

Printer PR8080B

SPECIFICATIONS

SSF50653 20.08

■ Introduction

Receiving flow rate pulse signal from flow meter, batch counter and so on, it prints totalized flow quantity per batch and total flow rate per setting time.

■ Features

- Enabling 8 input flow rate pulse
- Indication 8 digits count and daily total, and 10 digits monthly total and total.
- Indication unit can be specified up to arbitrary 3 digits max.
- Depend on the kind of pulse signal, max input frequency can be set in 2 stages.
- OLED on the panel makes setting and quantity confirmation easy.
- It can print date & time by internal clock.
- Meter factor and naming of each channel can be specified arbitrary.
- Panel mounting or set on the desk.
- AC multi-voltage power supply unit.

■ Specifications

Pulse input

Number of input	8 points Maximum input frequency is common in all channels.
Frequency	100Hz or 20Hz (ON/OFF ratio 1:1) can be changed by setting.
Type of signal	Voltage, open-collector, or contact pulse signal (Frequency 20Hz setting)
Signal level	Current

Power		Internal 12V (STD.)	External 24V
Signal level	ON	1V or less	5V or less
	OFF	8V and over	20V and over
Current at ON		Approx. 5mA	Approx. 12mA

Counter

Count, daily total	8 digits counter (zero suppression print)
Monthly, total	10 digits counter (zero suppression print)

Scaling

Totalize with unscaled pulse from each flow meter.	
Multiplying factor	0.1000~1.000
Dividing factor	1/1, 1/10, 1/100, 1/1000, 1/10000

Decimal point

Decimal point can be set for each channel.
Chose from without /0.0 /0.00 /0.000

Naming

Channel name can be specified for each channel
Standard name Channel1: 1CH ~ Channel 8: 8CH
Letter Alphanumeric character up to 3 digits max.



Unit

Indication unit can be specified for each channel up to 3 digits
Standard unit: mL, L, m³, GAL, g, kg, t,

Clock

Indication:	Indication as print when power on or total flow rate print and indicate on OLED.
Clock	Up to 31 st December, 99, 23 hours 59 minutes 59 seconds
Leap year	Set with the last 2 digits of Gregorian calendar year and automatically renewed.
Time reference	Internal crystal oscillator Daily difference: Within 4sec (0~40°C) Reference value: Approx. 0.5sec (25±3°C)
Synchronization with supply frequency	Select from "Synchronize with commercial power supply frequency (50Hz / 60Hz Selection setting)" or "No synchronization".

Action indication

Flash on and off every one second (Feed switch) LED indication (Green)

Indicator

OLED : 16 letter and 2 line indication.

Operation

Setting procedure by key switch on a panel
Contents Setting of clock.
Confirmation and print of count, daily total, monthly total, and total.
Print of scaling, naming, and unit.
Initial setting

Manual print

Enabling to check the total value by operating key switch on a panel.
Print the count, daily total, monthly total, and total of all channels.

Auto print

Print the count, daily total, monthly total, and total of all channels at each set time interval with reference to 0:00 on the clock.

Interval time 10min, 20min, 30min, 1hr, 8hr, 12hr, 24hr, or no-function.

Reset	Count:	Reset at each auto print
	Daily total:	Reset at auto print on 24:00
	Monthly total:	Reset at auto print on 24:00 at end of month.
	Total:	Not reset

Control input

Type of signal No-voltage contact, or open-collector signal

Signal level & current

Same as pulse input

Signal length 50msec and over

● Print signal

Count value of each channel will be printed then reset

Delay time of printing: Default setting is 3sec (for counting over-flow of batching)

Setting time: 0- 30sec

● Collective print signal

Count value for all channel will be printed then reset

No delay time of printing

● Reset signal

Count, daily total, monthly total and total will be printed, then reset count, daily total, and monthly total.

● Count inhibit signal

1.No totalizing is made while this signal is ON.

2.Total of all channels will be reset with reset signal ON in the same time. (Count, daily total, monthly total, total will be printed, then reset)

No paper output

When the rolled paper is getting smaller, output will be OFF.

Kind of signal : Open-collector

Voltage and current : 30V DC 50mA

Voltage at ON : 0.5V or less

Printing contents

The channel which is not used or of which total rate is zero will not be printed.

Reset indication R: reset N: no reset

Example of manual print

Print of daily total, monthly total, and total is same.

↑ Feed the paper

00.00.00	00:00:00	MAN
1CH CNT	000000.00L	N
2CH CNT	000000.00L	N
3CH CNT	000000.00L	N
4CH CNT	000000.00L	N
5CH CNT	000000.00L	N
6CH CNT	000000.00L	N
7CH CNT	000000.00L	N
8CH CNT	000000.00L	N

Example of auto-print (example of end of month)

↑ Feed the paper

00.00.00	00:00:00	AUTO
1CH CNT	000000.00L	R
DAY	000000.00L	R
MON	00000000.00L	R
TOT	00000000.00L	N
.....		
8CH CNT	000000.00L	R
DAY	000000.00L	R
MON	00000000.00L	R
TOT	00000000.00L	N

Example of print from print signal (example of channel 1)

↑ Feed the paper

00.00.00	00:00:00	PRINT
1CH CNT	000000.00L	R

Example of print from collective print signal

↑ Feed the paper

00.00.00	00:00:00	ALL-P
1CH CNT	000000.00L	R
2CH CNT	000000.00L	R
3CH CNT	000000.00L	R
4CH CNT	000000.00L	R
5CH CNT	000000.00L	R
6CH CNT	000000.00L	R
7CH CNT	000000.00L	R
8CH CNT	000000.00L	R

Example of print from reset signal

↑ Feed the paper

00.00.00	00:00:00	RESET
1CH CNT	000000.00L	R
DAY	000000.00L	R
MON	00000000.00L	R
TOT	00000000.00L	N
.....		
8CH CNT	000000.00L	R
DAY	000000.00L	R
MON	00000000.00L	R
TOT	00000000.00L	N

Example of total reset

↑ Feed the paper

00.00.00	00:00:00	TRES
1CH CNT	000000.00L	R
DAY	000000.00L	R
MON	00000000.00L	R
TOT	00000000.00L	R
.....		
8CH CNT	000000.00L	R
DAY	000000.00L	R
MON	00000000.00L	R
TOT	00000000.00L	R

Setting confirmation function

Scaled value, naming, flow unit, and delay time of printing of all channels can be printed.

↑ Feed the paper

SURE
1CH 0.3456 /100
MLK L
2CH 1.0000 /1
WTR kg
.....
8CH 0.6789 /10
N2 GAL
DELAY 03sec

No paper action

Detecting method Detecting the diameter of rolled paper mechanically.

Detecting action No paper indication (Flashing red lamp), No paper output, stopping the printing action, memorize data (of 32 lines) and after deactivate, all print.

Printing mechanism

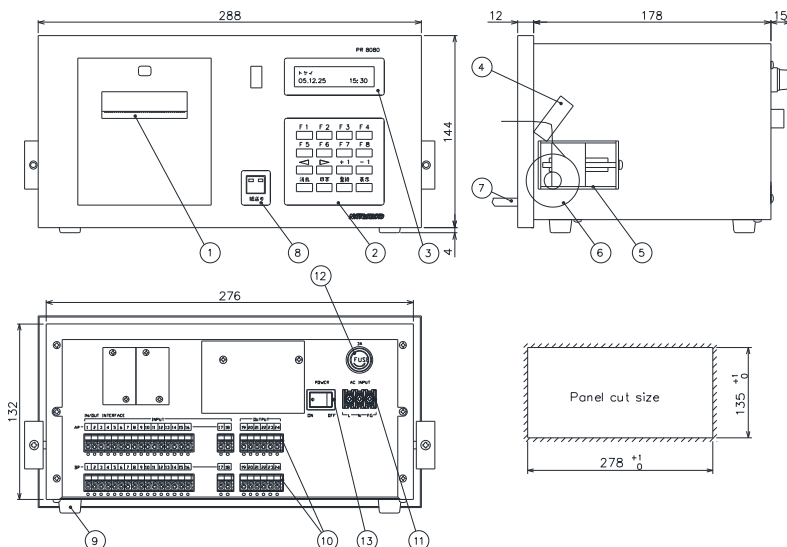
Printing system 5 x7 dots print
 Character size Width 1.8mm x Height 2.5mm 24 digits
 Speed 1 line/approx. 0.7 sec
 Mechanism M180 (EPSON), Life: Approx 1 million lines
 Ink Ribbon type ERC-22B (EPSON),

Printing paper	Life: 0.3 million characters Width 58mm x Length 22mm, rolled paper PR58 x 60 Life: Approx. 6,000 lines/roll. A red mark appears on the last 1m for service.
Backup battery	Lithium battery: CR2 (Panasonic) or equivalent Operates the clock and protects the totalized value and setting value while blackout. Working time: Approx. 7years (Time for replacement: 5years)
Power for transmitter	12V DC $\pm 5\%$, 400mA
Insulation	500V DC 20M Ω and over (between power supply terminal and casing)
Withstand voltage	1500V AC, 1 minutes (test point is same as that of insulation resistance)
Noise resistance	Square wave noise by noise simulator 1000V (Noise width 1 μ s, Polarity \pm , Application by synchronization with power source, Phase 0~360°)
Power	85~264V AC, 50/60Hz
Power consumption	Approx. 15VA
Ambient Temp.	0~+40°C (Without condensation)
Mass	Approx. 3.5kg
Casing	Material: Sheet metal, Aluminum plate Front: Munsell 2.5Y9/1 Half-shine (cream color) Sub-panel: Munsell 5Y7/1 Half-shine (light beige) Aluminum plate: Silver anodized
Accessories	Printing paper: 2 rolls, Ribbon cassette: 1 pc, Power cable: 1 pc (2m), Fuse: 2 pcs. (3A), Mounting fixture: 1set

■ Action

- Turn on the main power
 - Printing time and Flash on and off every one second with green light when turn on the power.
If time is different, please adjust with time setting.
- Counting action
 - After turn on power, count pulse signal to each channel
 - When count inhibit signal is ON, stop counting.

■ External & panel cut dimensions



No	Name
1	Printed paper outlet
2	Keys
3	OLED indicator
4	Print mechanical
5	Mounting fixtures
6	Roll paper
7	Sub-panel (Front door)
8	Feed paper switch
	Green blinks: Indicates internal watch is working
	Red blinks: Indicates there is few paper.
9	Rubber pads
10	Terminal of signal
11	Terminal of power input
12	Power fuse
13	Power switch

- No paper action
 - When no paper is detected, indicate no paper (flashing red lump) and stop the printing action. 32 lines of data will be memorize while stop the print. And print after change the paper
- Operation key switch
 - Indicate key function from [F 2] to [F 8] by pushing [F 1]. Please select objective function.

[F 2] : Time setting	[F 3] : Count confirmation
[F 4] : Daily total confirmation	[F 5] : Monthly total confirmation
[F 6] : Total confirmation	[F 7] : Setting confirmation
[F 8] : Initial setting	
 - At initial setting can set following contents.
 - (1) Synchronization with supply frequency
 - (2) Interval of auto print
 - (3) Max frequency
 - (4) Enumerative direction
 - (5) Multiplying factor
 - (6) Dividing factor
 - (7) Decimal point
 - (8) Naming
 - (9) Total unit
 - (10) Printing direction
 - (11) Delay time
- Time setting [F 2]
 - Do time adjustment within ± 30 sec with [SET] key switch. Resetting of seconds only for a difference less than 30 seconds. In the case of a difference of 30 seconds and over, reset seconds and carry up to minute.
 - Adjustment of minute to year is made by [<] [>] [+ 1] [- 1] key switch and register with [SET] key switch.
- Printing action
 - There are 6 kinds of printing function as below, and kind of printing function is printed in right side of time.
 - (1) Manual print (MAN)
 - (2) Auto-print (AUT)
 - (3) Print from print signal (PRINT)
 - (4) Print from collective print signal (ALL-P)
 - (5) Print from reset signal (RESET)
 - (6) Print when total reset (TRES)
 - In manual print can check the count value of that time. No reset after print.
 - Reset after print except for manual print. In case of reset, "R" is printed on right side of the paper. In case of No reset, "N" is printed on right side of the paper.
 - In case of not use 8CH etc, the channel of which value is zero is not printed. In this case, usable as a printer only for 7CH

Terminal arrangement

Power source terminal block

No.	Signal Name
L	Power 85~264V AC
N	
FG	GND

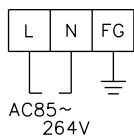
Signal terminal block

No.	Signal Name	No.	Signal Name
AP1	Flow Signal Input CH.1	BP1	Reset Signal Input
AP2	Flow Signal Input CH.2	BP2	Count Inhibit Signal Input
AP3	Flow Signal Input CH.3	BP3	Collective Print Signal
AP4	Flow Signal Input CH.4	BP4	Not USED (Do not Connect)
AP5	Flow Signal Input CH.5	BP5	
AP6	Flow Signal Input CH.6	BP6	
AP7	Flow Signal Input CH.7	BP7	
AP8	Flow Signal Input CH.8	BP8	
AP9	Print Signal Input CH.1	BP9	
AP10	Print Signal Input CH.2	BP10	
AP11	Print Signal Input CH.3	BP11	
AP12	Print Signal Input CH.4	BP12	0V Common
AP13	Print Signal Input CH.5	BP13	
AP14	Print Signal Input CH.6	BP14	
AP15	Print Signal Input CH.7	BP15	
AP16	Print Signal Input CH.8	BP16	
AP17	0V Common	BP17	
AP18	0V Common	BP18	
AP19	No-paper signal output	BP19	
AP20	Not USED (Do not Connect)	BP20	
AP21		BP21	
AP22	BP22		
AP23	0V Common	BP23	0V Common
AP24	+24V External power input *1	BP24	+12V for transmitter

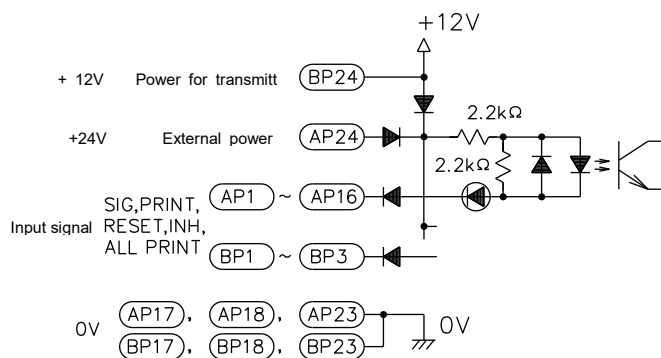
*1: In case of using 24VDC for input circuit, please connect +24V external power to AP24

Wire connection

Power source connection



Pulse input circuit

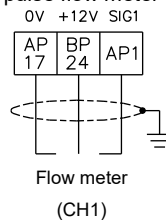


Pulse input connection (Example of CH1)

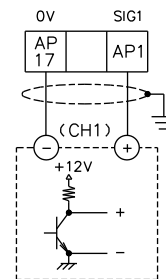
(Use the shielded cable)

No-contact input

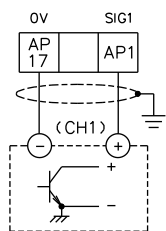
Case of no-contact 12V pulse flow meter



Case of no-contact 12V pulse signal

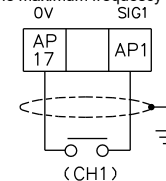


Open-collector input



Contact input

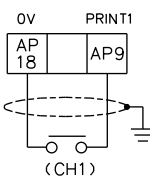
(Please set the maximum frequency 20Hz)



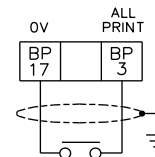
Control input connection

(Use the shielded cable)

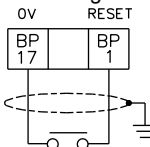
Print signal



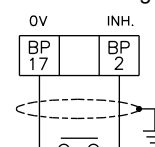
Collective print signal.



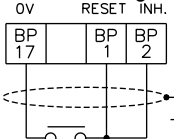
Reset signal



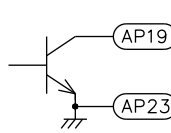
Count inhibit signal



Total reset signal



No-paper signal



Model

Model	Specification code	Remark
PR	Counting printer
	8080B	Version symbol
Additional specification (option)	/E	English print
	/Z□	Another special software option (□ is series number)
	/CP	Duplicate rolled paper

◆◆◆◆Matters to be specified at placing of order◆◆◆◆
Input pulse unit and indication unit.

▼ The contents given here are subject to change without notice.

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