

MODEL 106-SPI-MV

SINGLE POINT INSERTION FLOW METERING VALVE

KEY FEATURES

- Accurate flow metering, combined with control valve to save space/cost
- Supplied with Flow Converter for local display with 4-20mA output measurement or can be combined with PLC-based control panel for flow control applications
- +/- 2% of rate accuracy, NIST traceable



PRODUCT OVERVIEW

The Singer Model 106-SPI-MV is a Single Point Insertion Electromagnetic Flow Meter, installed and calibrated in conjunction with a Singer Valve to provide an accurate flow rate that can be utilized with the metering valve as a stand alone option or built into a 106-2SC-PCO pilot system to provide complete flow-based valve control.

The sensor is available for one-inch taps, depending upon valve size and application.

The compact insertion design fits in confined spaces and offers complete accessibility. The flow meter can be removed for easy inspection, cleaning, calibrating or verification.

This cost effective flow meter option is available for valve sizes from 3" (80mm) to 36" (900mm) inches. The flow sensor comes pre-calibrated from McCrometer's NIST traceable Calibration Lab and requires no recalibration in the field. With no moving parts and a single-piece design, the SPI Mag's sensor contains nothing to wear or break, and it is generally immune to clogging by sand, grit or other debris.

The 106-SPI-MV Mag is profiled for the valve body, further enhancing its measurement accuracy by allowing precise determination of mean velocities.

SCHEMATIC DRAWING

1. Main Valve - Model 106-PG
2. Model SPI - Single Point Insertion Meter
3. Local Converter - Flow Indicating Transmitter

Note: Local IP67 Converter is standard.

Optional enclosures are:

- Stainless Steel IP66 - NEMA 4 - Panel Mounted (optional)
- Fibreglass NEMA 4X - Panel Mounted (optional)
- SS IP66 - NEMA 4X - Panel Mounted (optional)
- Polycarbonate IP67 NEMA 6 - Panel Mounted (optional)

STANDARD MATERIALS

Standard materials for converter enclosures are:

- IP67 Die cast aluminum - Local
- SS IP66 - NEMA 4 - Panel Mounted (optional)
- Fibreglass NEMA 4X - Panel Mounted (optional)
- Polycarbonate IP67 NEMA 6 - Panel Mounted (optional)

SELECTION SUMMARY

1. Allow 3 pipe diameters minimum upstream of sensor
2. These units can be installed with Singer AC (Anti-Cav) cages
3. Sensor can be installed on either side of valve
- inlet only

ORDERING INSTRUCTIONS

Refer to page 245 for the order form. Please be prepared to provide the following information:

- Valve size
- Pressure
- Minimum flow
- Fluid
- Cable length
- Temperature

106-SPI-MV	Flow Capacity (See 106-PG in Main Valve section for other valve data)										
	3 in	4 in	6 in	8 in	10 in	12 in	16 in	20 in	24 in	28 in	36 in
Size (inches)	3 in	4 in	6 in	8 in	10 in	12 in	16 in	20 in	24 in	28 in	36 in
Size (mm)	80 mm	100 mm	150 mm	200 mm	250 mm	300 mm	400 mm	500 mm	600 mm	700 mm	900 mm
Minimum (USGPM) Flat Diaphragm	5	10	20	40	-	-	-	-	-	-	-
Minimum (USGPM) Rolling Diaphragm	-	-	0.5	1	3	3	3	10	10	10	20
Minimum (L/s) Flat Diaphragm	0.3	0.6	-	-	-	-	-	-	-	-	-
Minimum (L/s) Rolling Diaphragm	-	-	0.03	0.06	0.2	0.2	0.2	0.6	0.6	0.6	1.3
Maximum Continuous (USGPM)	460	800	1,800	3,100	4,900	7,000	11,000	17,500	25,000	33,600	55,470
Maximum Continuous (L/s)	29	50	114	196	309	442	694	1,104	1,577	2,120	3,500