

DATA SHEET



FHKU 100 G1/2" PVDF
Part number: 938-6300/C014

General Description

The FHKU Flowmeter is a general-purpose device; specially for higher throughputs of up to approx. 30 l/min. It is employed for measuring, regulating or metering and guarantees most precise measurement of fluid quantities. In addition, a pulse generator integrated into the flowmeter guarantees a practically unlimited useful life.

Special features: Able to withstand high temperatures, good resistance to chemicals. Linear inlet and outlet, compact design. **Employed in the semiconductor (wafer polishing) sector due to the high purity of materials used.**

Approvals / Standards

EN 50081-1:92, EN 50082-1:97,
EN 61000-3-2:00, EN 61000-3-3:95,
IEC 61000-6-3:96, IEC 61000-6-1:96,
IEC 61000-3-2:00, IEC 61000-3-3:94 + A1:01



Material:

| | |
|--------------|---|
| Housing: | PVDF |
| Bearing pin: | PCTFE |
| O-ring: | FPM (Viton) EPDM / Kalrez on request |
| Turbine: | PVDF 4 Magnets 2 Magnets on request |
| Magnets: | Keramik Sr Fe O (not in contact with the medium) |
| Screw: | Inox A2 PT-screws (Phillips cross recessed) |

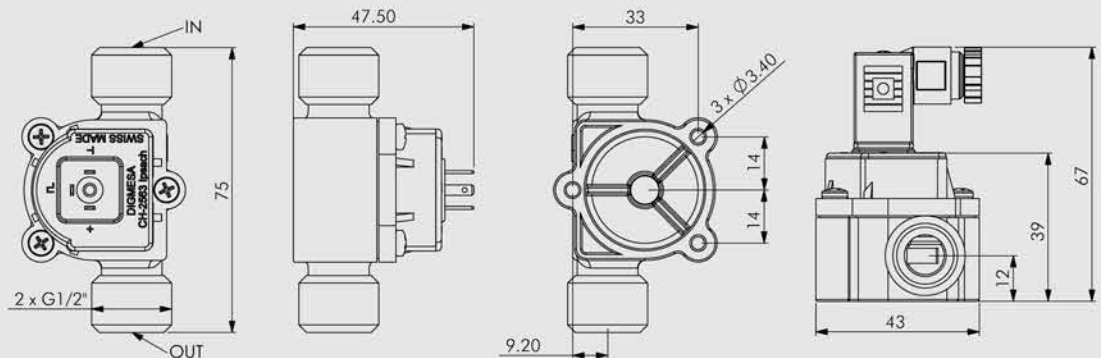
Technical data:

| | |
|---------------------|----------------------------------|
| Flow rate: | 3 - 30 l/min |
| Measuring accuracy: | +/- 2.0% |
| Repetition: | < +/- 0.25% |
| Temperature range: | -10°C to +100°C 14°F to 212°F |
| Pressure range: | 20 bar at 20°C 290 psi / 68°F |
| Mounting position: | Horizontal recommended |
| Nozzle size: | Ø 10.0 mm |

Electrical connection ratings:

| | |
|--------------------|------------------------|
| Power supply: | 4.5-24 VDC |
| Consumption: | 5 mA to max. 13 mA |
| Signal connection: | Open collector NPN |
| Signal voltage: | 0 V GND |
| Signal load: | max. 20 mA |
| Leakage current: | max. 10 µA |
| Connections: | 3-pin AMP 2.8 x 0.8 mm |
| Signal: | Square-wave output |
| Duty Cycle: | 50% / ± 5% |

Dimensions in mm:



Options:

3-pin solenoid socket
Item number: 941-0002/3



RESISTANCE

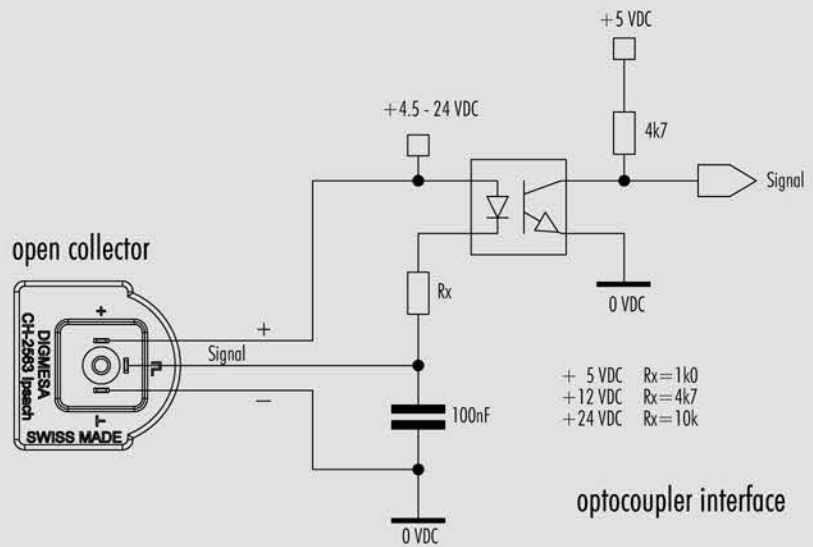
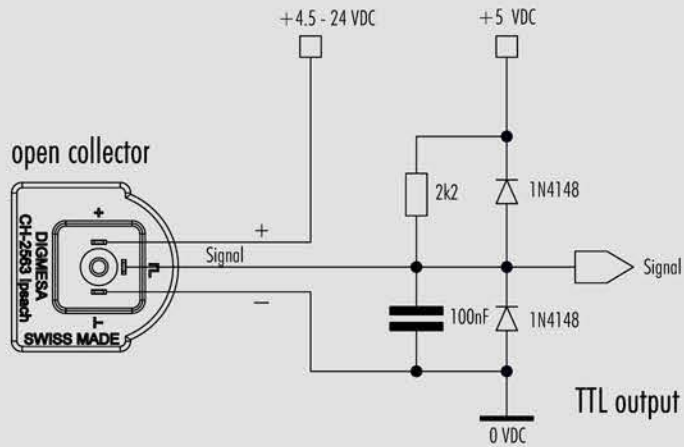
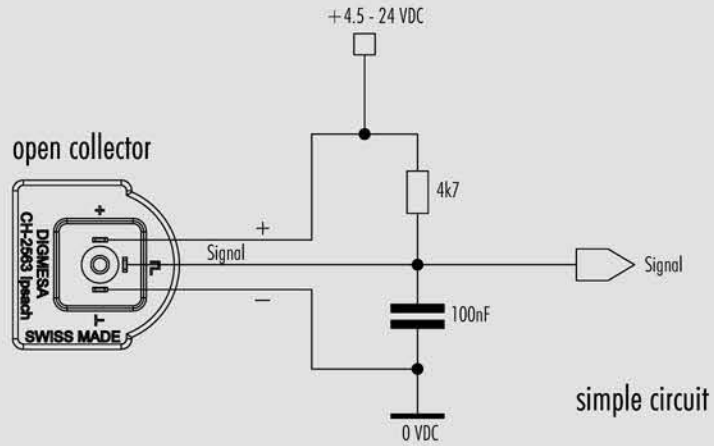
Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation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

ELECTRONIC

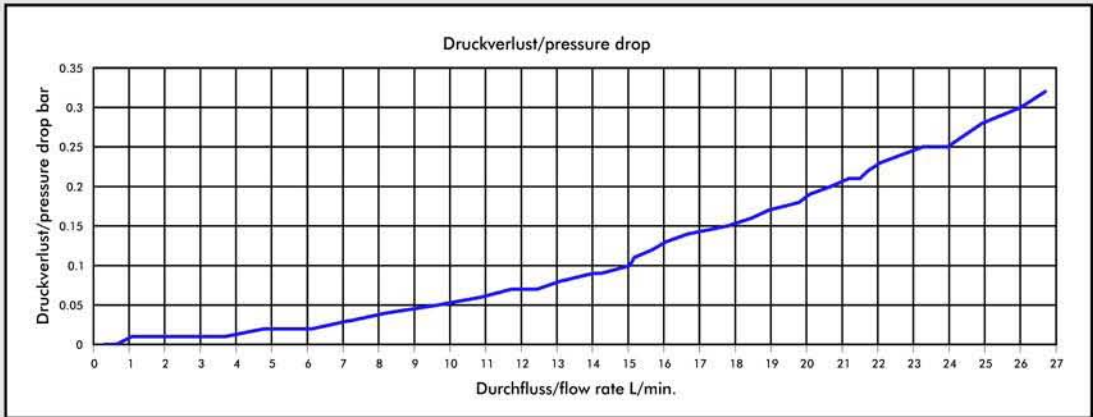
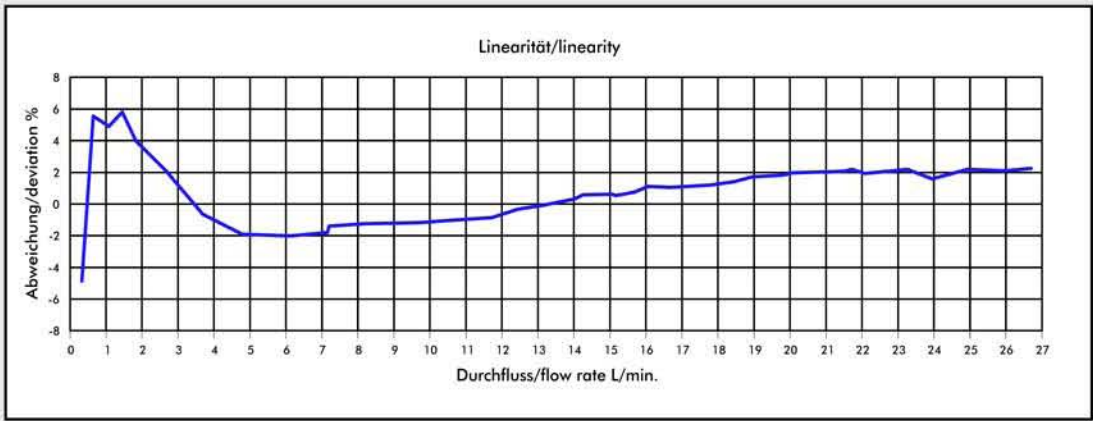
DIGMESA electronic circuitry is always designed for operation with DIGMESA flowmeters. Please note the following if connecting to other electronic circuitry:

- 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!

Interface Connection: Examples Open Collector



Measurement Curve FHKU Arnite 10.00mm (4 Magnets)



Medium: Water / max. Pressure: 3.3 bar

| Nozzle size | Pulses/litre | g/pulse | min. flow rate in litres/min at Linear start | max. flow rate in litres/min | Pressure loss |
|-------------|--------------|---------|--|------------------------------|---------------|
| Ø 10.00 mm | 130 | 7.685 | 3.00 | 26.69 | 0.32 |

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
- 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)

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.