

# Karman vortex flow rate sensor for water

## FLUEREX flow sensor® WFK3000

■ Flow rate sensor



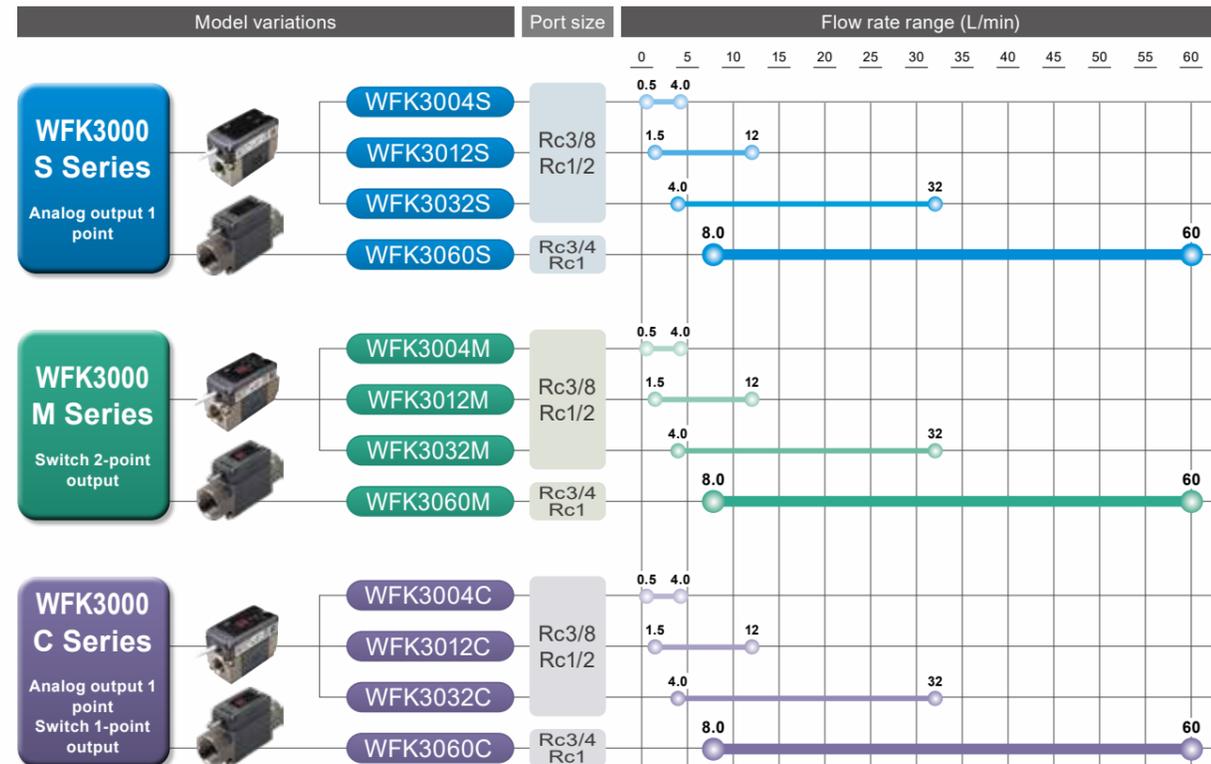
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## Sizes and ranges that simplify design



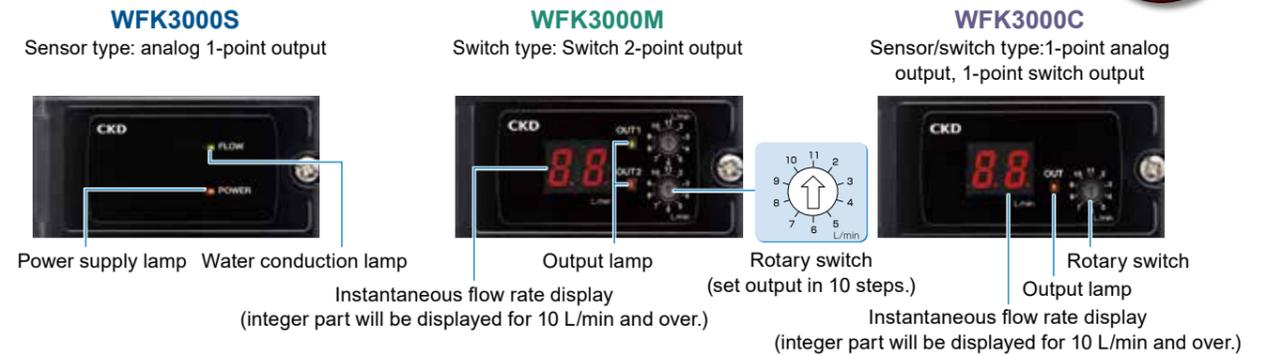
### A wide variety of models



### Simple operation, no manual required

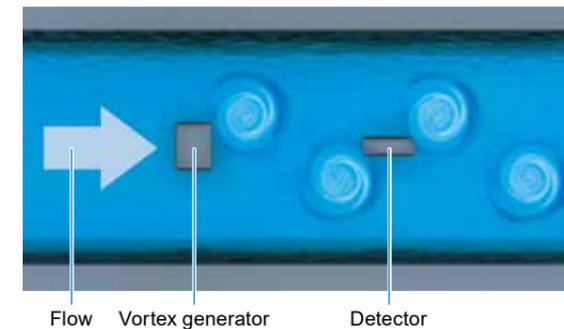
Sensor is ready for use as soon as wiring is completed. Setting of switch is completed by simply turning the rotary switch. Cumbersome switch setting not required.

Analog/  
switch  
output both  
supported



### Measuring method with high reliability

Highly reliable Karman's vortex used. This method has no moving parts, unlike an impeller, eliminating problems caused by foreign materials and rust in piping.



### Degree of protection IP65 or equivalent

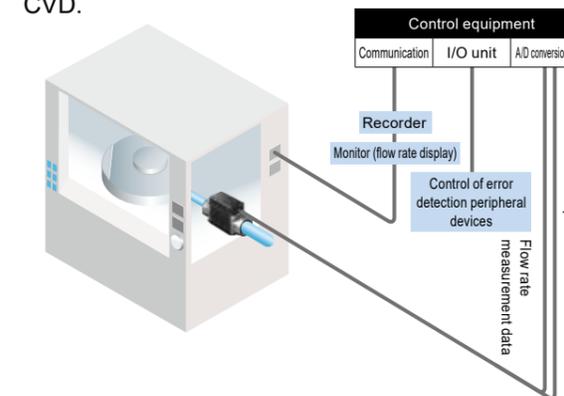
Safe to use in food equipment or similar equipment that requires drip-proofing.

# IP65

### Examples of applications

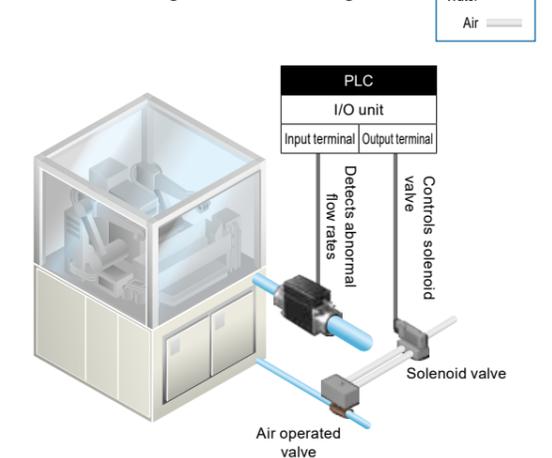
#### Semiconductor Semiconductor manufacturing equipment

Cooling and temperature control of semiconductor manufacturing equipment. Etching, grinder, dicer, CVD.



#### Tempering Induction hardening device

Quantitative management of cooling water.



Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit

Ending

467

Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit

Ending

466



Karman vortex flow rate sensor for water FLUEREX

# WFK3000S Series

(Compact/equipment integrated sensor)

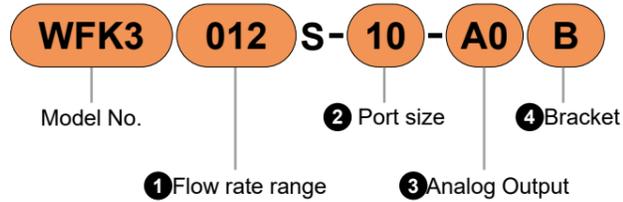


Refer to the CKD website for detailed compatible model Nos.

## WFK3000S Series Specifications

### Model No. Notation Method

● Sensor



#### 1 Flow rate range

Code	Description
004	0.5 to 4.0 L/min
012	1.5 to 12 L/min
032	4.0 to 32 L/min
060	8.0 to 60 L/min

#### 2 Port size

Code	Description	1 Flow rate range			
		004	012	032	060
10	Rc3/8	●	●	●	
15	Rc1/2	●	●	●	
20	Rc3/4				●
25	Rc1				●

Note: Contact CKD for G thread and NPT thread support.

#### 3 Analog Output

Code	Description
A0	0 to 5 VDC
A1	4 to 20 mA DC
A2	1 to 5 VDC
A3	0 to 10 VDC

#### 4 Bracket

Code	Description
Blank	None
B	Bracket attached (including mounting screws)

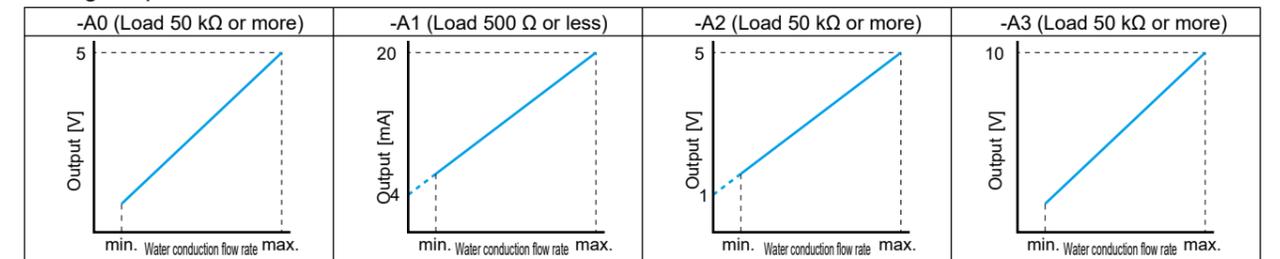
### Specifications

Model No.	WFK3004S-10	WFK3004S-15	WFK3012S-10	WFK3012S-15	WFK3032S-10	WFK3032S-15	WFK3060S-20	WFK3060S-25	
Flow rate range L/min	0.5 to 4.0		1.5 to 12		4.0 to 32		8.0 to 60		
Port size Rc	3/8	1/2	3/8	1/2	3/8	1/2	3/4	1	
Port material	Stainless steel: SCS13								
Working Conditions	Applicable fluid	Pure water, industrial water							
	Maximum Working Pressure, MPa	1.0							
	Proof pressure MPa	1.5							
	Ambient temperature °C	0 to 50 (85% RH or less)							
	Fluid temperature °C	1 to 70							
Accuracy	±2.5% F.S.								
Temperature characteristics	± 5% F.S. (10 to 50°C, base temperature 20°C)								
Pressure loss MPa	0.06 or less (at 4.0 L/min)	0.05 or less (at 12 L/min)		0.06 or less (at 32 L/min)		0.05 or less (at 60 L/min)			
Response time	1 sec *1								
Output	Indicator	None							
	Analog Output	Standard: 0 to 5 VDC, option: 4 to 20 mA DC, 1 to 5 V, 0 to 10 V							
Power supply voltage	12 to 24 VDC±10% (max. 80 mA) Option A3 is 15 to 24 VDC								
Cable	3 m, 4-conductor, final diameter 4.8 mm, core wire 0.2 mm <sup>2</sup> , insulator O.D. 1.3 mm								
Mounting	Mounting orientation	Unrestricted in vertical/horizontal direction							
	Straight piping section	None *2						IN side: 10D, OUT side 5D	
	Degree of Protection	IP 65 or equiv.							
Weight g	380	410	380	410	380	410	470	510	
Bracket weight g	28 (including screws)								

\*1: The time to attain 70% of the original output after the normal flow rate (used) drops instantly to 0.

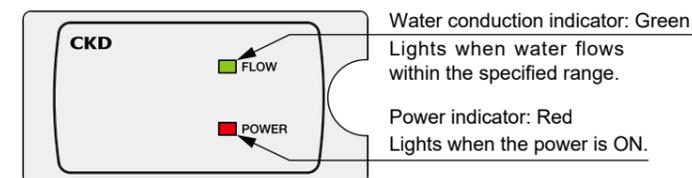
\*2: Installing straight pipes (10D on the IN side and 5D on the OUT side) is recommended so that the piping conditions do not affect the performance.

### Analog Output



\*min. is the min. value in the flow rate range, and max. is the max. value in the flow rate range.

### Functions



Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit

Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit



Karman vortex flow rate sensor for water FLUEREX

# WFK3000M Series

(Compact/equipment integrated switch)



Refer to the CKD website for detailed compatible model Nos.

# WFK3000M Series

Specifications

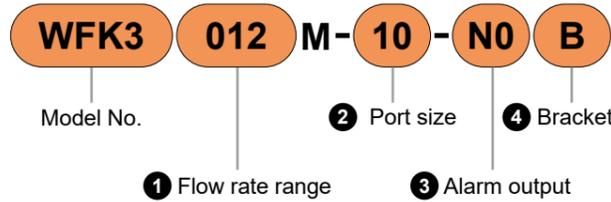
## Specifications

Model No.	WFK3004M-10	WFK3004M-15	WFK3012M-10	WFK3012M-15	WFK3032M-10	WFK3032M-15	WFK3060M-20	WFK3060M-25	
Flow rate range L/min	0.5 to 4.0		1.5 to 12		4.0 to 32		8.0 to 60		
Port size Rc	3/8	1/2	3/8	1/2	3/8	1/2	3/4	1	
Port material	Stainless steel: SCS13								
Working Conditions	Applicable fluid	Pure water, industrial water							
	Maximum Working Pressure, MPa	1.0							
	Proof pressure MPa	1.5							
	Ambient temperature °C	0 to 50 (85% RH or less)							
	Fluid temperature °C	1 to 70							
Accuracy	±2.5% F.S. ±1 digit (1 digit = 0.1 L/min (less than 10 L/min), 1 L/min (10 L/min and over))								
Temperature characteristics	± 5% F.S. (10 to 50°C, base temperature 20°C)								
Pressure loss MPa	0.06 or less (at 4.0 L/min)	0.05 or less (at 12 L/min)	0.06 or less (at 32 L/min)	0.05 or less (at 60 L/min)					
Response time	1 sec *1								
Output	Indicator	Instantaneous flow rate 2-digit LED display							
	Switch Output	Number of points	2-point transistor output (select NPN/PNP)						
		Rating	MAX. 50 mA DC						
		Internal voltage drop	(NPN) 2.0 V or less (PNP) 2.5 V or less						
Power supply voltage	12 to 24 VDC±10% (max. 80 mA)								
Cable	3 m, 4-conductor, final diameter 4.8 mm, core wire 0.2 mm <sup>2</sup> , insulator O.D. 1.3 mm								
Mounting	Mounting orientation	Unrestricted in vertical/horizontal direction							
	Straight piping section	None *2						IN side: 10D, OUT side 5D	
	Degree of Protection	IP 65 or equiv.							
Weight g	380	410	380	410	380	410	470	510	
Bracket weight g	28 (including screws)								

\*1: When the switch output is set to 70% of the normal flow rate (used), the time until the switch output occurs after the flow rate drops instantly to 0.  
\*2: Installing straight pipes (10D on the IN side and 5D on the OUT side) is recommended so that the piping conditions do not affect the performance.

## Model No. Notation Method

●Switch



### 1 Flow rate range

Code	Description
004	0.5 to 4.0 L/min
012	1.5 to 12 L/min
032	4.0 to 32 L/min
060	8.0 to 60 L/min

### 2 Port size

Code	Description	Image	1 Flow rate range			
			004	012	032	060
10	Rc3/8		●	●	●	
15	Rc1/2		●	●	●	
20	Rc3/4					●
25	Rc1					●

Note: Contact CKD for G thread and NPT thread support.

### 3 Alarm output

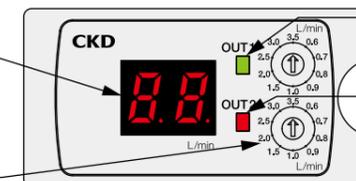
Code	Description
N0	NPN transistor output, 2 points (a contact)
N1	NPN transistor output, 2 points (b contact)
P0	PNP transistor output, 2 points (a contact)
P1	PNP transistor output, 2 points (b contact)

### 4 Bracket

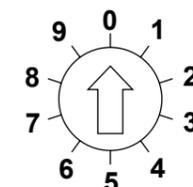
Code	Description
Blank	None
B	Bracket attached (including mounting screws)

## Functions

- 2-digit digital display  
Indicators the instantaneous flow rate.  
\*Less than 10 L/min: Decimal display 10 L/min and over: Integer display
- Rotary switch for output setting



- Output lamp: Green (OUT1)  
Lights when switch output is ON.
- Output lamp: Red (OUT2)  
Lights when switch output is ON.
- \*OUT1: Lead wire (Black)  
OUT2: Lead wire (orange)



Allows you to set the switch output setting in 10 steps.

\*Use a precision screwdriver, etc., to set the rotary switch. Be extremely careful, since applying excessive force to the rotating part may result in contact failure.

\*Use the cylinder by making sure that the arrow aligns with the scale. If it is forcibly set at an intermediate point, the output may become unstable.

\*Turn power OFF before setting switch outputs.

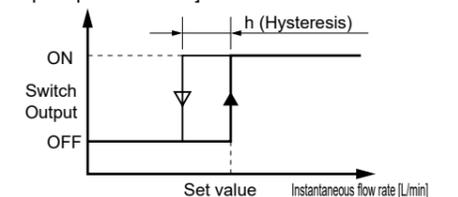
\*After setting switch output, close the cover to display the set flow rate.

### Switch output setting value [L/min]

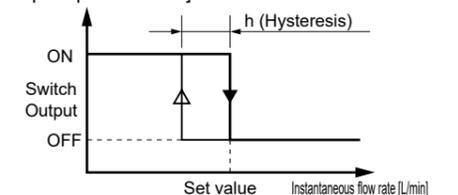
Rotary switch contact number	Model			
	WFK3004M	WFK3012M	WFK3032M	WFK3060M
1	0.6	2.0	5.0	10
2	0.7	3.0	9.0	15
3	0.8	4.0	12	20
4	0.9	5.0	14	25
5	1.0	6.0	16	30
6	1.5	7.0	18	35
7	2.0	8.0	21	40
8	2.5	9.0	24	45
9	3.0	10	27	50
0	3.5	11	30	55
Hysteresis	0.1	0.5	1.0	3.0

## Switch output operation

[Output option: NO/PO]



[Output option: N1/P1]



Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit

Ending

Ending

Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit

Ending

Ending



Karman vortex flow rate sensor for water FLUEREX

# WFK3000C Series

(Compact/equipment integrated sensor/switch)



Refer to the CKD website for detailed compatible model Nos.

# WFK3000C Series Specifications

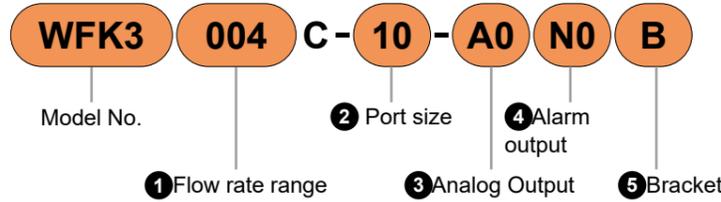
## Specifications

Model No.	WFK3004C-10	WFK3004C-15	WFK3012C-10	WFK3012C-15	WFK3032C-10	WFK3032C-15	WFK3060C-20	WFK3060C-25	
Flow rate range L/min	0.5 to 4.0		1.5 to 12		4.0 to 32		8.0 to 60		
Port size Rc	3/8	1/2	3/8	1/2	3/8	1/2	3/4	1	
Port material	Stainless steel: SCS13								
Working Conditions	Applicable fluid	Pure water, industrial water							
	Maximum Working Pressure, MPa	1.0							
	Proof pressure MPa	1.5							
	Ambient temperature °C	0 to 50 (85% RH or less)							
	Fluid temperature °C	1 to 70							
Accuracy	±2.5% F.S. ±1 digit (1 digit = 0.1 L/min (less than 10 L/min), 1 L/min (10 L/min and over))								
Temperature characteristics	± 5% F.S. (10 to 50°C, base temperature 20°C)								
Pressure loss MPa	0.06 or less (at 4.0 L/min)	0.05 or less (at 12 L/min)	0.06 or less (at 32 L/min)	0.05 or less (at 60 L/min)					
Response time	1 sec *1								
Output	Indicator	Instantaneous flow rate 2-digit LED display							
	Analog Output	Standard: 0 to 5 VDC/option : 4 to 20 mA DC, 1 to 5 V, 0 to 10 V							
	Switch Output	Number of points	1-point transistor output (select NPN/PNP)						
		Rating	MAX. 50 mA DC						
	Internal voltage drop	(NPN) 2.0 V or less (PNP) 2.5 V or less							
Power supply voltage	12 to 24 VDC±10% (max. 80 mA) Option A3 is 15 to 24 VDC								
Cable	3 m, 4-conductor, final diameter 4.8 mm, core wire 0.2 mm <sup>2</sup> , insulator O.D. 1.3 mm								
Mounting	Mounting orientation	Unrestricted in vertical/horizontal direction							
	Straight piping section	None *2					IN side: 10D, OUT side 5D		
	Degree of Protection	IP 65 or equiv.							
Weight g	380	410	380	410	380	410	470	510	
Bracket weight g	28 (including screws)								

\*1: When the switch output is set to 70% of the normal flow rate (used), the time until the switch output occurs after the flow rate drops instantly to 0.  
\*2: Installing straight pipes (10D on the IN side and 5D on the OUT side) is recommended so that the piping conditions do not affect the performance.

## Model No. Notation Method

### ● Sensor/switch type



### 1 Flow rate range

Code	Description
004	0.5 to 4.0 L/min
012	1.5 to 12 L/min
032	4.0 to 32 L/min
060	8.0 to 60 L/min

### 2 Port size

Code	Description	Image	1 Flow rate range			
			004	012	032	060
10	Rc3/8		●	●	●	
15	Rc1/2		●	●	●	
20	Rc3/4					●
25	Rc1					●

Note: Contact CKD for G thread and NPT thread support.

### 3 Analog Output

Code	Description
A0	0 to 5 VDC
A1	4 to 20 mA DC
A2	1 to 5 VDC
A3	0 to 10 VDC

### 4 Alarm output

Code	Description
N0	NPN transistor output, 2 points (a contact)
N1	NPN transistor output, 2 points (b contact)
P0	PNP transistor output, 2 points (a contact)
P1	PNP transistor output, 2 points (b contact)

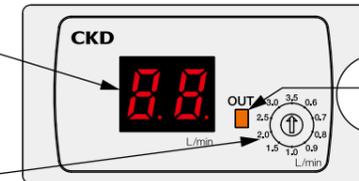
### 5 Bracket

Code	Description
Blank	None
B	Bracket attached (including mounting screws)

## Functions

### • 2-digit digital display

Indicators the instantaneous flow rate.  
\*Less than 10 L/min: Decimal display  
10 L/min and over: Integer display



### • Rotary switch for output setting

Allows you to set the switch output setting in 10 steps.  
\*Use a precision screwdriver, etc., to set the rotary switch. Applying excessive force to the rotating part may result in contact failure be careful.  
\*Use the cylinder by making sure that the arrow aligns with the scale. If it is forcibly set at an intermediate point, the output may become unstable.  
\*Turn power OFF before setting switch outputs.  
\*After setting switch output, close the cover to display the set flow rate it will be.

### Switch output setting value [L/min]

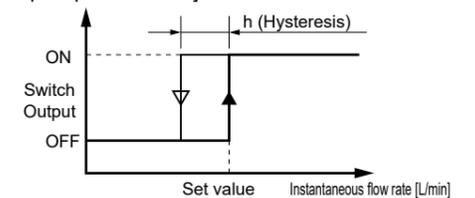
Rotary switch contact number	Model			
	WFK3004C	WFK3012C	WFK3032C	WFK3060C
1	0.6	2.0	5.0	10
2	0.7	3.0	9.0	15
3	0.8	4.0	12	20
4	0.9	5.0	14	25
5	1.0	6.0	16	30
6	1.5	7.0	18	35
7	2.0	8.0	21	40
8	2.5	9.0	24	45
9	3.0	10	27	50
0	3.5	11	30	55
Hysteresis	0.1	0.5	1.0	3.0

• Output lamp: Orange (OUT)  
Lights when switch output is ON.

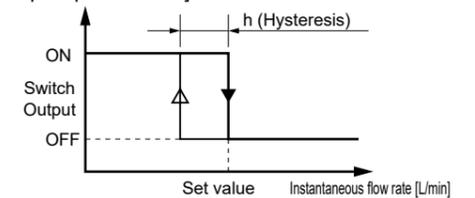
OUT: Lead wire (black) supported.

## Switch output operation

[Output option: NO/PO]



[Output option: N1/P1]



Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit

Flow rate sensor

Compact flow sensor (gas)

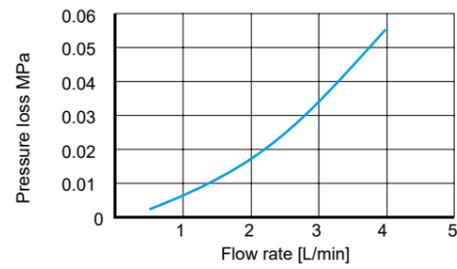
Compact flow sensor (air)

Compact flow sensor (liquid)

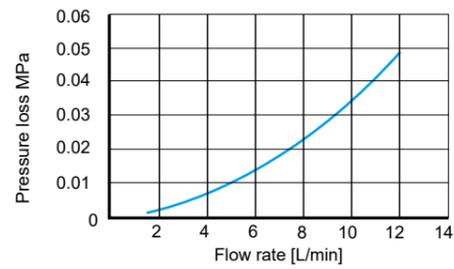
Water Manifold Unit

## Pressure loss

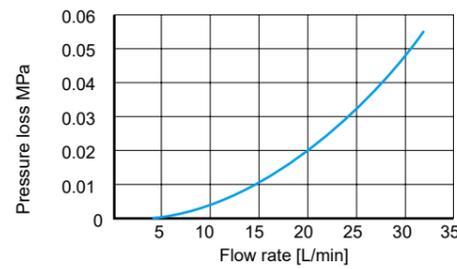
●WFK3004



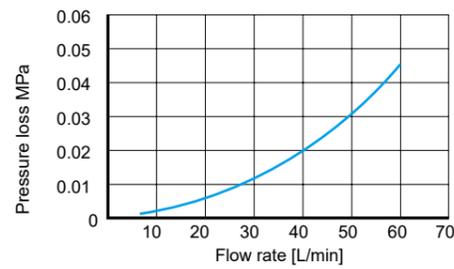
●WFK3012



●WFK3032

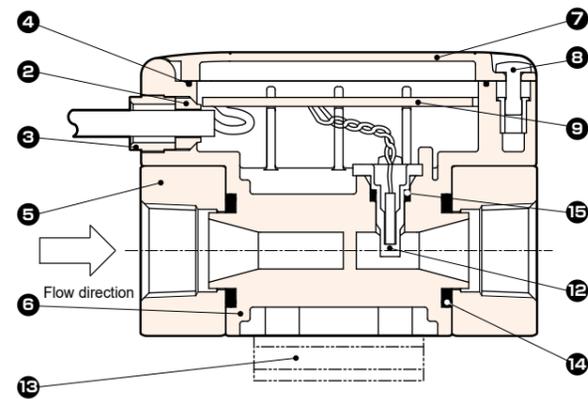


●WFK3060

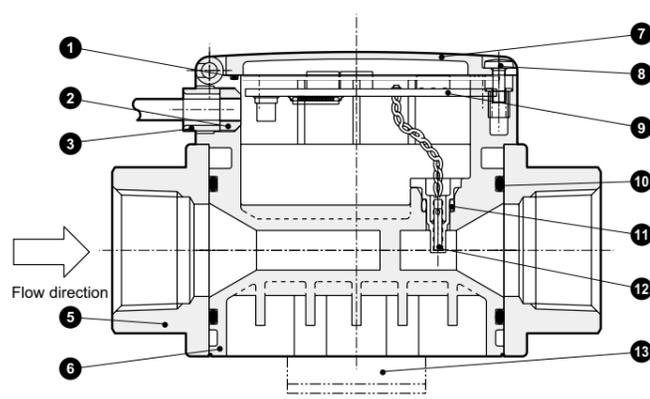


## Internal Structure Diagram / Material

●WFK3004□, WFK3012□, WFK3032□



●WFK3060□



**Do not disassemble**

Part No.	Part name	Material	Quantity	Part No.	Part name	Material	Quantity
1	Cover packing	NBR : Nitrile Rubber	1	9	Wiring section		1
2	Cable packing	NBR : Nitrile Rubber	1	10	O-ring	NBR : Nitrile Rubber	2
3	Cable gland	PPS resin	1	11	O-ring	NBR : Nitrile Rubber	1
4	Cover packing	FKM : Fluoro rubber	1	12	Karman's vortex street detection sensor	PPS resin (interior: piezo ceramic)	1
5	Attachment	SCS13 : Stainless steel casting	2	13	Bracket (option)	Steel	(1)
6	Body	PPS resin	1			Zinc plated	
7	Cover	PC resin	1	14	O-ring	FKM : Fluoro rubber	2
8	Screw for cover		1	15	O-ring	FKM : Fluoro rubber	1

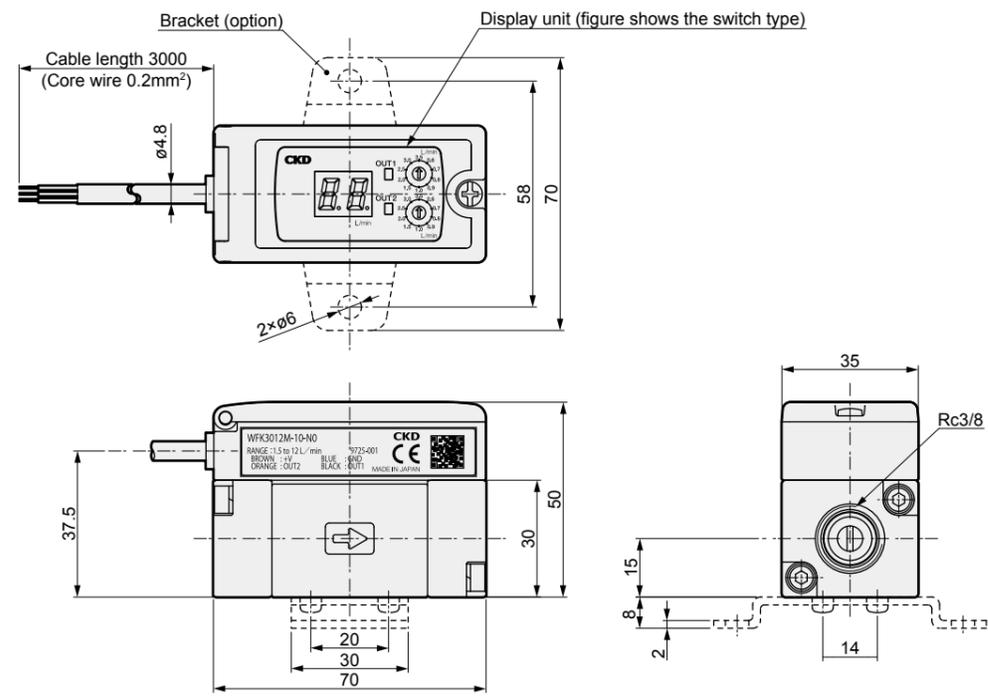
Note: Wetted parts are (5), (6), (10), (11), (12), (14), (15).

MEMO

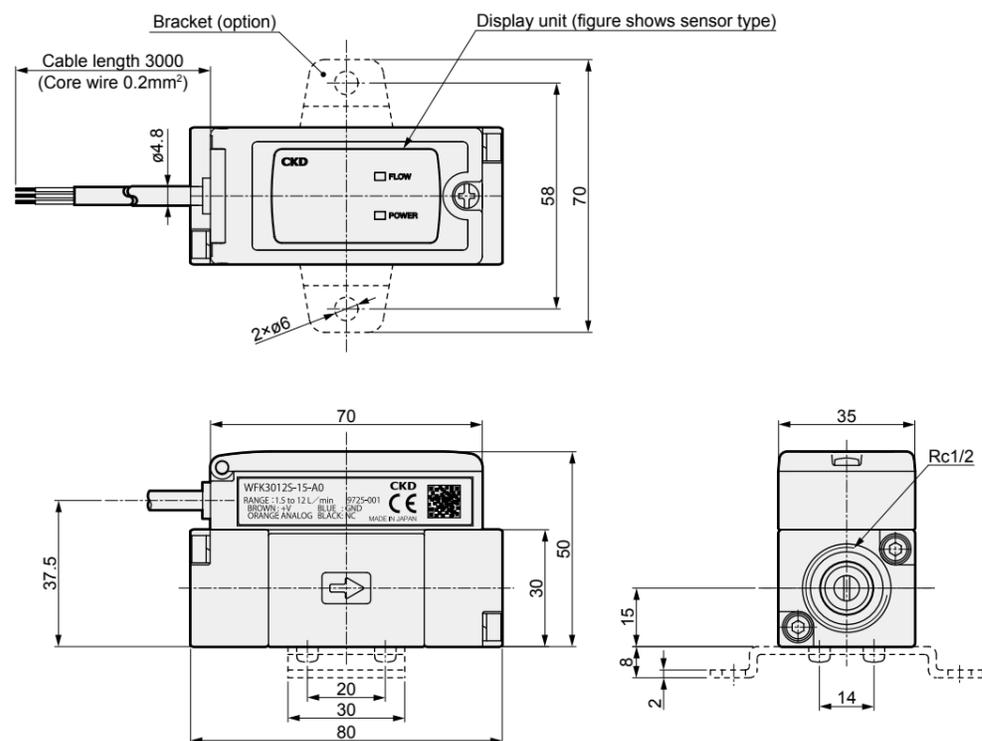
## Dimensions

● WFK3004□, WFK3012□, WFK3032□

• Port size: 10 (Rc3/8)



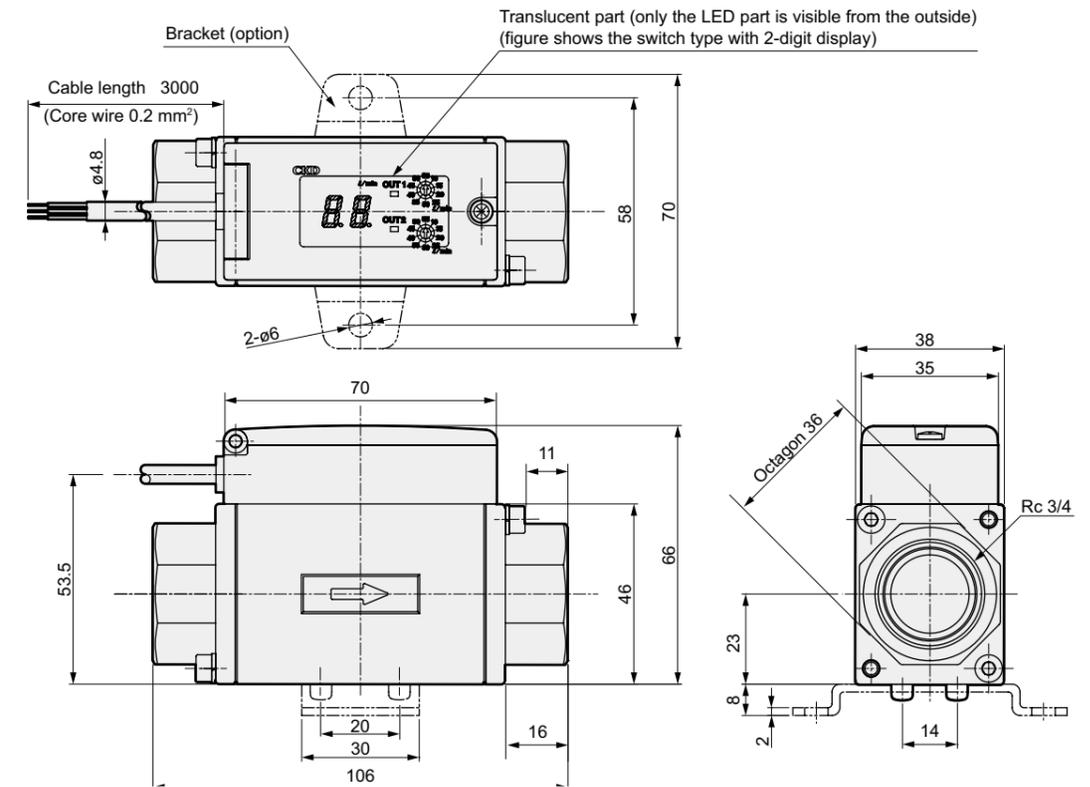
• Port size: 15 (Rc1/2)



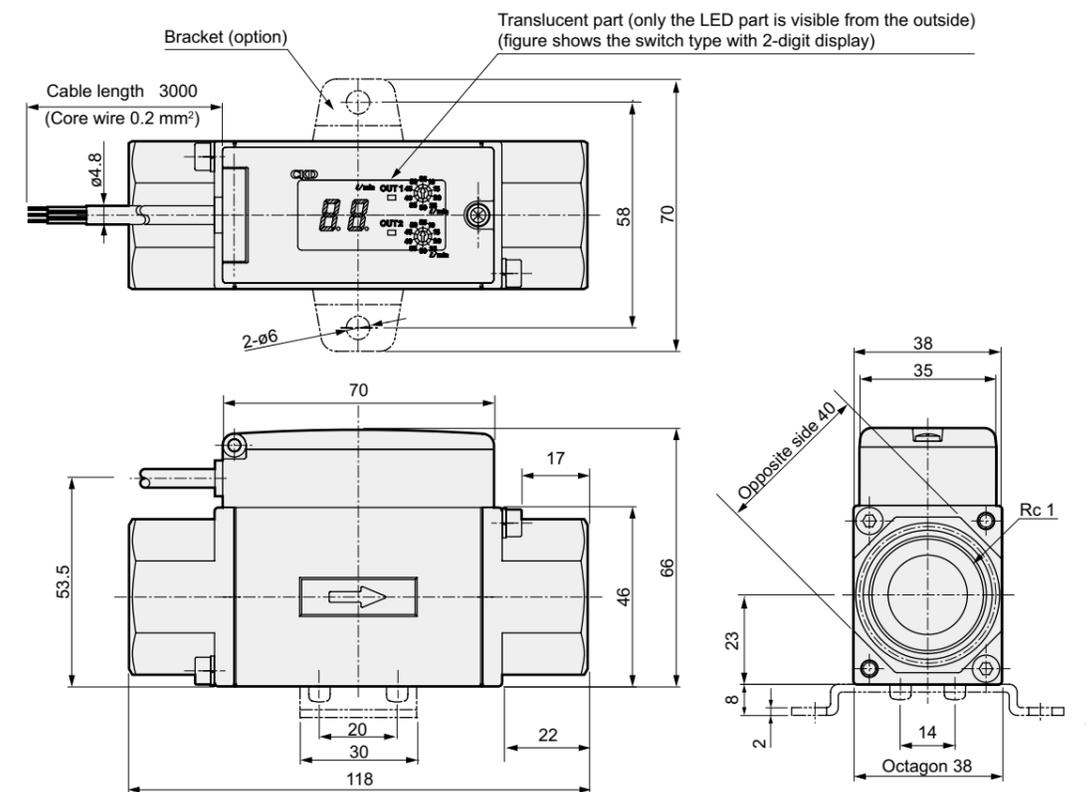
## Dimensions

● WFK3060□

• Port size: 20 (Rc3/4)



• Port size: 25 (Rc1)



Wiring method

- Always read the safety precautions before wiring.
- The cable is a 4-conductor cable with a core wire of 0.2 mm<sup>2</sup> made by Correns Corporation.
- Option

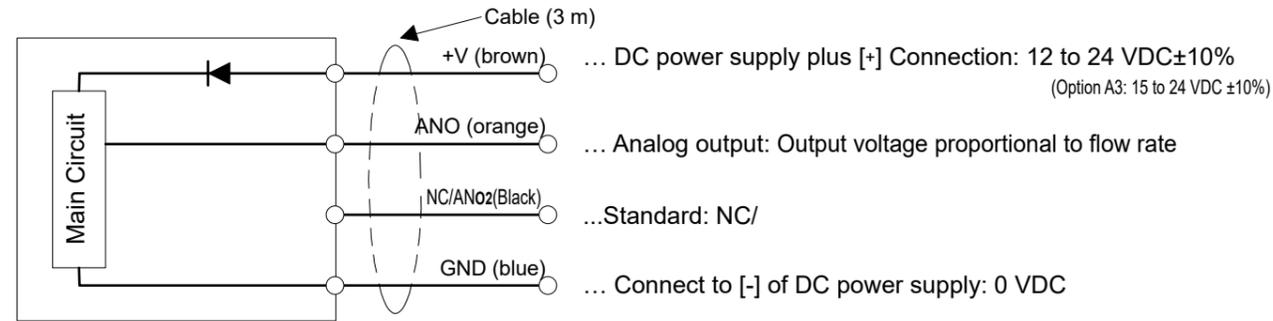
Sensor (analog output) Switch (switch output)

- A0; (0 to 5 [V])
- A1; (4 to 20 [mA])
- A2; (1 to 5 [V])
- A3; (0 to 10 [V])

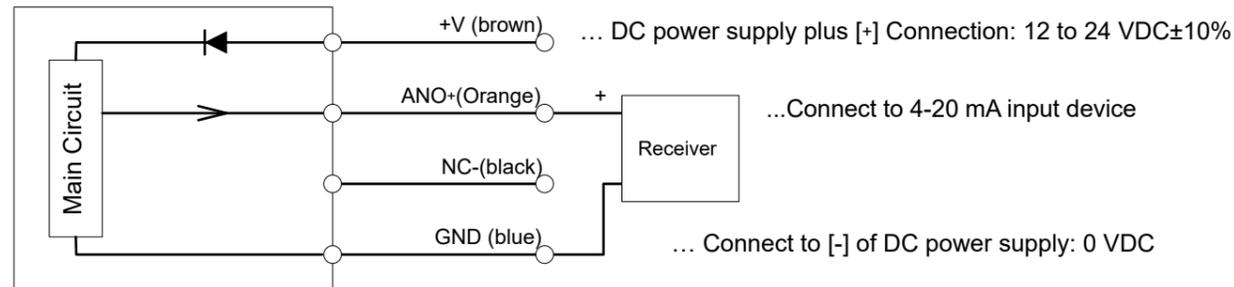
\*Sensor/switch alarm output is one point.

- N0; (NPN a-contact, 2 points)
- N1; (NPN b-contact, 2 points)
- P0; (PNP a-contact, 2 points)
- P1; (PNP b-contact, 2 points)

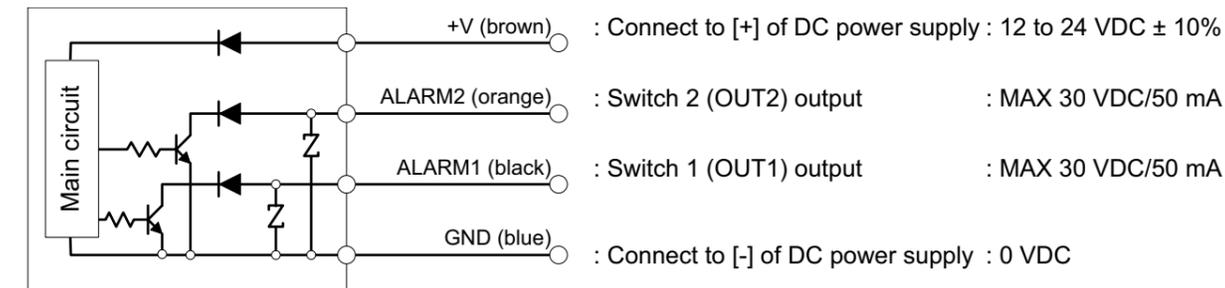
●WFK3□□□S (sensor voltage output: -A0, -A2, -A3)



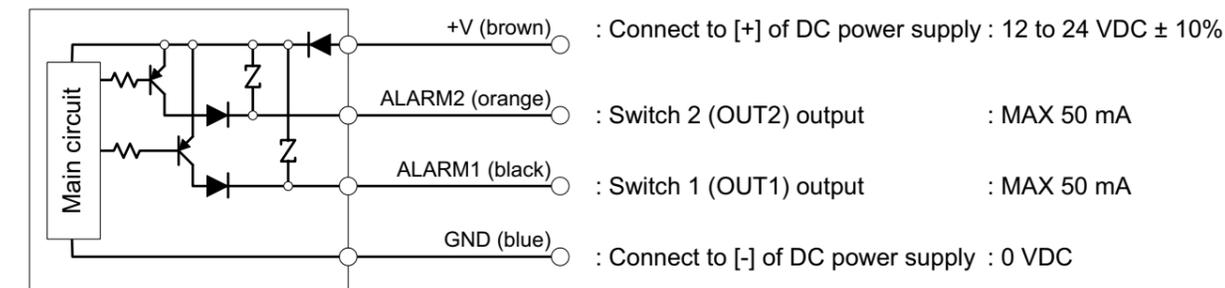
●WFK3□□□S (sensor current output: -A1)



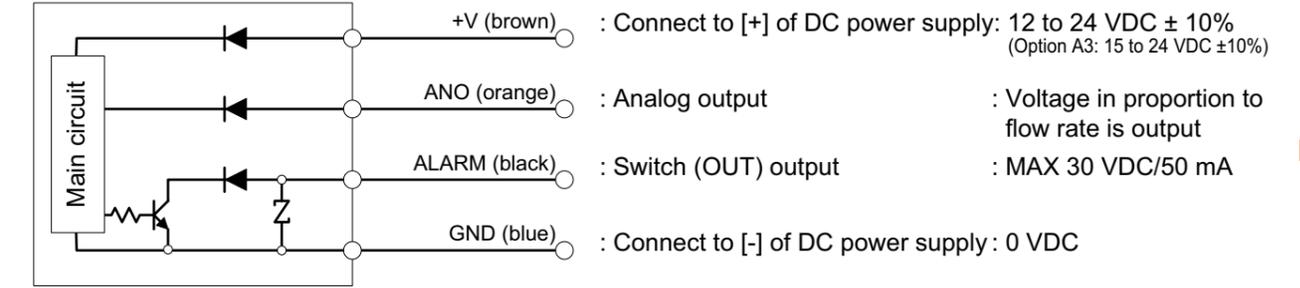
●WFK3□□□M (Switch NPN output: -N0, -N1)



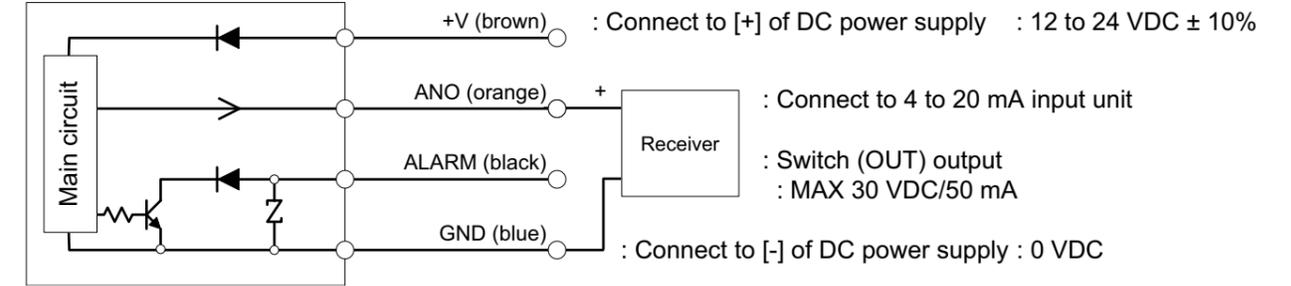
●WFK3□□□M (Switch PNP output: -P0, -P1)



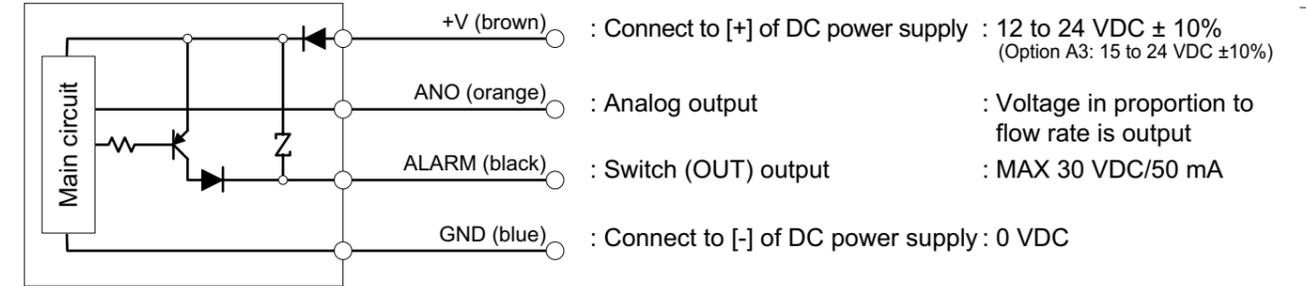
●WFK3□□□C (Sensor voltage output: -A0, -A2, -A3, Switch NPN output: N0, N1)



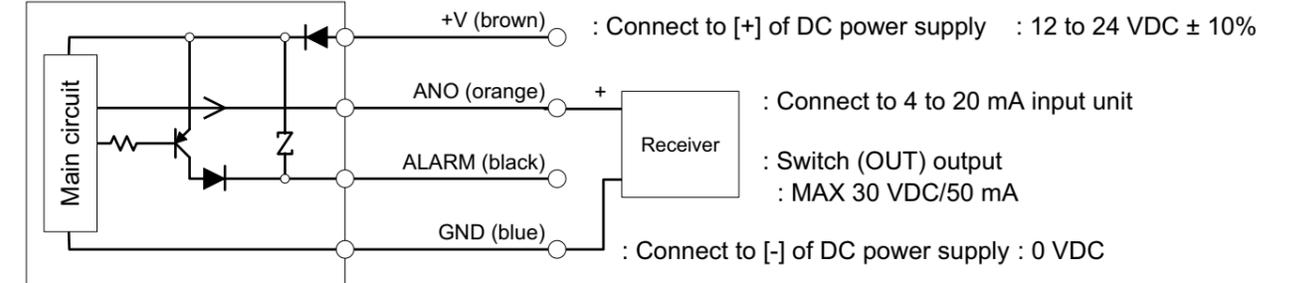
●WFK3□□□C (sensor current output: -A1, switch NPN output: N0, N1)



●WFK3□□□C (sensor voltage output: -A0, -A2, -A3, switch PNP output: P0, P1)



●WFK3□□□C (sensor current output: -A1, switch PNP output: P0, P1)



Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit

Flow rate sensor

Compact flow sensor (gas)

Compact flow sensor (air)

Compact flow sensor (liquid)

Water Manifold Unit

Ending

Ending



# Water-use components Safety Precautions

Be sure to read this section before use.  
Refer to Intro 17 for General Precautions.

## Design / Selection

### 1. Working fluids

#### ⚠ DANGER

■ Do not use the water as drinking water.  
As it does not conform to the requirements of the Food Sanitation Act, do not use this product for applications that measure water entering the human body. Intended applications include industrial sensors.

■ Do not use this product with flammable fluids.

#### ⚠ WARNING

■ This product cannot be used as a billing meter.  
Do not use this product for commercial transactions as it is not compliant with the Measurement Act. It cannot be calibrated, so use it as an industrial sensor.

■ Applicable fluid is water (industrial water, pure water); do not use with any other fluid.

### 2. Working environment

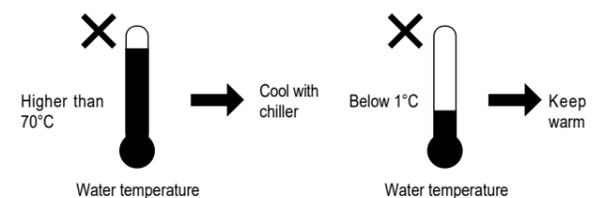
#### ⚠ DANGER

■ Flammable environment  
Never use this product in an explosive gas atmosphere. The structure is not explosion-proof, and explosions or fires could occur.

#### ⚠ WARNING

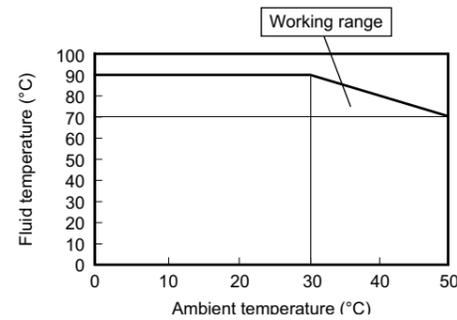
■ Corrosive environment  
Do not use this product in an atmosphere containing corrosive gases such as sulfur dioxide.

■ Fluid/ambient temperatures  
Use with fluid temperature within the range of 1 to 70°C. If the fluid temperature rises to 70°C and over, cool it down using a cooling system such as a chiller. As well, if there is a risk of freezing, drain the product or keep it warm to prevent freezing. Even if the ambient temperature is within the specified range, do not use this product in a location where rapid changes in temperature can occur.



Ambient temperature should be in the range of 0 to 50°C.

The WFK3060 Series can be used in the following ranges.



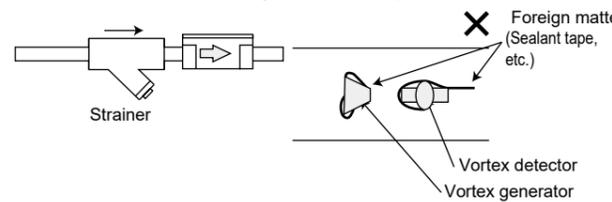
- Max. working pressure  
Do not use at a pressure exceeding the max. working pressure, as excessive pressure can cause product failure. To prevent the pressure from reaching the max. working pressure, particularly due to water hammer, take the following measures:  
(1) Using a water hammer reduction valve or other similar mechanism, regulate the valve closing speed.  
(2) Using elastic piping material, e.g. rubber hose, and an accumulator, absorb the impact pressure.  
(3) Make the pipe length as short as possible.

- Drip-proof environment  
This product employs a dust-proof, drip-proof structure that provides reliability during maintenance and cleaning, during which it may be exposed to water splashing. However, avoid using this product in a location where it may be constantly exposed to water or intense splattering of water and/or oil.

- CE-compliance working conditions  
This product is CE-marked, indicating conformity with the EMC Directives. The standard for the immunity for industrial environments applied to this product is EN61000-6-2; the following requirements must be satisfied in order to conform to this standard:  
Conditions  
● The evaluation of this product is performed by using a cable that has a power supply line and a signal line paired to assess the product's performance.  
● This product is not equipped with surge protection. Implement surge protection measures on the system side.

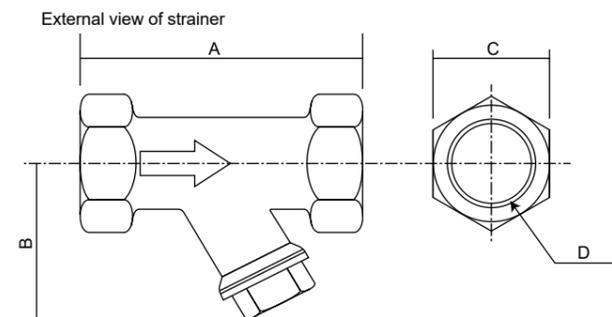
#### ⚠ CAUTION

■ If there is a risk of foreign matter entering the fluid, install a filter (strainer) on the primary side. If foreign matter adheres to the vortex generator or vortex detector, measurement accuracy can be compromised.



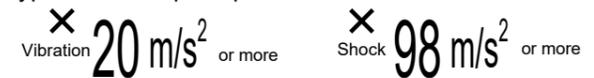
Strainer specifications

Item	Specifications
Specification fluid	Water
Proof pressure MPa	2
Working pressure range MPa	0 to 1
Ambient temperature °C	1 to 90
Main material	Specifications
Body	Bronze casting
Strainer	Stainless steel



Model No.	A	B	C	D
WF-FL-280730	70	44	23	Rc 3/8
WF-FL-280731	80	49	28	Rc 1/2
WF-FL-280732	100	57	35	Rc 3/4
WF-FL-280733	115	72	43	Rc1
WF-FL-280734	135	82	52	Rc1 1/4
WF-FL-280735	160	98	59	Rc1-1/2

- Vibration / Impact  
Do not use this product in an environment exposed to vibration of 20 m/s<sup>2</sup> and over, and shock of 98 m/s<sup>2</sup> and over. This may cause malfunction and/or damage, as this product uses the Karman's vortex type detection principle.



- Hardware check and other internal settings are performed during the first two seconds or so after turning ON the power. Display and output do not function normally during this period. Particularly, if a transistor output is used in the control of an interlock circuit, an abnormal stop may occur. Mask the output during this period.

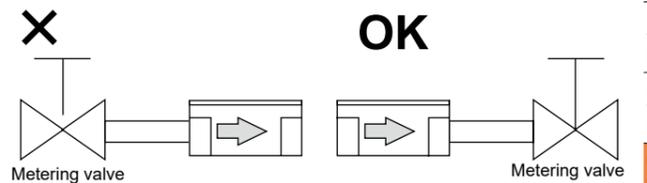
For precautions during mounting, installation, adjustment, use and maintenance, refer to the CKD Components Product Site (<https://www.ckd.co.jp/kiki/en/>) → "Model No. → Instruction Manual"

### 3. Wiring

#### ⚠ CAUTION

■ Pipes can be installed in any orientation, vertical, horizontal, etc. Note that pipes should be installed so that the fluid constantly fills the piping while it flows through the pipes. When installing a pipe vertically, making the fluid flow upward can reduce the influence of air bubbles inside.

■ If a pipe is narrowed just before the flow rate sensor, or if there is a valve or other restricting component on the primary side, cavitation occurs inside the pipe, preventing accurate measurement. For this reason, such piping should be installed on the secondary side of the sensor. Cavitation... (Vapor cavities that form due to the static pressure at end points, such as a ship propeller, dropping below the vapor pressure of the water. Reduced efficiency or screw damage may result.)



However, operating the pump with the secondary side valve closed may cause the flow rate sensor to detect pressure waves from the pump, resulting in incorrect indication. If this occurs, install the valve on the primary side. When doing so, ensure that a straight pipe with a diameter of 10 times or more bore size is installed between the valve and the flow rate sensor.

- Using an elbow or bush in the piping  
● When using an elbow or bush in the piping, provide straight piping sections of at least 10 D on the IN side and 5 D on the OUT side when using a WFK3060 Series model. Note that bore size change by bush should be limited to one size. Without a straight pipe, measurement accuracy can be compromised due to disturbances in the flow rate and/or pressure distribution.  
(Straight pipes are not necessary for the WFK3004, 3012, and 3032 Series. However, it is recommended that a straight pipe is installed to ensure stable measurements.)  
\* Where "D" indicates the inner diameter of the piping material. Refer to the table below for specific values.

Bore size	Rc3/8 (10 A)	Rc1/2 (15 A)	Rc3/4 (20 A)	Rc1 (25 A)
5D	50 mm	75 mm	100 mm	125 mm
10D	100 mm	150 mm	200 mm	250 mm

- Keep the cable away from all noise sources, including power distribution wires. Noise can cause malfunctions.

Flow rate sensor

Compact flow sensor (gas)  
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