

# Specifications of the *IR-Opflow* turbine flowmeter

## Technical specifications

Accuracy: *IR-Opflow* 10 series:  $\pm 1\%$  of measured value  
*IR-Opflow* 30 series:  $\pm 3\%$  of measured value

Repeatability:  $\pm 0, 1\%$  of measured value.

Calibrated linearity:  $\pm 1\%$  or  $\pm 3\%$  of measured value  
 (depending on selected calibration series).

Measurement range: See table 1.

Temperature range:  $-40^\circ$  to  $+85^\circ$  Celcius.

Maximum pressure: 10 bar.

Viscosity: Max. 15 cSt (depending on the measurement range).

Process connection: BSP, NPT or flexible hose fitting, see tables 2 and 3.

Materials: All wetted parts are manufactured from PVDF.

Power supply: 5 - 12 VDC, 6 - 33 mA.  
 8 - 24 VDC, 18 - 30 mA.

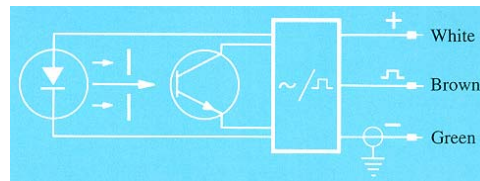
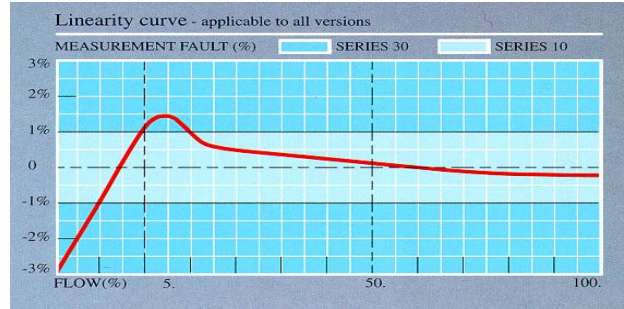
Pulse output: Push-Pull.

Max. load:  $2k2\Omega$ .

Frequency: 15 - 1200 Hz, see table 1.

Signal generation: Optoelectronic (infrared).

Signal cable: 1 metre cable, other lengths on request.



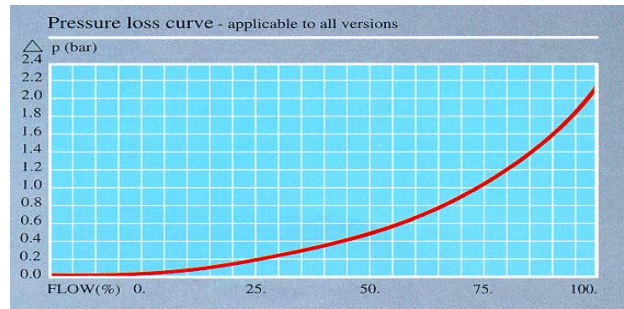
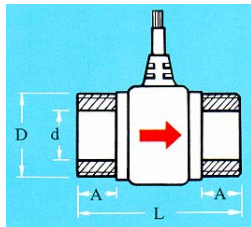
**Table 1: Measurement range**

Size	Range (L/min)	K- factor (pulses/L)	Output (Hz)
1 *	0.1 - 2.0	36000	60 - 1200
2 *	0.3 - 9.0	8000	40 - 1200
3 *	0.5 - 15.0	3200	26.66 - 800
3 *	0.5 - 15.0	1070	8.88 - 266.66
4	1.0 - 30.0	1200	20 - 600
5	2.5 - 75.0	450	18.75 - 562
6	4.0 - 120.0	225	15 - 450

\* available with replaceable turbine in combination with hose fitting connection (see table 3)

**Table 2: BSP or NPT connection**

Type	Dimensions (mm)			
	A	D	d	L
1	9.5	1/4"	6.5	39
2	12.7	1/2"	13	47
3	12.7	1/2"	13	47
4	18.5	3/4"	17	63
5	24.5	1 1/4"	29	80
6	24.5	1 1/4"	29	80



**Table 3: Flexible hose fitting connection**

Type	Dimensions (mm)							
	A	D	E	F	G	H	I	Tot. L
1 *	9.0	M12 x 1.5	8.7	1.5	6.5	6.9	39	96
2 *	12.0	M20 x 2	16.0	1.8	12.0	9.0	43	112
3 *	12.0	M20 x 2	16.0	1.8	12.0	12.0	43	116
4	16.0	M27 x 2	21.0	2.3	16.0	16.0	57	136
5	16.5	BSP 1" PI	29.4	1.6	24.5	19.5	80	182
6	16.5	BSP 1" PI	29.4	1.6	24.5	24.5	80	183

