



1008S Flow Indicator-Totalizer

Masibus' Model 1008S has features and performance you will find only in high end flow computers, like high accuracy, high resolution, PT compensation and fast sampling to measure and totalize with precision even fast changing flow rates. The unit has a 5-digit flow rate display and an 8-digit batch total/ integrated total display with rollover counts. All Totalized data and configured parameters are stored in non-volatile memory and retained during power off and power disruptions.

Model-1008S has optional four relays, 2 for flow rate and 2 for batch total, the flow rate relays can be setup for Hi/Lo Alarm and the batch total relays for Pre and Final batch total. 1008S also has optional four digital inputs to operate the Totalizing function remotely. RS485 and Flow rate Re-transmission option allows easy interface with PLC/DCS/SCADA systems. A selectable square root extractor function enables compatibility with DP transmitters without built-in square root extractor.

Model 1008S is field selectable for mA/V DC or frequency flow rate input signal, for 4-20mA 2 wire transmitter it has a 24V DC transmitter supply as a standard, the input signal can be scaled from 0 to 30000 engineering value and the time base is selectable from Sec/Min/Hour/Day, for frequency input the K factor is user programmable, the unit also has option to accept 2 more dc signals for pressure and temperature compensation in mass flow computation.

Additional features built-in are Programmable zero cut-off rate, totalized unit pulse output, five segment linearization, digital filter and password protection for reset of total and configured data.

Features

- Input selectable from current, voltage & frequency
- Square root extractor
- 5 Digit Flow rate & 8 digit Batch/ Integrated Total with rollover count
- Programmable K factor for Freq Input
- 8-digit totalizer with password protected resetting
- Programmable time base Day/Hr/Min/Sec
- Programmable zero flow rate
- Pulse output
- Mass flow measurement with additional Pressure and Temperature I/P.
- Options:
 - DI inputs for remote operation
 - Mass Flow Measurement
 - 4 Configurable relays for Flow/Batch
 - Retransmission output (Isolated)
 - RS485 serial communication (Isolated)
 - Weather proof / Ex-Proof enclosure

Applications

- Monitoring and controlling continuous and batch flow processes like:
 - Mixing operation in chemical/Pharma
 - Fuel consumption
 - Custody Transfer
 - Energy management
 - Batch Filling
- Receiver instrument for Turbine, PD & Magnetic pickup flow elements

TECHNICAL SPECIFICATIONS

Input	
Input 1	
Current	0/4-20mA
Voltage	0/1-5V DC
ADC Resolution	16 bits
Sampling Speed	10 Samples/Sec
Input impedance	
Current Input	250 Ω
Voltage Input	> 300K Ω
NMRR	> 50dB
CMRR	> 100dB
Time Base Accuracy	100 ppm
Measurement Accuracy	0.025% FS [for Current / Voltage]
Polarity Protection	Provided
Temp-co	100 ppm
Frequency Input	0-10KHz
Input 2/3 (Optional)	
Current	0/4-20mA
Voltage	0/1-5V DC
Measurement Accuracy	0.025% FS [for Current / Voltage]
Purpose	Pressure/Temperature Compensation for Standard Vol. flow/Mass Flow
Digital Input (optional)	
No. of Channels	4 Nos.
Input Type	Dry Contact/Open Collector
Exc. Voltage/Current	12V DC/10mA
Input Function	Stop batch, Integration total zero, Start batch, Batch total zero
Display & Keys	
Process Value	0.56" 5 Digit, 7 Segment RED LED
Total/Int. Value	0.4" 8 Digit, 7 Segment RED LED
Rate Indication Range	Range programmable 0-30000
Totalizing Range	0-99999999
Decimal Point	Adjustable
Resolution	1 Count
Keypad	4 keys: Stop, Start, Escape & Enter
Special Feature	
Batch / Integrated Total Reset	Front Key (Password Protected)
Time Base for Totalizer	Programmable (Day / Hr /Min / Sec)
K Factor Function	Yes (Frequency I/P)
Square Root Extraction	For Differential Pressure Transmitter
Memory/Data storage	NVRAM/EEPROM. Data will not be lost when power off, can hold for 10 years
Mass Flow Measurement	With Two extra compensating I/P for Pressure and Temperature

Output	
Relay (Optional)	
2 Relays	Programmable for Flow Rate or Batch Alarm
4 Relays	2 Relays Programmable for Flow Rate Alarm & 2 Relays Programmable for Batch Alarm
Contact Type	C-NO-NC Single change over
Rating	250V AC/30V DC@2A
Retransmission (Optional)	
Retransmission	Isolated 4-20 mA DC @ 500 Ω
Retransmission Accuracy	0.25% of FS +1 count
Serial Communication (RS485) (Optional)	
Baud Rate (bps)	9600/19200, Programmable
Protocol	Modbus-RTU
Data Pattern	N, 8,1
Transmitter Power Supply	24V DC ±5% @ 50 mA
Power Supply	
Power Supply	85-265V AC @ 50Hz (Standard) 24V DC ±10% (Optional)
Power Consumption	<10 VA

Isolation (Withstanding voltage)
 Between primary terminals* and secondary terminals**: **At least 1500 V AC for 1 minute**
 Between primary terminals* and grounding terminal: **At least 1500 V AC for 1 minute**
 Between grounding terminal and secondary terminals**: **At least 1500 V AC for 1 minute**
 Between secondary terminals**: **At least 500 V AC for 1 minute**
 * Primary terminals indicate power terminals and relay output terminals.
 ** Secondary terminals indicate analog/digital I/O and Communication O/P.
Insulation resistance: 50MΩ or more @ 500V DC between power terminals and grounding terminal.

Physical	
Mounting type	Panel
Bezel size (mm)	96(H) X 96(W)
Cut-out Dimension (mm)	92(H) X 92(W)
Depth with terminals (mm)	130
Weight (gms)	500
Front	IP20
Enclosure Type	ABS Plastic
Electrical Connection	2.5mm ² / Screwed
Standard Accessories	Mounting clamps – 2 nos.
Protection (Optional)	IP55 or Ex-Proof – Group IIA/IIB – Wall Mount

Environmental	
Operating Temperature	0 to 55 °C
Storage Temperature	0 to 80 °C
Operating Humidity	30 - 95%RH (non condensing)
Warm-up time	>10 min

ORDERING CODE

Model	Input Types	Digital Input	Power Supply	Communication	Relay	Retransmission O/P	Mounting	Mass Flow Measurement
1008S	X	X	XX	X	X	X	XX	X
	C 4-20mA	N None	A1 85-265V AC	N None	N None	N None	P0 Panel	N None
	D 0-20mA	Y Yes	A3 24V DC	2 RS485	2 2 Relays	Y Yes	W1 Wall-IP55	Y PT Compensation
	E 1-5V DC				4 4 Relays		FP Wall-FLP	
	F 0-5V DC							
	G 0-10V DC							
	N 0-10 KHz							
	S Special*							

X – Specify from table
 *Consult Factory

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