

Model DPL Low Volume Vane Flow Meter for Liquids



Flow
Pressure
Level
Temperature
Measurement
Monitoring
Control



Model: ADI-K...

- Measuring ranges: 0,025-0,5 to 1-25 l/min. water
- Linearity: $\pm 1\%$
- $p_{\max.}$ 10 bar ; $t_{\max.}$ 70°C
- Viscosity range: low viscosity
- Connection: G ½ male, hose connector
- Material: PP
- Output: pulses
- Reasonably-priced
- without magnets or metal parts
- Medium: infrared light transmissivity



Model: DPL-...PKR

Model:
DPL



Application

The new model DPL KOBOLD flow meters are ideally suited for the low cost measurement of flow rates. All flow meter parts that come in contact with the medium are manufactured from non-metallic materials. This means that the meter is also suitable for use with extremely aggressive media. Its compact design allows the mini turbine to be used in equipment where space is at a premium.

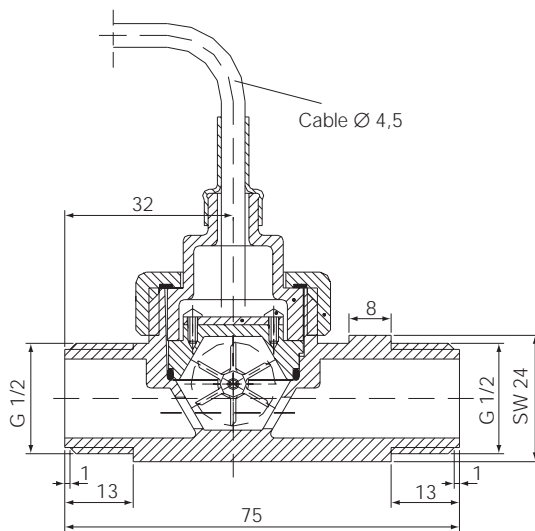
Application Examples:

Drink industry, devices licensed for use in drink retail systems (SK299-001), washing machines, vehicles, farm equipment, developing machines in the photographic and printed-circuit board industries.

Method of Operation

The medium flows through a specially shaped fluidic housing and causes a vane to rotate. This rotary motion is sensed by optoelectronics in a non-contacting manner, and converted to an asymmetric frequency signal. A frequency divider with symmetrical output is available as an option. The frequency is proportional to the flow velocity. The vane is sapphire-supported: this ensures a high degree of linearity and long service life.

Dimensions



Technical Specifications

Max. operating pressure: 10 bar
 Temperature: -40°C to +70°C
 Linearity: ± 1 %
 Protection type: IP 65

Materials

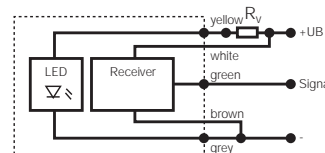
Housing: Polypropylene
 Vane: Polypropylene
 Axle/bearings: Sapphire
 Vane mount: Polysulfone
 Gasket: NBR
 Option: FPM, EPDM

Electrical Connection

	Version „O“	
Receiver supply voltage	4,5 to 16 V	
Receiver supply current	typ. 7 mA	
Signal amplitude high	approx. operat. voltage	
Signal amplitude low	≤ 0,2 V	
Transmitter cut-off voltage	3,0 V max.	
Transmitter supply current	30 mA to 50 mA	
Output power loss	2,5 mW max.	

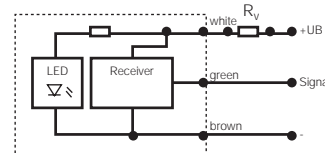
	Version „K“	Version „F“
Supply voltage	See table	See table
Supply current	40 to 50 mA	40 to 50 mA
Signal amplitude high	approx. operat. voltage	approx. 8 V
Signal amplitude low	≤ 0,2 V	≤ 0,2 V
Output power loss	2,5 mW max.	2,5 mW max.

Version »K«



U _b	R _v
5 V	220 Ω / 0,25 W
8 V	430 Ω / 0,25 W
12 V	680 Ω / 0,25 W
15 V	910 Ω / 0,25 W

Version »F«



U _b	R _v
8 V	...
12 V	180 Ω / 0,25 W
15 V	270 Ω / 0,25 W
24 V	680 Ω / 0,5 W

Measuring ranges (Example: DPL-005PKR)

Model	Measuring range water (l/min)	approx. pressure loss at max. value (bar)	approx. frequency at max. value (Hz)	Sealing material	Electrical connection	Mechanical connection
DPL-005	0,025-0,5	0,77	272	standard	„O“= without cable	„R“= G 1/2 male
DPL-018	0,05-1,8	0,77	47	„P“= NBR	„K“= Cable, 2 m PVC	„S“= hose
DPL-060	0,2-6	0,70	528	option:	„F2“= Frequency divider electronics, symmetric. output, 2 m cable, division ratio 1:2	connector
DPL-120	0,4-12	1,0	265	„V“= FPM	„F4“= ditto, division ratio 1:4	DN 10
DPL-250	1-25	1,3	399	„E“= EPDM	„F8“= ditto, division ratio 1:8	

Digital indicators and transducers see end of brochure.