



1008S 1008S-XP Flow Indicator-Totalizer

Masibus' Model 1008S/ 1008S-XP 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 is available in Panel mount option, whereas 1008S-XP is available in Ex-proof, Wall mount Dual Compartment enclosure having touch sensitive keys for operation.

Flow Totalizer 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.

Flow Totalizer 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 an option to accept 2 more dc signals for pressure and temperature compensation for liquid/gas flow, saturated steam or super heated steam measurement.

Features

- Input selectable from current, voltage & frequency
- Available in two options
 - 1008S: Panel mount
 - 1008S-XP: Wall mount, Dual Compartment, Ex-proof (IP65, Gas Group, IIA/IIB) with touch sense keys
- Square root extractor
- 5 Digit Flow rate & 8 digit Batch/ Integrated Total with rollover count
- Programmable K factor for Freq Input
- Programmable low/zero cutoff facility
- 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
- Gas/ liquid flow measurement
 - Superheated steam flow measurement
 - Saturated steam flow measurement
- Options:
 - DI inputs for remote operation
 - Mass Flow Measurement
 - 4 Configurable relays for Flow/Batch
 - Retransmission output (Isolated)
 - RS485 serial communication (Isolated)

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

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TECHNICAL SPECIFICATIONS

	Input	Output									
Input 1		Relay (Optional)									
Current	0/4-20mA	2 Relays	Programmable for Flow Rate or Batch Alarm								
Voltage ADC Resolution	0/1-5V DC 16 bits	4 Relays	2 Relays Programmable for Flow Rate Alarm & 2 Relays Programmable for Batch Alarm								
Sampling Speed	10 Samples/Sec	Contact Type	C-NO-NC Single change over								
Input impedance		Rating	-								
Current Input	250 Ω	Rating 250V AC/30V DC@2A Retransmission (Optional)									
Voltage Input	> 300K Ω	Type	C @ 500 Ω								
NMRR	> 50dB	Accuracy									
CMRR	> 100dB	Accuracy 0.25% of FS +1 count Serial Communication (RS485) (Optional)									
Time Base Accuracy	100 ppm	Baud Rate (bps) 9600/19200, Programmable									
Measurement Accuracy	0.025% FS [for Current / Voltage]	Protocol	Modbus-RTU								
Polarity Protection	Provided	Data Pattern	N, 8,1								
Temp-co	100 ppm	Transmitter Power Supply	24V DC ±5% @ 50 mA								
·	0-10KHz	Transmitter Fewer Supply	10.4								
Frequency Input*	*Max. Pulse level<=24V, Min. pulse level > 5.0V	Power Supply									
Input 2 (Optional)	1 Tax. 1 disc level 2 1 V, 1 lill. pulse level 5.0 V	Power Supply	85-265V AC @ 50Hz (Standard)								
Current	0/4-20mA	11.7	24V DC ±10% (Optional)								
Voltage	0/1-5V DC	Power Consumption	<10 VA								
Measurement Accuracy	0.025% FS [for Current / Voltage]	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									
,	Pressure/Temperature Compensation										
Purpose	for Standard Vol. flow/Mass Flow										
Input 3 (Optional)		Between grounding terminal and secondary terminals**: At least									
RTD	100.0 - 235.0 °C	* Primary terminals indicate power terminals and relay output terminals.									
Resolution	0.1 °C	** Secondary terminals indicate analog/digital I/O and Communication O/P.									
Accuracy	0.25%	Insulation resistance: 50MΩ or more	@ 500V DC between pow	ver terminals and							
Digital Input (Optional)		grounding terminal.									
No. of Channels	4 Nos.		Physical								
Input Type	Dry Contact/Open Collector	·									
Exc. Voltage/Current	12V DC@10mA		1008S	1008S-XP							
Input Function	Stop batch, Integration total zero, Start batch, Batch total zero	Mounting type	Panel	Wall mount using 4 Nos of M8 size bolts							
		Dimension (mm)	96(H)x96(W)x125(D)	340(H) X 186(W) X 110(D)							
	Display & Keys	` '	92(H) X 92(W)	NA							
Process Value	0.56" 5 Digit, 7 Segment RED LED		500 grams	6 Kgs							
Total/Int. Value	0.4" 8 Digit, 7 Segment RED LED	Ingress Protection	IP20	IP65							
Rate Indication Range	Range programmable 0-30000	Area Classification	Safe	Zone 1 & 2,							
Totalizing Range	0-9999999	Area Classification	Jaie	Gas Group: IIA & IIB							
Decimal Point	Adjustable			Explosion Proof, Aluminum							
Resolution	1 Count	Enclosure Type	ABS Plastic	Alloy LM-6, Ex-d,							
Keys	Stop, Start, Escape & Enter			Dual Compartment							
Datab //ata anata d Tatal Dasat	Special Features	Electrical Connection/ Cable entry size	2.5mm² / Screwed	3/4" ET - 5 NOS							
Batch/Integrated Total Reset	Front Key (Password Protected)	Citaly Size	Environmental								
Time Base for Totalizer K Factor Function	Programmable (Day / Hr /Min / Sec)	On such as Towns and an	Environmental								
Ter decer i directori	Yes (Frequency I/P)	Operating Temperature	0 to 55 °C								
Square Root Extraction	For Differential Pressure Transmitter	Storage Temperature	0 to 80 °C								
Memory/Data storage	NVRAM/EEPROM. Data will not be lost	Operating Humidity 30 - 95%RH (non condensing)									
	when power off, can hold for 10 years	Warm-up time >10 min									
Mass Flow Measurement	With Two extra compensating I/P for Pressure and Temperature										

ORDERING CODE

Model	del Input Types Digital Input Power Supply		ower Supply	Communication		Relay		Retransmission O/P				No of extra Glands (only for 1008S-XP)#				
1008S	Χ		Χ		XX		Χ		Χ		Х		XX		Χ	
1008S-XP	С	4-20mA	Ν	None	Α1	85-265V AC	Ν	None	Ν	None	Ν	None	Ν	None (with single I/P)	Ν	None
	D	0-20mA	Υ	Yes	АЗ	24V DC	2	RS485	2	2 Relays	Υ	Yes	РТ	PT Compensated liquid/ gas flow	1	1 extra gland
	Ε	1-5V DC							4	4 Relays			SS	Saturated Steam Flow	2	2 extra glands
	F	0-5V DC											SH	Super heated Steam	3	3 extra glands
	G	0-10V DC														
	Ν	0-10 KHz														
	S	Special*														

X - Specify from table

*Consult Factory

Standard Accessory
2 nos mounting clamps alongwith 1008S model
2 nos 3/4" ET Cable glands and 3 blind plugs alongwith 1008S-XP model