HYGRADEWATER INFRASTRUCTURE

SINGER® a MUELLER brand

F-Type 4 Modulating Float Valve

The Singer® model F-Type 4 modulating float valves are ideal for balancing the inflow and outflow demand into the reservoir and maintaining level at the designated maximum.

TECHNICAL GUIDE: **AVH1.24**

Applications

- Potable water
- Tank level control
- Municipal
- Mining Applications
- Irrigation Applications

Product Attributes

- Maintains relatively constant level
- Automatic compensation for level draw-down
- Standard integral damping reduces hunting
- Drip-tight at high level shut-off
- Low supply pressure options

Approvals/Standards

- AS 5081:2008
- Flanges to AS/NZS4087 Fig. B5
- Coating complies with AS/NZS 4158

WaterMark ***Licence Number:*** *WMK/SMK26726*

The valve closes drip-tight at the maximum level and modulates to maintain the tank level. The float pilot is remotely installed at the high level in the reservoir tank. Pilot connections to the main valve are connected in the field. As the reservoir level drops the main valve is opened proportionally to increase the filling rate. Movement of the main stem alters the size of the closing restriction, interrupting the tendency of the valve to hunt.

STANDARD MATERIALS

Standard materials for pilot system components are:

- Stainless Steel
- Plastic Float
- Brass, Copper, Iron

The stilling well and the connections between the main valve and the R-400 pilot are provided by others.

ORDERING INSTRUCTIONS

Refer to the order form and ordering instructions.

Additionally, include the following information for this product.

1. Single chamber (106) or (206)

SELECTION SUMMARY

1. Generally, select line size to minimise losses during normal forward flow.
2. Use the performance curves and sizing bulletin to check 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. If the outlet pressure is less than 35% of the inlet pressure, check for cavitation.
5. If the inlet pressure is less than 0.7 bar higher than the maximum reservoir head, consult with us.
6. Assisted opening may be required for full flow.
   - *For non-modulating (on-off) service, refer to model 106-F-Type 5 or 206-F-Type 5.*
   - *For high tower reservoir, refer to models 106-A-Type 1 / 106-A / 206-A Type 1,2,3 or 4 Altitude Control Valves.*

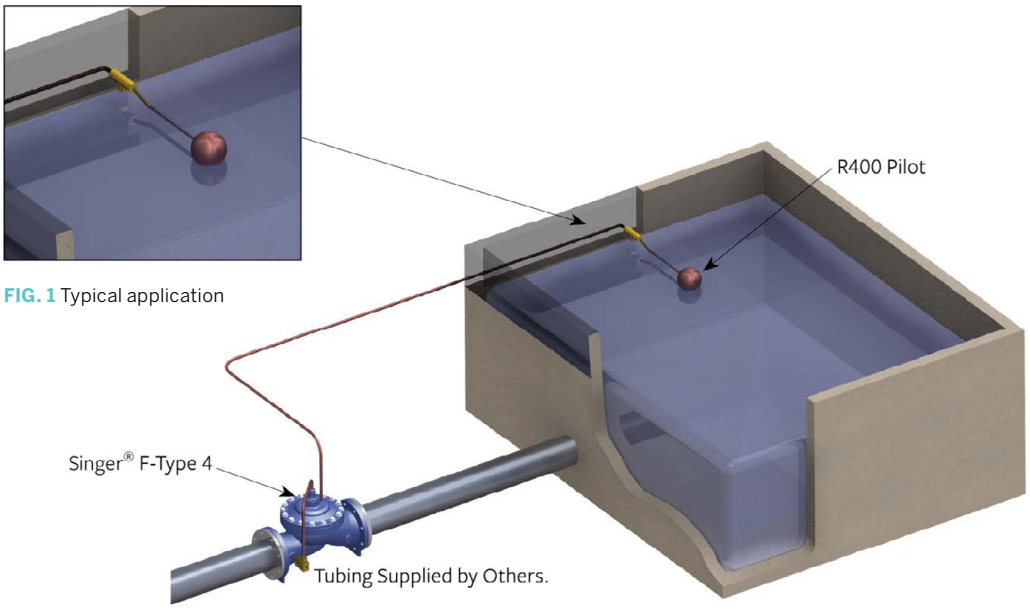
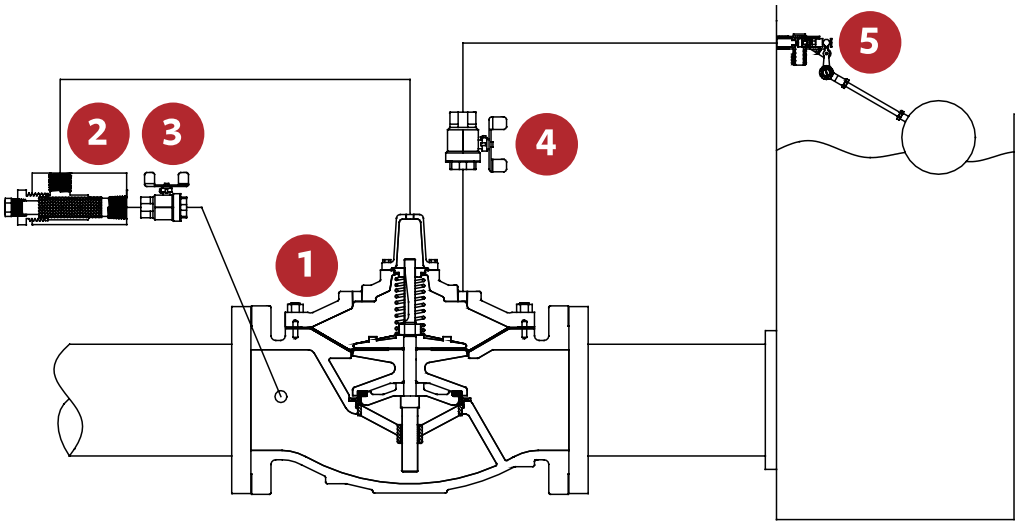


FIG. 1 Typical application



SCHEMATIC A-0608D

SCHEMATIC DRAWING

1. Main Valve - 106-PG, or 206-PG, Internal Needle Stem Valve *(INSV)* Built Into Stem.
2. Strainer - 40 Mesh Stainless-Steel Screen
3. Isolation Valve
4. Isolation Valve
5. R400 Float Pilot Comes with Plastic Float

Note: Schematic shown for 65 mm and larger. For 50 mm and smaller, refer to Schematic A-0399C.

TABLE 1 106-RF and 206-RF Flow Coefficent Cv

Size (mm)	106-F-Type 4		206-F-Type 4	
	Max Continuous (L/s)	Pressure drop (Bar)	Max Continuous (L/s)	Pressure drop (Bar)
15mm	0.8	1.4	-	-
19mm	1	1.4	-	-
25mm	3	1.4	-	-
32mm	6	1	-	-
40mm	8	1	-	-
50mm	13	1.4	-	-
65mm	19	1	-	-
80mm	29	1.1	19	1.3
100mm	50	1	37	1
150mm	114	1	65	1.2
200mm	196	1	145	1.4
250mm	309	1	260	1.2
300mm	442	1.1	404	1.2
350mm	536	0.8	-	-
400mm	694	1.2	582	1.2
450mm	-	-	1040	1.6
500mm	1104	0.6	1040	1.5
600mm	1577	0.7	-	-
600 x 400mm	-	-	1040	1.4
600 x 500mm	-	-	1370	1.4
700mm	-	-	2120	1.2
750mm	-	-	2123	1.2
800mm	-	-	2126	1.2
900mm	3500	0.6	2132	1.2
1000mm	-	-	3500	1.2
1200mm	-	-	3500	1.2

***K_V = L / s at 1 bar pressure drop*

($Q=K_V \sqrt{\Delta P}$)

Note: Based on fully open valve

Scan for more information

November 2025

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