



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 high/low 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. RS-485 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)
 - RS-485 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	ange over								
Input Impedance		Rating	0								
Current Input	250 Ω	Rating 250V AC/30V DC@2A Retransmission (Optional)									
Voltage Input	> 300K Ω	Type Isolated 4-20 mA DC @ 500 Ω									
NMRR	> 50dB	Accuracy 0.25% of FS +1 count									
CMRR	> 100dB	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	mΔ								
· ·	0-10KHz	Transmitter rower suppry	24V DC ±5% @ 50 i	111/~							
Frequency Input*	*Max. pulse level<=24V, min. pulse level > 5.0V		Power Supply								
Input 2 (Optional)	1-lax. palse level 21v, min. palse level 3.0v	Power Supply	85-265V AC @ 50Hz								
Current	0/4-20mA		24V DC ±10% (Optional)								
Voltage	0/1-5V DC	Power Consumption	<10 VA								
Measurement Accuracy	0.025% FS [For current / voltage]	Isolation (Withstanding voltage)									
·	Pressure/temperature compensation	Between primary terminals* and secondary terminals**: At least 1500 V AC for 1 minute									
Purpose	for standard vol. flow/mass flow	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.									
Input 3 (Optional)	Tot Startdard Vol. How/ Mass How										
RTD	100.0 - 235.0 °C										
Resolution	0.1 °C										
Accuracy	0.25%	Insulation resistance: $50M\Omega$ or more									
Digital Input (Optional)	0.23/0	grounding terminal.									
No. of Channels	4 Nos.	0 0									
Input Type	Dry contact/open collector	Physical									
Exc. Voltage/Current	12V DC@10mA		1008S	1008S-XP							
Exc. Voltage/Current	Stop batch, Integration total zero,	Mounting Type	Panel	Wall mount using 4 nos.							
Input Function	start batch, batch total zero	Dimension (mm)		of M8 size bolts (96(W)x125(D) 340(H) X 186(W) X 110(D)							
	Display & Keys	Panel Cut-out (mm)	92(H) X 92(W)	NA							
Process Value	0.56" 5 Digit, 7 segment RED LED	Weight	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	lingless i lotection	IPZU								
Totalizing Range	0-9999999	Area Classification	Safe	Zone 1 & 2, 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	Lilciosule Type	AD3 Flastic	dual compartment							
Reys	Special Features	Electrical Connection/ Cable		ddai compartment							
Batch/Integrated Total Reset	n/Integrated Total Reset Front key (Password protected)		2.5mm ² / screwed	3/4" ET – 5 nos.							
	Programmable (day / hr /min. / sec.)		Environmental								
K Factor Function	Yes (Frequency I/P)	Operating Temperature	0 to 55 °C								
Square Root Extraction	For differential pressure transmitter	Storage Temperature 0 to 80 °C									
	NVRAM/EEPROM. Data will not be lost	Operating Humidity	andoncina)								
Memory/Data Storage	when power off, can hold for 10 years	Warm-Up Time	30 - 95%RH (Non co	oriderisitig)							
	With two extra compensating I/P for	vvariii-Op Tillie	>10 min								
Mass Flow Measurement	pressure and temperature										

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Model	Inp	ut Types	Digi	tal Input	Po	ower Supply	Communication		Relay		Retransmission O/P		Type of Flow Measurement		No of extra Glands (only for 1008S-XP)*	
1008S	S X X XX			X		X		X		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	PT	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*														

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

X - Specify from table *Consult factory

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