

Totalizer TH62

Specification

SSF30951 25.07

■ Outline

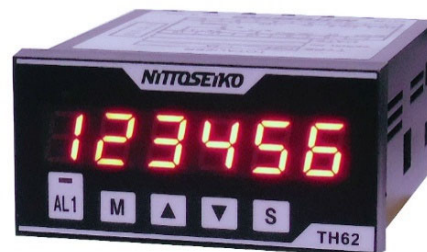
This equipment receives pulse signal from flow meter, and it indicates totalized value.

■ Features

- It can receive no-contact and/or contact pulse.
- It has dividing and scaling count function.
- Prohibition signal input makes stop totalizing.
- It receives maximum 2 flow meters and calculate one of Addition – Subtraction / Addition – Addition / Subtraction – Subtraction.
- Reverse flow subtraction mode can reduce totalizing value by input reverse flow alarm signal to Input B.
- RS-485 as an option can read out the indicating value.
- It has unique method and Modbus-RTU method for communication protocol.
- Indicated value on this equipment can be shown on our large indication equipment without any program.

■ Specification

Pulse input	Nos of input	2 points (Input A, Input B)	
	Kind of signal	Voltage no-contact, Open collector, or No-voltage contact signal	
	● Voltage no-contact		
	Frequency	10kHz or under (ON : OFF ratio 1 : 1)	
	Signal level	H : 4~30V L : 0~1.5V	
	Input resistance	Approx. 10k Ω	
	● Open collector		
	Frequency	10kHz or under (ON : OFF ratio 1 : 1)	
	Voltage Current	Approx. 12V	Approx. 8mA
	● No-voltage contact signal		
Count	Frequency	30kHz or under (ON : OFF ratio 1 : 1)	
	Voltage Current	Approx. 12V	Approx. 8mA
	Input A, B:	Addition, Subtraction (Initial setting)	
	Input A & B:	Addition & Subtraction, Addition & Addition, or Subtraction & Subtraction	
Dividing	1/1~ 1/999999		
Indication	Display	7 segment red LED 6.3W×10H 6digits Zero suppression	
	Decimal point	Available for setting the decimal point position	
Reset	Action	One-shot reset	
	Manual reset	Press M and S button at same time and reset totalizing vale.	
	Remote reset		
	Kind of signal	No-voltage contact signal or Open collector signal	
	Signal width	20ms or longer	
	Voltage Current	Approx. 12V	Approx. 8mA

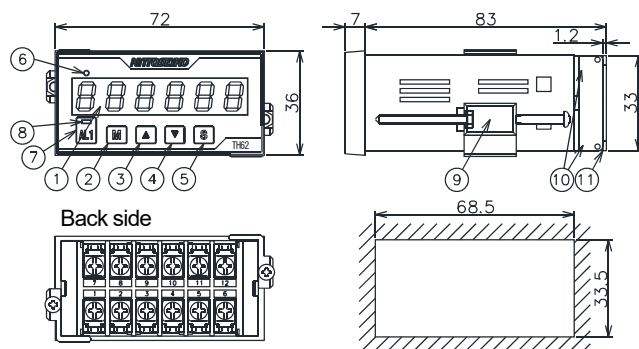


Switch input	Action	Prohibition or hold		
	Kind of signal	No-voltage contact signal or Open collector signal		
	Delay time	Approx. 30ms		
	Voltage Current	Approx. 12V	Approx. 8mA	
Alarm output (option)				
	Nos. of output	1 point		
	Comparison	Totalizing value		
	Configuration	Upper limit or lower limit		
	Action	Continuous or one-shot output		
	Response time	Approx. 1.3ms		
	Kind of signal	No-voltage contact signal		
	Contact capacity	AC250V 0.5A, DC30V	1A (load resistance)	
Communication function (option)				
	Standard	EIA RS-485		
	Method	2 wire half-duplex		
	Synchronization	Asynchronous		
	Nos. of connection	32 equipment	include	upper computer (host computer)
	Unit No.	00~99		
	Delay time	Select from 10~500ms (Error 10ms or less)		
	Speed	1200/ 2400/ 4800/ 9600/ 19.2k/ 38.4kbps		
	Transmission	ASCII code		
	Data length	7 bit / 8 bit		
	Parity	Without / Odd number / Even number		
	Stop bit	1 bit / 2 bit		
	Transmission control	Reply type / Continuous transmission		
	Error check	BCC check sum		
	Contents	Read-out of indicating value		

Power failure storage

Memory	Flush memory
Power source for generator	12V DC $\pm 10\%$ 50mA (Standard)
	24V DC $\pm 10\%$ 30mA (Option)
Insulation resistance	500V DC 100M Ω and more
Withstand voltage	Input, output, voltage across terminals
	AC2000V 1 minute
Power source	Test point : Same test point with Insulation resistance
	AC85~264V 50 / 60Hz
Power consumption	(AC power type)
	DC11~30V (Ripple 5% or less)
Ambient temperature	(DC power type)
	Approx. 4.5VA (AC power type)
Ambient humidity	Approx. 4.5W (DC power type)
	0~50°C (without freezing)
Weight	45~85%RH (without condensation)
Casing	Approx. 0.2kg
Protection rating	ABS resin
	IP65 (Front panel)

■ External dimension and panel cut dimension



No.	Name
1	Display of total
2	[M] (Mode) key
3	[▲] (Up) key
4	[▼] (Down) key
5	[S] (Set) key
6	Over lamp (Parameter 8=2 case only operates)
7	[AL1] key (alarm output)
8	AL1 Lamp (alarm output)
9	Mounting fixture
10	Terminal block
11	Terminal cover

■ Operation

■ Count

- Integrated total rate is calculated by a pulse signal multiplying to the meter factor.
- Maximum 2 lines pulse can input, it indicates operation any of add sub / add add / sub sub with counting mode.
- Changing counter mode to counter-flow subtraction mode, counter-flow subtraction count can count by inputting integrated pulse in input A and counter-flow alarm signal on input B.

■ Press

- [M] key and the [S] key at same time, and it can reset integrated total volume during integrated total volume.
- Turning on the reset input resets the integrated value.

■ Switch input

- Either input for prohibit or holding action can select on parameter setting.
- Input for prohibit (Parameter 11 : A)
By short-circuiting Input terminal INH/HOLD and 0V, it operates the same way as non-pulse signal input.
- Input for holding (Parameter 11 : b)
By short-circuiting Input terminal INH/HOLD and 0V, integrated value is hold.

■ Alarm output (Option)

- Working against upper limit or against lower limit is selected by parameter.
- The hold for momentary flow rate or the one-shot is selected by parameter.
- Release from hold performance is by reset operation.

■ Communication (Option)

- (For the detail, please refer the instruction manual of Communication function (RS-485))
- By RS-485, read-out the indicated value is communicated.
- Indicating value of TH62 can be shown largely on the remote place by connecting to our large indicator DH1 or DS1.
TH62 becomes primary and large indicator becomes replica. It can connect up to 4 equipment as replicas. One of the replicas is main-channel, and the other sub-channel. Communication between primary and replica is by our unique method.

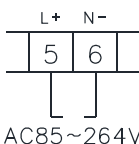
■ Terminal arrangement

No.	Signal name			
1	SIG. A Puls input			
2	SIG. B Puls input			
3	0 V			
4	+ 1 2 V (+ 2 4 V)			
5	L +	Power	A C 8 5 ~ 2 6 4 V	
6	N -		D C 1 1 ~ 3 0 V	
7	RESET input			
8	0 V			
9	INH / HOLD Switch input (Prohibit / Hold)			
10	Alarm output (option)	AL1-C	Communication output (option)	-
11		AL1-A		+
12		AL1-B		N. C

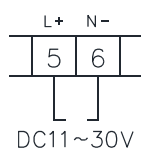
■ Connections

■ Connection of power source

AC power source



DC power source

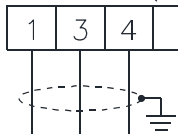


■ Connection of pulse input signal

Use shielded cable.

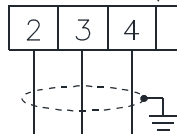
Voltage no-contact signal flow meter type

SIG.A 0V +12V(+24V)



Flow meter A

SIG.B 0V +12V(+24V)



Flow meter B

Voltage no-contact signal type



Flow meter A



Flow meter B

Open collector signal type



Flow meter A



Flow meter B

No-voltage contact signal type



Flow meter A

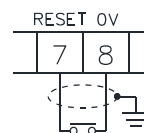


Flow meter B

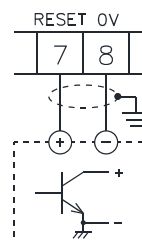
■ Connection of reset input signal

Use shielded cable.

No-voltage contact signal type



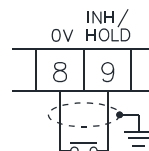
Open collector signal type



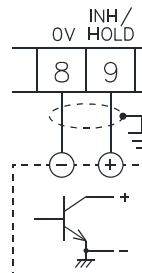
■ Switch unput signal connection

Please use shielded cable.

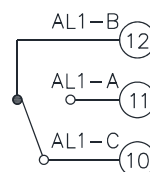
No-voltage contact signal type



Open collector signal type



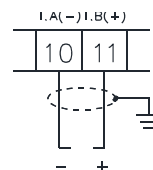
■ Alarm output (option)



■ Connection of communication (option)

Please use shielded cable.

Communication(RS-485)

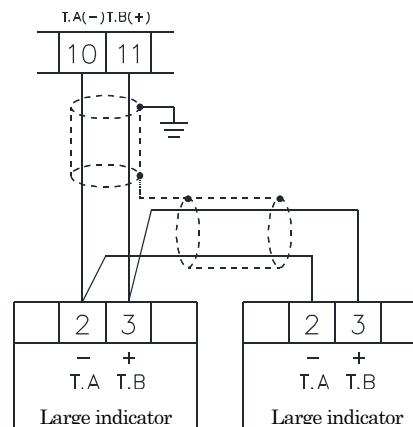


Communication

■ Connection of large indicator communication (option)

Please use shielded cable.

Communication(RS-485)



■ Model code

TH62-□-□-□□

● Totalizing unit

1	1mL
2	0.01L
3	0.1L
4	1L
5	0.01m ³
6	0.1m ³
7	1m ³
9	Other

● Option

0	Without
1	Alarm output
2	Communication output

● Power for pulse generator

1	24V DC
2	12V DC (Standard)

● External power

A	85 ~ 264V AC
D	11 ~ 30V DC

► Specifications are subject to change without notice.

NITTOSEIKO CO.,LTD.



Control System Division Global Sales Section . [Website] [Inquiry Form]

Website: <https://global.nittoseiko.com/> .