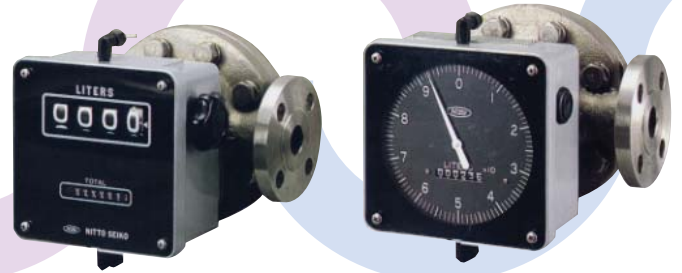
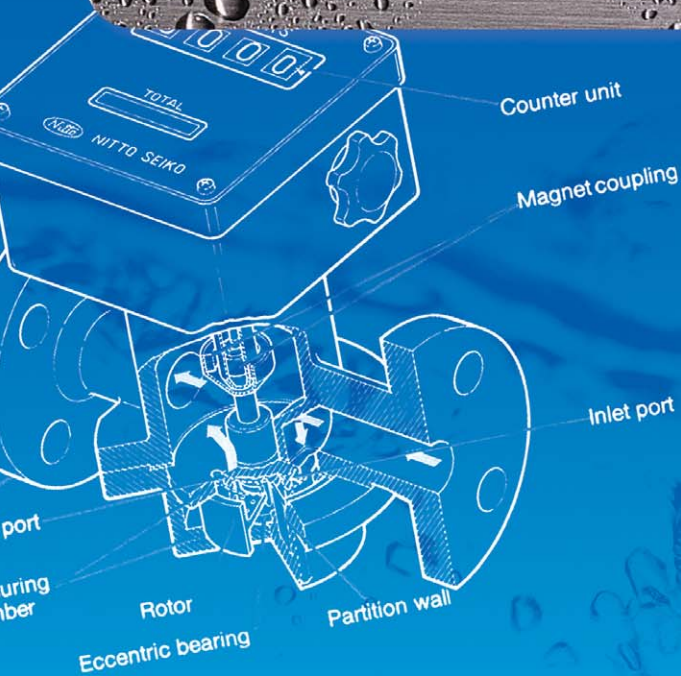


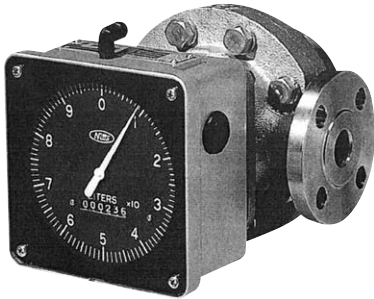
# NITTO SEIKO



## ROTARY FLOW METER

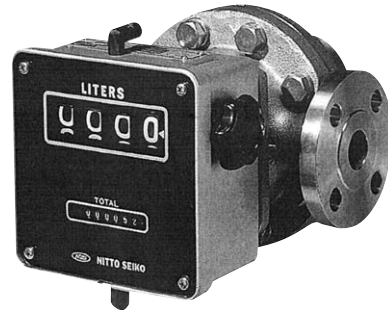


## Measurement of Total Flow Rate with Direct Reading on the Counter



**Type RS A0**

Direct Totaling Type Rotary Flow Meter  
Pointer Type



**Type RS Z8**

Direct Totaling Type Rotary Flow Meter  
with Set Back Register

This is the most standard type of all rotary flow meters, measuring the integrated flow rate by reading the dial and the counter of a rotary flow meter mounted in piping.

The counter unit is provided with a large counter for easy reading and resetting counter. This type is most suitable for repeated measurements for packing drums as well as for statistical operations such as daily or monthly accounting, etc.

### Counting unit

Symbol of nominal size	Symbol of capacity	Dial plate		Total counter		
		Minimum unit	One revolution	Number of figures	Minimum unit	Maximum capacity
025	B0	0.1L	10L	6	10L	999,999×10L
040	A0					
050	B0	0.1L	10L	6	10L	999,999×10L
	A0					
080	B0	1L	100L	6	100L	999,999×100L
	A0					
100	A0	1L	100L	6	100L	999,999×100L

### Counting unit

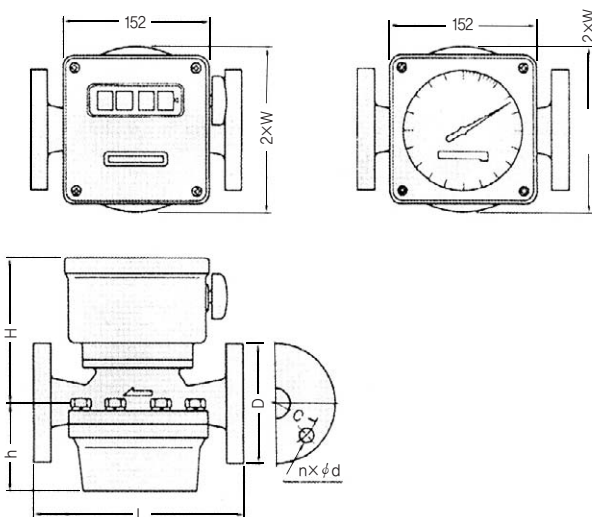
Symbol of nominal size	Symbol of capacity	Counter equipped with resetting device			Continuous total counter		
		Number of figures	Minimum unit	Maximum capacity	Number of figures	Minimum unit	Maximum capacity
025	B0	4	0.1L	9,999L	7	1L	9,999,999L
	A0						
040	B0	4	0.1L	9,999L	7	1L	9,999,999L
	A0						
050	B0	4	1L	9,999×10L	7	10L	9,999,999×10L
	A0						
080	B0	4	1L	9,999×10L	7	10L	9,999,999×10L
	A0						
100	A0	4	1L	9,999×10L	7	10L	9,999,999×10L

### Dimensions

(common to both pointer type and digital set back register type)

(unit: mm, kg)

Symbol of nominal size	Symbol of capacity	Standard of flange	L	H	h	W	D	C	n×φd	Weight
025	B0	JIS10K	220	146	96	85	125	90	4×19	15
		JIS20K	224				125	90	4×19	
040	A0	JIS10K	300	146	96	85	140	105	4×19	17
		JIS20K	304				140	105	4×19	
040	B0	JIS10K	300	157	123	110	140	105	4×19	26
		JIS20K	304				140	105	4×19	
050	A0	JIS10K	370	157	123	110	155	120	4×19	29
		JIS20K	374				155	120	8×19	
050	B0	JIS10K	370	143	156	143	155	120	4×19	46
		JIS20K	374				155	120	8×19	
080	A0	JIS10K	400	143	156	143	185	150	8×19	49
		JIS20K	408				200	160	8×23	
080	B0	JIS10K	400	151	222	170	185	150	8×19	79
		JIS20K	408				200	160	8×23	
100	A0	JIS10K	460	151	222	170	210	175	8×19	84
		JIS20K	472				225	185	8×23	



## Nico Flow

PD flow meter for micro flow

### ▶ Outline and feature

High-precision flow meter adopting rotary piston type suitable for measurement in small flow rate area.

- Compact and lightweight design with only rotor as mobile part. Easy maintenance and inspection.
- Also adapted to highly corros

### ▶ Applications

- Case where control of high-precision measurement in small flow rate area, batch preparation, etc. is desired
- Control such as process control of additives, mixing flow rate control in chemical plant, etc.



### ▶ Main specifications

Size	Rc1/4,Rc1/2(Screw-in type) 15A,20A(Flange type)
Flow range	0.5-600L/h
Viscosity	0.4-3,000mPas
Temperature	-5 to 120 deg C
Pressure	Working pressure less than 1.0MPa (Available up to 21.0MPa)
Accuracy	Within ±0.75%
Material	CAC406,SUS316
Construction	Exd IIBT4 Explosion-proof ExdIIBT4

## Small Size Rotary Flow Meter

Positive displacement flow meter for small capacity

### ► Outline and feature

This is a rotary piston type flow meter not easily affected by temperature and viscosity. Various kinds of material can be selected, and maintenance and inspection are also simple.

- Even a highly viscous liquid can be measured easily with little pressure loss.
- Also enables selection of anti-corrosive materials and measurement of acidic and alkaline liquids.
- Possibility of loading of a wide selection of signal oscillators, and easy connection with various kinds of receiver and control equipment.



### ► Applications

- Measurement management or control of various kinds of fluid such as foods, chemical solutions, etc.

### ► Main specifications

Size	20A,25A
Flow range	5~1,600L/h
Viscosity	0.5~3,000mPas Special specification (0.2~30,000mPas)
Temperature	-5 to 120 deg C Special specification (-20 to 200 deg C)
Pressure	Working pressure less than 1.0MPa Special specification (Less than 2.0MPa)
Accuracy	Within $\pm 0.5\%$
Material	FC200/CAC406 FC200/FC200 FC200/SCS14 SCS14/SCS14
Construction	Explosion-proof and frame-proof type d2G4, instinct-safe type i3aG4

## Cold & Hot Water Meter

Tangential fan wheel type flow meter

### ► Outline and feature

This is an impeller type flow meter with built-in strainer which realized a compact size and a light weight. A wide selection of signal oscillators to be mounted, available for use in a wide variety of fields.

- Solved troubles due to mixing of foreign matters.
- Possibility of measurement of high-temperature water (max. 200deg C).



### ► Applications

- Measurement control of water feed to boilers, cold water, hot water and high-temperature water for industrial use in various kinds of plant such as chemical and water treating plants, etc.

### ► Main specifications

Size	25A,40A,50A
Flow range	Standard: 0.5 to 25cub.m/h High temp. water: 0.5 to 18cub.m/h
Temperature	Standard: Room temp. to 80deg C High temp. water: 110 to 200deg C or less
Pressure	1.0MPa or less Special (2.0MPa or less)
Accuracy	Within $\pm 1.0\%$
Material	FCD450/CAC406 FCD450/SCS13 SCS13/SCS13
Construction	Explosion-proof d2G4

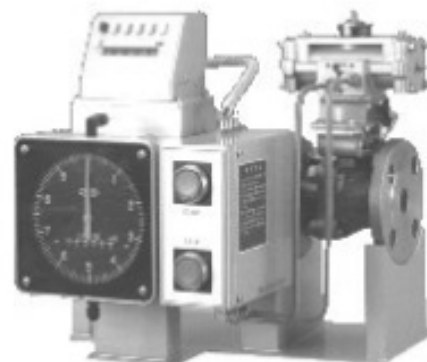


## Field Counter Type Pneumatic Batch Counter Positive displacement flow meter for batch counting

### ► Outline and feature

Provided with a mechanical preset counter and an integrating counter. Enables easy batch operation in the field, in combination with a pneumatic valve. The set volume can be determined as desired with a set button. As the start button is pressed, the valve opens to start measurement, and the valve automatically closes when the set volume is reached.

- Economical with only air as operating source. Safety use even in places requiring explosion-proof.
- Easy operation with push-button system.
- Adoption of a large register, enabling to check the working situation at a glance.



### ► Applications

- Management of batch operation in places without power source and places requiring explosion proof.

### ► Main specifications

Measuring portion	Size	25A,40A,50A,80A,100A	
	Flow range	0.04 to 50cub.m/h	
	Viscosity	0.5 to 3,000mPas Special spec. (0.2 to 30,000mPas)	
	Temperature	Room temp. to 80deg C Special spec. (-20 to 150deg C)	
	Pressure	Working pressure 1.0MPa or less Special spec. (2.0MPa or less)	
	Accuracy	Within ±0.5%	
	Material	FC200/CAC406 FC200/FC200 FC200/SCS14 FCD450/CAC406 FCD450/FCD450 FCD450/SCS14 SCS14/SCS14	
	Construction, special spec.	Explosion-proof, instinct-safe, high-pressure recognition goods	
Counting portion	Type	Single stage setting type	Two stage setting type
	Total counter	6 digits	
	Control method	Single stage closing by one air control	Two stage closing by one air control
	Setting value of advance notice signal	-	10 or 100 before setting value
	Start/stop	Manual push-button type	
	Setting method	5 digits manual push-button type	
	Reset method	Manual push-button reset type	

**■概要**

流量計からパルス信号を受信し、流量計係数を乗算して積算表示します。  
また、設定値との比較を行い、バルブやポンプ等へ制御信号を出力して、流体の定量計量をします。

**■特長**

- 10種類のバッチ量を記憶しています。  
バッチ量の表示や変更は、前面の設定スイッチで容易に行えます。
- バルブの2段開閉制御により、水撃作用による配管ショックを防ぐと共に、定量精度を向上させます。
- 行き過ぎ予測量を設定でき、正確な定量計量ができます。
- パルス未到来検知ができ、さらに設定時間後に計量停止できます。
- 行き過ぎ過大量を設定でき、過大な計量を検知できます。
- エア-抜きや配管洗浄等の手動動作（非計量）ができます。  
また、行き過ぎ量カウント時には手動追加仕込みができます。
- トータルカウンタ付きもラインアップしています。（オプション）  
トータル量との比較を行い、出力や計量停止ができます。  
トータルカウンタを満了回数カウンタにも変更できます。
- 外部テンキーによる設定値入力ができます。（付加仕様）
- RS-485 通信方式による制御ができます。（付加仕様）
- 前面外形は、DIN規格寸法72W×144Hです。

**■仕様**

**パルス入力 有電圧無接点入力**

周波数 5kHz以下（スケーリング時、4kHz以下）  
信号幅 0.1ms以上  
信号レベル H:5~30V L:2V以下  
入力抵抗 約15kΩ

**オープンコレクタ入力**

周波数 5kHz以下（スケーリング時、4kHz以下）  
信号幅 0.1ms以上  
電圧・電流 約12V、約2.5mA  
信号レベル L:2V以下

**無電圧有接点入力**

周波数 30Hz以下  
信号幅 16ms以上  
電圧・電流 約12V、約2.5mA  
信号レベル L:2V以下

**カウンタ**

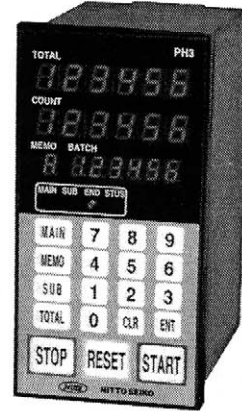
10進6桁カウンタ、赤色7セグメントLED 7.5(W)×10(H)  
バッチ(COUNT) : 6桁、ゼロサプレス  
トータル(TOTAL) : 6桁、ゼロサプレス（オプション）  
(桁あふれ時、ゼロサプレス無し)

**スケーリング**

係数 : 0.1000~0.9999 (0.0000時止、係数=1.0000)  
分周 : 1/1、1/10、1/100、1/1000、1/10000

**小数点**

無し/第1位/第2位 から選択



トータルカウンタ付

**バッチ方式**

- 方式1 : 自動リセット、行き過ぎ量非カウント
- 方式2 : 手動リセット、行き過ぎ量非カウント
- 方式3 : 手動リセット、行き過ぎ量カウント（予測量の設定が可能）
- 方式4 : 手動リセット、行き過ぎ量カウント（予測量を自動設定可能）

**設定値**

バッチ量 : 10点、6桁設定(MAIN、MEMO 1~9)  
予告量 : 1点、4桁設定(SUB)  
初期量 : 1点、4桁設定(予めプログラム設定)  
行き過ぎ予測量 : 1点、4桁設定(予めプログラム設定)  
行き過ぎ過大量 : 1点、4桁設定(予めプログラム設定)  
トータル量 : 1点、6桁設定(TOTAL) (オプション)  
設定場所 : 手元/遠隔/通信 から選択  
手元 前面スイッチ入力  
遠隔 外部テンキー入力(付加仕様)  
通信 RS-485通信入力(付加仕様)  
設定表示 : 10進6桁表示、緑色7セグメントLED 5.5(W)×8(H)  
設定値番号表示 : 1桁表示(0~9, A, b, t)  
緑色7セグメントLED 5.5(W)×8(H)

**操作**

操作場所 : 手元&遠隔/手元&通信/遠隔/通信 から選択  
手元 前面スイッチ入力 (START、STOP、RESET)  
遠隔 端子入力 (START、STOP、RESET)  
入力信号 無電圧有接点、オープンコレクタ  
信号幅 5ms以上  
電圧・電流 約12V、約4mA  
信号レベル 2V以下  
通信 RS-485通信入力(付加仕様)

**制御出力**

計量中信号(MAIN)、予告信号(SUB)、満了信号(END)、及び、ステータス信号(STUS)  
出力点数 計量中信号 : 2点、他 : 各1点  
信号種類 無電圧有接点信号  
接点容量 AC250V 5A、DC30V 5A (抵抗負荷)