

INSERTION Electro Magnetic Flow Meter



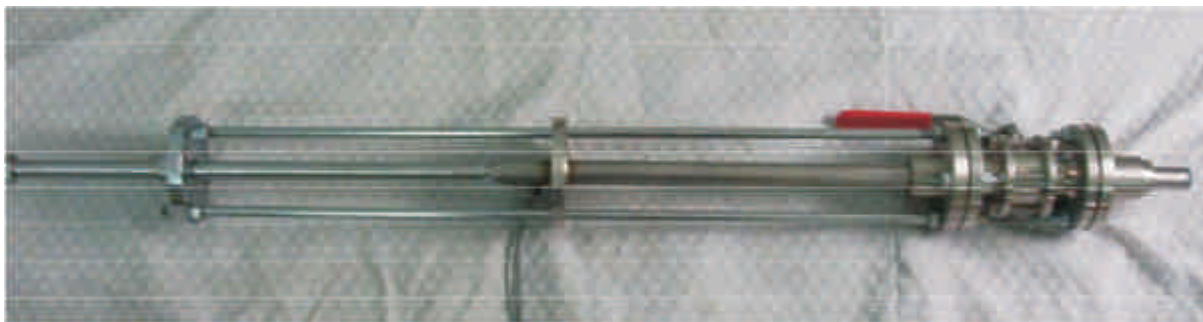
Insertion Probe *Magbar 600* & Signal converter *MSP 3000*

INTRODUCTION

Magbar 600 with MSP 3000 form a versatile flow meter for conductive liquids such as Raw Water, Chilled water, effluents, Potable water etc . Using time proven electromagnetic flow metering principle, *Magbar* achieves a low cost flow meter for pipes larger than 200 mm. Since there are no moving parts, the flow meter gives years of maintenance free service.

The insertion probe is available with On-Line insertion/Removal version and fixed versions. Wherever there is a possibility of shutting down the flow to atmospheric pressures, fixed versions is a cost effective solution.

MAGBAR 600 On-Line Retractable Velocity Probe



Signal Converter *MSP3000* is available with all the features required in a field mounted water metering equipment. These include - weather proof enclosure, communication options, RTC with data logging with printer option and 4 to 20 mA isolated Flow signal transmission option for flow pattern recording. The converter is available as field mounted-IP65 protection category.

FEATURES

- Low cost flow metering for large pipes
- On-line installation /Removal of probe
- All SS construction of Probe with epoxy and Neoprene wetted parts
- Options for digital data transmission
- Isolated 4 to 20 mA current output
- Data Logger with RTC & Printer Port
- IP65 field Mountable enclosure
- Insertion Probe can be located up to 100 mtrs away from Signal converter

MSP 3000 Signal Converter with Printer



SPECIFICATIONS

Insertion probe : Model : Magbar600

- 1) Accuracy : +/-0.03 m/Sec +/- 1% of velocity
 - 2) Resolution : 0.01 m/sec
 - 3) Velocity & Totaliser : 0 to 5.0 m/sec on forward flow
(reverse flow) 0 to - 1.0 m/sec

 - 4) **Sensor Probe Specs:** (Probe shall be inserted to a depth of Pipe Internal Dia / 8)
Retractable version: Sensor Length:
Suitable for pipe dia of 300 to 1800 mm
Sensor electrodes: SS316, Sensor Filling material: Epoxy Max
Non Retractable version: Available as option for small line application
Other items of retractable assembly (included in supply unless quoted)
Weldment : 75mm standard with ANSI 150#RF Flange in SS304
Pressure seal -O'rings- Neoprene,
Guide bars and Screw Jack : M.S. Nickel Plated
Other items of retractable assembly (not included in supply unless quoted)
1 ¼" Ball Valve 3 piece, Teflon seal, Full Bore, ANSI 150#RF Flanges

 - 5) **Pressure Rating**.....: 10 Bar at 55°C (20 Bar optional)
 - 6) **Operating Temp (Medium and Ambient)**.....: 0 to 55 °C
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Signal Converter: Model : MSP 3000

- 1) **Power Supply** : 24Vdc or 230Vac (optional)
 - 2) **Power Consumption** : 12VA max
 - 3) **Key Board** : 6 Key Membrane Key Board
 - 5) **Programmable parameters** :
Volume Units : ltrs,M3,ML,CF.BG ; Time Units : sec, min , hrs
4 to 20 mA range, %Low flow cut of, Pipe Dia, Discharge range, Comm. Parameters
Calibration Constant, Filter Constant
 - 6) **Data LoggerOption:** RTC with 24 column Printer, Battery Charger +SMF Batteries and
One year flow data logging at 1 Hour interval (8760 readings)
(Please refer to the Logger printout sample)
 - 7) **Optional Data Transmission:** RS 485 MODBUS Protocol or RS232C
 - 8) **Certification** : C W & P R S calibration certificate (Extra /Optional)
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Signal Converter can also be supplied with Full-Bore EMFM from ½" to 14" sizes



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Specifications may change due to continued development efforts.
Custom modifications are also undertaken to trim the specs to your exact requirements

Data Logger Printer option MSP3000

Sample Printout of flow meter logger is given below.

Logged data gets printed at report time programmed every day.

Logged data can be printed from any date to any date by simple Key-board operation.

SOLAPUR MUN CORPO				
SITE : UJANI PUMP HOUSE				
Date	Time	Qavg		
	HRS.	(MLD)	(ML)	
<hr/>				
01/01/09				
	00:00	42.81	2064.011	
	01:00	43.20	2065.811	
	02:00	43.41	2067.620	
	03:00	43.39	2069.428	
	04:00	42.86	2071.214	
	05:00	42.36	2072.900	
	06:00	42.04	2074.731	
	07:00	41.76	2076.471	
	08:00	41.44	2078.198	
	09:00	41.52	2079.928	
	10:00	41.76	2081.668	
	11:00	41.80	2083.410	
	12:00	41.61	2085.144	
	13:00	41.90	2086.890	
	14:00	41.00	2085.144*	
	15:00	58.46	2087.580*	
	16:00	DIR	2087.580*	
	17:00	DIR	2088.538*	
	18:00	37.84	2090.115*	
	19:00	41.95	2091.863	
	20:00	41.97	2093.612	
	21:00	42.07	2095.365	
	22:00	42.50	2097.136	
	23:00	42.86	2098.922	
<hr/>	02/01/09	00:00	43.12	2100.719
Days Total			36.90	