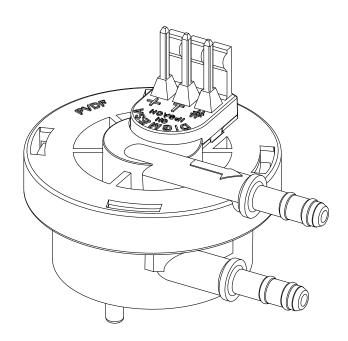
DATA SHEET





FHKSC PVDF using fastening pin Ø4.0mm hose nipple with double isolation Part number: 932-A305/S1804

Digmesa AG, Keltenstrasse 31, CH—2563 Ipsach / Switzerland
Phone +41 (32) 332 77 77, Fax +41 (32) 332 77 88

www.digmesa.com Version 01 FHKSC 932-A80551804 6B 24V Seite 1-5

General Description

The FHKSC Flowmeter is a general-purpose device. The device is installed between the tank container and the vibratory pump (on the suction side) and in this way prevents the measuring errors that arise during pulsating flow caused by vibratory pumps.

Specific applications: Thanks to its closure system, the water outlet side can be assembled in four different positions. Central sprayed fastening pin Ø 2.8mm x 7.5mm. Recommended washer

disk: Quicklock $^{\circledR}$ Benzing \emptyset 3mm or Starlock P-6490 \emptyset 3mm.

Employed in the semiconductor (wafer polishing) sector due to the high purity of materials used.

Doubled isolation (liquid/electronics) according to the standard IEC/EN 60335-1: 2001/2002 + A1: 04+A2: 06+A11: 04+A12: 06.

Approvals / Standards

EN55014-1:00+A1:01+A2:02, EN61000-6-3:01+A11:04, IEC61000-6-3:06(ed.2.0), EN61000-3-2:06, IEC61000-3-2:05(ed.3.0), EN61000-3-3:95+A1:01+A2:05, IEC61000-3-3:94+A1:01+A2:05(cons.ed 1.2), EN55014-2:97+A1:01, EN61000-6-1:01, IEC61000-6-1:05(ed.2)

(6

Material:

Housing: PVDF

Bearing pin: Injection-moulded like the

housing

Nozzle: Injection-moulded like the

housing

O-ring: EPDM

Turbine: PVDF 4 Magnets

Magnets: SmCo

(not in contact with the medium)

Technical data:

Flow rate: 0.071 - 0.48 I/min

Continuous operation: Turbine < 500 rpm

Measuring accuracy: \pm /- 2.0%

Repetition: <+/-0.25%

Temperature range: -10° C to $+65^{\circ}$ C

14°F to 149°F

Pressure range: -1 bar to 0.3 bar at 20°C

-14.5 psi to 4.35 psi /68°F

Mounting position: Horizontal *

Nozzle size: Ø 1.0 mm

Electrical connection ratings:

Power supply: +3.8 to +24 VDC

Consumption: <8 mA

Signal connection: Open collector NPN

Signal voltage: 0 VDC GND

(saturation < 0.7 V)

Signal load: max. 20 mA

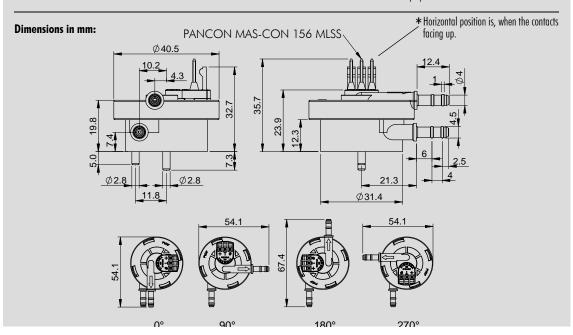
Leakage current: max. $10 \mu A$

Connections: PANCON MAS-CON

156 MISS

Signal: Square-wave output

Duty Cycle: ~50%



RESISTANCE

Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation and the flowmeter are resistant to the medium itself (see Material)!

ELECTRONIC

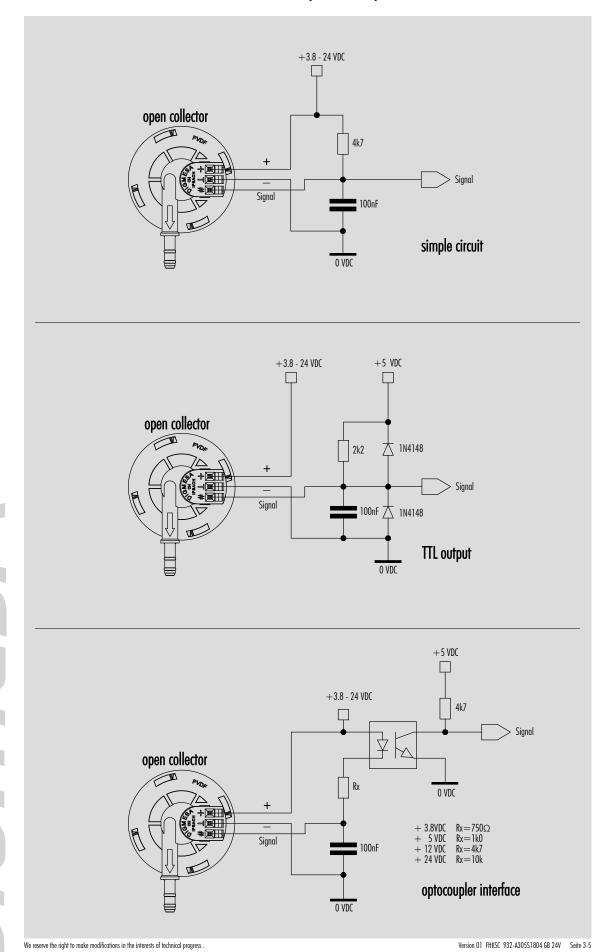
DIGMESA electronic circuitry is always designed for operation with DIGMESA flowmeters. Please note the following if connecting to other electronic circuitry:

- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (non-actuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

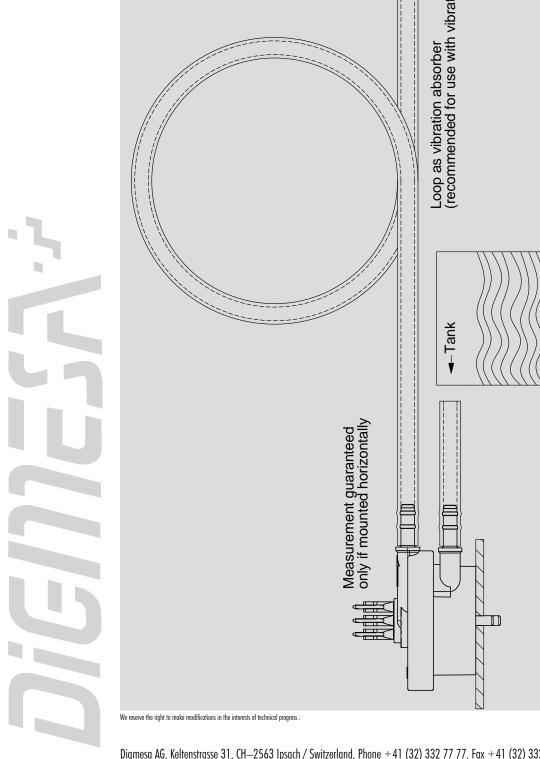
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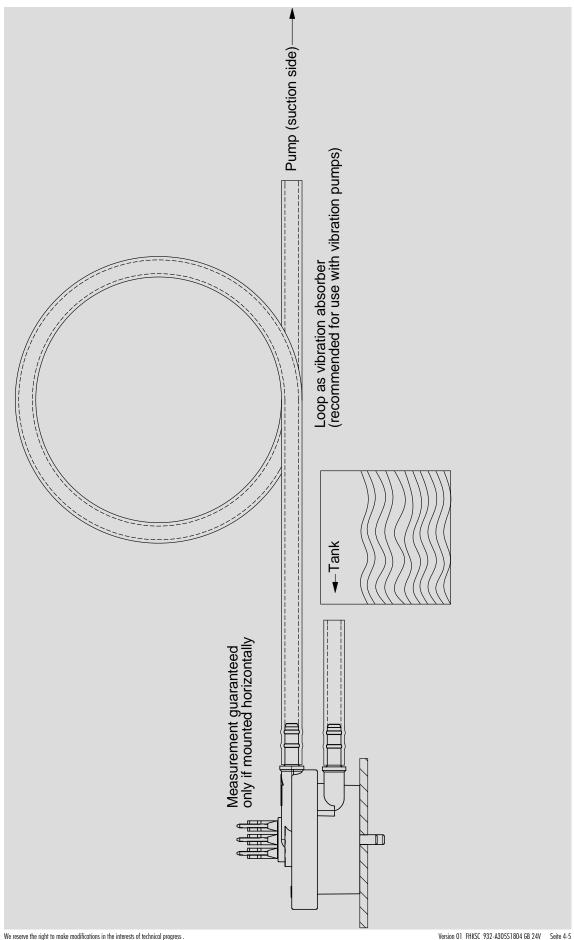
We reserve the right to make modifications in the interests of technical progress

Interface Connection: Examples Open Collector

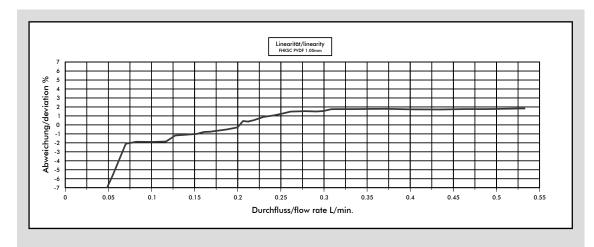


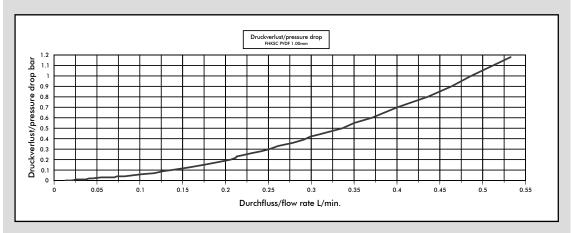
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Measurement Curve FHKSC 1.00 mm 180° (#932-A305/S1804)





Medium: Water / max. Pressure: 1 bar (Arnite Daten)

| Nozzle size | Pulses/litre | g/pulse | min. flow rate in [litres/min] at linear start | max. flow rate in [litres/min] | Pressure loss in [bar] |
|-------------|--------------|---------|--|-----------------------------------|---------------------------|
| Ø 1.00 mm | 5402 | 0.18 | 0.071 | 0.48 | 1.0 |

The values specified must be considered as approximate values.

The number of pulses per litre may differ depending on medium and installation. We recommend to calibrate the number of pulses per litre in line with the complete installation.

MEASUREMENT TIPS

- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate intervals
- Avoid electrical current peaks
- Incorrect cabling of power supply +, signal and ground will destroy the flowmeter
- Do not mechanically load electrical contacts
- Avoid moisture on the electrical contacts
- Avoid stray pick-up via the cable (Do not lay cables in parallel with high current loads)

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