



## Float Flow Meters series NF

- Quality design
- High corrosion resistance
- Reliable measurement principle
- Low weight and small dimensions

**HART** COMMUNICATION PROTOCOL



## Usage

Flowmeters type NF are designed to measure instantaneous flow of liquids and gases in harsh environments. Device resistance is provided by a lightweight thin-walled metal sheath. Connection of the flowmeter to the plastic pipes, PP, PVC is by welding, gluing or on request by thread.

## Technical specifications

Operating temperature of the measured medium	0 - 100°C material PP 0 - 60°C material PVC
Max. operating pressure (without shocks)	1 MPa – PP 0,6 MPa - PVC
Accuracy class	2,5 %; 1,6 %; each unit is calibrated
Connection type	flanged connections - CSN, PN 10, 16, 25, 40

### Materials of main parts

Connection piece	PP (PVC, brass, stainless steel) upon request thread
Float	stainless steel (PP, PVC, PVDF, Al alloy)
Measuring tube	borosilicate glass vacuum-molded, reinforced
Sealing elements	NBR (FPM, EPDM)

## Installation, operation, maintenance

Before mounting the flowmeter remove the security against the float movement during transport. Working position vertical with media flow from the bottom. Before connecting the meter pipe has to be flushed.

Operation and maintenance is limited to checking for leaks and clean the measuring tube.

When using the meter, protect your face shield, especially in aggressive media and at higher pressures. Avoid pressure surges that could cause a sharp jolt of the float to the top stop.

## Accessories

Flowmeters can be equipped with flow sensor

- Limit contacts: SP1 - min  
SP2 – max  
SP3 – for small flow
- Continuous scanning: SP4
- Evaluation unit VZI 211R: flow display on the screen and a converter with output example. 4 - 20 mA;  
two limits - output contact 220 V 2A.
- Flow Indicator ERT 7000: totalizer - 8 digits

- Flow Indicator ERT 50000:

Flow display - 6 digits

Counter A - 8 digits

Counter B - 7 digits - daily counter

Converter e.g. 4 - 20 mA

## Ordering

### When ordering you must know:

media type

concentration %

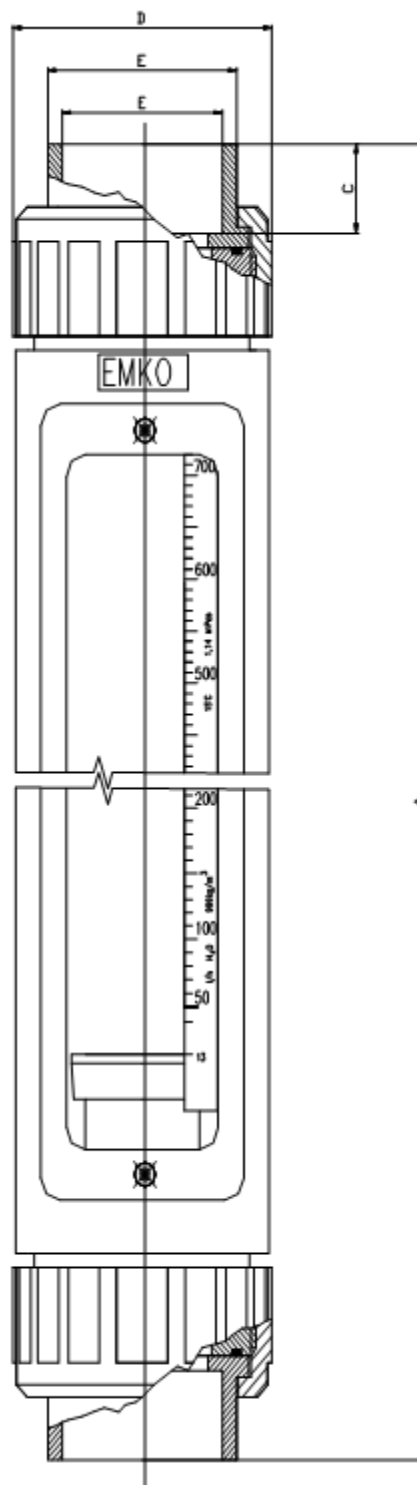
density

viscosity

temperature and pressure

measuring range

units



## Manufacturer type number

Example:

NF	8	02	K1	P2
1.	2.	3.	4.	5.

1.	Type		
	NF	connection for welding, plastic glueing	
	NFV	connection for welding, plastic glueing, with guided float	
2.	Size of measuring tube		
	04, 03, 02 ... 8, 9, 10, 11		
3.	Design float emblem		
	01	basic float shape	
	02	modified float shape for greater flow	
	03	basic float shape with the core	
	04	modified float shape with the core for greater flow	
	05	basic float shape with magnet	
	06	modified float shape with magnet for greater flow	
	07	basic float shape with core and magnet	
	08	modified float shape with core and magnet	
	09	lightweight	
10	bead		
4.	Float material		
	Metal	K1	stainless steel class 17 246
		K2	stainless steel class 17 348
		K5	alloy AL
	Plastic	K6	titanium
		P1	PVC
		P2	PP
P3		PTFE (Teflon)	
5.	Fittings material - inserts		
	- not applicable if the same material as the float		
	Metal	K1	stainless steel class 17 246
		K2	stainless steel class 17 348
		K5	alloy AL
	Plastic	P1	PVC
		P2	PP

## Measuring ranges values and connection dimensions

Type	Measuring range l/h		Connecting dimensions				
	Water +15°C	Air +20°C; 101,3 kPa	A	B	C	D	E
NF04.01K1	0,4 - 2,5	10 - 100	452	16	20	67	40
NF03.01K1	0,6 - 6	15 - 220	452	16	20	67	40
NF02.01K1	1 - 12	30 - 450	452	16	20	67	40
NF01.01K1	2 - 17	60 - 600	452	16	20	67	40
NF1.01K1	4 - 35	70 - 1 100	427	25	20	67	40
NF2.01K1	8 - 66	300 - 2 300	427	25	20	67	40
NF3.01K1	20 - 145	450 - 4 300	427	25	20	67	40
NF4.01K1	30 - 280	1 100 - 9 000	427	25	20	67	40
NF4.02K1	40 - 350	-	427	25	20	67	40
NF5.01K1	40 - 540	2 000 - 11 000	427	25	20	67	40
NF6.01K1	100 - 1 000	-	427	32	20	67	40
NF6.02K1	200 - 1 250	3 000 - 22 000	427	32	20	67	40
NF7.01K1	200 - 1 800	3 000 - 32 000	414	63	28	102	72
NF7.02K1	200 - 2 300	-	414	63	28	102	72
NF8.01K1	600 - 3 700	8000 - 60 000	494	63	28	102	72
NF8.02K1	800 - 4 000	-	494	63	28	102	72
NF8R.01K1	400 - 3500	-	446	63	28	102	72
NF9.01K1	1 200 - 6 300	15 000 - 100 000	523	63	28	102	72
NF9.02K1	2 500 - 8 000	-	523	63	28	102	72
NFV9.01K1	2 500 - 11 000	40 000 - 170 000	523	63	28	102	72
NFV9.02K1	8 000 - 18 500	40 000 - 200 000	523	63	28	102	72

Note.: Measuring ranges for water are value for stainless steel floats, if different material is used the flow is reduced. On request other connecting dimensions, threads etc.

Requirements for other measuring ranges, other media, as well as requests for other materials to be discussed with the manufacturer.