

DFFK

Turbine Flowmeter



OVERVIEW

Operation

The universal Classicline DFF or DFFK is used in practically every imaginable field, such as in the foodstuffs, chemical, industrial and semiconductor sectors. The two versions differ in the position of their connections: in the DFF, they are side by side while in the DFFK, they are opposite each other. This flow sensor is available in many different configurations and can easily be adapted to meet special customer requirements. The newly developed ceramic bearing is also suitable for applications requiring continuous day-and-night operation.

Features

- Simple Installation
- High Performance
- Easy Installation
- Long Term Stability
- Compact Design

Application

- Chemistry
- Semiconductor industry
- Beverage
- Grease
- Fuels
- Inks, pastes



OPERATING DATA

Working Pressure

20 Bar maximum

Temperature Limit

-10°C...+65°C

Accuracy

±2,0%

Repeatability

±0,25%

Continuous Operation

<500 rpm

Mounting Position

Horizontal

Nozzle Size

1-10 mm

MATERIALS

Housing

PBT, PPS, PA (Fiber glass Reinforcement),
PVDF

Bearing Pin

Inox 1.4305,Inox 1.4571, PTFE, Ceramic

Nozzle

Aluminum oxide on request 1,0...2,5 PPS (DFFK
chemistry mat. PTFE), 3,0...4,0Inox 1.4305 (DFFK
chemistry mat. PTFE), 5,6...10,0 PBT

O-ring

FPM (viton),EPDM , Viton, Kalrez

Turbine

PVDF

Screw

PT-screw

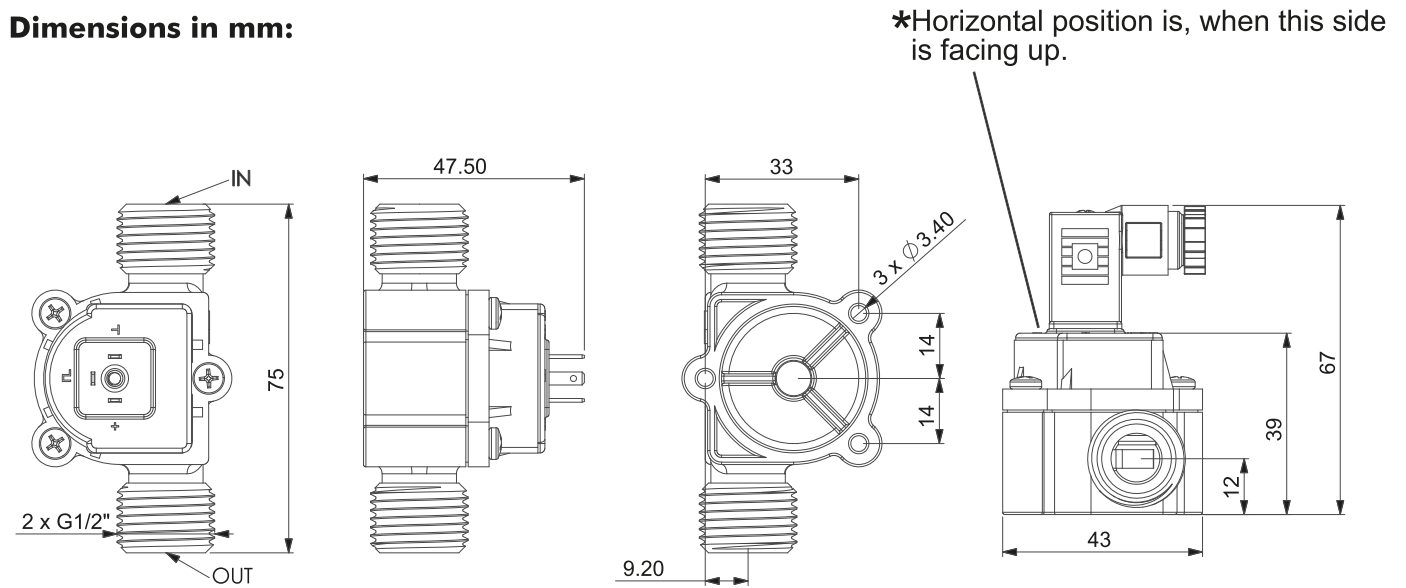
MEASURING RANGES

Flow Rate Ranges		
Nozzle	Min.	Max.
1.0 mm	0.041 l/min	0.56 l/min
1.2 mm	0.050 l/min	0.82 l/min
2.0 mm	0.091 l/min	2.40 l/min
2.5 mm	0.150 l/min	3.74 l/min
3.0 mm	0.102 l/min	5.63 l/min
4.0 mm	0.123 l/min	8.38 l/min
5.6 mm	0.308 l/min	9.26 l/min
7.0 mm	1.40 l/min	11.50 l/min
10.0 mm	3.00 l/min	29.23 l/min



TECHNICAL DRAWINGS AND DIMENSIONS

Dimensions in mm:



ELECTRICAL DATA

Power Supply

+3,8 to +24 VDC

Consumption

<8mA

Signal Connection

Open collector NPN

Signal Voltage

0VDC GND (saturation <0.7V)

Signal Load

Maximum 20mA

Leakage Current

Maximum 10μA

Connections

3 Pin-AMP, REsistor 1.2k, cable, thermo

Signal

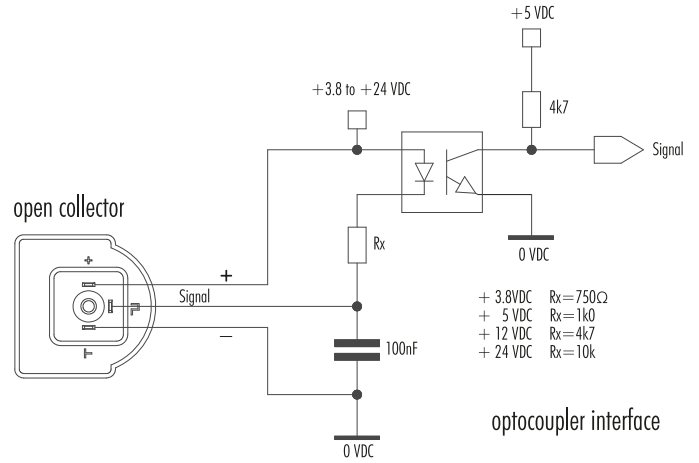
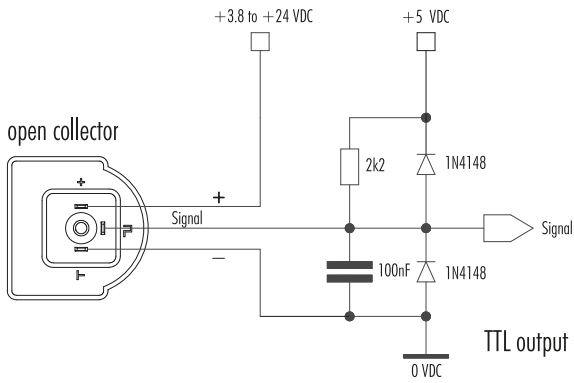
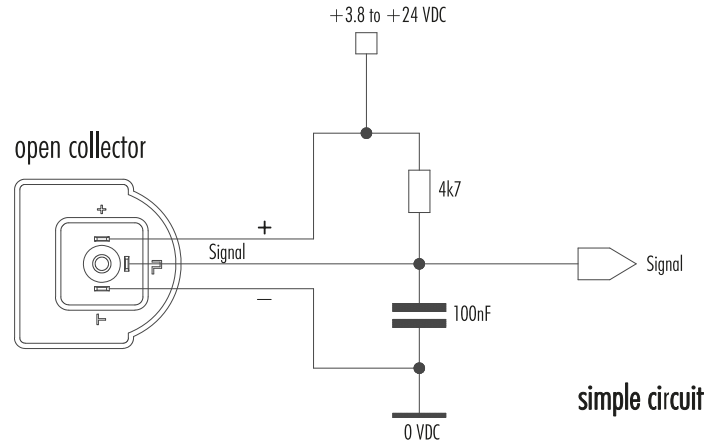
Square-wave output

Duty Cycle

-50%



WIRING



ORDERING

Model	
DFFK	Turbine Flowmeter

Type	
C	Compact
S	Standard
F	Flat
Ch	Chemistry
H	High Flow

Housing Material	
BT	PBT
PS	PPS
PA	PA
PV	PVDF

Process Connection	
1	G 1/4" (max nozzle size Ø 5.6 mm)
2	John Guest 3/8" f/f (max nozzle size Ø 5.6 mm)
3	Hose Nipple Ø 12.0 mm / 11. mm m/m (fixed nozzle size Ø 7.0 mm)
4	G 1/2" (fixed nozzle size Ø 10.0 mm)
5	Cola BSF 1/2" (max nozzle size Ø 5.6 mm)

O-ring	
S	Silicone
E	EPDM
V	Viton
K	Kalrez (Only for chemistry)

Turbine	
1	PVDF FT 36 2M (wetted magnets)
2	PVDF Chem. 2M (sealed magnets)
3	PVDF Chem. 4M (sealed magnets)

Bearing Pin	
1	Inox 1.4305
2	Inox 1.4571
3	PTFE
4	Ceramic

Nozzle	
DFFK	Please specify, example : 1.0 mm = 010 (look at the flow rate table)

Electrical Connection	
1	Pancon Mas-Con
2	3 pin amp
3	Resistor 1.2k
4	3 pin amp LED
5	3 pin amp PNP
6	3 pin amp PNP/LED
7	Cable
8	Empty detection
9	Thermo

