Models 106-F-Type 5 / 206-F-Type 5
Non-Modulating Float Valve

206-F-Type 5 Globe

KEY FEATURES

- No overflow, drip-tight close
- Adjustable draw down
- Easily adjustable level settings
- Low supply pressure options

Product Overview

The 106-F-Type 5 and 206-F-Type 5 non-modulating float valves are based on the 106-PG or 206-PG main valve. It is ideal for allowing normal forward flow to fill water reservoirs to a desired high level and where the pilot and valve of the reservoirs are easily accessible.

The valve functions as a two position valve, either open or closed. The valve remains closed when the reservoir level drops, until the float reaches the pre-determined adjustable minimum reservoir level. The F-Type 5 valve then opens to refill the reservoir and closes tightly when high water level is achieved.

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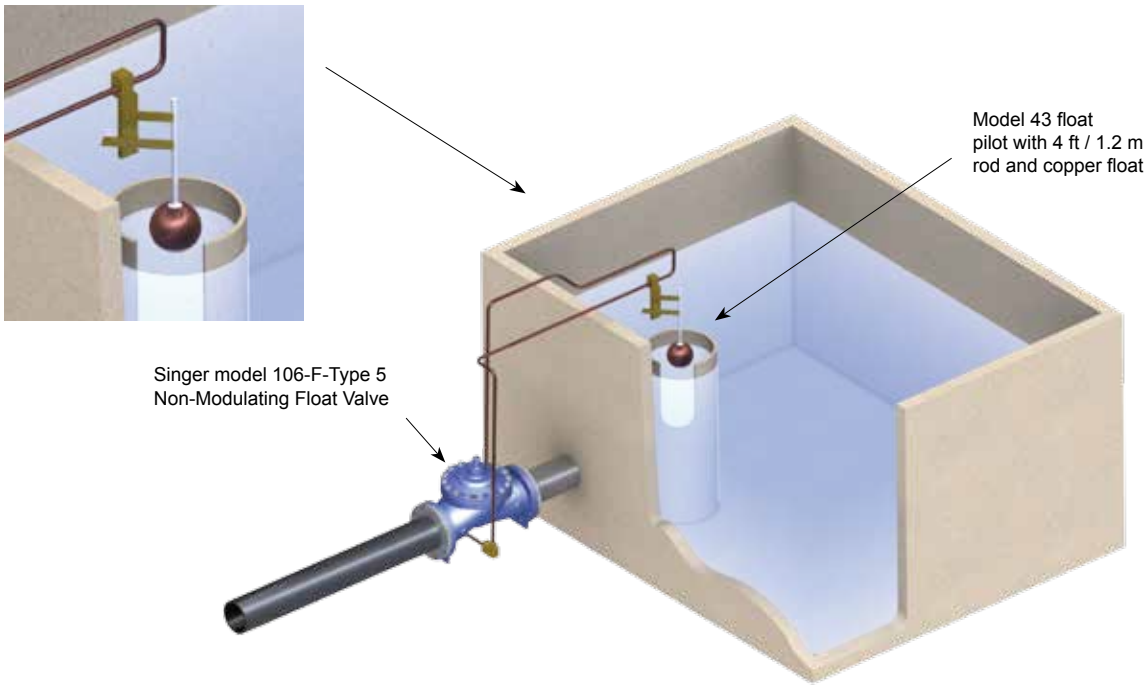
Non-Modulating Float Valve

Typical Application

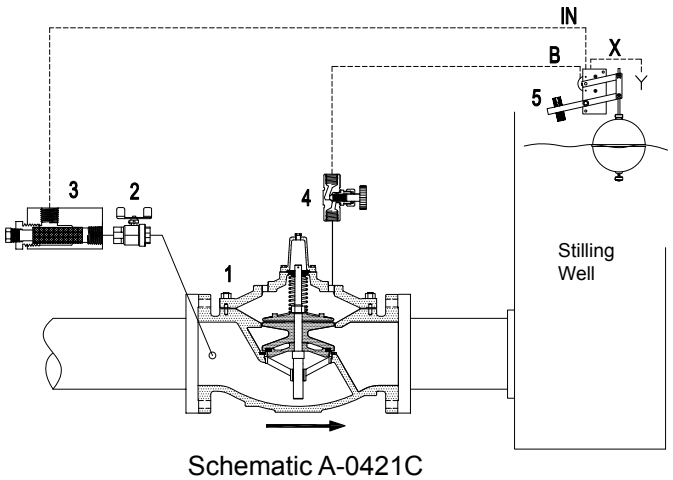
Non-modulating float valves are typically used in buildings with reservoir tanks or installations where the valve and pilot are readily accessible.

The on / off service ensures that the reservoir contents are cycled. It will also prevent over cycling of the supply pumps as the minimum quantity per cycle is adjustable.



Note:
Per illustration, Float Valves greater than 4 in / 100 mm cannot be positioned on its side.

Schematic Drawing



Schematic A-0421C

1. Main Valve - 106-PG or 206-PG
2. Isolation Valve
3. Strainer - 40 mesh stainless steel screen
4. Opening / Closing Speed Control
5. Model 43 Float Pilot c/w copper float, 4 ft / 1.2 m brass rod

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Non-Modulating Float Valve

Standard Materials

Standard materials for pilot system components are:

- ASTM B-62 bronze or ASTM B-16 brass
- Copper float

Note: The stilling well and the connections between main valve and pilot completed by others.

Specifications

- The valve shall be a Singer Valve model 106-F-Type 5/ 206-F-Type 5, size "_____", ANSI Class 150 (ANSI 300, ANSI flanges drilled to ISO PN 10 / 16 / 25 or 40) pressure rating / flange standard, globe (angle), style valve. The Model 43 Non-Modulating Float Pilot shall be utilized with a 4 ft / 1.2 m brass float rod with adjustable stops and a copper float (connection between main valve and Model 43 Non-Modulating Float Valve by others). Assembly shall be according to Schematic A-0421C.
- The valve allows flow into the reservoir to the maximum high level where it closes drip-tight. The valve remains close when the reservoir level drops until the float reaches the pre-determined minimum reservoir level at which time it opens to refill the reservoir.
- Refer to Main Valve section, page 11, 106-PG (or 206-PG) for detailed information pertaining to valve sizes and materials, selection criteria and specifications.
- Refer to Pilot and Accessories section, page 271, Model 43 Non-Modulating Float Pilot With Vertical Rod for detailed information pertaining to materials and specifications.

Selection Summary

1. Generally select line size to minimize losses during normal forward flow - see chart of maximum continuous flow below.
2. Use the performance curves and sizing bulletin to determine the pressure drop across the valve at normal flow rate.
3. Check the maximum operating pressure against the maximum working pressure rating of the flanges.
4. For pressures greater than 80 psi / 5.5 bar, consult factory
5. If the outlet pressure is less than 35% of the inlet pressure, check for cavitation.
6. If the inlet pressure is less than 10 psi / 0.70 bar higher than the reservoir head, consult with Singer Valve. Assisted opening may be required for full flow.
   - To maintain a relatively steady tank level, refer to model 106-F-Type 4 / 206-F-Type 4: Modulating Float Valve, 194
   - for SCADA or electronic level control, refer to model 106-2SC-PCO / 206-2SC-PCO Dual Solenoid Control Valve

Models 106-F-Type 5 / 206-F-Type 5
Non-Modulating Float Valve

Ordering Instructions

Refer to page 293 for the order form and ordering instructions.

Additionally, include the following information for this product:

1. Full port (106) and reduced port (206)
2. Pilot range

106-F-Type 5	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
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
Pressure Drop (PSI)	20	20	20	15	15	20	15	16	15
Pressure Drop (Bar)	1.4	1.4	1.4	1.0	1.0	1.4	1	1.1	1.0

106-F-Type 5	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
Maximum Continuous (USGPM)	1800	3100	4900	7000	8500	11000	17500	25000	55470
Maximum Continuous (L/s)	114	196	309	442	536	694	1104	1577	3500
Pressure Drop (PSI)	15	15	15	16	11	17	8.6	9.6	8.6
Pressure Drop (Bar)	1.0	1.0	1.0	1.1	0.8	1.2	0.6	0.7	0.6

206-F-Type 5	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
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
Pressure Drop (PSI)	19	15	17	21	17	17	18	23	22
Pressure Drop (Bar)	1.3	1.0	1.2	1.4	1.2	1.2	1.2	1.6	1.5

206-F-Type 5	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
Maximum Continuous (USGPM)	16500	21700	33600	33650	33700	33800	55470
Maximum Continuous (L/s)	1040	1370	2120	2123	2126	2132	3500
Pressure Drop (PSI)	21	21	17	17	17	17	17
Pressure Drop (Bar)	1.4	1.4	1.2	1.2	1.2	1.2	1.2