

MODELS 106 2PR-SC-BT / 206 2PR-SC-BT DUAL ADJUSTABLE SET POINT PRESSURE REDUCING VALVE USING SOLENOID CONTROL

KEY FEATURES

- Two Adjustable Outlet Pressure Set Points (Daytime / Night)
- Selectable Using Battery Operated Control
- Pressure Reducing Valve with two set points, high pressure and low pressure
- Time-based selection via latching solenoid and timer
- Self-contained, powered by a 9-volt battery (1 controller, 1 programmer)
- 24/7 time settings (can skip days)
- Multiple time selection possible (up to 10 time settings per 24 hour period)
- Reduces system pressure when not needed (low flow demand or night time), supplies increased pressure when required (high flow demand or day time)
- Recommended for systems where no external power source is available



PRODUCT OVERVIEW

The 106 2PR-SC-BT and 206 2PR-SC-BT dual adjustable set point pressure reducing valve using solenoid control is based on the 106-PG or 206-PG valve.

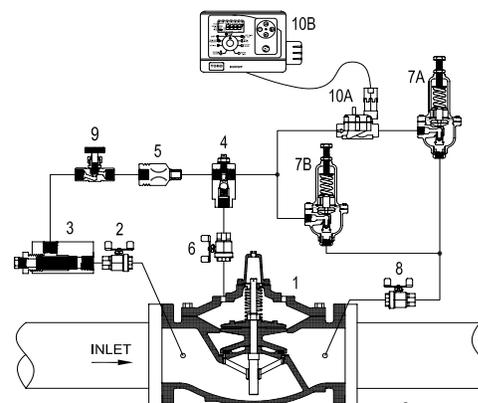
The valve is installed with two PR pressure reducing pilots, one set to low pressure, the other to high pressure. The pilot senses the downstream pressure through a connection to the valve outlet. Under flowing conditions, the pilot reacts to small changes in pressure to control the valve position by modulating relatively steady as the pilot set points.

The high pressure pilot can be isolated by means of a battery operated latching solenoid. This solenoid is controlled using a fully programmable controller which is user set to give higher and lower pressure based on time. The solenoid is energized to open and switch to the high pressure pilot from the normal low pressure pilot setting.

SCHEMATIC DRAWING

1. Main Valve – 106-PG or 206-PG
2. Isolation Valve
3. Strainer
4. Model 26 Flow Stabilizer / Opening speed control
- Standard (106 or 206) on flat diaphragm valves

- Optional on rolling (S106 or S206) diaphragm valves
- 5. Fixed Restriction
- 6. Isolation Valve
- 7. Pressure Reducing Pilot – 160 model
- 7A. High setting
- 7B. Low setting
- 8. Isolation Valve
- 9. Closing speed control – Model 852-B – Optional
- 10. Solenoid Valve and Controller
- 10A. Low Flow valve with Potted Latching Solenoid
- 10B. Control module with bracket, 9VDC



Schematic A-8487A51

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STANDARD MATERIALS

Standard materials for pilot system components are:

- ASTM B62 bronze or ASTM B16 brass
- AISI 303/316 stainless steel trim
- Buna-N / EPDM diaphragm and seals

SELECTION SUMMARY

1. Select the valve series and size with sufficient capacity.
2. Check the operating flow against valve minimum.
3. If the outlet pressure is less than 35% of the inlet pressure, check for cavitation.
4. Ensure that the flange rating exceeds the maximum operating pressure.

ORDERING INSTRUCTIONS

Refer to page 244 for the order form and ordering instructions.

Additionally, include the following information for this product:

1. Single chamber (106) or (206)
2. Pilot range

106-PR-SC	Flow Capacity (See 106-PG in Main Valve section for other valve data)								
Size (inches)	1/2 in	3/4 in	1 in	1-1/4 in	1-1/2 in	2 in	2-1/2 in	3 in	4 in
Size (mm)	15 mm	19 mm	25 mm	32 mm	40 mm	50 mm	65 mm	80 mm	100 mm
Minimum (USGPM) Flat Diaphragm	1	1	1	1	1	5	5	5	10
Minimum (L/s) Flat Diaphragm	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.6
Maximum Continuous (USGPM)	12	19	49	93	125	210	300	460	800
Maximum Continuous (L/s)	0.8	1	3	6	8	13	19	29	50

106-PR-SC	Flow Capacity (See 106-PG in Main Valve section for other valve data)								
Size (inches)	6 in	8 in	10 in	12 in	14 in	16 in	20 in	24 in	36 in
Size (mm)	150 mm	200 mm	250 mm	300 mm	350 mm	400 mm	500 mm	600 mm	900 mm
Minimum (USGPM) Flat Diaphragm	20	40	-	-	-	-	-	-	-
Minimum (USGPM) Rolling Diaphragm	1	1	3	3	3	3	10	10	20
Minimum (L/s) Flat Diaphragm	1.3	2.5	-	-	-	-	-	-	-
Minimum (L/s) Rolling Diaphragm	0.1	0.1	0.2	0.2	0.2	0.2	0.6	0.6	1.3
Maximum Continuous (USGPM)	1800	3100	4900	7000	8500	11000	17500	25800	55470
Maximum Continuous (L/s)	114	196	309	442	536	694	1104	1628	3500

206-PR-SC	Flow Capacity (See 206-PG in Main Valve section for other valve data)								
Size (inches)	3 in	4 in	6 in	8 in	10 in	12 in	16 in	18 in	20 in
Size (mm)	80 mm	100 mm	150 mm	200 mm	250 mm	300 mm	400 mm	450 mm	500 mm
Minimum (USGPM) Flat Diaphragm	5	5	10	20	40	-	-	-	-
Minimum (USGPM) Rolling Diaphragm	-	-	-	-	-	3	3	3	3
Minimum (L/s) Flat Diaphragm	0.3	0.3	0.6	1.3	2.5	-	-	-	-
Minimum (L/s) Rolling Diaphragm	-	-	-	-	-	0.19	0.19	0.19	0.19
Maximum Continuous (USGPM)	300	580	1025	2300	4100	6400	9230	16500	16500
Maximum Continuous (L/s)	19	37	65	145	260	404	582	1040	1040

206-PR-SC	Flow Capacity (See 206-PG in Main Valve section for other valve data)						
Size (inches)	24 x 16 in	24 x 20 in	28 in	30 in	32 in	36 in	40 in
Size (mm)	600 x 400 mm	600 x 500 mm	700 mm	750 mm	800 mm	900 mm	1000 mm
Minimum (USGPM) Rolling Diaphragm	3	3	10	10	10	10	20
Minimum (L/s) Rolling Diaphragm	0.2	0.2	0.6	0.6	0.6	0.6	1.3
Maximum Continuous (USGPM)	16500	21700	33600	33650	33700	33800	62000
Maximum Continuous (L/s)	1040	1370	2120	2123	2126	2132	3912