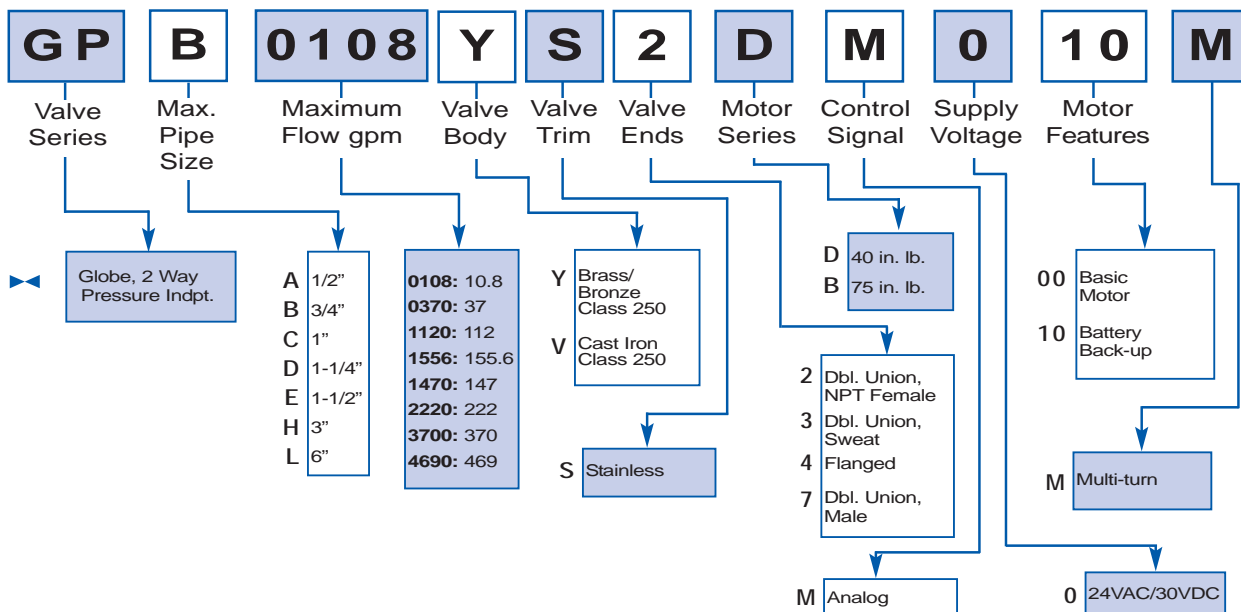
1. **Dynamic Pressure Independent Temperature Control Valve**
 - 1.1 Dynamic control valve shall accurately control flow, independent of system pressure fluctuation.
 - 1.2 Contractor shall install dynamic control valves where indicated in drawings.
 - 1.3 Valve shall be electronic, dynamic, modulating 2-way control device
 - 1.4 Maximum flow setting shall be adjustable to 51 different settings within the range of the valve size.
 - 1.5 Balancing valves shall not be required where pressure-independent valves are installed.
 - 1.6 Each of the 51 maximum settings shall maintain the full span of 2-10Vdc.
 - 1.7 For each maximum setting the turn down ratio shall be at least 100:1.

2. **Valve Actuator**
 - 2.1 Valve actuator housing shall be rated to IP44.
 - 2.2 Actuator shall be driven by a 24Vdc motor, and shall accept 2-10Vdc, 4-20mA, 3 point floating or pulse width modulation electric signal and shall include resistor to facilitate any of these signals.
 - 2.3 Actuator shall be capable of providing 4-20mA or 2-10Vdc feedback signal to the control system independent of the maximum setting.
 - 2.4 External LED readout of current valve position and maximum valve position setting shall be standard.
 - 2.5 Optional fail safe system to power valve to either open or closed position from any position in case of power failure shall be available.

3. **Valve Housing**
 - 3.1 **1/2"-1-1/2"**: Housing shall be constructed of forged ASTM (CuZn39Pb2) brass rated at no less than 360psi static pressure and 248°F.
 - 3.2 **1/2"-1-1/2"**: Valve housing shall be double union construction with a range of pipe connections available for the appropriate pipe size.
 - 3.3 **2"-6"**: Housing shall be constructed of Ductile Iron ASTM A536-65T, Class 60-45-18 rated at no less than 580 psi static pressure and 248°F.

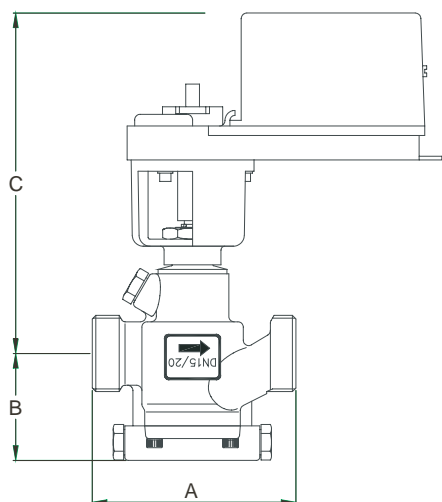
4. **Flow Regulation Unit**
 - 4.1 Flow regulation unit shall consist of 304 Stainless Steel and hydrogenated acrylonitrile butadiene rubber (**1/2"-1-1/2"**) or 316 Stainless steel and EPDM (**2"-6"**).
 - 4.2 Flow regulation unit shall be accessible for maintenance.
 - 4.3 Dual pressure/temperature test ports for verifying accuracy of flow performance shall be available for all valve sizes.
 - 4.4 Rangeability 100 = 1 or better

Model Nomenclature



DIMENSIONS & FLOW RATE CONTROL VALVES 1/2"- 1-1/2"

NELSON CONTROLS



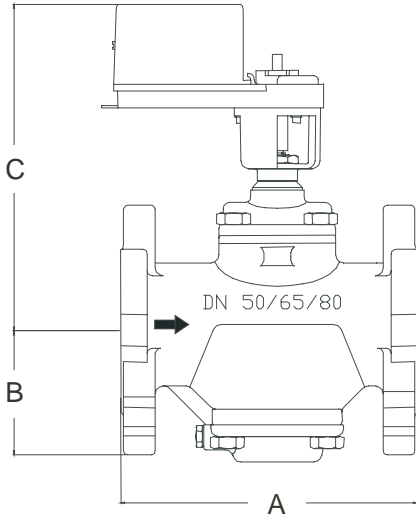
Specifications

Static Pressure: 360 psi
 Media Temperature: -22° to 248°F (-30° to 120°C)
 Ambient Temperature: 14° to 131°F (-10° to 55°C)
 Body Material: Forged Brass ASTM B584
 End Connections: Bronze Alloy ISO, NPT or Sweat
 Stem Seals: EPDM and Nitrile O-Rings
 Test Ports: 1/4" NPT
 Maximum Close Off Pressure: 101 psi
 Maximum Operational ΔP: 46 psi

VALVE SIZE	VALVE MODEL PREFIX	CLOSE OFF PSI	DIMENSIONS			NPT / ANSI CONNECTIONS		
			A	B	C	FEMALE	MALE	SWEAT
1/2"	GP A0108YS2	101	4.3"	2.3"	7.1"	0.88"	1"	0.6"
3/4"	GP B0108YS2	101	4.3"	2.3"	7.1"	0.88"	1"	1.13"
1"	GP C0108YS7	101	4.3"	2.3"	7.1"	N/A	1.32"	1.25"
1"	GP C0370YS2	101	5.9"	2.5"	9.1"	1.38"	1.58"	1.38"
1-1/4"	GP D0370YS2	101	5.9"	2.5"	9.1"	1.38"	1.58"	1.44"
1-1/2"	GP E0370YS2	101	5.9"	2.5"	9.1"	1.38"	1.58"	1.58"

Note: 1. Add end connection length to body length
 2. Standard connection is Female (2), replace the last digit of the valve model by (7) for Male and (3) for Sweat.

VALVE SIZE	VALVE MODEL PREFIX	CONTROL RANGE	MAXIMUM FLOW	LOWEST MAX SETTING	ACTUATOR MODELS 24VAC/30VDC SUPPLY MULTI SIGNAL 2-10VDC, 4-20mA, PWM, 3 PT. FLT	
					STANDARD	+ FAIL SAFE
		psid	gpm	gpm		
1/2"	GP A0108YS2	4.6 - 46	10.8	2.8	DM000M	DM010M
3/4"	GP B0108YS2	4.6 - 46	10.8	2.8		
1"	GP C0108YS7	4.6 - 46	10.8	2.8		
1"	GP C0370YS2	5.8 - 46	37	8.4		
1-1/4"	GP D0370YS2	5.8 - 46	37	8.4		
1-1/2"	GP E0370YS2	5.8 - 46	37	8.4		



Specifications

Static Pressure:	580 psi
Media Temperature:	-4° to 248°F (-20° to 120°C)
Ambient Temperature:	14° to 131°F (-10° to 55°C)
Body Material:	Ductile Iron, ASTM A536-65T, Class 60-45-18
End connections:	ANSI Class 150 (2"-3") / Class 300 (2"-6")
Internal Components:	316 Stainless Steel
Diaphragm:	EPDM
Test Ports:	1/4" NPT
Maximum Close Off Pressure:	101 psi
Maximum Operational ΔP:	58 psi

VALVE SIZE	VALVE MODEL PREFIX	CLOSE OFF PSI	DIMENSIONS		
			A	B	C
2"	GP H	101	8.8"	3.7"	9.7"
2-1/2"					
3"					
3"	GP J	101	12.6"	5.3"	11.4"
4"					
5"	GP L	101	16.6"	7.1"	13.3"
6"					

VALVE SIZE	VALVE MODEL PREFIX	CONTROL RANGE psid	MAXIMUM FLOW gpm	LOWEST MAX SETTING gpm	ACTUATOR MODELS 24VAC/30VDC SUPPLY MULTI SIGNAL 2-10VDC, 4-20mA, PWM, 3 PT. FLT	
					STANDARD	+ FAIL SAFE
2"	GP H1120VS4	5.0 - 58	112	39.0	BM000M	BM010M
2-1/2"						
3"						
2"	GP H1560VS4	11.6 - 58	156	55.5		
2-1/2"						
3"						
3"	GP J1470VS4	5.0 - 58	147	55		
4"						
3"	GP J2220VS4	8.7 - 58	222	73.3		
4"						
5"	GP L3700VS4	5.0 - 58	370	103		
6"						
5"	GP L4680VS4	8.7 - 58	468	118		
6"						



40 in.lb. (4.5 Nm) torque

Description

The rotation of all motors is bi-directional under power. Models equipped with the Fail Safe option also feature a bi-directional Fail Safe rotation in the event of power failure.

General Specifications

Power Supply: 24VAC/30VDC
Power Consumption: 20VA at 26VAC

Wire Size & Length: 18 AWG Minimum, 25 ft./7.6 m. Maximum per Actuator
Electrical Connections: 5/8 in./15.2 mm & 7/8 in./22.2 mm Knock Outs, Screw Terminals.

Control Signals: **Multi Signal:**
ANALOG: A) 2-10VDC; or B) May be Externally Wired with a 500 Ohm Resistor which is Supplied for 4-20mA, Zero & Span Adjustable.
PULSE WIDTH MODULATION: Time Base of 0.1 - 5 Seconds/20mS Resolution or 0.1 - 25 Seconds/100mS Resolution Selected by Dip Switch Position
Switch 24vac: Triac or Dry Contact, 40mA Max. Switching Current
Switch common: NPN Transistor, SCR, Triac or Dry Contact 75mA Max. Switching Current
DIGITAL: 4 Wire 3 Point Floating.

Torque: 40 in.lb. (4.5 Nm) open / 25 in.lb. (2.8 Nm) close
Turn Time: 150 seconds (from closed to fully open valve)

Ambient Temperature: 0°F to +122°F (-18°C to +50°C)

Electronic Enclosure: UL Recognized QMFZ2 Fire Rated 94V-0
Gear Train Enclosure: Die Cast Zinc with a Steel Base.



75 in.lb. (8.7 Nm) torque

Description

The rotation of all motors is bi-directional under power. Models equipped with the Fail Safe option also feature a bi-directional Fail Safe rotation in the event of power failure.

General Specifications

Power Supply: 24VAC/30VDC
Power Consumption: 20VA at 26VAC

Wire Size & Length: 18 AWG Minimum, 25 ft./7.6 m. Maximum per Actuator
Electrical Connections: 5/8 in./15.2 mm & 7/8 in./22.2 mm Knock Outs, Screw Terminals.

Control Signals: **Multi Signal:**
ANALOG: A) 2-10VDC; or B) May be Externally Wired with a 500 Ohm Resistor which is Supplied for 4-20mA, Zero & Span Adjustable.
PULSE WIDTH MODULATION: Time Base of 0.1 - 5 Seconds/20mS Resolution or 0.1 - 25 Seconds/100mS Resolution Selected by Dip Switch Position
Switch 24vac: Triac or Dry Contact, 40mA Max. Switching Current
Switch common: NPN Transistor, SCR, Triac or Dry Contact 75mA Max. Switching Current
DIGITAL: 4 Wire 3 Point Floating.

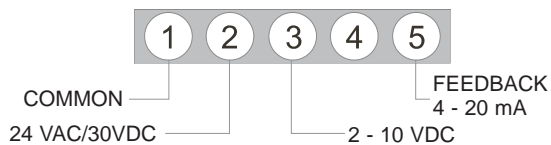
Torque: 75 in.lb. (8.7 Nm) open / 30 in.lb. (3.3 Nm) close
Turn Time: 150 seconds (from closed to fully open valve)

Ambient Temperature: 0°F to +122°F (-18°C to +50°C)

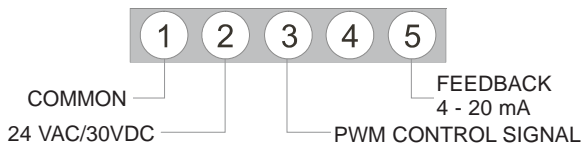
Electronic Enclosure: UL Recognized QMFZ2 Fire Rated 94V-0
Gear Train Enclosure: Die Cast Zinc with a Steel Base.

WIRING

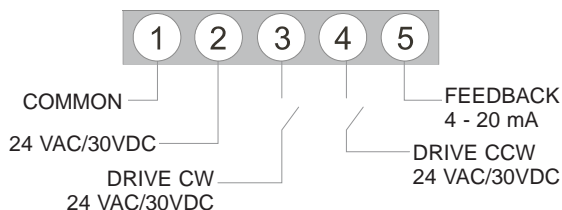
Analog



PWM



Digital - 4 wire / 3 point floating

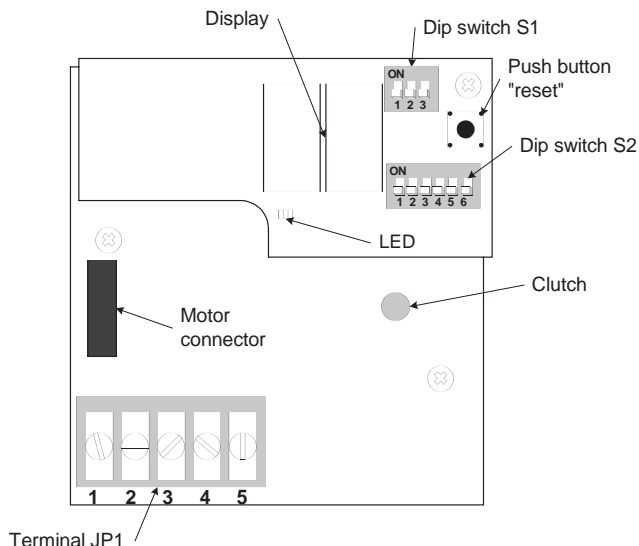


Special consideration for Digital control: In this mode, the actuator is sensitive to induced electrical voltages from other sources. To prevent such interference, wire one 2.2k ohm, 0.5W resistor between terminals 4 and 1 and a second 2.2k ohm 0.5W resistor between terminals 3 and 1. These resistors are supplied.

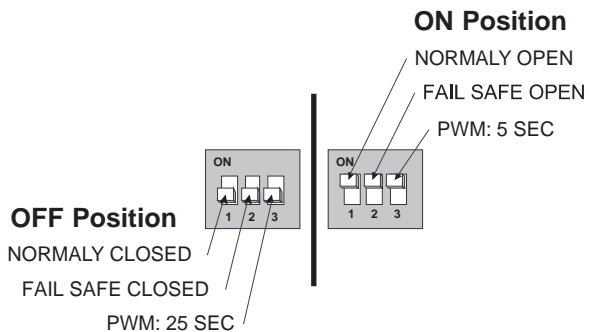
For 2 to 10 VDC output feedback: For any of the above wiring configurations, connect one of the supplied 500 ohm resistors between terminals 1 and 5.

PC BOARD:

This illustration is used as an example only. Actual P.C. Board may differ depending on the model.



DIP SWITCH SETTINGS:



Valve size: 1/2" to 1-1/2"

Maximum Flow Rate		Maximum Flow Rate Dip Switch Settings						Stem Rotations From Closed
1/2" - 1"	1" - 1-1/2"	1	2	3	4	5	6	Rotations
4.6 - 46psid	5.8 - 46psid							
GPM	GPM							
2.8	8.4	ON	ON	ON	ON	ON	ON	1.0
3.1	9.2	OFF	ON	ON	ON	ON	ON	1.1
3.4	10.0	ON	OFF	ON	ON	ON	ON	1.2
3.7	10.9	OFF	OFF	ON	ON	ON	ON	1.3
3.9	11.7	ON	ON	OFF	ON	ON	ON	1.4
4.2	12.5	OFF	ON	OFF	ON	ON	ON	1.5
4.5	13.4	ON	OFF	OFF	ON	ON	ON	1.6
4.8	14.3	OFF	OFF	OFF	ON	ON	ON	1.7
5.0	15.1	ON	ON	ON	OFF	ON	ON	1.8
5.3	16.0	OFF	ON	ON	OFF	ON	ON	1.9
5.6	16.9	ON	OFF	ON	OFF	ON	ON	2.0
5.8	17.6	OFF	OFF	ON	OFF	ON	ON	2.1
6.0	18.4	ON	ON	OFF	OFF	ON	ON	2.2
6.2	19.1	OFF	ON	OFF	OFF	ON	ON	2.3
6.4	19.9	ON	OFF	OFF	OFF	ON	ON	2.4
6.6	20.6	OFF	OFF	OFF	OFF	ON	ON	2.5
6.8	21.3	ON	ON	ON	ON	OFF	ON	2.6
7.0	21.9	OFF	ON	ON	ON	OFF	ON	2.7
7.2	22.6	ON	OFF	ON	ON	OFF	ON	2.8
7.4	23.2	OFF	OFF	ON	ON	OFF	ON	2.9
7.5	23.8	ON	ON	OFF	ON	OFF	ON	3.0
7.7	24.4	OFF	ON	OFF	ON	OFF	ON	3.1
7.8	25.0	ON	OFF	OFF	ON	OFF	ON	3.2
8.0	25.6	OFF	OFF	OFF	ON	OFF	ON	3.3
8.1	26.2	ON	ON	ON	OFF	OFF	ON	3.4
8.3	26.8	OFF	ON	ON	OFF	OFF	ON	3.5
8.4	27.3	ON	OFF	ON	OFF	OFF	ON	3.6
8.5	27.8	OFF	OFF	ON	OFF	OFF	ON	3.7
8.7	28.3	ON	ON	OFF	OFF	OFF	ON	3.8
8.8	28.9	OFF	ON	OFF	OFF	OFF	ON	3.9
9.0	29.4	ON	OFF	OFF	OFF	OFF	ON	4.0
9.1	29.8	OFF	OFF	OFF	OFF	OFF	ON	4.1
9.2	30.2	ON	ON	ON	ON	ON	OFF	4.2
9.3	30.7	OFF	ON	ON	ON	ON	OFF	4.3
9.4	31.1	ON	OFF	ON	ON	ON	OFF	4.4
9.5	31.5	OFF	OFF	ON	ON	ON	OFF	4.5
9.6	31.9	ON	ON	OFF	ON	ON	OFF	4.6
9.8	32.4	OFF	ON	OFF	ON	ON	OFF	4.7
9.9	32.8	ON	OFF	OFF	ON	ON	OFF	4.8
10.0	33.2	OFF	OFF	OFF	ON	ON	OFF	4.9
10.1	33.7	ON	ON	ON	OFF	ON	OFF	5.0
10.2	34.0	OFF	ON	ON	OFF	ON	OFF	5.1
10.2	34.4	ON	OFF	ON	OFF	ON	OFF	5.2
10.3	34.7	OFF	OFF	ON	OFF	ON	OFF	5.3
10.4	35.0	ON	ON	OFF	OFF	ON	OFF	5.4
10.4	35.4	OFF	ON	OFF	OFF	ON	OFF	5.5
10.5	35.7	ON	OFF	OFF	OFF	ON	OFF	5.6
10.6	36.1	OFF	OFF	OFF	OFF	ON	OFF	5.7
10.6	36.4	ON	ON	ON	ON	OFF	OFF	5.8
10.7	36.8	OFF	ON	ON	ON	OFF	OFF	5.9
10.8	37.1	ON	OFF	ON	ON	OFF	OFF	6.0



MAXIMUM FLOW RATE LIMITATION DIP SWITCH SETTINGS

NELSON CONTROLS

Valve size: 2", 2½", 3"

Maximum Flow Rate 2" - 3"		Maximum Flow Rate Dip Switch Settings						Stem Rotations From Closed
5.0 - 58psid	11.6 - 58psid	1	2	3	4	5	6	Rotations
39.0	55.5	ON	ON	ON	ON	ON	ON	1.0
43.2	60.1	OFF	ON	ON	ON	ON	ON	1.1
47.4	64.7	ON	OFF	ON	ON	ON	ON	1.2
51.6	69.4	OFF	OFF	ON	ON	ON	ON	1.3
55.9	74.0	ON	ON	OFF	ON	ON	ON	1.4
60.1	78.6	OFF	ON	OFF	ON	ON	ON	1.5
62.7	82.3	ON	OFF	OFF	ON	ON	ON	1.6
65.3	86.0	OFF	OFF	OFF	ON	ON	ON	1.7
67.9	89.6	ON	ON	ON	OFF	ON	ON	1.8
70.5	93.3	OFF	ON	ON	OFF	ON	ON	1.9
73.1	97.0	ON	OFF	ON	OFF	ON	ON	2.0
74.8	99.3	OFF	OFF	ON	OFF	ON	ON	2.1
76.6	102	ON	ON	OFF	OFF	ON	ON	2.2
78.4	104	OFF	ON	OFF	OFF	ON	ON	2.3
80.2	106	ON	OFF	OFF	OFF	ON	ON	2.4
81.9	108	OFF	OFF	OFF	OFF	ON	ON	2.5
83.4	111	ON	ON	ON	ON	OFF	ON	2.6
84.8	113	OFF	ON	ON	ON	OFF	ON	2.7
86.2	115	ON	OFF	ON	ON	OFF	ON	2.8
87.7	117	OFF	OFF	ON	ON	OFF	ON	2.9
89.1	119	ON	ON	OFF	ON	OFF	ON	3.0
90.0	121	OFF	ON	OFF	ON	OFF	ON	3.1
90.9	122	ON	OFF	OFF	ON	OFF	ON	3.2
91.7	124	OFF	OFF	OFF	ON	OFF	ON	3.3
92.6	125	ON	ON	ON	OFF	OFF	ON	3.4
93.5	127	OFF	ON	ON	OFF	OFF	ON	3.5
94.4	128	ON	OFF	ON	OFF	OFF	ON	3.6
95.3	129	OFF	OFF	ON	OFF	OFF	ON	3.7
96.2	131	ON	ON	OFF	OFF	OFF	ON	3.8
97.1	132	OFF	ON	OFF	OFF	OFF	ON	3.9
98.0	134	ON	OFF	OFF	OFF	OFF	ON	4.0
98.7	135	OFF	OFF	OFF	OFF	OFF	ON	4.1
99.3	136	ON	ON	ON	ON	ON	OFF	4.2
100	137	OFF	ON	ON	ON	ON	OFF	4.3
101	138	ON	OFF	ON	ON	ON	OFF	4.4
101	139	OFF	OFF	ON	ON	ON	OFF	4.5
102	141	ON	ON	OFF	ON	ON	OFF	4.6
103	142	OFF	ON	OFF	ON	ON	OFF	4.7
104	143	ON	OFF	OFF	ON	ON	OFF	4.8
104	144	OFF	OFF	OFF	ON	ON	OFF	4.9
105	145	ON	ON	ON	OFF	ON	OFF	5.0
106	146	OFF	ON	ON	OFF	ON	OFF	5.1
106	147	ON	OFF	ON	OFF	ON	OFF	5.2
107	148	OFF	OFF	ON	OFF	ON	OFF	5.3
108	149	ON	ON	OFF	OFF	ON	OFF	5.4
108	150	OFF	ON	OFF	OFF	ON	OFF	5.5
109	151	ON	OFF	OFF	OFF	ON	OFF	5.6
110	153	OFF	OFF	OFF	OFF	ON	OFF	5.7
111	154	ON	ON	ON	ON	OFF	OFF	5.8
111	155	OFF	ON	ON	ON	OFF	OFF	5.9
112	156	ON	OFF	ON	ON	OFF	OFF	6.0



Valve size: 3", 4"

Maximum Flow Rate 3" - 4"		Maximum Flow Rate Dip Switch Settings						Stem Rotations From Closed
5.0 - 58psid	8.7 - 58psid	1	2	3	4	5	6	Rotations
GPM	GPM							
54.7	73.4	ON	ON	ON	ON	ON	ON	1.0
60.5	82.0	OFF	ON	ON	ON	ON	ON	1.1
66.3	90.6	ON	OFF	ON	ON	ON	ON	1.2
72.1	99.1	OFF	OFF	ON	ON	ON	ON	1.3
77.9	107.7	ON	ON	OFF	ON	ON	ON	1.4
83.7	116.3	OFF	ON	OFF	ON	ON	ON	1.5
88.4	123.0	ON	OFF	OFF	ON	ON	ON	1.6
93.1	129.8	OFF	OFF	OFF	ON	ON	ON	1.7
97.7	136.5	ON	ON	ON	OFF	ON	ON	1.8
102.4	143.3	OFF	ON	ON	OFF	ON	ON	1.9
107.1	150.0	ON	OFF	ON	OFF	ON	ON	2.0
109.9	154.6	OFF	OFF	ON	OFF	ON	ON	2.1
112.7	159.2	ON	ON	OFF	OFF	ON	ON	2.2
115.4	163.8	OFF	ON	OFF	OFF	ON	ON	2.3
118.2	168.4	ON	OFF	OFF	OFF	ON	ON	2.4
121.0	173.0	OFF	OFF	OFF	OFF	ON	ON	2.5
122.8	175.8	ON	ON	ON	ON	OFF	ON	2.6
124.6	178.6	OFF	ON	ON	ON	OFF	ON	2.7
126.4	181.4	ON	OFF	ON	ON	OFF	ON	2.8
128.2	184.2	OFF	OFF	ON	ON	OFF	ON	2.9
130.0	187.0	ON	ON	OFF	ON	OFF	ON	3.0
131.2	189.1	OFF	ON	OFF	ON	OFF	ON	3.1
132.4	191.2	ON	OFF	OFF	ON	OFF	ON	3.2
133.6	193.3	OFF	OFF	OFF	ON	OFF	ON	3.3
134.8	195.4	ON	ON	ON	OFF	OFF	ON	3.4
136.0	197.5	OFF	ON	ON	OFF	OFF	ON	3.5
137.2	199.6	ON	OFF	ON	OFF	OFF	ON	3.6
138.4	201.7	OFF	OFF	ON	OFF	OFF	ON	3.7
139.6	203.8	ON	ON	OFF	OFF	OFF	ON	3.8
140.8	205.9	OFF	ON	OFF	OFF	OFF	ON	3.9
142.0	208.0	ON	OFF	OFF	OFF	OFF	ON	4.0
142.4	209.2	OFF	OFF	OFF	OFF	OFF	ON	4.1
142.8	210.4	ON	ON	ON	ON	ON	OFF	4.2
143.2	211.6	OFF	ON	ON	ON	ON	OFF	4.3
143.6	212.8	ON	OFF	ON	ON	ON	OFF	4.4
144.0	214.0	OFF	OFF	ON	ON	ON	OFF	4.5
144.4	215.2	ON	ON	OFF	ON	ON	OFF	4.6
144.8	216.4	OFF	ON	OFF	ON	ON	OFF	4.7
145.2	217.6	ON	OFF	OFF	ON	ON	OFF	4.8
145.6	218.8	OFF	OFF	OFF	ON	ON	OFF	4.9
146.0	220.0	ON	ON	ON	OFF	ON	OFF	5.0
146.1	220.2	OFF	ON	ON	OFF	ON	OFF	5.1
146.2	220.4	ON	OFF	ON	OFF	ON	OFF	5.2
146.3	220.6	OFF	OFF	ON	OFF	ON	OFF	5.3
146.4	220.8	ON	ON	OFF	OFF	ON	OFF	5.4
146.5	221.0	OFF	ON	OFF	OFF	ON	OFF	5.5
146.6	221.2	ON	OFF	OFF	OFF	ON	OFF	5.6
146.7	221.4	OFF	OFF	OFF	OFF	ON	OFF	5.7
146.8	221.6	ON	ON	ON	ON	OFF	OFF	5.8
146.9	221.8	OFF	ON	ON	ON	OFF	OFF	5.9
147.0	222.0	ON	OFF	ON	ON	OFF	OFF	6.0



MAXIMUM FLOW RATE LIMITATION DIP SWITCH SETTINGS

NELSON CONTROLS

Valve size: 5", 6"

Maximum Flow Rate		Maximum Flow Rate Dip Switch Settings						Stem Rotations From Closed
5" - 6"								
5.0 - 58psid	8.7 - 58psid							
GPM	GPM	1	2	3	4	5	6	Rotations
103	118	ON	ON	ON	ON	ON	ON	1.0
115	131	OFF	ON	ON	ON	ON	ON	1.1
126	143	ON	OFF	ON	ON	ON	ON	1.2
137	156	OFF	OFF	ON	ON	ON	ON	1.3
148	168	ON	ON	OFF	ON	ON	ON	1.4
160	181	OFF	ON	OFF	ON	ON	ON	1.5
170	193	ON	OFF	OFF	ON	ON	ON	1.6
180	205	OFF	OFF	OFF	ON	ON	ON	1.7
190	218	ON	ON	ON	OFF	ON	ON	1.8
200	230	OFF	ON	ON	OFF	ON	ON	1.9
210	242	ON	OFF	ON	OFF	ON	ON	2.0
218	252	OFF	OFF	ON	OFF	ON	ON	2.1
227	262	ON	ON	OFF	OFF	ON	ON	2.2
235	271	OFF	ON	OFF	OFF	ON	ON	2.3
243	281	ON	OFF	OFF	OFF	ON	ON	2.4
251	291	OFF	OFF	OFF	OFF	ON	ON	2.5
257	301	ON	ON	ON	ON	OFF	ON	2.6
263	310	OFF	ON	ON	ON	OFF	ON	2.7
269	320	ON	OFF	ON	ON	OFF	ON	2.8
276	329	OFF	OFF	ON	ON	OFF	ON	2.9
282	339	ON	ON	OFF	ON	OFF	ON	3.0
287	344	OFF	ON	OFF	ON	OFF	ON	3.1
293	350	ON	OFF	OFF	ON	OFF	ON	3.2
298	355	OFF	OFF	OFF	ON	OFF	ON	3.3
304	360	ON	ON	ON	OFF	OFF	ON	3.4
309	366	OFF	ON	ON	OFF	OFF	ON	3.5
315	371	ON	OFF	ON	OFF	OFF	ON	3.6
320	376	OFF	OFF	ON	OFF	OFF	ON	3.7
326	381	ON	ON	OFF	OFF	OFF	ON	3.8
331	387	OFF	ON	OFF	OFF	OFF	ON	3.9
337	392	ON	OFF	OFF	OFF	OFF	ON	4.0
339	396	OFF	OFF	OFF	OFF	OFF	ON	4.1
342	401	ON	ON	ON	ON	ON	OFF	4.2
344	405	OFF	ON	ON	ON	ON	OFF	4.3
346	409	ON	OFF	ON	ON	ON	OFF	4.4
349	414	OFF	OFF	ON	ON	ON	OFF	4.5
351	418	ON	ON	OFF	ON	ON	OFF	4.6
353	422	OFF	ON	OFF	ON	ON	OFF	4.7
355	426	ON	OFF	OFF	ON	ON	OFF	4.8
358	431	OFF	OFF	OFF	ON	ON	OFF	4.9
360	435	ON	ON	ON	OFF	ON	OFF	5.0
361	438	OFF	ON	ON	OFF	ON	OFF	5.1
362	442	ON	OFF	ON	OFF	ON	OFF	5.2
363	445	OFF	OFF	ON	OFF	ON	OFF	5.3
364	448	ON	ON	OFF	OFF	ON	OFF	5.4
365	452	OFF	ON	OFF	OFF	ON	OFF	5.5
366	455	ON	OFF	OFF	OFF	ON	OFF	5.6
367	458	OFF	OFF	OFF	OFF	ON	OFF	5.7
368	461	ON	ON	ON	ON	OFF	OFF	5.8
369	465	OFF	ON	ON	ON	OFF	OFF	5.9
370	468	ON	OFF	ON	ON	OFF	OFF	6.0

