

Flow sensor

WFK6000 Series

(Modular design type)

Flow rate range: 1.0 to 8.0, 3.0 to 27.0L/min.



Refer to Intro 32 for details.



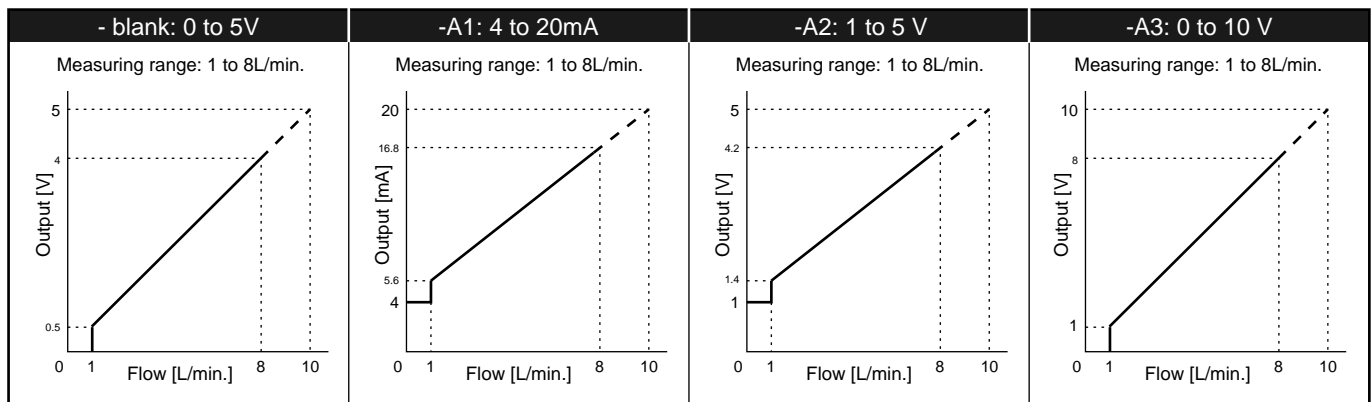
Specifications

Descriptions	WFK6008-10	WFK6008-15	WFK6008-20	WFK6027-10	WFK6027-15	WFK6027-20	
Specifications conditions	Flow measuring range L/min	1.0 to 8.0			3.0 to 27.0		
	Port size Rc	3/8	1/2	3/4	3/8	1/2	3/4
	Connection section material	Stainless steel: SCS13					
	Pressure loss MPa	0.045 (8.0L/min)			0.04 (27.0L/min)		
	Working fluid	Clean water, industrial water					
	Max. working pressure MPa	1.0					
	Withstanding pressure MPa	1.5					
	Fluid temperature °C	1 to 70					
	Ambient temperature °C	0 to 50 (85%RH or less)					
	Indicator	5 digit LED display					
Integrated flow	Max.9 digit						
	H and L separately displayed						
	When power supply turns off, counter is reset						
Output	Alarm output	Point	1 point (NPN/PNP transistor open collector)				
		Rated	MAX 50mA				
	Analog output	Internal voltage drop	2.0V or less				
		Precision	0 to 5 VDC (linear output) standard ± 2.5%F.S. ± 1 digit				
Alarm output response time sec	Approx. 1.0 (Note)						
Power supply	12 to 24 VDC ± 10% (Max. 100mA) 15 to 24 VDC for option A3						
Cable	Attachment (3m, 4 conductors, O.D. φ6, conductor 0.5mm ² , with connector)						
Installation attitude	Horizontal or vertical						
Protective structure	IP64 or equivalent						
Weight g	830	810	850	830	810	850	

Note: Time to reach 70% of the original output when flow rate is instantly set to zero from the normal (usage) flow rate.

Analog output

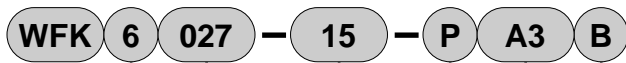
● WFK6008-**



Connecting load conditions

Descriptions	Blank [0 to 5]	-A1 [4 to 20 mA]	-A2 [1 to 5 V]	-A3 [0 to 10 V]
Allowable load	50k Ω and over	500k Ω or less	50k Ω and over	50k Ω and over

How to order



A Port shape, material

B Flow rate range

C Port size
Note 1

D Alarm output type

E Analog output

F Bracket
Note 5

Symbol	Descriptions	
A Port shape, material		
6	Shape: female thread	Material: stainless steel (SCS13)
B Flow rate range		
008	1 to 8L/min.	
027	3 to 27L/min.	
C Port size		
10	Rc3/8	
15	Rc1/2	
20	Rc3/4	
10N	3/8NPT	
15N	1/2NPT	
20N	3/4NPT	
D Alarm output type		
Blank	NPN transistor open collector	
P	PNP transistor open collector	
E Analog output		
Blank	0 to 5 VDC	Note 2
A1	4 to 20mA DC	Note 3
A2	1 to 5 VDC	
A3	0 to 10 VDC	
A4	Without analog output	
A5	2 points alarm output	Note 4
F Bracket		
Blank	None	
B	With bracket	

⚠ Note on model no. selection

- Note 1: When using American taper pipe thread, add "N" to the port size.
 Note 2: If CKD monitor (WM10** [refer to page 1482]) is connected, select **E** analog output 0 to 5 VDC.
 Note 3: When selecting analog output A1: 4 to 20mA DC, alarm function can not be used.
 Note 4: When selecting analog output A5: 2 points alarm output, analog output can not be used.
 Note 5: For option B, a bracket and set screw are attached.
When ordering a bracket only, indicate part name: bracket assembly and model no. WF-FL-249969.

<Example of model number>

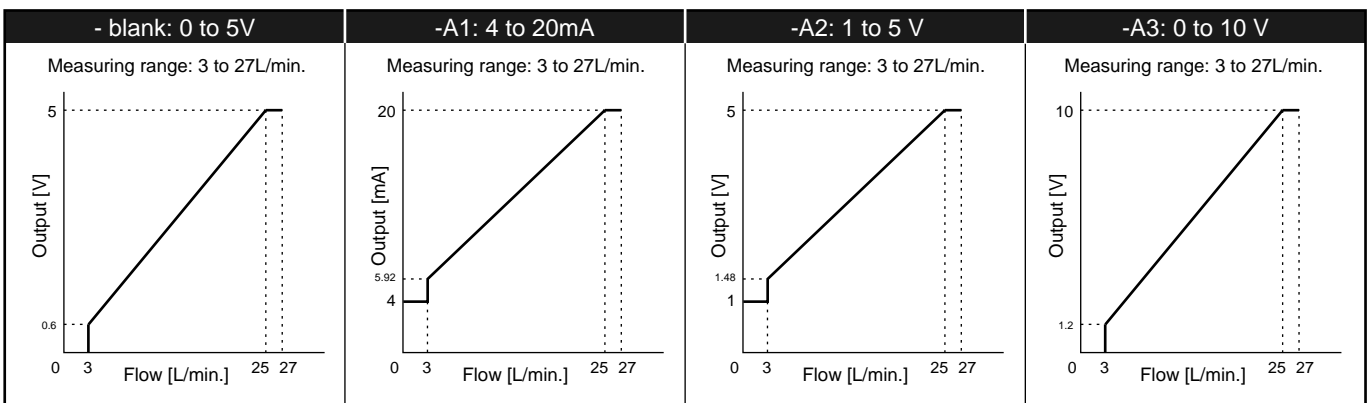
WFK6027-15-PA3B

Model: Flow sensor modular design

- A** Port shape, material: Shape: female thread, Material: stainless steel
- B** Flow rate range: 3 to 27L/min.
- C** Port size: Rc1/2
- D** Alarm output type: PNP transistor open collector
- E** Analog output: 0 to 10 VDC
- F** Bracket: With bracket

Analog output

● WFK6027-**



Connecting load conditions

Descriptions	Blank [0 to 5]	-A1 [4 to 20 mA]	-A2 [1 to 5 V]	-A3 [0 to 10 V]
Allowable load	50k Ω and over	500k Ω or less	50k Ω and over	50k Ω and over

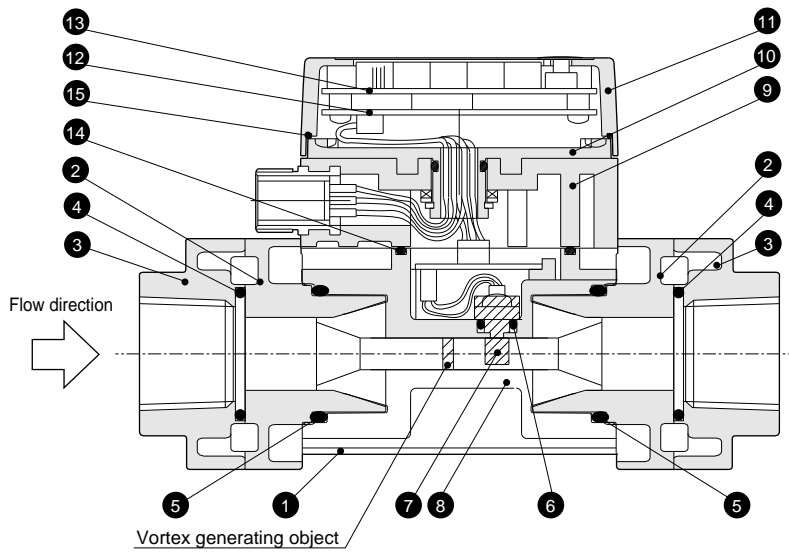
Refrigerating type dryer
 Desiccant type dryer
 High polymer membrane dryer
 Air filter
 Auto. drain / others
 F.R.L. (Module unit)
 F.R.L. (Separate)
 Compact F.R.
 Precise regulator
 F.R.L. (Related products)
 Clean F.R.
 Electro pneumatic regulator
 Air booster
 Speed control valve
 Silencer
 Check valve / others
 Joint / tube
 Vacuum filter
 Vacuum regulator
 Suction plate
 Magnetic spring buffer
 Mechanical pressure SW
 Electronic pressure SW
 Contact / close contact cont. SW
 Air sensor
 Pressure SW for coolant
 Small flow sensor
 Small flow controller
 Flow sensor for air
 Flow sensor for water
 Total air system
 Total air system (Gamma)

Ending

Karman's vortex type for water
 Flow sensor

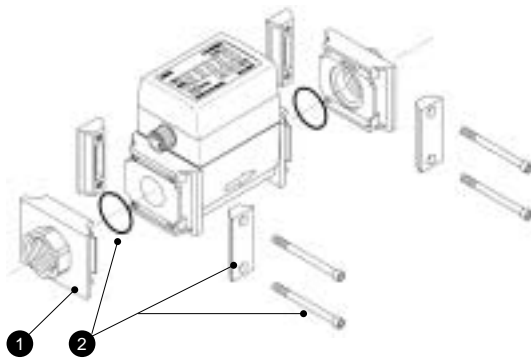
WFK6000 Series

Internal structure and parts list



No.	Parts name	Material	Quantity	No.	Parts name	Material	Quantity
1	Body	SCS13 Stainless steel casting	1	9	Connector case	ABS ABS resin	1
2	Attachment K	SCS13 Stainless steel casting	2	10	Case B	ABS + PC ABS + PC alloy	1
3	Attachment	SCS13 Stainless steel casting	2	11	Case A	ABS ABS resin	1
4	O ring	NBR Nitrile rubber	2	12	CPU circuit board	- -	1
5	O ring	NBR Nitrile rubber	2	13	Display circuit board	- -	1
6	O ring	NBR Nitrile rubber	1	14	Sleeve packing seal	NBR Nitrile rubber	1
7	Vortex street detecting element	PPS Polyphenylene sulfide	1	15	Case packing seal	NBR Nitrile rubber	1
8	Sleeve	PPS Polyphenylene sulfide	1				

Module assembly



Model no.	Port size	(1) Attachment	(2) Joiner set
WFK60**-10	Rc3/8	WF-FL-290810	WF-FL-298234 (common)
WFK60**-15	Rc1/2	WF-FL-290811	
WFK60**-20	Rc3/4	WF-FL-290812	
WFK60**-10N	3/8NPT	WF-FL-290813	
WFK60**-15N	1/2NPT	WF-FL-290814	
WFK60**-20N	3/4NPT	WF-FL-290815	

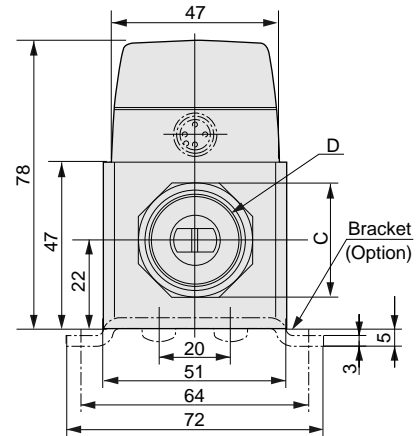
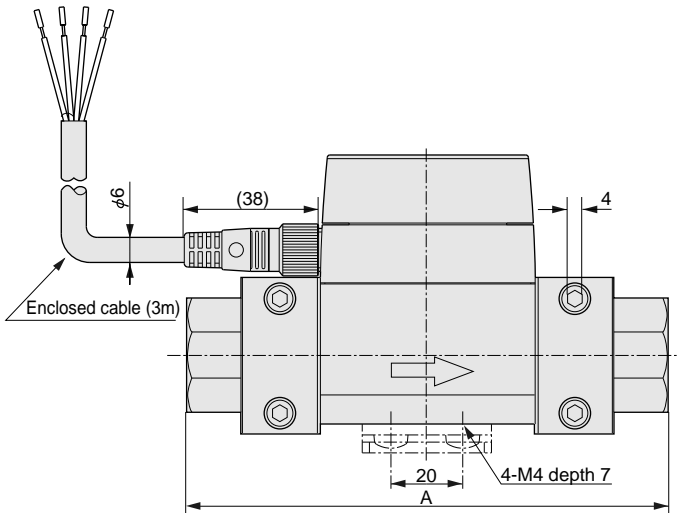
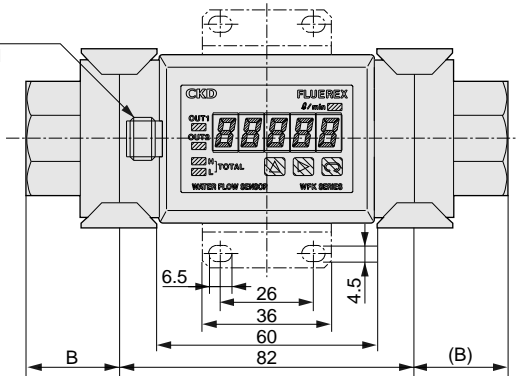
* For attachment and joiner set, model no. for single side is provided.
2 pieces apply for both sides replacement.

Dimensions



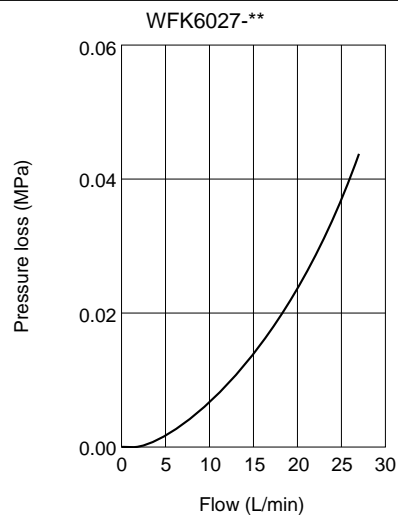
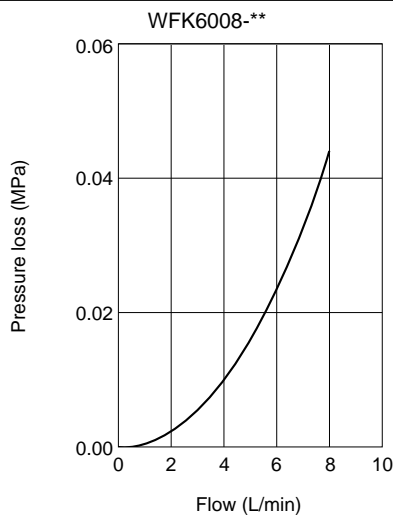
- Refrigerating type dryer
- Desiccant type dryer
- High polymer membrane dryer
- Air filter
- Auto. drain / others
- F.R.L. (Module unit)
- F.R.L. (Separate)
- Compact F.R.
- Precise regulator
- F.R.L. (Related products)
- Clean F.R.
- Electro pneumatic regulator
- Air booster
- Speed control valve
- Silencer
- Check valve / others
- Joint / tube
- Vacuum filter
- Vacuum regulator
- Suction plate
- Magnetic spring buffer
- Mechanical pressure SW
- Electronic pressure SW
- Contact / close contact cont. SW
- Air sensor
- Pressure SW for coolant
- Small flow sensor
- Small flow controller
- Flow sensor for air
- Flow sensor for water
- Total air system
- Total air system (Gamma)

Connector
M12 pitch 1



Model no.	A	B	C	D
WFK60**-10	122	20	24 (hexagon)	Rc3/8
WFK60**-15	122	20	27 (hexagon)	Rc1/2
WFK60**-20	134	26	32 (octagonal)	Rc3/4
WFK60**-10N	122	20	24 (hexagon)	3/8NPT
WFK60**-15N	122	20	27 (hexagon)	1/2NPT
WFK60**-20N	134	26	32 (octagonal)	3/4NPT

Pressure loss



Ending

Karman's vortex type for water
Flow sensor