NITTOSEIKO
Taking new steps forward together

Pulse Divider KD2

SPECIFICATIONS

SSD31051 25.07

■Outline

This Pulse Divider receives pulse signals from flowmeter, and outputs distributed pulses or divided pulses.

■Features

- Has 3 pulse outputs, enabling to select various types of signal.
- Can also be used as pulse isolator.
- AC free power supply unit.
- Easy maintenance with mounting by plug-in type

■Specifications

Pulse input

Voltage input	Frequency:	5 kHz or under (ON:OFF ratio 1:1)
	Signal level:	H: 4～30V; L: 3V or under
	Input resistance	Approx. 10 kΩ
Open collector input		
	Frequency:	5 kHz or under (ON/OFF ratio 1:1)
	Voltage & current:	Approx. 7.4V, Approx. 1.2 mA; ON level ;2V or under
Contact input	Frequency:	30 Hz or under (ON/OFF ratio 1:1)
	Voltage & current:	Approx. 7.4V, Approx. 1.2 mA
2-wire input	Signal level:	H: 11～14V; L: 10V or under
	Input resistance	Approx. 510 Ω

Indication Indication of pulse input Green LED 3ø

Distributed output (1 point, select the type)

Contents of signal: Output synchronizing with input pulse

Type of signal: 12V no-contact output

- Signal level: H: Approx. 12V, L: 1V or under (at no load)
- Output resistance: Approx. 1.1kΩ (protective resistance against short-circuit, approx. 100Ω)

Open collector output

- Voltage & current: DC30V 30mA, ON voltage; 1V or under

Pulse output (2 points, select the type)

Contents of signal: At each point, either distributed output or divided output are selectable.

Signal logic:
Distributed output; same logic with distributed output.
Divided output; 12V no-contact output: Positive logic, Open collector output: negative logic

Type of signal: 12V no-contact output

- Signal level, H: Approx. 12V, L: 1V or under (at no load)
- Output resistance, Approx. 1.1kΩ (protective resistance against short-circuit, approx. 100Ω)

Open collector output

- Voltage & current: DC30V 30mA, ON voltage; 1V or under
- Insulation system: Photocoupler insulation

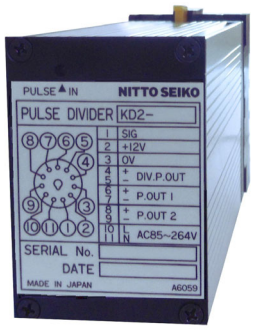
Lead relay output

- Contact capacity: AC100V, 0.02A/DC24V, 0.1A (resistance load)
- Switching frequency: 5 times/sec or under

Mini relay output

- Contact capacity: AC220V,0.2A/DC24V, 0.5A (resistance load)
- Switching frequency: 1 time/sec or under

Dividing Selects dividing value of divided output. (same value with 2 divided outputs)
Dividing value: 1/1~1/9, 1/10~1/90, 1/100~1/900, 1/1000~1/9000



Adjustment of pulse width
Adjusts pulse width of divided output.
Range of adjustment: Approx. 0.5～1000ms (Volume adjustment)

Power source for flowmeter
DC12V ± 10%, 50mA

Insulation resistance DC500V, 100MΩ or over (Between case, power supply terminal, and relay output terminal)

Withstand voltage AC1500V for 1 minute (Test points: Same as those for insulation resistance)
AC1000V for 1 minute (Between relay output terminals)

Noise resistance Square wave noise by noise simulator 1000V (Noise width 1 μs, Polarity ±, Application by synchronization with power source, Phase 0～360°)

Power source AC85～264V, 50/60Hz

Power consumption 5 VA or under

Ambient temperature 0～45°C (Without condensation)

Mass Approx. 0.4 kg

Casing Aluminium case on resin base

■ Actions

- Input pulse signal, and output distributed pulse or divided pulse.
- It is necessary to specify the pulse width on divided pulse. If not specified, standard signal width will be selected.

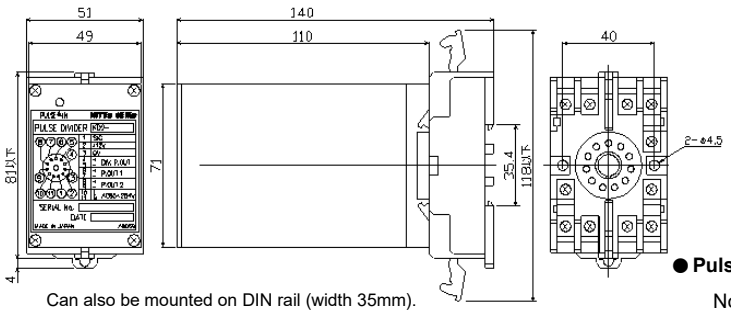
[Standard signal width of no-contact pulse output]

Dividing set value for adjustment of pulse width	Standard signal width (msec) Max. frequency of pulse input (Hz) 5000	500	50	5	0.5	0.05 Hz
1/1～1/9		0.5	5	50	500	1000
1/10～1/90	0.5	5	50	500	1000	1000
1/100～1/900	5	50	500	1000	1000	1000
1/1000～1/9000	50	500	1000	1000	1000	1000

[Standard signal width of contact pulse output]

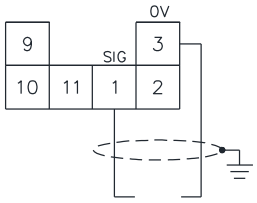
Dividing set value for adjustment of pulse width	Standard signal width (msec) Max. frequency of pulse input (Hz) 5000	500	50	5	0.5	0.05 Hz
1/1～1/9				50	500	1000
1/10～1/90			50	500	1000	1000
1/100～1/900		50	500	1000	1000	1000
1/1000～1/9000	50	500	1000	1000	1000	1000

■External & mounting dimensions



Can also be mounted on DIN rail (width 35mm).

2-wire type input



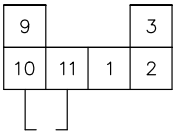
2- wire type flowmeter

■Terminal arrangement

No.	Signal name
1	SIG Pulse input
2	+12V
3	0V
4	+ Distributed output
5	−
6	+ Pulse output 1
7	−
8	+ Pulse output 2
9	−
10	AC85～264V
11	

■Connection

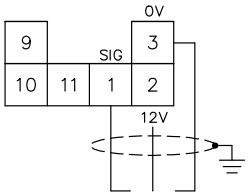
● **Connection of power source**



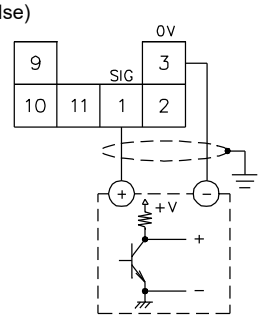
AC power source

● **Connection of input signal** (Use shielded cable)

Voltage input (same as 6V-pulse)

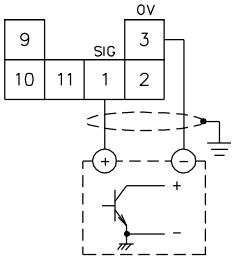


Flowmeter with 12V no-contact signal



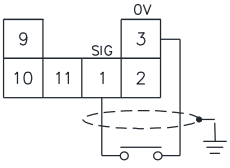
12V no-contact signal

Open collector input



Open collector signal

Contact input

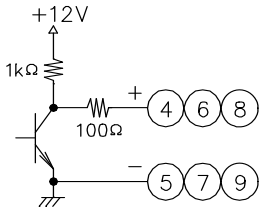


Lead switch type flow meter or contact signal

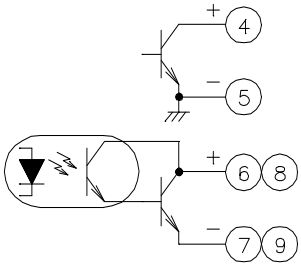
● **Pulse output** (Use shielded cable)

No-contact out

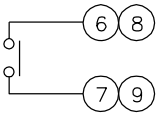
12V voltage output



Open collector output



Contact output



■Type

Type	Specification code			Contents
KD2-				Pulse Distributor
Pulse input	1- 2- 3- 4- 5-			Voltage input Open collector input Contact input 2-wire input Voltage input(6V-pulse)
Contents of signal of pulse output 1		1 2		Distributed output Divided output
Signal type of pulse output 1		1 2 3 4		12V no-contact output Open collector output Lead relay output Mini relay output
Contents of signal of pulse output 2		1 2		Distributed output Divided output
Signal type of pulse output 2		1 2 3 4		12V no-contact output Open collector output Lead relay output Mini relay output
Distributed output			1 2	12V no-contact output Open collector output

※ Moreover, in the case of 2 relay outputs, same contents and same signal type will be used.

◆◆◆◆ Matters to be specified at placing of order ◆◆◆◆

1. Type, specification code
2. Max. input frequency, pulse width of divided output

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

NITTOSEIKO CO.,LTD.
Control System Division Global Sales Section
Website: https://global.nittoseiko.com/
【Website】 【Inquiry Form】