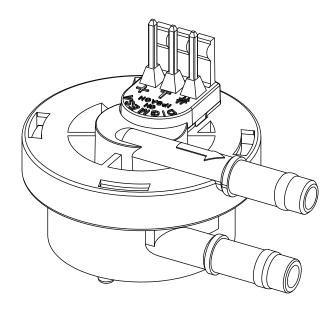
DATA SHEET





FHKSC Arnite using fastening pin with double isolation Part number: 932-950x/Bxxx

Digmesa AG, Keltenstrasse 31, CH—2563 lpsach / Switzerland Phone +41 (32) 332 77 77, Fax +41 (32) 332 77 88 www.digmesa.com

General Description

The FHKSC Flowmeter is a general-purpose device that has been specially designed for coffee machines that use vibratory pumps. The device is installed between the water container and the vibratory pump (on the suction side) and in this way prevents the measuring errors that arise during pulsating water 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 \emptyset 2.8mm x 7.5mm. Recommended washer disk: Quicklock® Benzing \emptyset 3mm or Starlock P-6490 \emptyset 3mm. Doubled isolation (water/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)



Material:

Housing: PBT 35%GF (Arnite)

Bearing pin: Injection-moulded like the

housing

Nozzle: Injection-moulded like the

housing

O-ring: MVQ (Silikon)
Turbine: PP (red dyed)

Magnets: Keramik Sr Fe O

(in contact with the medium)

Technical data:

Flow rate: 0.033 - 3 1/min depending

on the nozzle diameter

Continuous operation: Turbine < 500 rpm

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, 1.2, 1.8, 2.0,2.7 mm

Electrical connection ratings:

Power supply: +3.8 to +20 VDC

Consumption: <8 mA

Signal connection: Open collector NPN

Signal voltage: 0 VDC GND

(saturation < 0.7 V)

Signal load: max. 20 mA

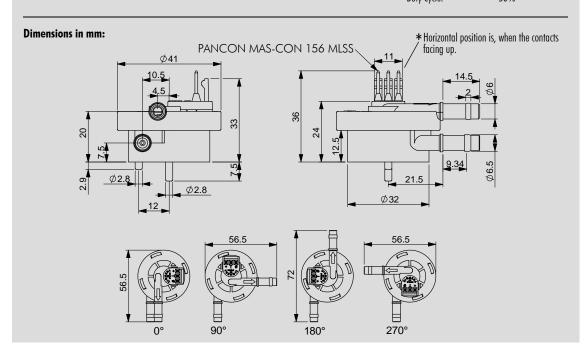
Signal load: max. 20 mALeakage current: $max. 10 \mu A$

Connections: PANCON MAS-CON

156 MLSS

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)!

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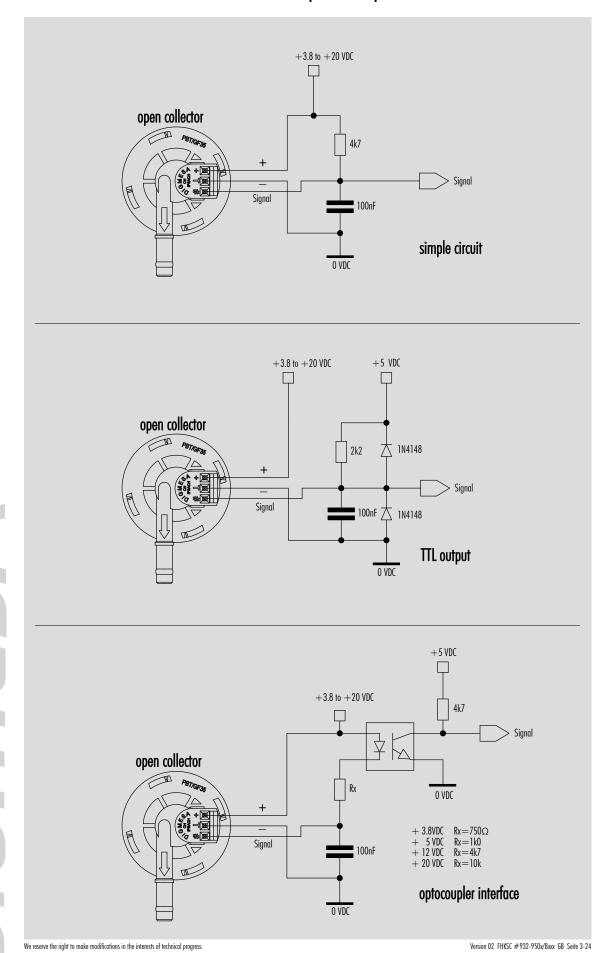
DIGMESA electronic circuitry is always designed for operation with DIGMESA flowmeters. Please note the following if connecting to other electronic circuitry:

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 2-24

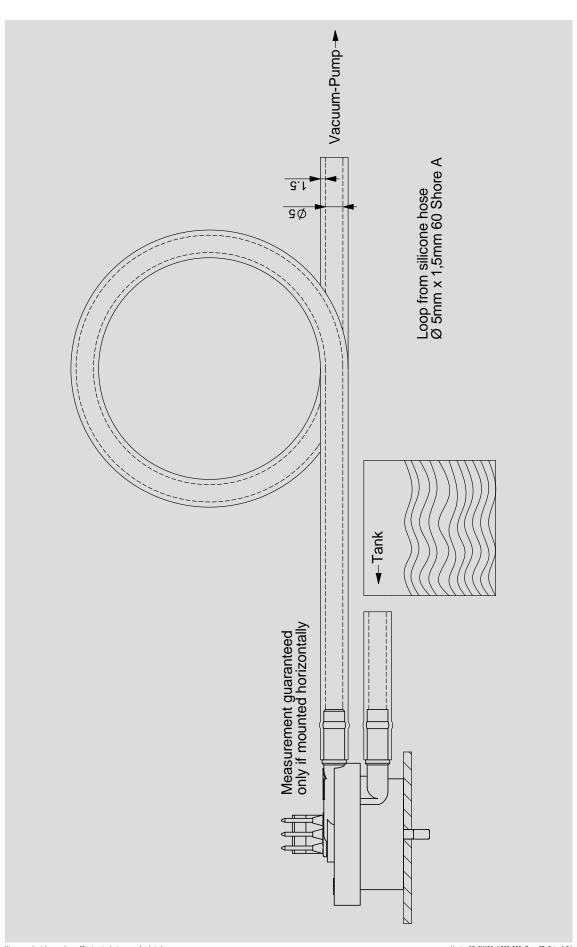
We reserve the right to make modifications in the interests of technical progress

Interface Connection: Examples Open Collector



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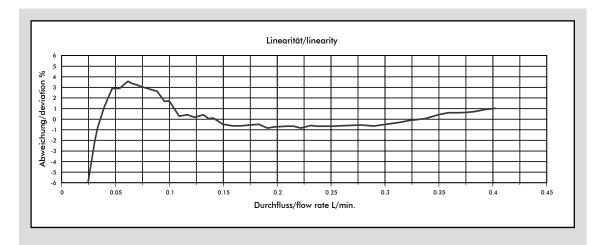


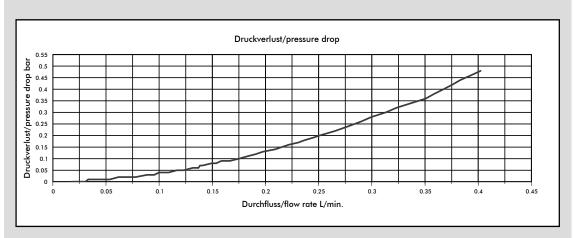


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Version 02 FHKSC #932-950x/Bxxx GB Seite 4-24

Measurement Curve FHKSC 1.00 mm 0° (#932-9505/B)





Medium: Water / max. Pressure: 1 bar

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	2382	0.41	0.033	0.40	0.48

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.

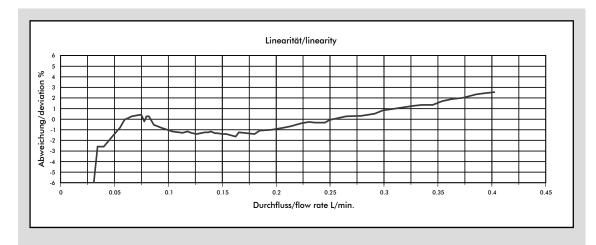
MEASUREMENT TIPS

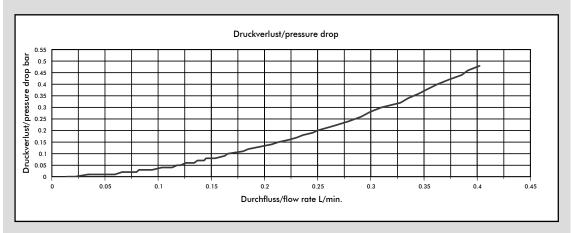
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 5-24

Measurement Curve FHKSC 1.00 mm 90° (#932-9505/B90)





Medium: Water / max. Pressure: 1 bar

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	2386	0.41	0.05	0.40	0.48

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.

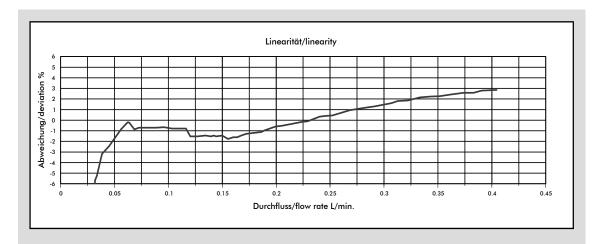
MEASUREMENT TIPS

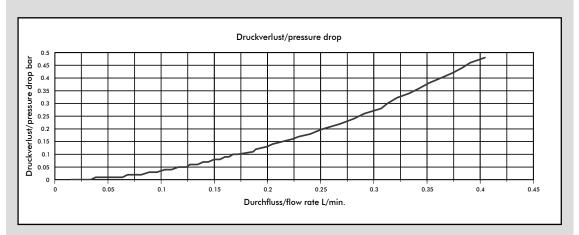
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 6-24

Measurement Curve FHKSC 1.00 mm 180° (#932-9505/B180)





Medium: Water / max. Pressure: 1 bar

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	2476	0.40	0.05	0.40	0.48

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.

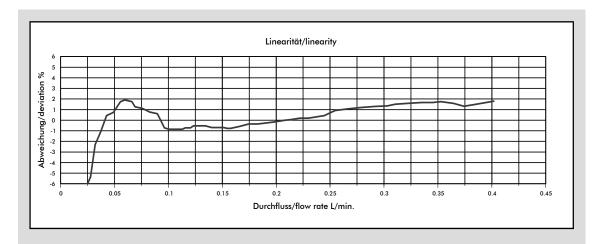
MEASUREMENT TIPS

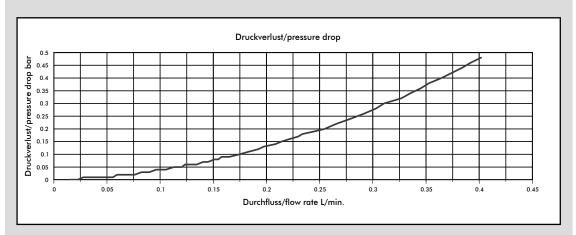
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 7-24

Measurement Curve FHKSC 1.00 mm 270° (#932-9505/B270)





Medium: Water / max. Pressure: 1 bar

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	2436	0.41	0.04	0.40	0.48

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.

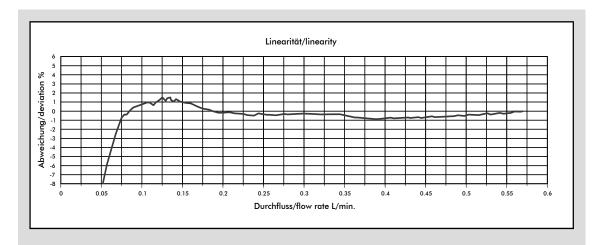
MEASUREMENT TIPS

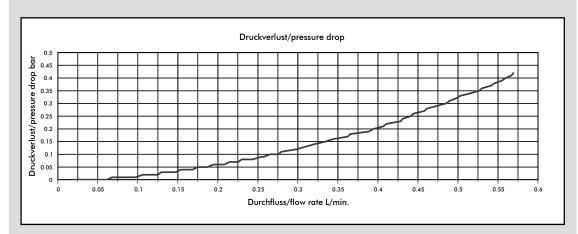
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 8-24

Measurement Curve FHKSC 1.20 mm 0° (#932-9501/B)





Medium: Water / max. Pressure: 1 bar

Nozzle siz	e Pulses/litre	g/pulse	min. flow rate in [litres/min] at linear start	max. flow rate in [litres/min]	Pressure loss in [bar]
Ø 1.20 mm	1925	0.51	0.07	0.56	0.42

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.

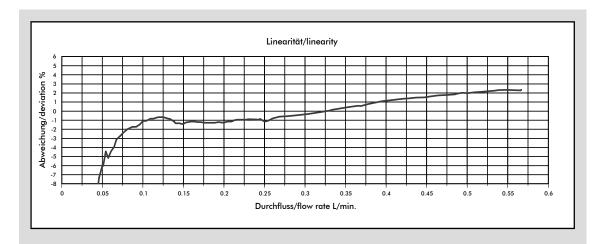
MEASUREMENT TIPS

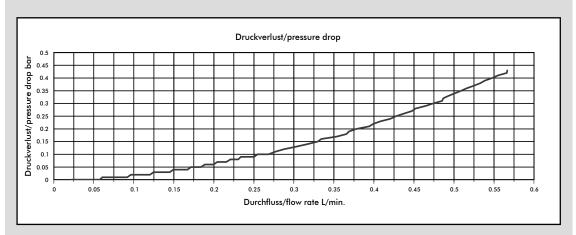
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 9-24

Measurement Curve FHKSC 1.20 mm 90° (#932-9501/B90)





Medium: Water / max. Pressure: 1 bar

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 1.20 mm	1934	0.51	0.08	0.56	0.43

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.

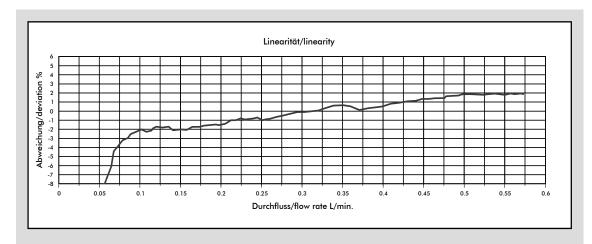
MEASUREMENT TIPS

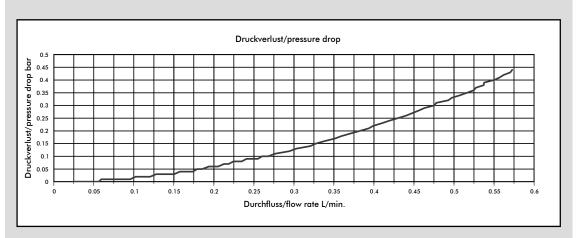
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 10-24

Measurement Curve FHKSC 1.20 mm 180° (#932-9501/B180)





Medium: Water / max. Pressure: 1 bar

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 1.20 mm	2016	0.49	0.10	0.57	0.43

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.

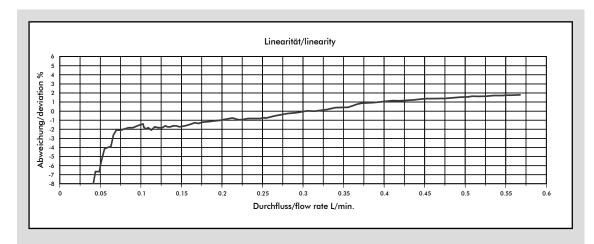
MEASUREMENT TIPS

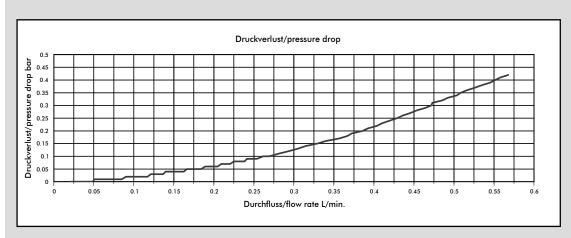
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 11-24

Measurement Curve FHKSC 1.20 mm 270° (#932-9501/B270)





Medium: Water / max. Pressure: 1 bar

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 1.20 mm	2012	0.49	0.08	0.56	0.42

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.

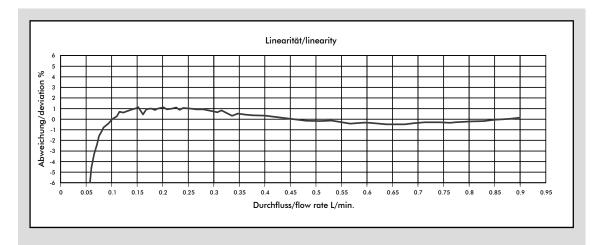
MEASUREMENT TIPS

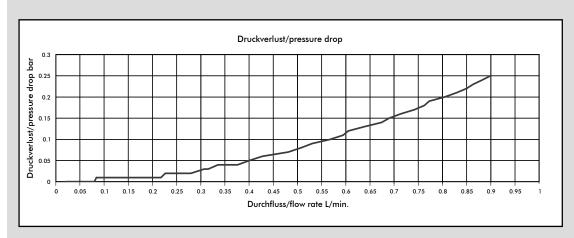
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 12-24

Measurement Curve FHKSC 1.80 mm 0° (#932-9502/B)





Medium: Water / max. Pressure: 1 bar

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 1.80 mm	1315	0.76	0.07	0.89	0.25

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.

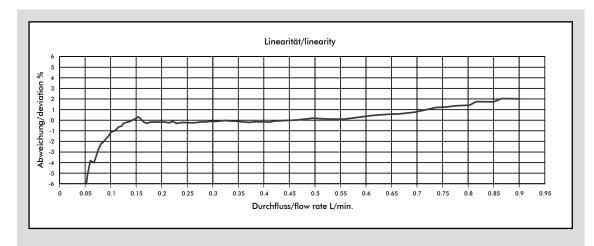
MEASUREMENT TIPS

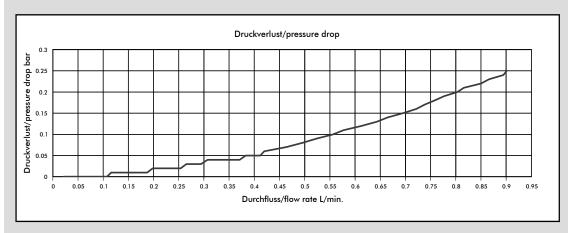
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 13-24

Measurement Curve FHKSC 1.80 mm 90° (#932-9502/B90)





Medium: Water / max. Pressure: 1 bar

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 1.80 mm	1300	0.76	0.09	0.90	0.25

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.

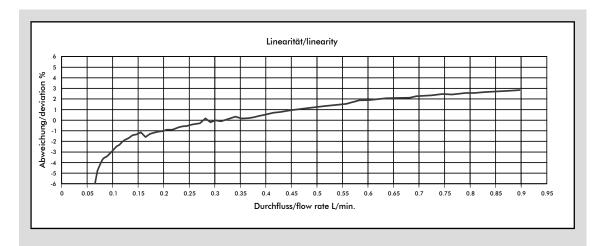
MEASUREMENT TIPS

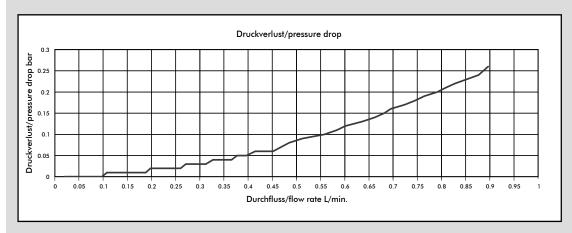
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 14-24

Measurement Curve FHKSC 1.80 mm 180° (#932-9502/B180)





Medium: Water / max. Pressure: 1 bar

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 1.80 mm	1360	0.73	0.11	0.89	0.26

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.

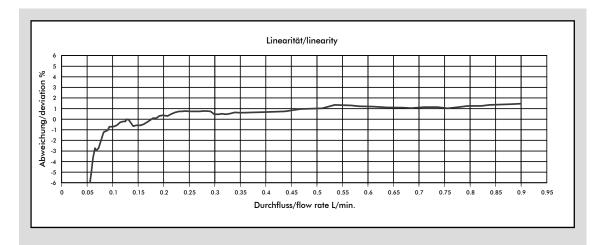
MEASUREMENT TIPS

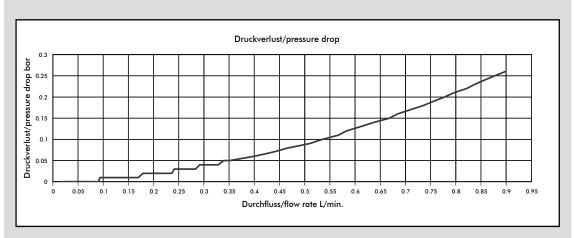
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 15-24

Measurement Curve FHKSC 1.80 mm 270° (#932-9502/B270)





Medium: Water / max. Pressure: 1 bar

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 1.80 mm	1352	0.73	0.08	0.89	0.26

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.

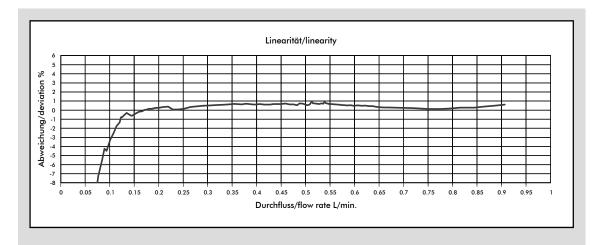
MEASUREMENT TIPS

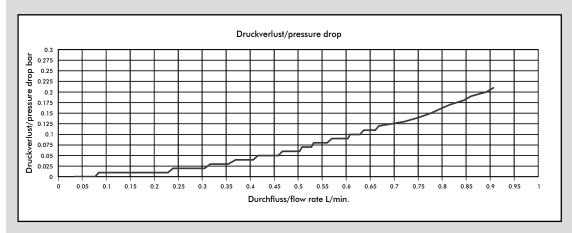
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 16-24

Measurement Curve FHKSC 2.00 mm 0° (#932-9506/B)





Medium: Water / max. Pressure: 1 bar

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 2.00 mm	1250	0.80	0.11	0.90	0.21

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.

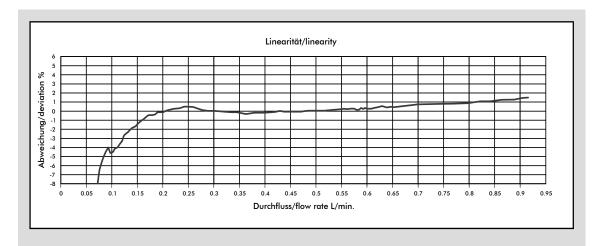
MEASUREMENT TIPS

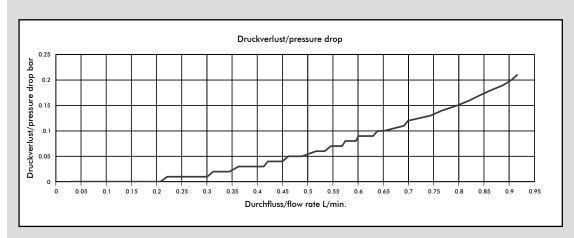
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 17-24

Measurement Curve FHKSC 2.00 mm 90° (#932-9506/B90)





Medium: Water / max. Pressure: 1 bar

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 2.00 mm	1215	0.82	0.13	0.91	0.21

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.

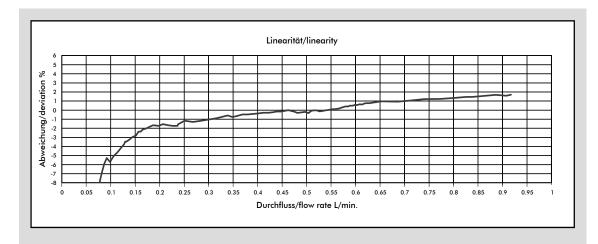
MEASUREMENT TIPS

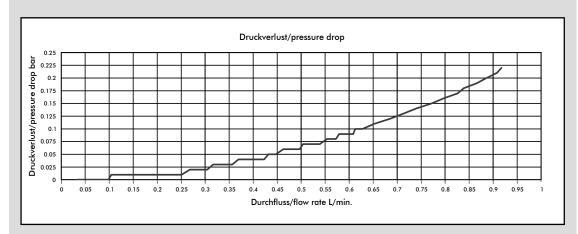
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

We reserve the right to make modifications in the interests of technical progress $% \left(1\right) =\left(1\right) \left(1\right)$

Version 02 FHKSC #932-950x/Bxxx GB Seite 18-24

Measurement Curve FHKSC 2.00 mm 180° (#932-9506/B180)





Medium: Water / max. Pressure: 1 bar

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 2.00 mm	1280	0.78	0.17	0.91	0.22

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.

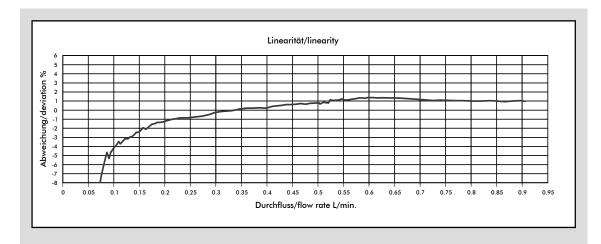
MEASUREMENT TIPS

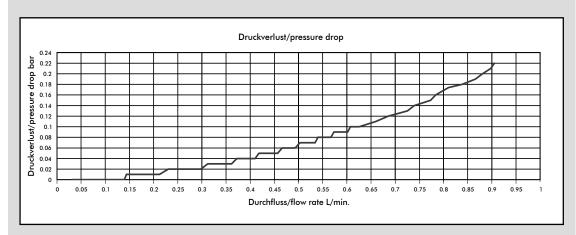
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 19-24

Measurement Curve FHKSC 2.00 mm 270° (#932-9506/B270)





Medium: Water / max. Pressure: 1 bar

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 2.00 mm	1274	0.78	0.15	0.90	0.22

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.

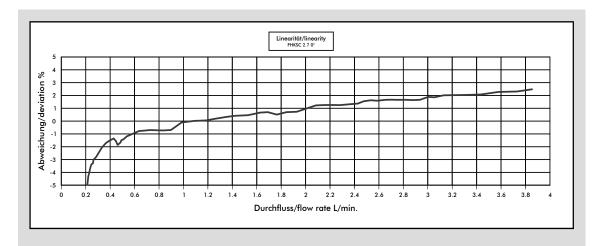
MEASUREMENT TIPS

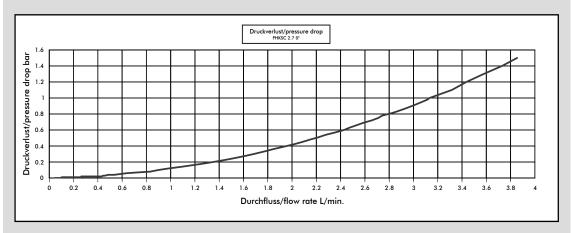
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 20-24

Measurement Curve FHKSC 2.70 mm 0° (#932-9509/B)





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 in [bar]
Ø 2.70 mm	924	1.08	0.33	3.13	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.

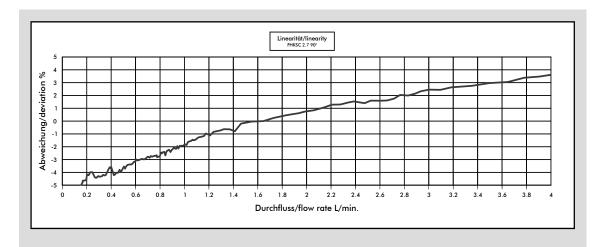
MEASUREMENT TIPS

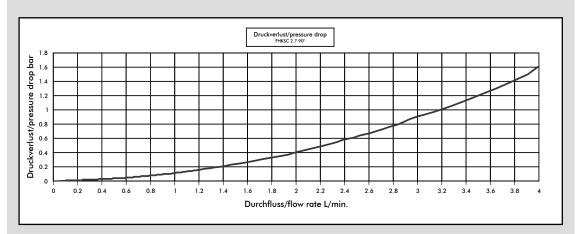
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 21-24

Measurement Curve FHKSC 2.70 mm 90° (#932-9509/B90)





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 in [bar]
Ø 2.70 mm	919	1.08	0.91	3.18	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.

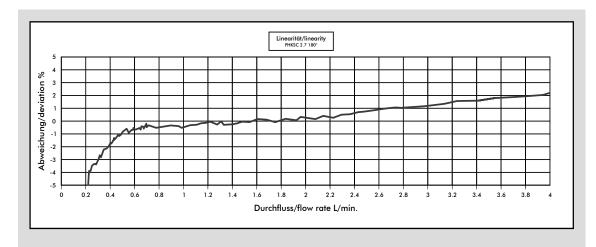
MEASUREMENT TIPS

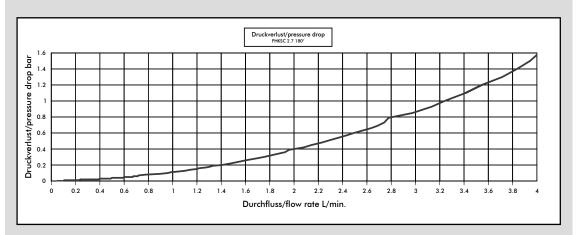
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 22-24

Measurement Curve FHKSC 2.70 mm 180° (#932-9509/B180)





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 in [bar]
Ø 2.70 mm	940	1.06	0.38	3.23	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.

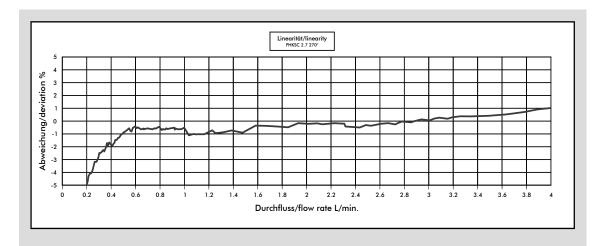
MEASUREMENT TIPS

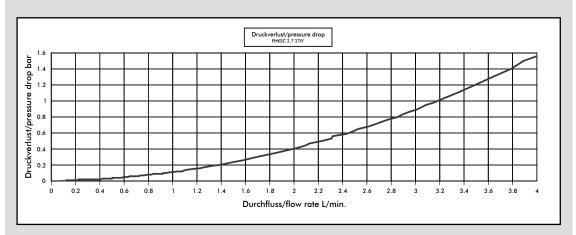
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- · Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the 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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 23-24

Measurement Curve FHKSC 2.70 mm 270 $^{\circ}$ (#932-9509/B270)





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 in [bar]
Ø 2.70 mm	939	1.06	0.36	3.19	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)

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

Version 02 FHKSC #932-950x/Bxxx GB Seite 24-24