



# EPI Arnite Part number: 930-0501/V01

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

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# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

Specific applications: Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

## **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:

PBT 35% GF (Arnite) Housing:

Inox 1.4435 Bearing pin:

Aluminium oxide on request

FPM (Viton) 0-ring:

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

## Technical data:

0.06 - 16.0 l/min Flow rate-

depending on viscosity

Measuring accuracy: +/- 1.0%

depending on viscosity

Repetition: < +/- 0.25%

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

14°F to 149°F

10 bar at 20°C Pressure range:

145 psi /68°F

centistokes

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm Viscosity range: approx. 5 - 8000

## **Electrical connection ratings:**

Power supply: 4.5-24 V DC

Consumption: 5~mA to max. 13~mA

Signal connection: Open collector NPN 0 V GND Signal voltage:

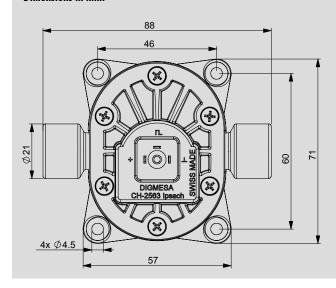
max. 20 mA Signal load: max.  $10\,\mu\text{A}$ Leakage current:

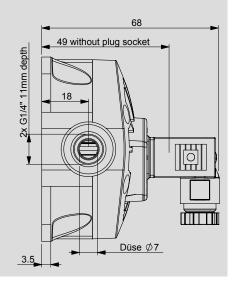
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

**Duty Cycle:**  $50\%/\pm3\%$ 

## **Dimensions in mm:**





## Included in the delivery:

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

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

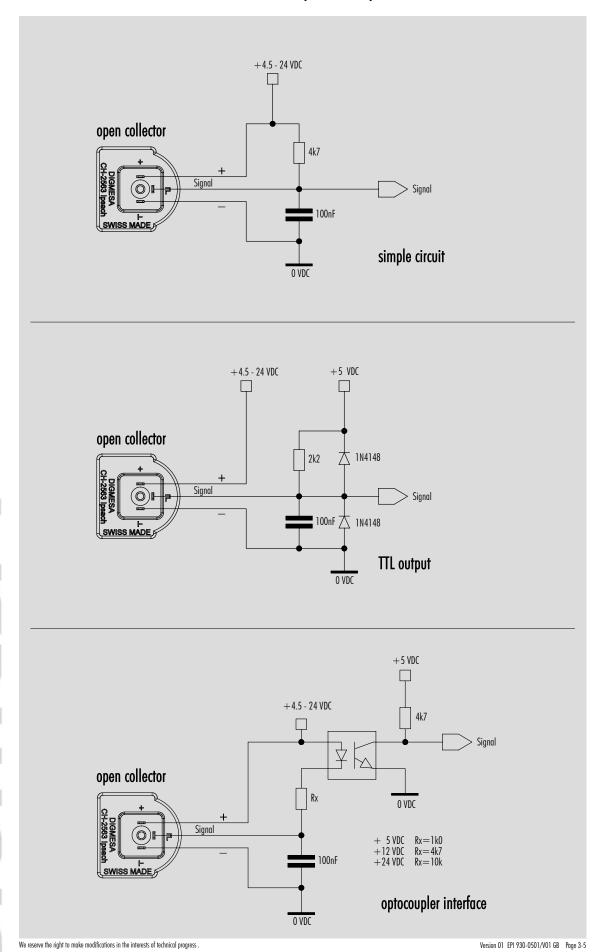
Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation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

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

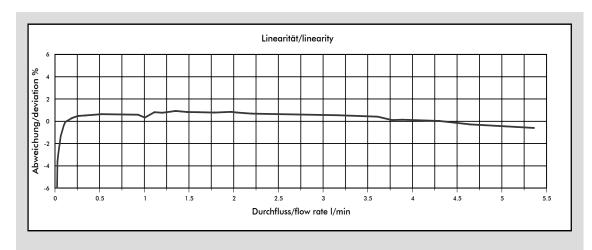
- ullet The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

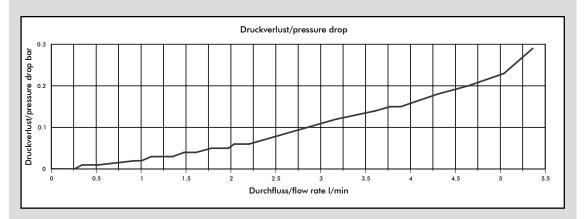
Version 01 FPI 930-0501/V01 GR Prine 2-5

# Interface Connection: Examples Open Collector



# Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

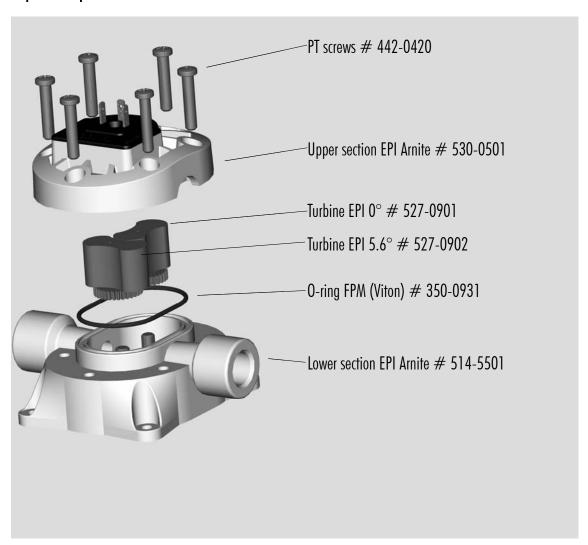
## MEASUREMENT TIPS

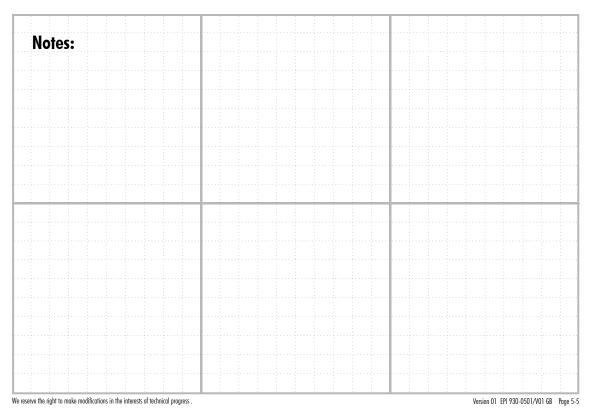
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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

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# Spare parts:









# EPI Arnite LED Part number: 930-0501/V02

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

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# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Pulse detection by incorporated LED in cover (lights once per pulse).

## **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:

0-ring:

Turbine:

Housing: PBT 35% glass fibre (Arnite)

Bearing pin: Inox 1.4435

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Aluminium oxide on request

FPM (Viton)

EPDM on request PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

## Technical data:

Flow rate: 0.06 - 16.0 l/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm
Viscosity range: approx. 5 - 8000 centistokes

## **Electrical connection ratings:**

Power supply: 4.5–24 V DC

Consumption: 8 mA to max. 25 mA
Signal connection: Open collector NPN

Signal voltage: 0 V GND

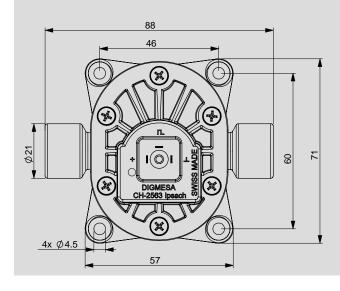
Signal load: max. 5 mA Leakage current: max. 10  $\mu$ A

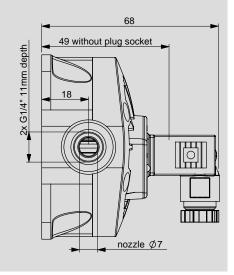
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

## Dimensions in mm:





## Included in the delivery: 3-pin solenoid socket

Item number: 941-0002/3

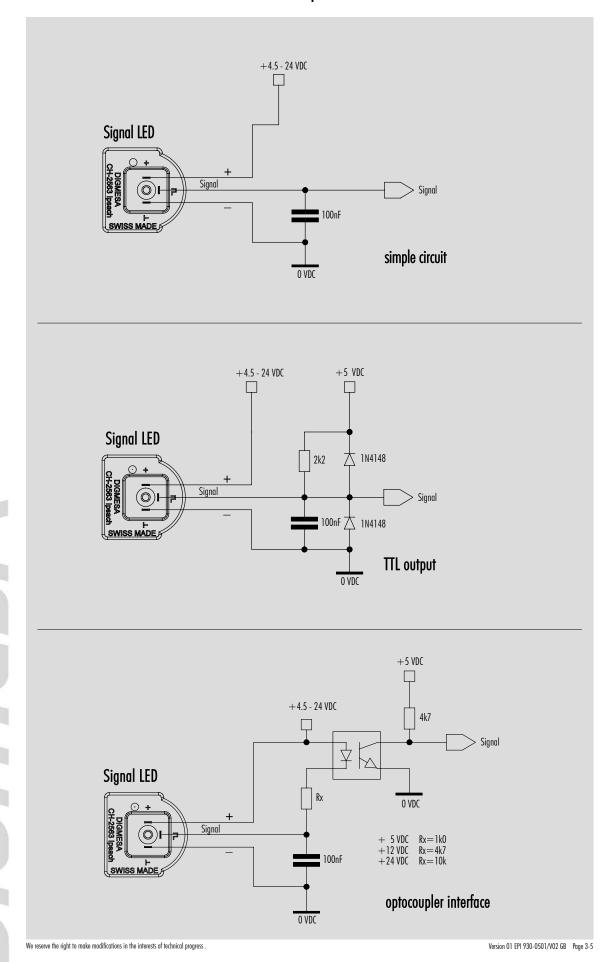
We reserve the right to make modifications in the interests of technical progress

## RESISTANCE

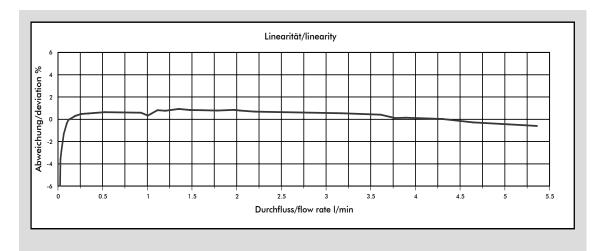
Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation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

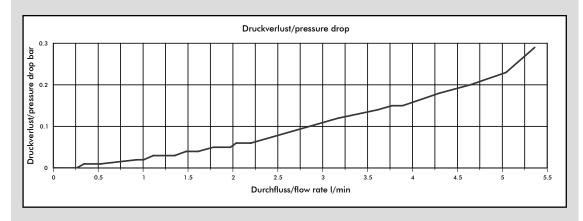
Version 01 EPI 930-0501/V02 GB Page 2-5

# Interface Connection: Examples with LED



# Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

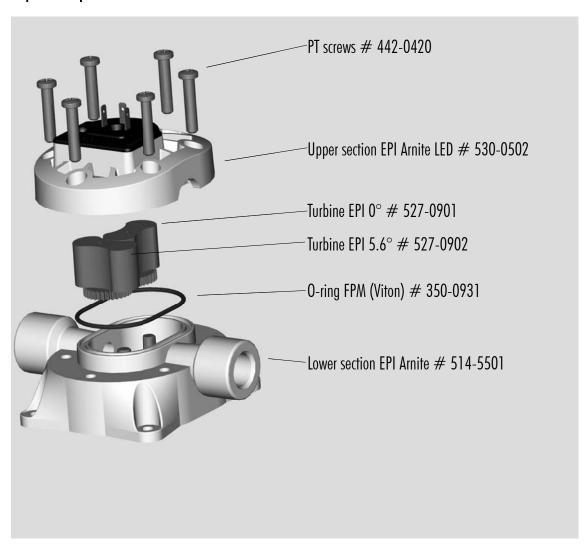
## MEASUREMENT TIPS

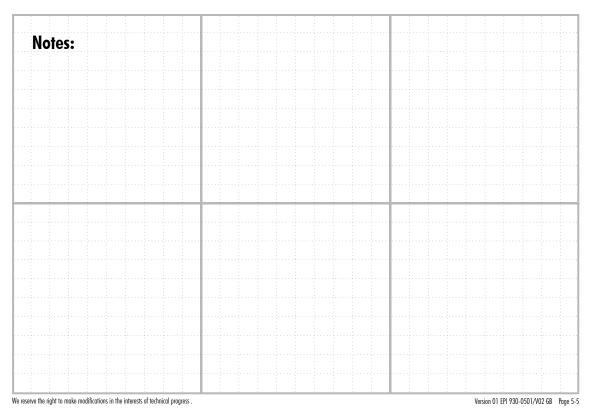
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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

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# Spare parts:







# DiGINESA\*

# EPI Arnite Double-Hall (suitable for calibration)

Part number: 930-0501/V03

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# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Can be calibrated via the 4th pin (Double-Hall).

## **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% glass fibre (Arnite)

Bearing pin: Inox 1.4435

Aluminium oxide on request

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

## Technical data:

Flow rate: 0.06 - 16.0 1/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

## **Electrical connection ratings:**

Power supply: 4.5–24 V DC

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  $\mu$ A

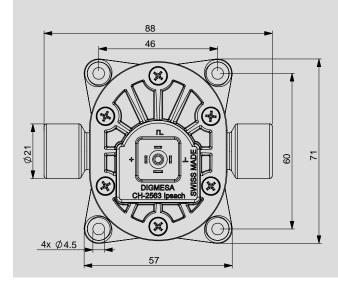
Connections: 3-pin AMP 2.8 x 0.8 mm

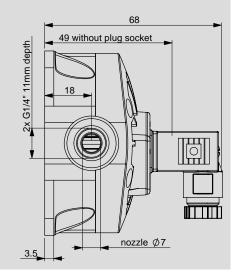
1-pin AMP 3.5 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

## Dimensions in mm:





## Included in the delivery: 4-pin solenoid socket

Item number: 941-0002/4

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

## KESISTANCE

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)!

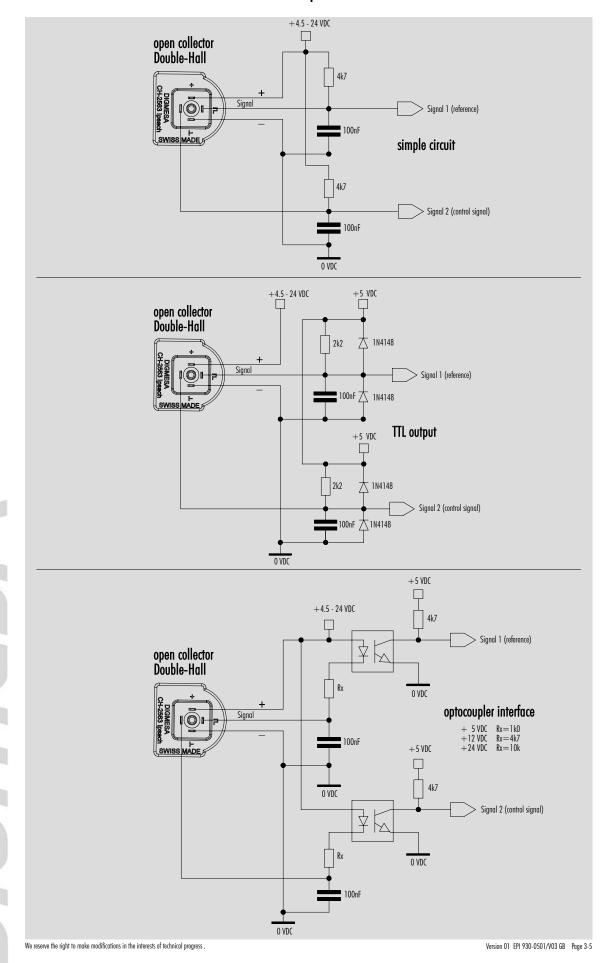
## FIFCTRONIC

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

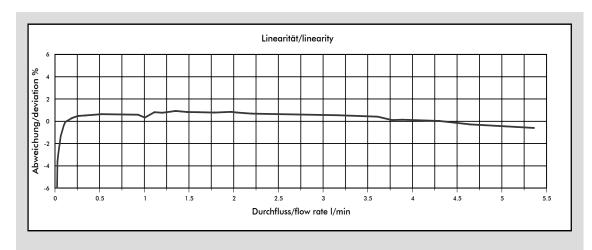
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

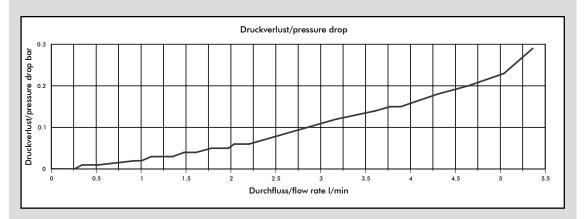
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# Interface Connection: Examples Double-Hall



# Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

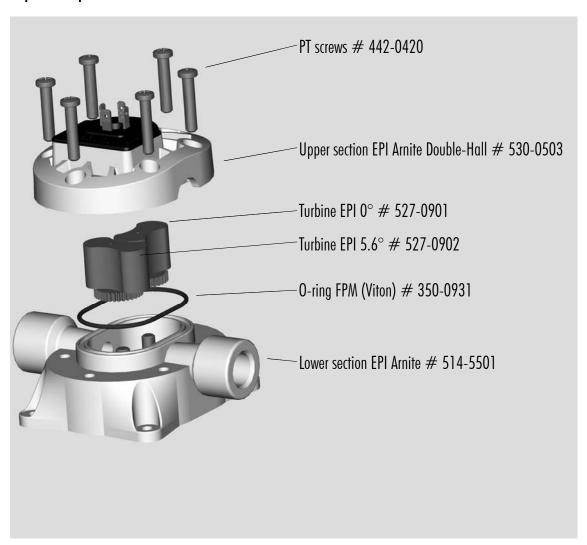
## MEASUREMENT TIPS

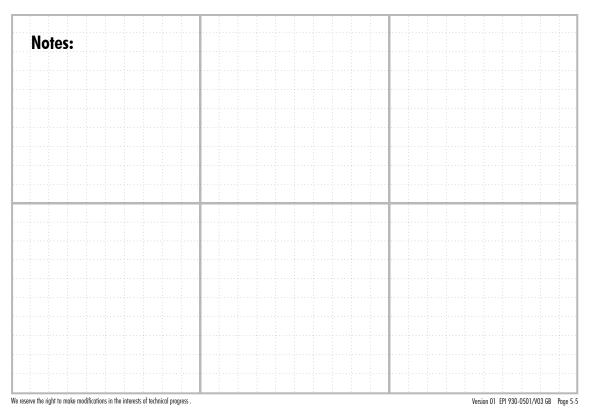
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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

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# Spare parts:









EPI PP chemistry
Part number: 930-0901/CV01

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Version 02 EPI 930-0901/CV01 GB Page 1-5

# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

## **Zulassungen / Normen**

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: PP 30% glass fibre
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

## Technical data:

Flow rate: 0.06 - 16.0 I/min

depending on viscosity

Measuring accuracy:  $\pm$  +/- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

## **Electrical connection ratings:**

Power supply: 4.5–24 V DC

Consumption: 5 mA to max. 13 mA
Signal connection: Open collector NPN

Signal voltage: 0 V GND

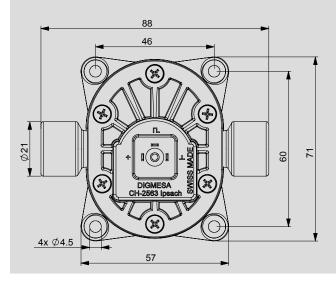
Signal load: max. 20 mA Leakage current: max.  $10 \mu A$ 

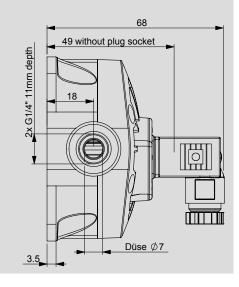
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

## Dimensions in mm:





## Included in the delivery: 3-pin solenoid socket

Item number: 941-0002/3

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

## 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)!

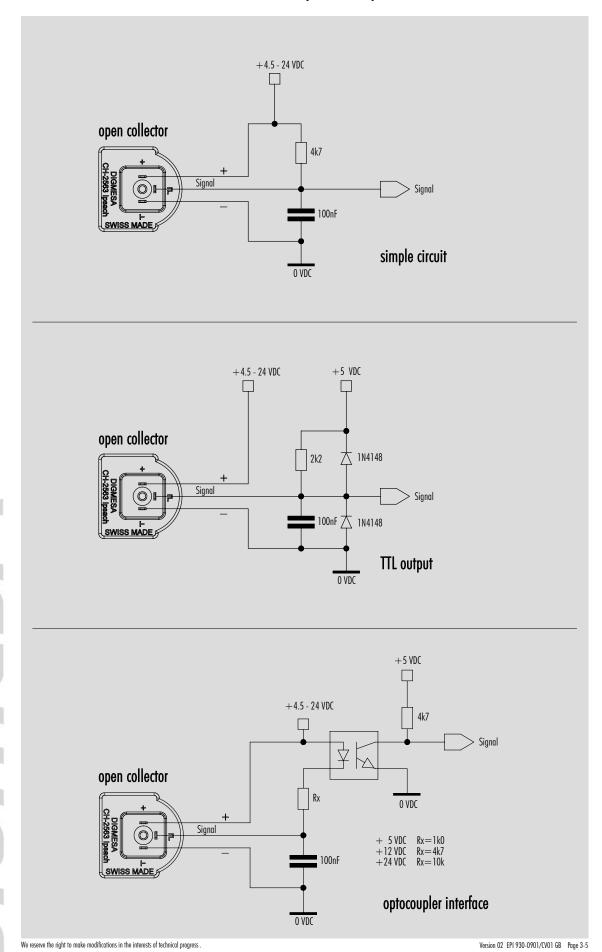
## FIFCTRONIC

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

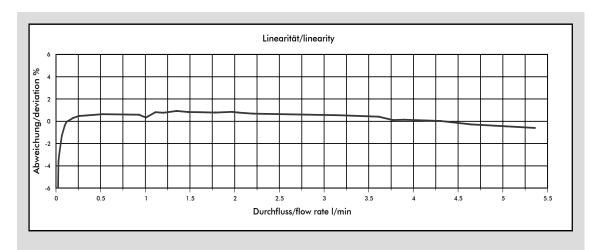
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- ullet There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

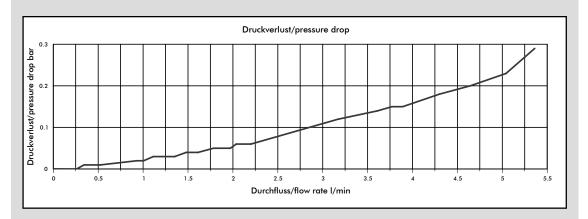
Version 02 EPI 930-0901/CV01 GB Page 2-5

# Interface Connection: Examples Open Collector



# Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

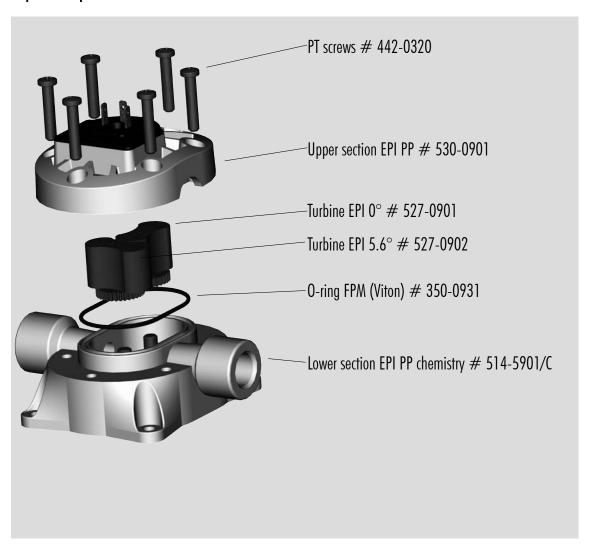
## MEASUREMENT TIPS

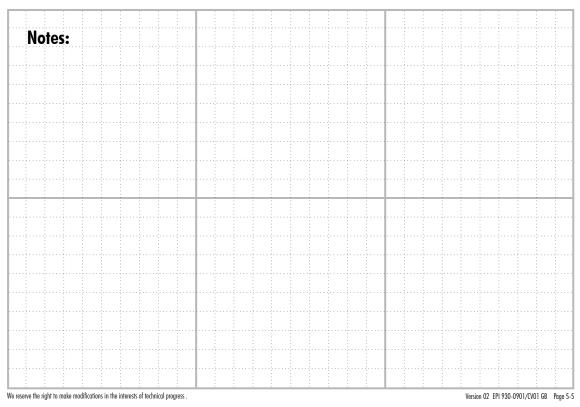
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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

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# Spare parts:









# EPI PP LED chemistry Part number: 930-0901/CV02

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# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Pulse detection by incorporated LED in cover (lights once per pulse).

## **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: PP 30% glass fibre
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

## Technical data:

Flow rate: 0.06 - 16.0 1/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

ed Duty Cycle:

## **Electrical connection ratings:**

Power supply: 4.5–24 V DC

Consumption: 8 mA to max. 25 mA
Signal connection: Open collector NPN

Signal voltage: 0 V GND
Signal load: max. 5 mA

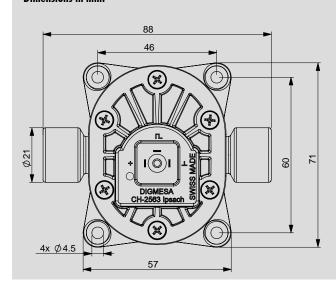
Leakage current:  $\max 10 \mu A$ 

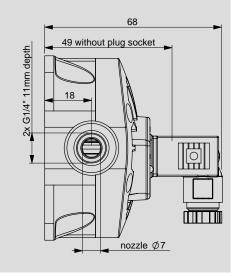
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

## Dimensions in mm:





## Included in the delivery:

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

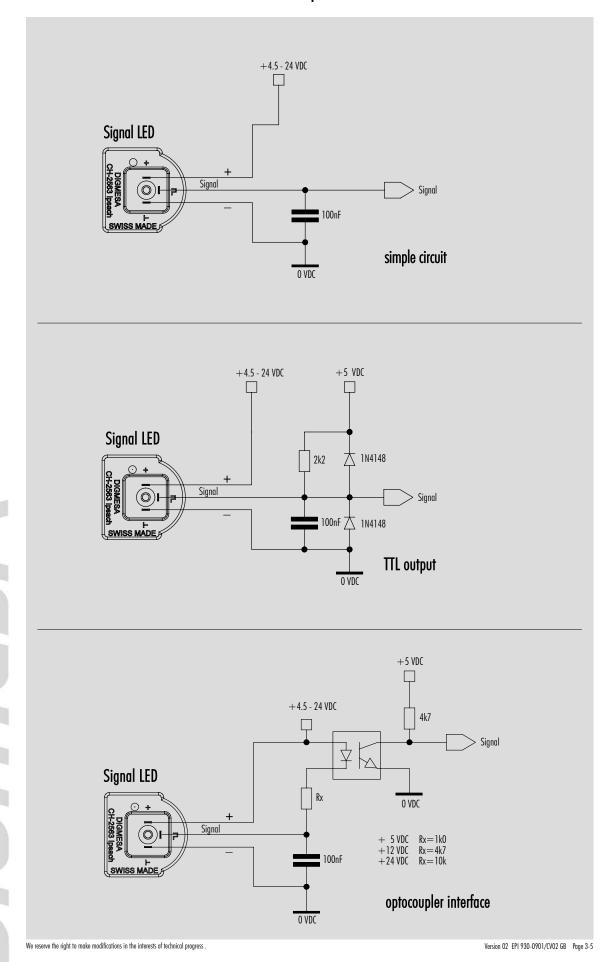
We reserve the right to make modifications in the interests of technical progress

## RESISTANCE

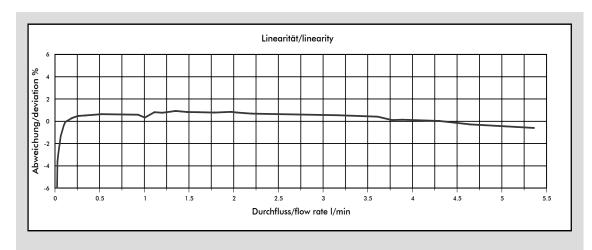
Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation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

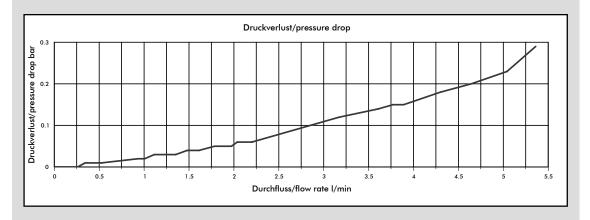
Version 02 EPI 930-0901/CV02 GB Page 2-5

# Interface Connection: Examples with LED



# Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

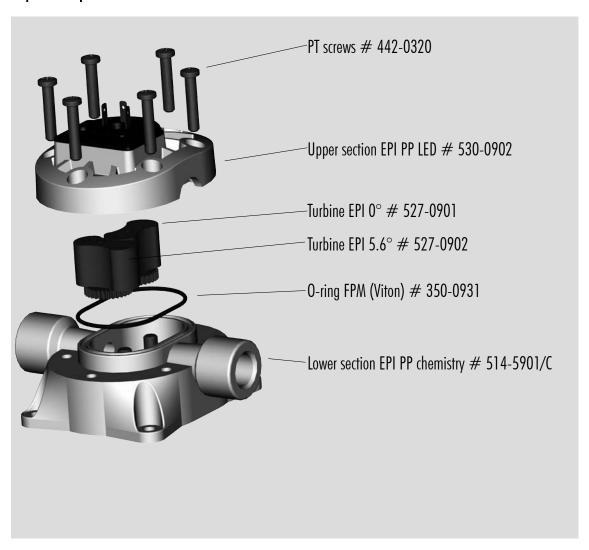
## MEASUREMENT TIPS

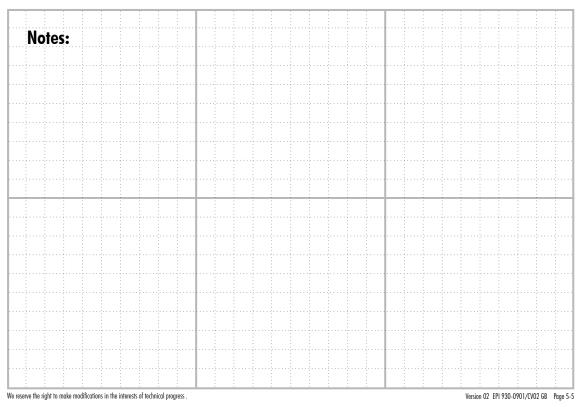
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 EPI 930-0901/CV02 GB Page 4-5

# Spare parts:







# DiGINESA\*

# EPI PP chemistry Double-Hall (suitable for calibration)

Part number: 930-0901/CV03

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

Version 02 EPI 930-0901/CV03 GB Page 1-5

# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Can be calibrated via the 4th pin (Double-Hall).

## **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: PP 30% glass fibre
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

## Technical data:

Flow rate: 0.06 - 16.0 I/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm Viscosity range: approx. 5 - 8000

centistokes

## **Electrical connection ratings:**

Power supply: 4.5–24 V DC

Consumption: 5 mA to max. 13 mA

Signal connection: Open collector NPN
Signal voltage: 0 V GND

Signal voltage: 0 V GND
Signal load: max. 20 mA
Leakage current: max.  $10 \mu A$ 

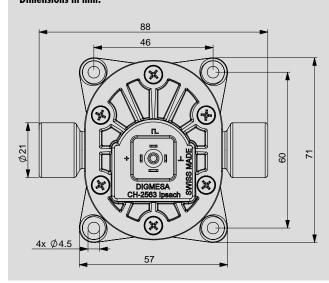
Connections: 3-pin AMP 2.8 x 0.8 mm

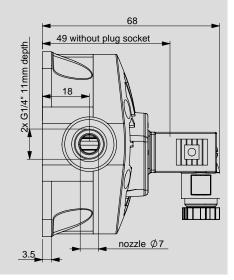
1-pin AMP 3.5 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

## Dimensions in mm:





## Included in the delivery:

4-pin solenoid socket Item number: 941-0002/4

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

## 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)!

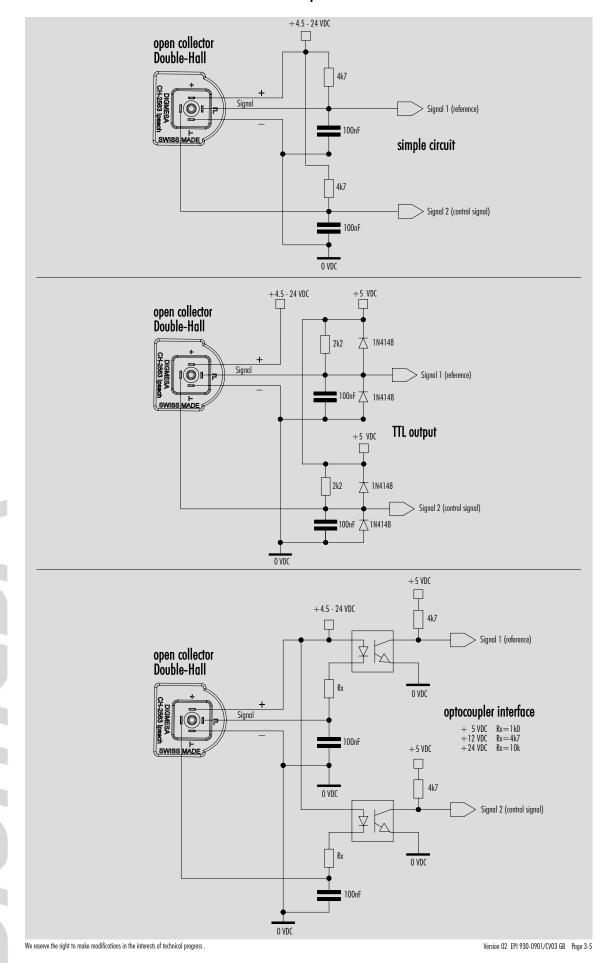
## FIFCTRONIC

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

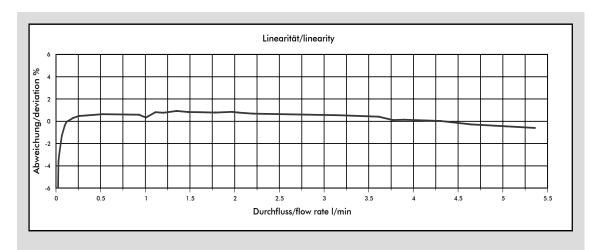
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

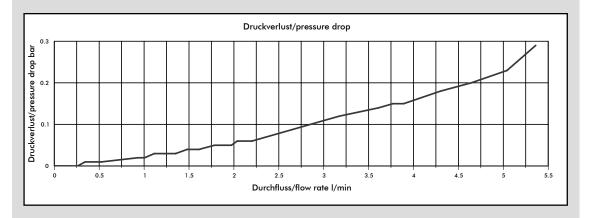
Version 02 EPI 930-0901/CV03 GB Page 2-5

# Interface Connection: Examples Double-Hall



# Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

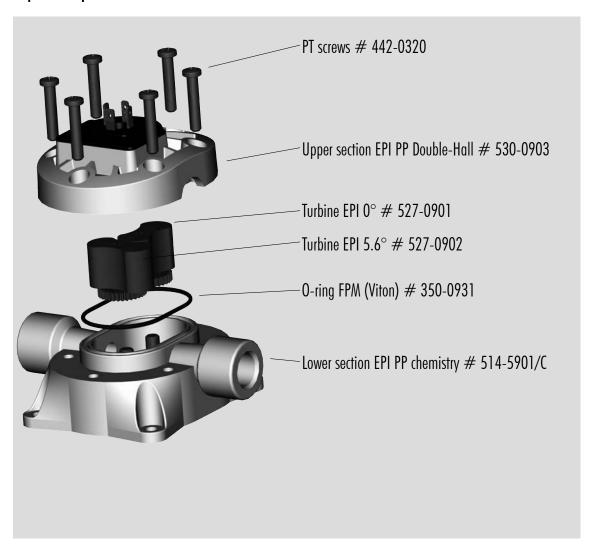
## MEASUREMENT TIPS

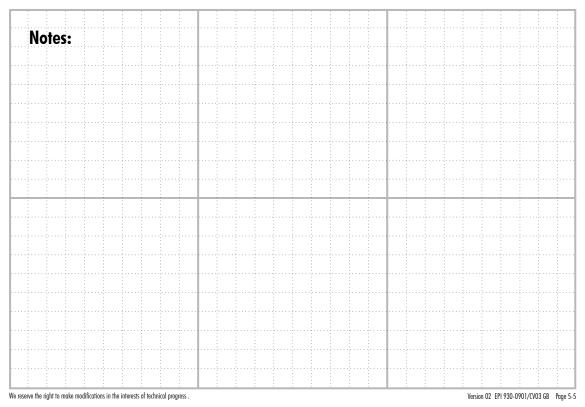
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 EPI 930-0901/CV03 GB Page 4-5

# Spare parts:









# EPI PP

Part number: 930-0901/V01

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

Version 04 EPI 930-0901/V01 GB Page 1-5

# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

## **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: PP 30% glass fibre
Bearing pin: Inox 1.4435

Bearing pin: Inox 1.4435

Aluminium oxide on request

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

## Technical data:

Flow rate: 0.06 - 16.0 I/min

depending on viscosity

Measuring accuracy:  $\pm$  1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm
Viscosity range: approx. 5 - 8000 centistokes

## **Electrical connection ratings:**

Power supply: 4.5–24 V DC

Consumption: 5 mA to max. 13 mA
Signal connection: Open collector NPN

Signal voltage: 0 V GND

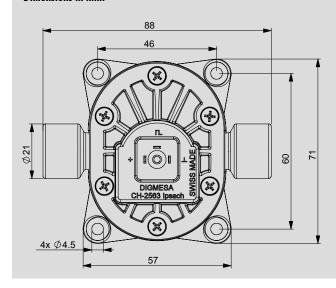
Signal load: max. 20 mA Leakage current: max. 10  $\mu$ A

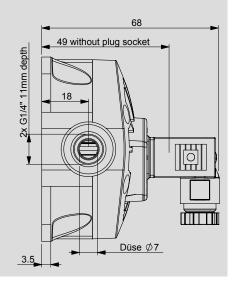
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

## Dimensions in mm:





## Included in the delivery:

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

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

## 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)!

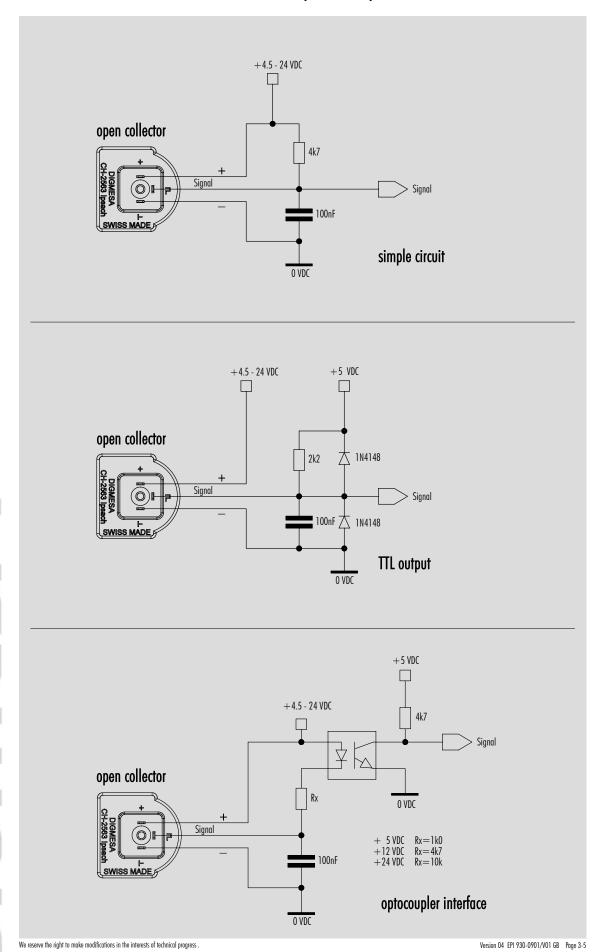
## ELECTRONIC

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

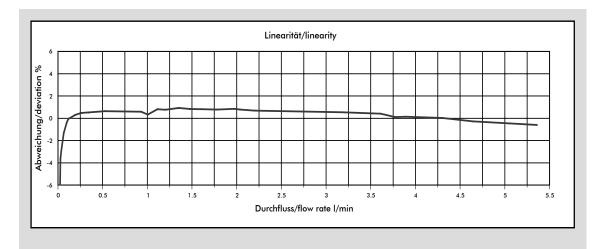
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

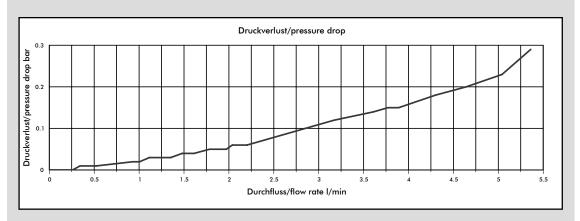
Version 04 EPI 930-0901/V01 GB Page 2-5

# Interface Connection: Examples Open Collector



# Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

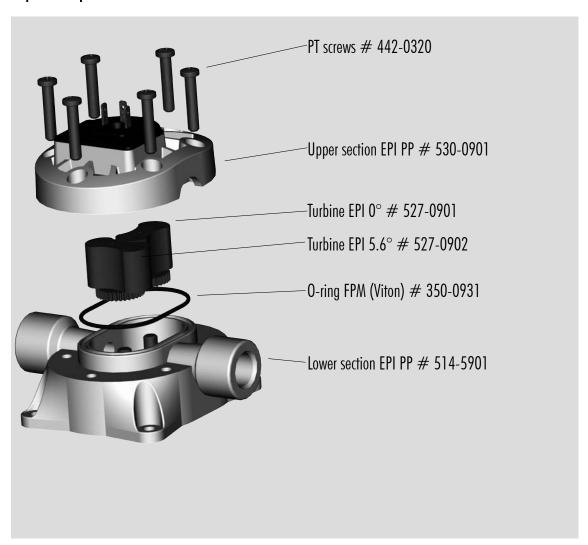
## MEASUREMENT TIPS

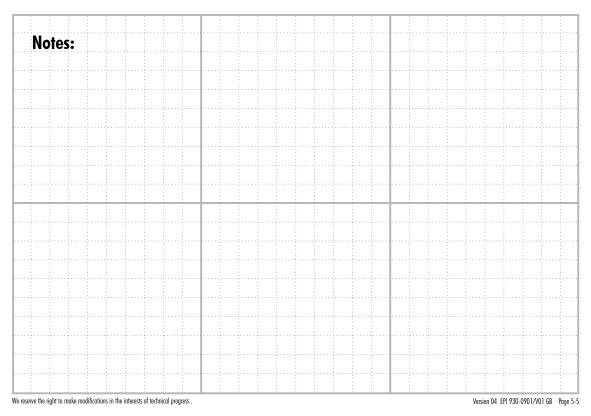
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 04 EPI 930-0901/V01 GB Page 4-5

# Spare parts:









# EPI PP LED

Part number: 930-0901/V02

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

Version 05 EPI 930-0901/V02 GB Page 1-5

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Pulse detection by incorporated LED in cover (lights once per pulse).

#### **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: PP 30% glass fibre
Bearing pin: Inox 1.4435

Aluminium oxide on request

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 I/min

depending on viscosity

Measuring accuracy:  $\pm$  +/- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

 $145~\text{psi}\,/68^\circ\text{F}$ 

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

#### **Electrical connection ratings:**

Power supply: 4.5—24 V DC

Consumption: 8 mA to max. 25 mA
Signal connection: Open collector NPN

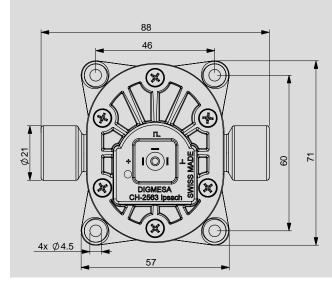
Signal voltage: 0 V GND
Signal load: max. 5 mA

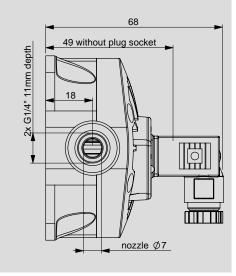
Leakage current:  $\max. 10 \, \mu \text{A}$ 

Connections: 3-pin AMP 2.8 x 0.8 mm Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

#### **Dimensions in mm:**





#### Included in the delivery:

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

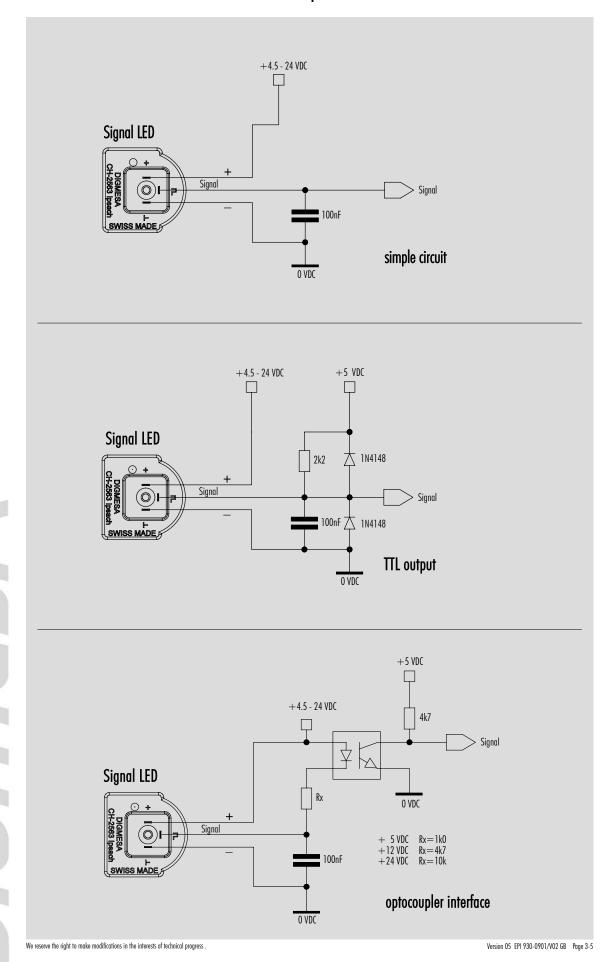
We reserve the right to make modifications in the interests of technical progress

#### RESISTANCE

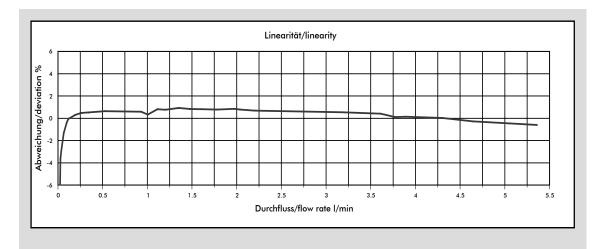
Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation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

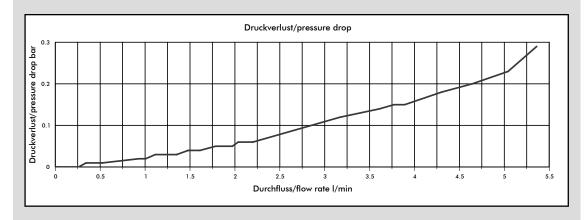
Version 05 EPI 930-0901/V02 GB Page 2-5

# Interface Connection: Examples with LED



### Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

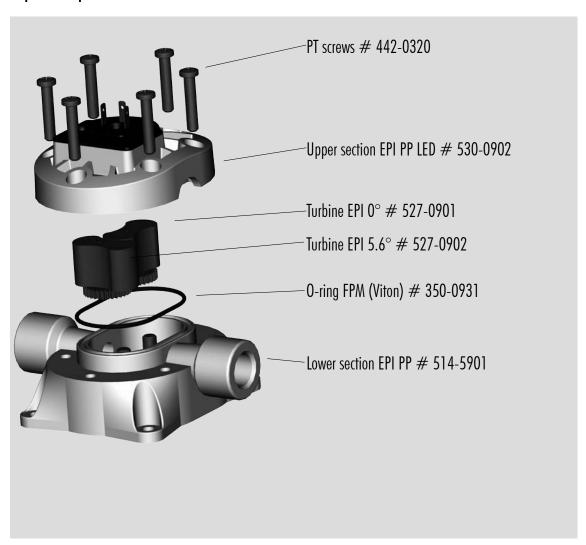
### MEASUREMENT TIPS

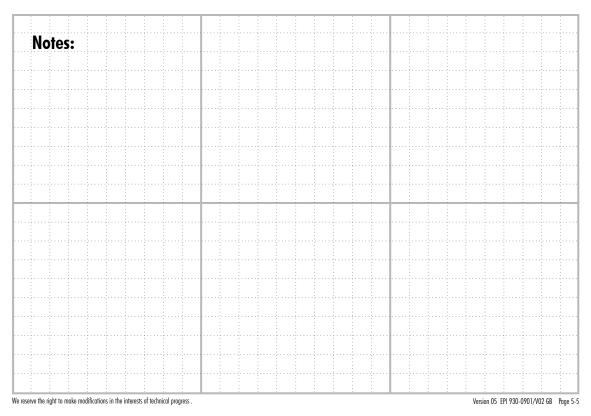
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 05 EPI 930-0901/V02 GB Page 4-5

# Spare parts:





### DATA SHEET





EPI PP Double-Hall (suitable for calibration)
Part number: 930-0901/V03

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

Version 04 EPI 930-0901/V03 GB Page 1-5

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Can be calibrated via the 4th pin (Double-Hall).

#### **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: PP 30% glass fibre
Bearing pin: Inox 1.4435

Aluminium oxide on request

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 l/min

depending on viscosity

Measuring accuracy:  $\pm$  1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

#### **Electrical connection ratings:**

Power supply: 4.5–24 V DC

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.  $10 \mu A$ 

**Duty Cycle:** 

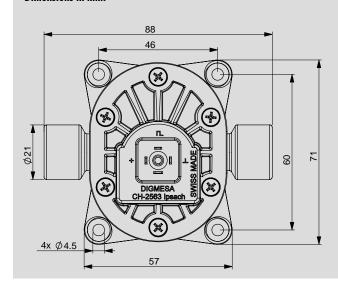
Connections: 3-pin AMP 2.8 x 0.8 mm

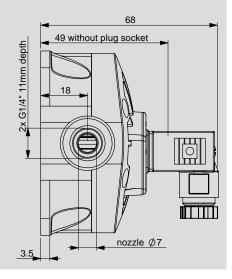
1-pin AMP 3.5 x 0.8 mm

 $50\% / \pm 3\%$ 

Signal: Square-wave output

#### **Dimensions in mm:**





#### Included in the delivery: 4-pin solenoid socket

Item number: 941-0002/4

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

#### 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)!

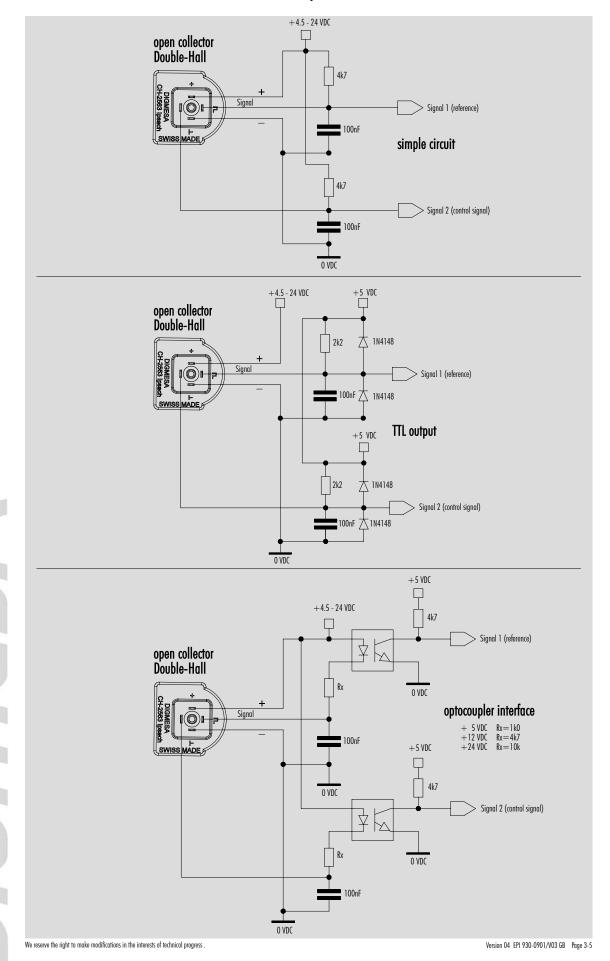
#### FIFCTRONIC

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

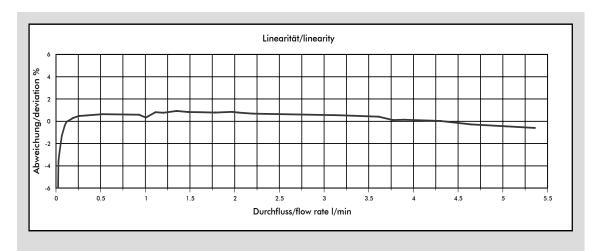
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

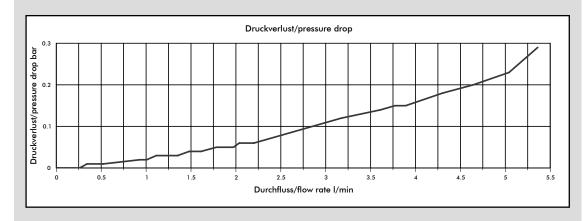
Version 04 EPI 930-0901/V03 GB Page 2-5

# Interface Connection: Examples Double-Hall



### Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

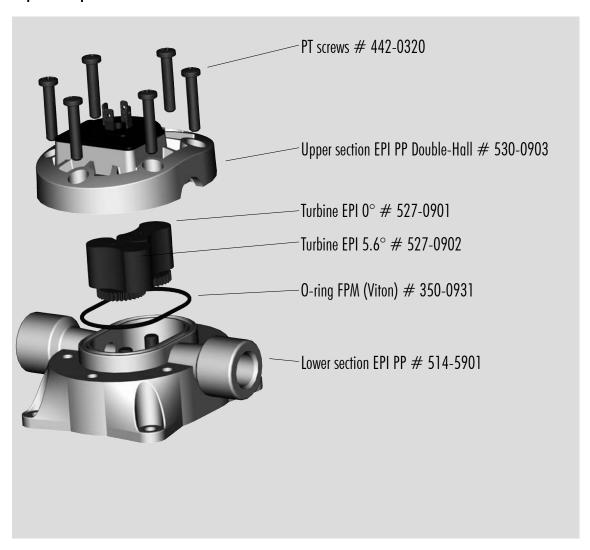
### MEASUREMENT TIPS

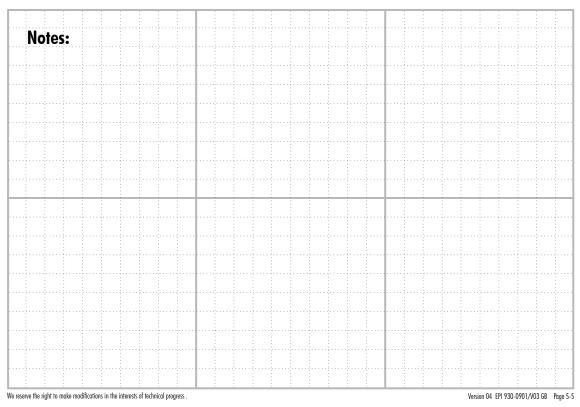
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 04 EPI 930-0901/V03 GB Page 4-5

# Spare parts:





### DATA SHEET





# EPI PEEK chemistry Part number: 930-0201/CV01

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

Version 01 EPI 930-0201/CV01 GB Page 1-5

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

#### **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: PEEK 150 GL 30 natur
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 l/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

#### **Electrical connection ratings:**

Power supply: 4.5—24 V DC

Consumption: 5 mA to max. 13 mA
Signal connection: Open collector NPN

Signal voltage: 0 V GND

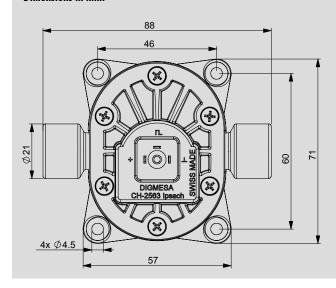
Signal load: max. 20 mA Leakage current: max.  $10 \mu A$ 

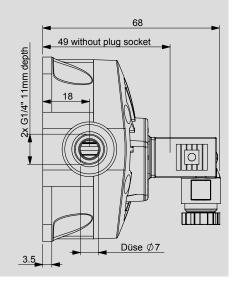
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

#### Dimensions in mm:





### Included in the delivery:

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

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

#### 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)!

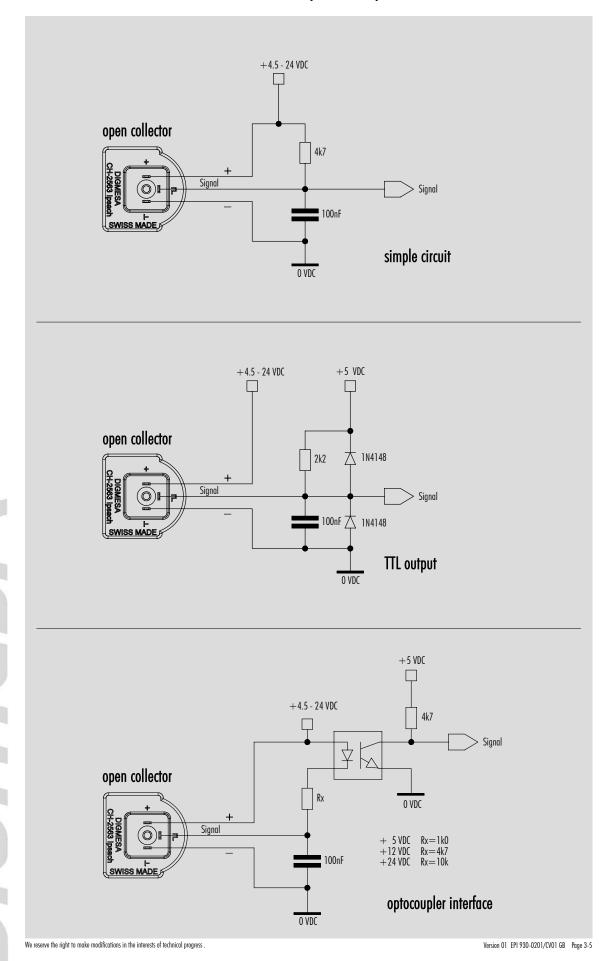
#### FIFCTRONIC

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

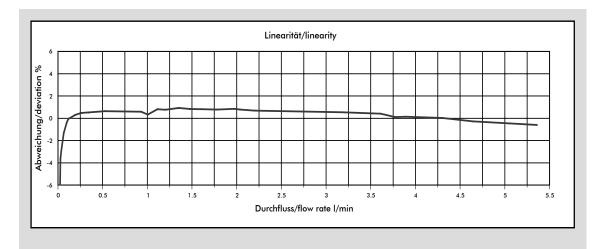
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

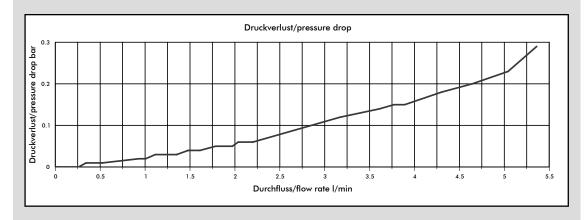
Version 01 EPI 930-0201/CV01 GB Page 2-5

# Interface Connection: Examples Open Collector



### Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

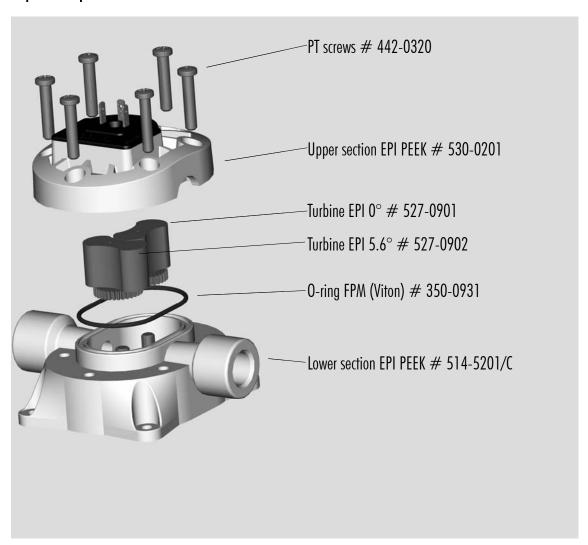
### MEASUREMENT TIPS

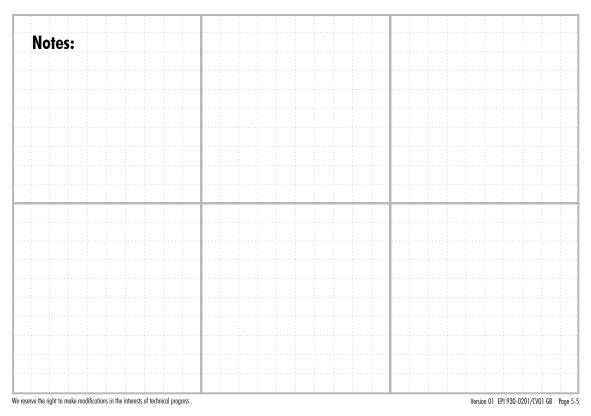
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 01 EPI 930-0201/CV01 GB Page 4-5

# Spare parts:





### DATA SHEET





# EPI PEEK LED chemistry Part number: 930-0201/CV02

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

Version 01 EPI 930-0201/CV02 GB Page 1-5

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Pulse detection by incorporated LED in cover (lights once per pulse).

#### **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: PEEK 150 GL 30 natur
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 I/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

#### **Electrical connection ratings:**

Power supply: 4.5—24 V DC

Consumption: 8 mA to max. 25 mA
Signal connection: Open collector NPN

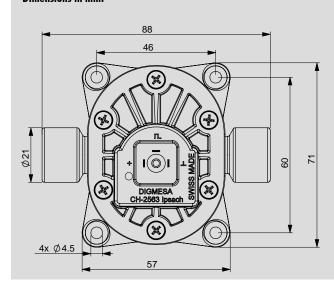
Signal voltage: 0 V GND
Signal load: max. 5 mA

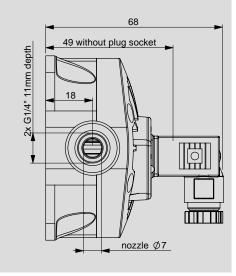
Leakage current:  $\max 10 \mu A$ 

Connections: 3-pin AMP 2.8 x 0.8 mm Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

#### Dimensions in mm:





#### Included in the delivery:

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

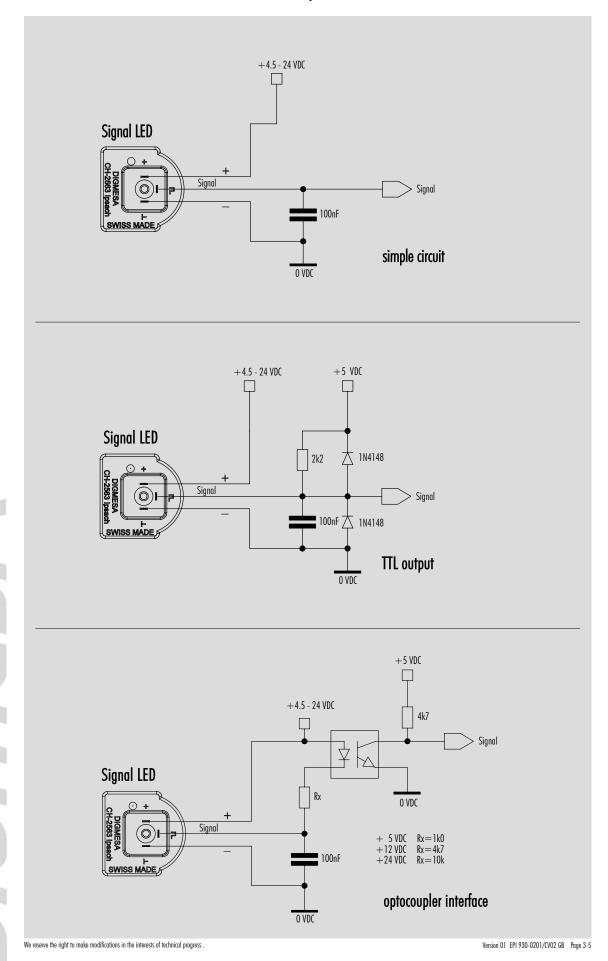
We reserve the right to make modifications in the interests of technical progress

#### RESISTANCE

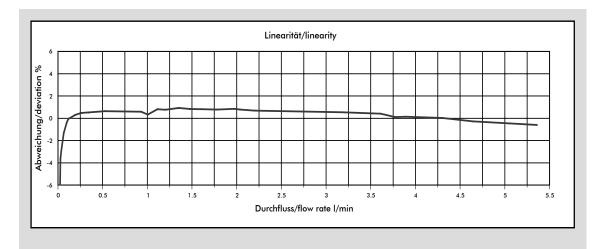
Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation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

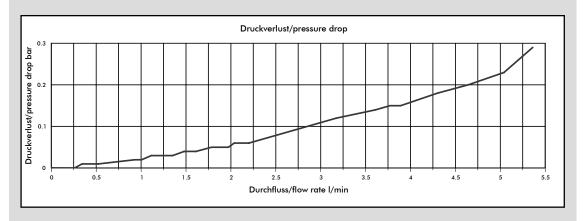
Version 01 EPI 930-0201/CV02 GB Page 2-5

# Interface Connection: Examples with LED



### Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

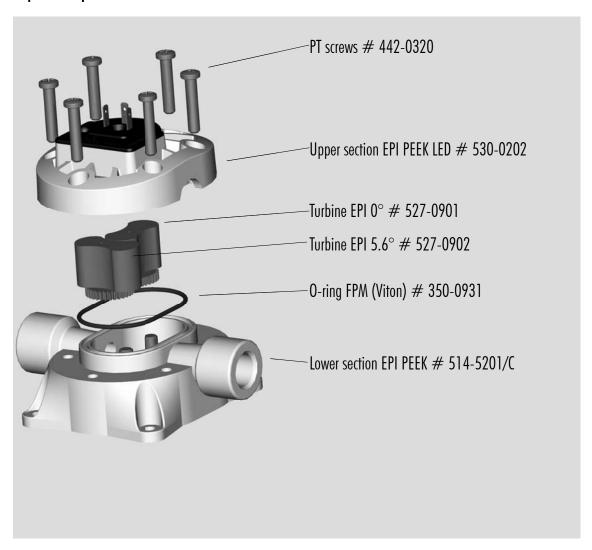
### MEASUREMENT TIPS

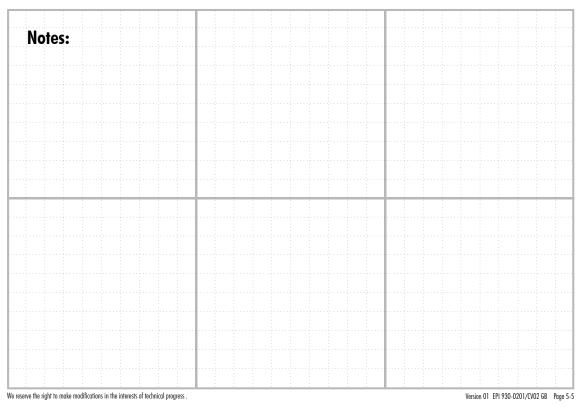
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 01 EPI 930-0201/CV02 GB Page 4-5

# Spare parts:





## DATA SHEET



# DiGINESA\*

# EPI PEEK chemistry

Double-Hall (suitable for calibration)
Part number: 930-0201/CV03

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 EPI 930-0201/CV03 GB Page 1-5

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Can be calibrated via the 4th pin (Double-Hall).

#### **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: PEEK 150 GL 30 natur
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 l/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm Viscosity range: approx. 5 - 8000

centistokes

#### **Electrical connection ratings:**

Power supply: 4.5–24 V DC

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  $\mu$ A

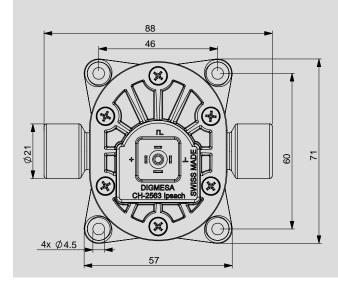
Connections: 3-pin AMP 2.8 x 0.8 mm

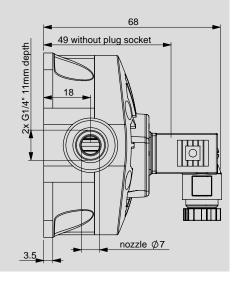
1-pin AMP 3.5 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

#### **Dimensions in mm:**





### Included in the delivery:

4-pin solenoid socket Item number: 941-0002/4

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

#### 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)!

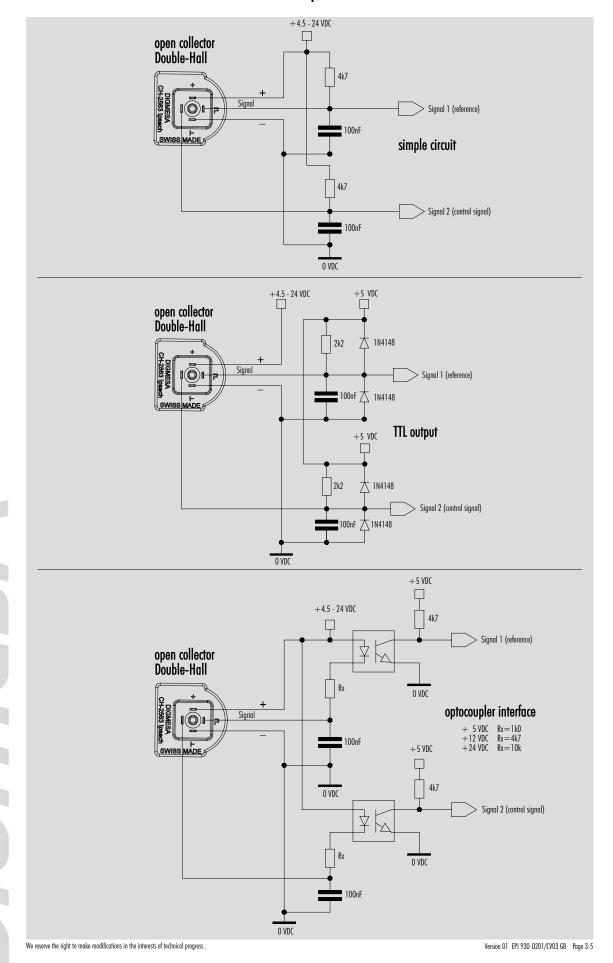
#### FIFCTRONIC

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

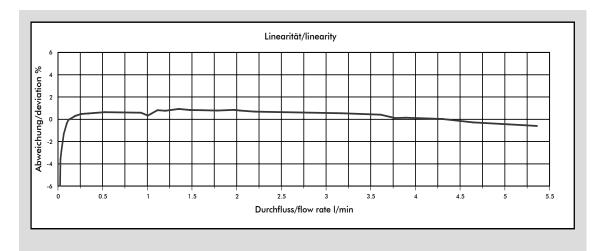
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

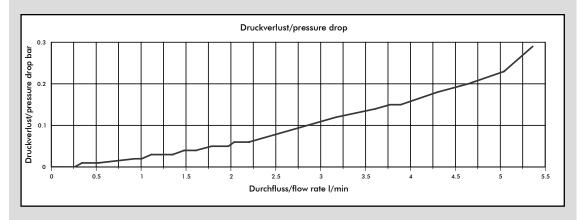
Version 01 EPI 930-0201/CV03 GB Page 2-5

# Interface Connection: Examples Double-Hall



### Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

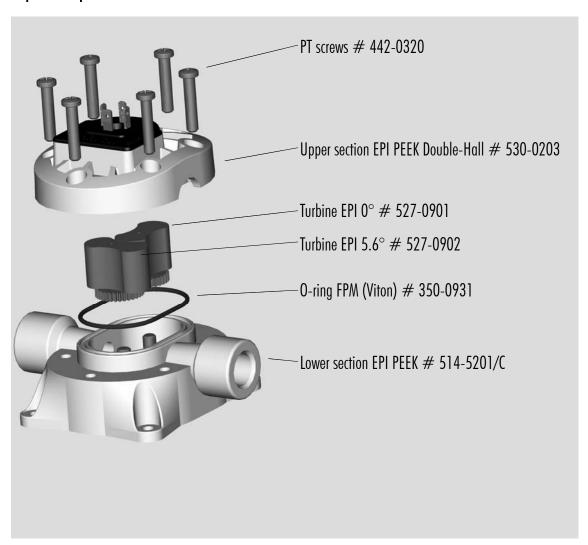
### MEASUREMENT TIPS

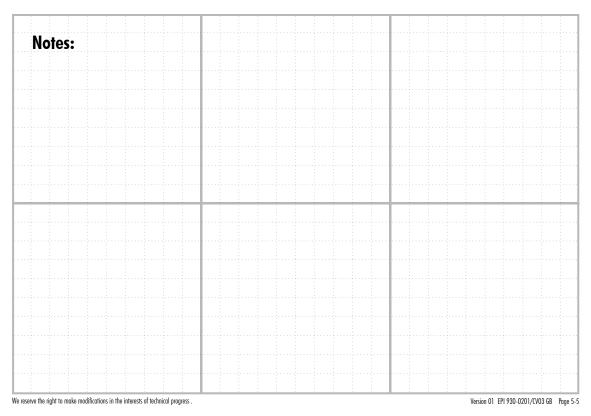
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 01 EPI 930-0201/CV03 GB Page 4-5

# Spare parts:





### DATA SHEET





# EPI PEEK

Part number: 930-0201/V01

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

Version 01 EPI 930-0201/V01 GB Page 1-5

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

#### **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: PEEK 150 GL 30 natur

Bearing pin: Inox 1.4435

Aluminium oxide on request

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 l/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm Viscosity range: approx. 5 - 8000

centistokes

#### **Electrical connection ratings:**

Power supply: 4.5–24 V DC

Consumption: 5 mA to max. 13 mA

Open collector NPN

Signal voltage: 0 V GND

Signal connection:

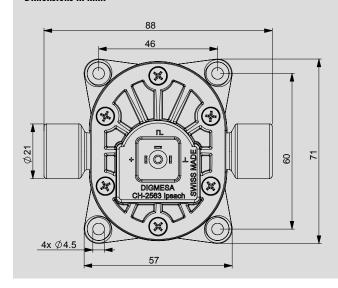
Signal load: max. 20 mA Leakage current: max.  $10 \mu A$ 

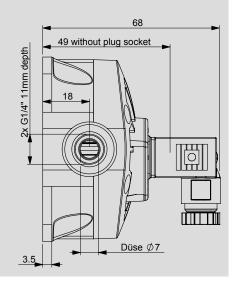
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

#### Dimensions in mm:





### Included in the delivery:

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

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

#### 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)!

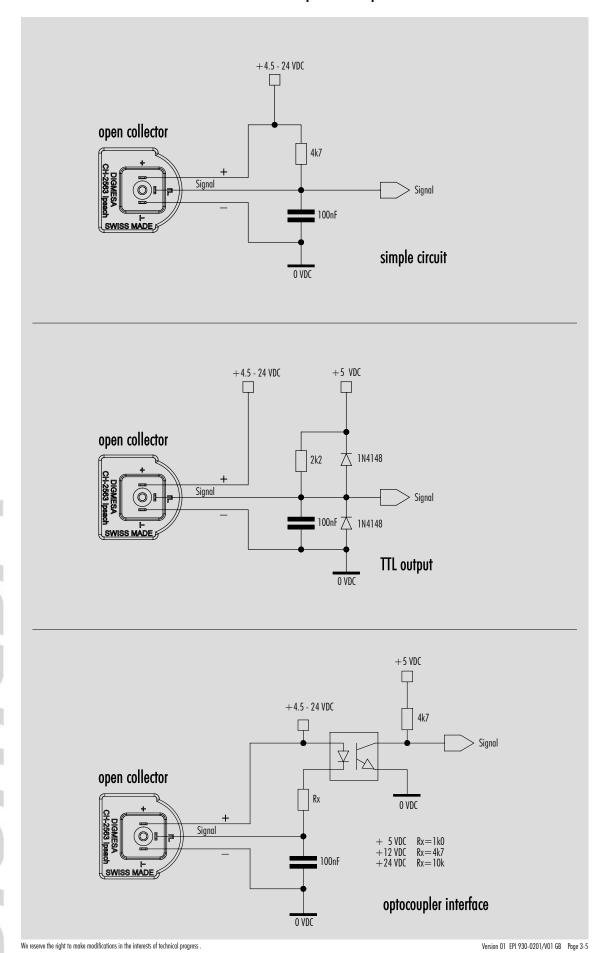
#### FIFCTRONIC

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

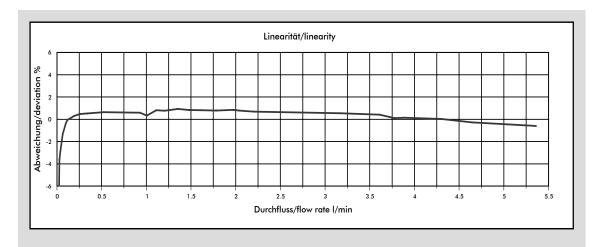
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

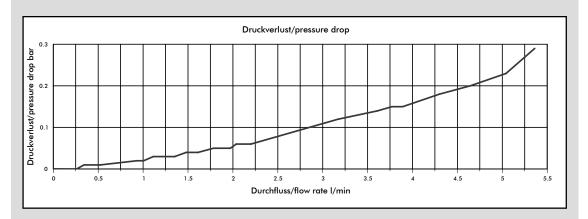
Version 01 EPI 930-0201/V01 GB Page 2-5

# Interface Connection: Examples Open Collector



### Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

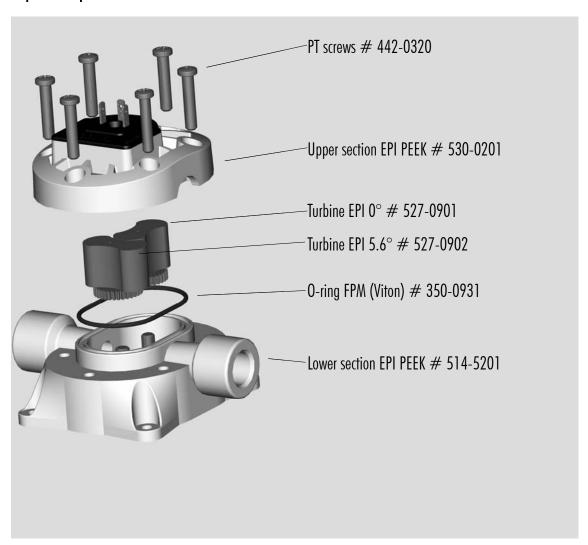
### MEASUREMENT TIPS

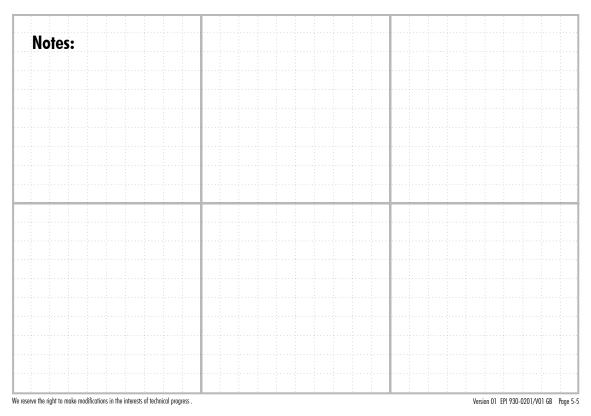
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 01 EPI 930-0201/V01 GB Page 4-5

# Spare parts:





### DATA SHEET





## EPI PEEK LED

Part number: 930-0201/V02

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

Version 01 EPI 930-0201/V02 GB Page 1-5

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Pulse detection by incorporated LED in cover (lights once per pulse).

#### **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: PEEK 150 GL 30 natur

Bearing pin: Inox 1.4435

Aluminium oxide on request

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 1/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm
Viscosity range: approx. 5 - 8000 centistokes

#### **Electrical connection ratings:**

Power supply: 4.5–24 V DC

Consumption: 8 mA to max. 25 mA
Signal connection: Open collector NPN

Signal voltage: 0 V GND

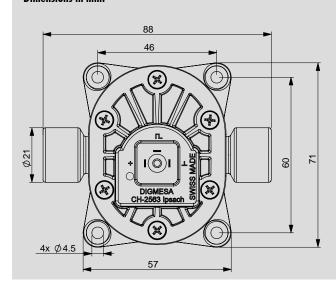
Signal load: max. 5 mA Leakage current: max. 10  $\mu$ A

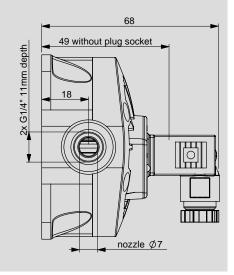
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

#### Dimensions in mm:





### Included in the delivery: 3-pin solenoid socket

Item number: 941-0002/3

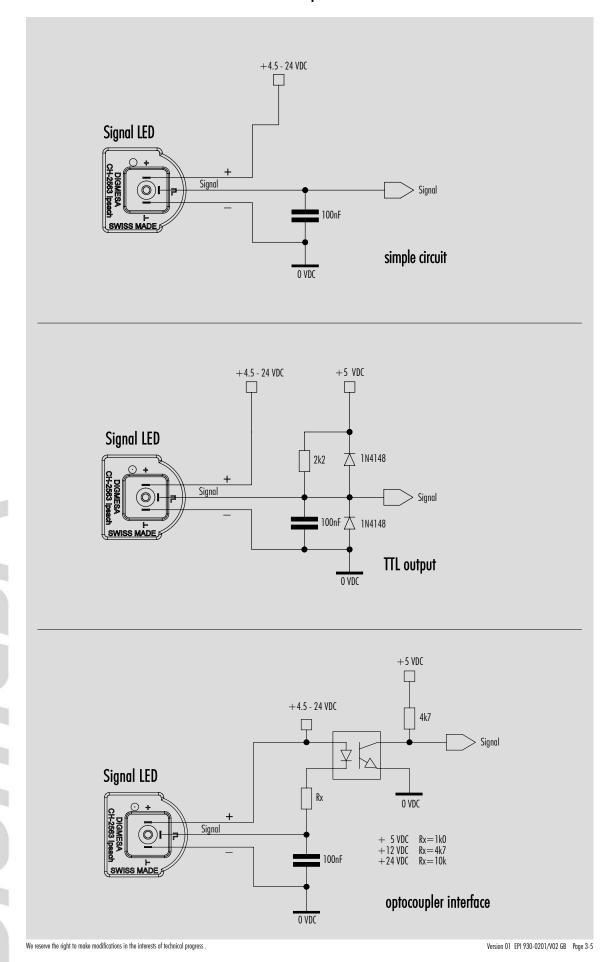


#### RESISTANCE

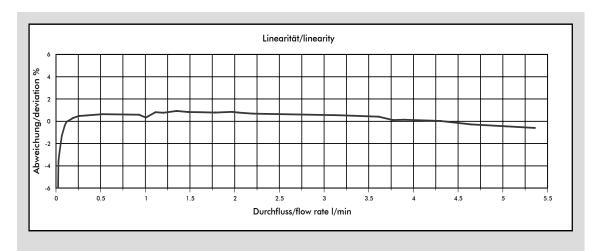
Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation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

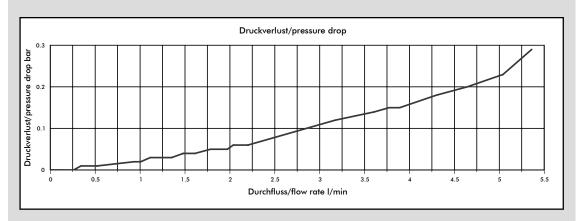
Version 01 EPI 930-0201/V02 GB Page 2-5

# Interface Connection: Examples with LED



### Measurement Curve EPI Ø7.00 mm





Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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.

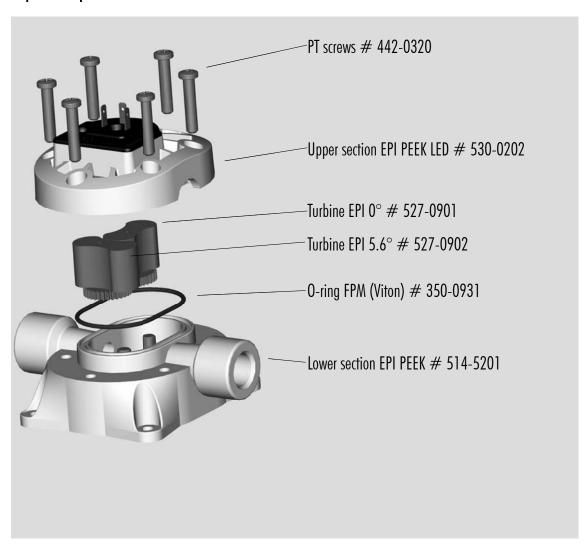
### MEASUREMENT TIPS

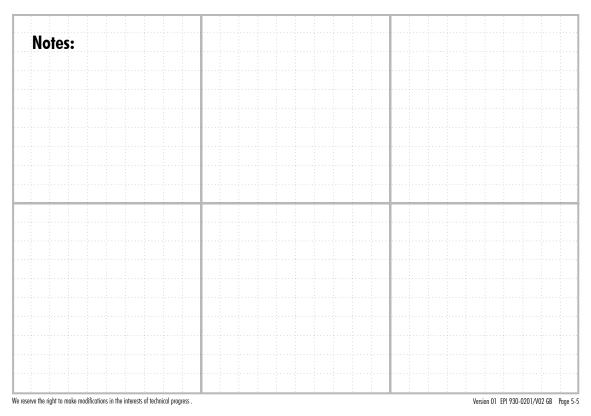
- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate 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 01 EPI 930-0201/V02 GB Page 4-5

# Spare parts:





### DATA SHEET





EPI PEEK Double-Hall (suitable for calibration)
Part number: 930-0201/V03

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

Version 01 EPI 930-0201/V03 GB Page 1-5

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Can be calibrated via the 4th pin (Double-Hall).

#### **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: PEEK 150 GL 30 natur

Bearing pin: Inox 1.4435

Aluminium oxide on request

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 I/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm Viscosity range: approx. 5 - 8000

centistokes

#### **Electrical connection ratings:**

Power supply: 4.5–24 V DC

Consumption: 5 mA to max. 13 mA

Signal voltage: 0 V GND

Signal connection:

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

Connections: 3-pin AMP 2.8 x 0.8 mm

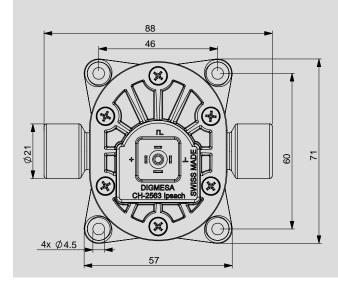
1-pin AMP 3.5 x 0.8 mm

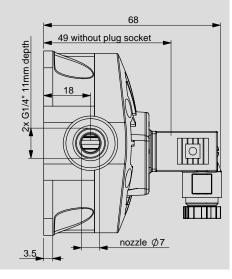
Open collector NPN

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

#### Dimensions in mm:





### Included in the delivery:

4-pin solenoid socket Item number: 941-0002/4

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

#### 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)!

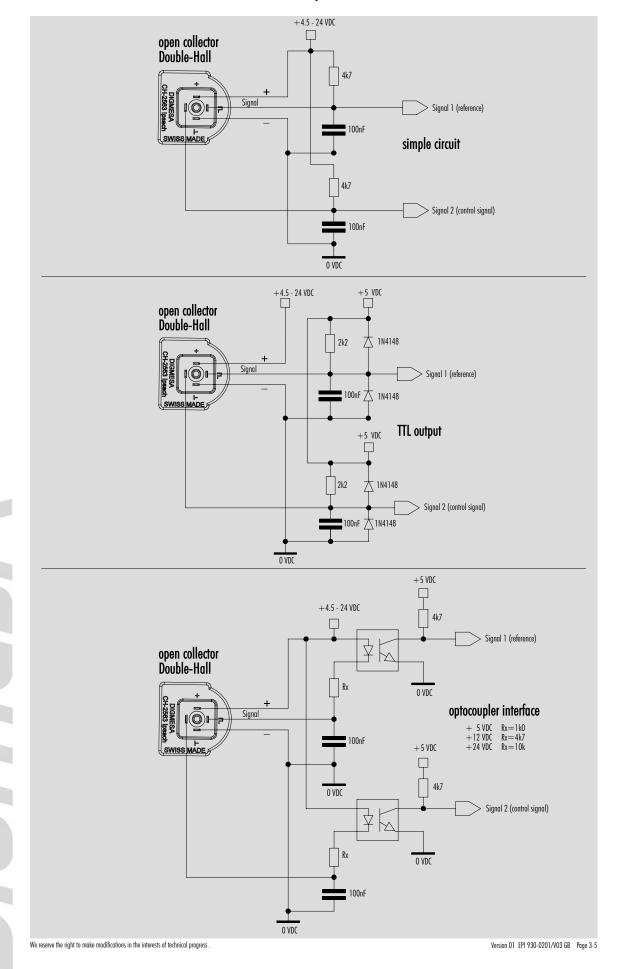
#### FIFCTRONIC

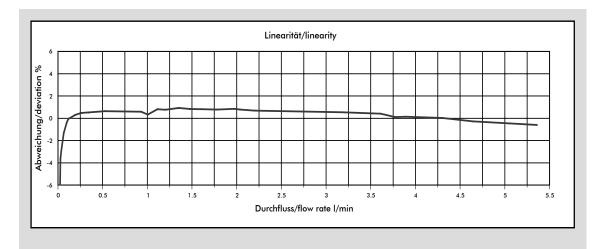
DIGMESA electronic circuitry is always designed for operation with DIGMESA flowmeters. Please note the following if connecting to other electronic circuitry:

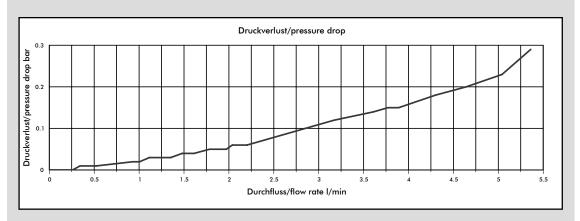
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

Version 01 EPI 930-0201/V03 GB Page 2-5

# Interface Connection: Examples Double-Hall







Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

The values specified must be considered as approximate values.

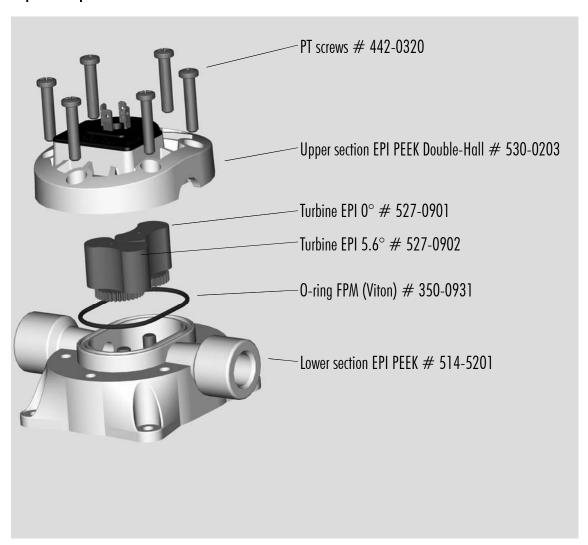
The number of pulses per litre may differ depending on medium and installation. We recommend to calibrate the number of pulses per litre in line with the complete installation.

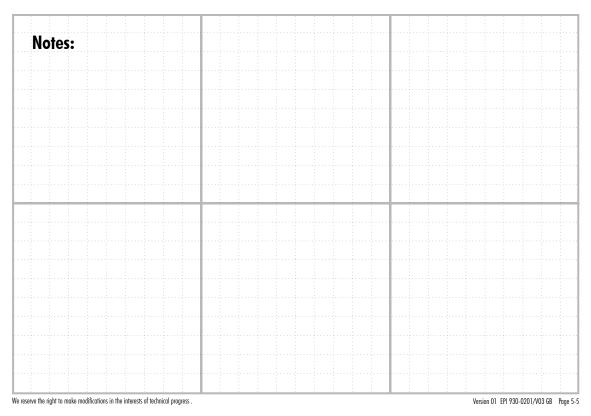
## MEASUREMENT TIPS

- 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
- 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 01 EPI 930-0201/V03 GB Page 4-5





# DATA SHEET





EPI Arnite chemistry
Part number: 930-0501/CV01

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

Version 01 EPI 930-0501/CV01 GB Page 1-5

# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

#### **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% glass fibre (Arnite)
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 l/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

#### **Electrical connection ratings:**

Power supply: 4.5—24 V DC

Consumption: 5 mA to max. 13 mA
Signal connection: Open collector NPN

Signal voltage: 0 V GND

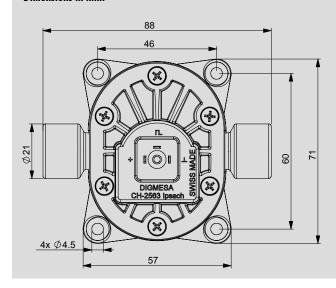
Signal load: max. 20 mA Leakage current: max. 10  $\mu$ A

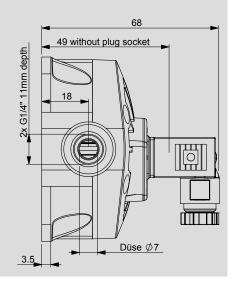
Connections: 3-pin AMP 2.8 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

## Dimensions in mm:





## Included in the delivery:

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

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

#### 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)!

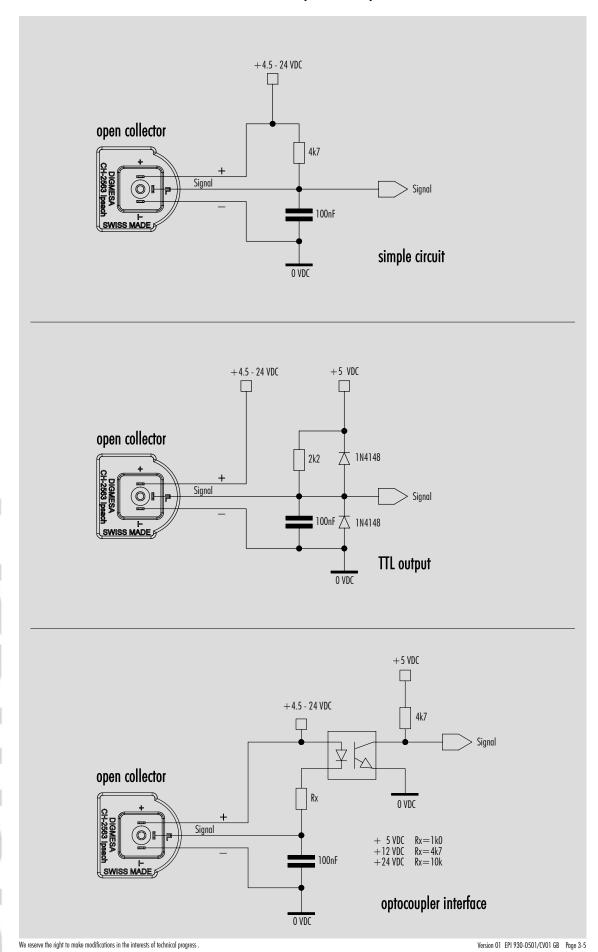
#### FIFCTRONIC

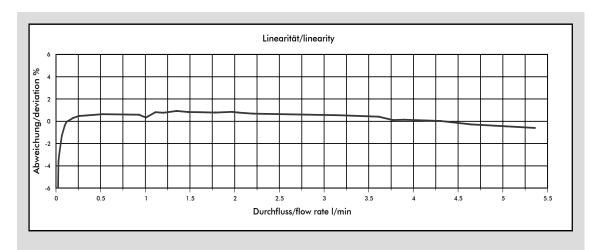
DIGMESA electronic circuitry is always designed for operation with DIGMESA flowmeters. Please note the following if connecting to other electronic circuitry:

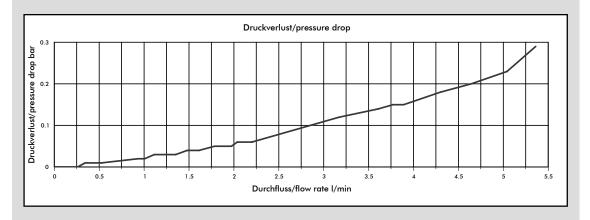
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

Version 01 EPI 930-0501/CV01 GB Page 2-5

# Interface Connection: Examples Open Collector







Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

The values specified must be considered as approximate values.

The number of pulses per litre may differ depending on medium and installation.

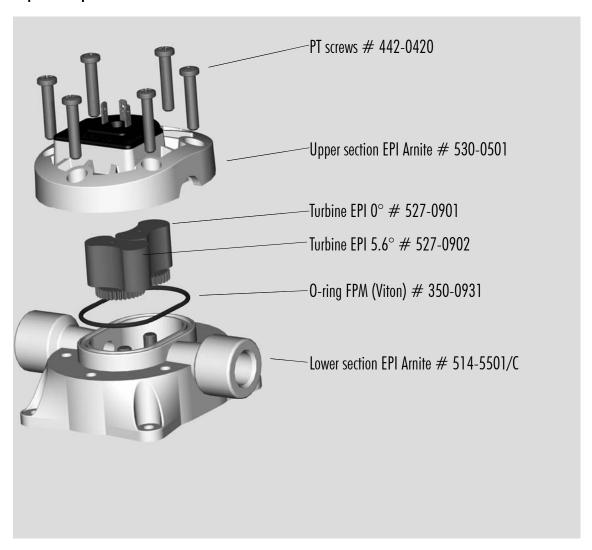
We recommend to calibrate the number of pulses per litre in line with the complete installation.

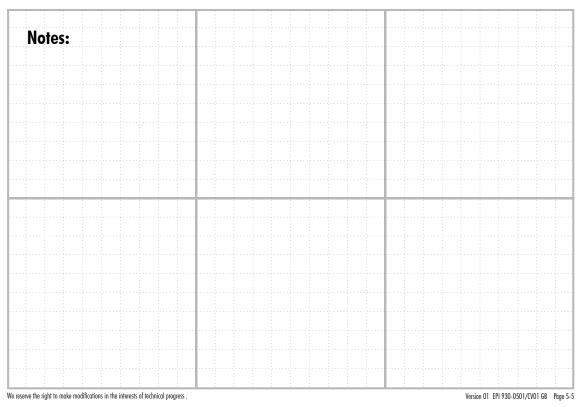
## MEASUREMENT TIPS

- 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
- 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 01 EPI 930-0501/CV01 GB Page 4-5





# DATA SHEET





# EPI Arnite LED chemistry Part number: 930-0501/CV02

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

Version 01 EPI 930-0501/CV02 GB Page 1-5

# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Pulse detection by incorporated LED in cover (lights once per pulse).

### **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% glass fibre (Arnite)
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 1/min

depending on viscosity

Measuring accuracy:  $\pm$  1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

#### **Electrical connection ratings:**

Power supply: 4.5—24 V DC

Consumption: 8 mA to max. 25 mA
Signal connection: Open collector NPN

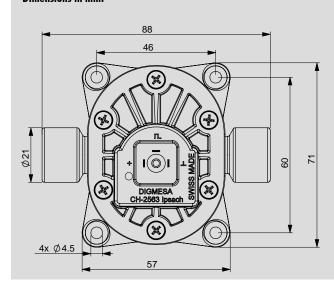
Signal voltage: 0 V GND
Signal load: max. 5 mA

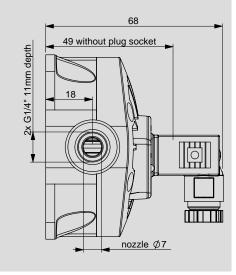
Leakage current: max.  $10 \mu A$ 

Connections: 3-pin AMP 2.8 x 0.8 mm Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

## Dimensions in mm:





## Included in the delivery:

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

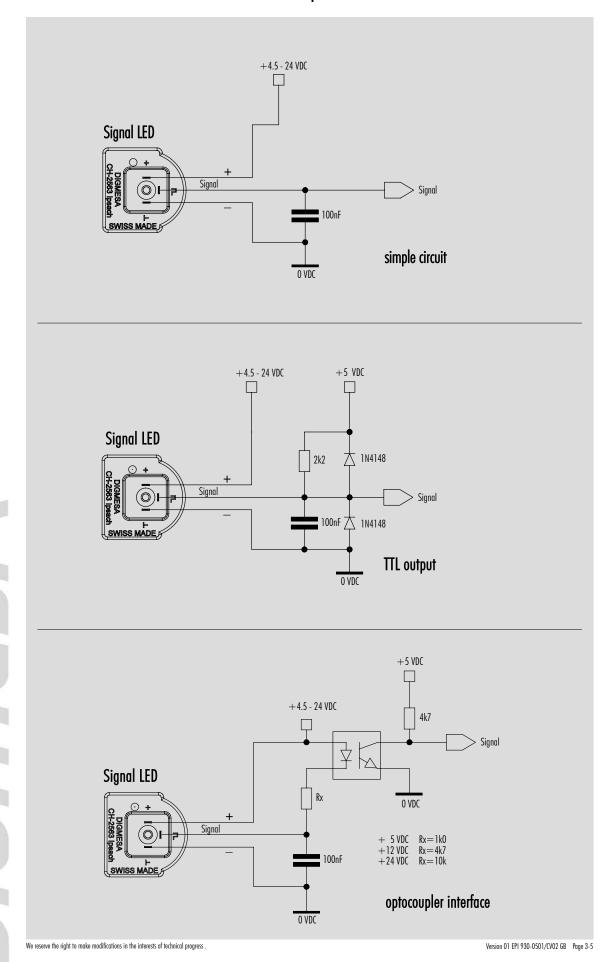
We reserve the right to make modifications in the interests of technical progress

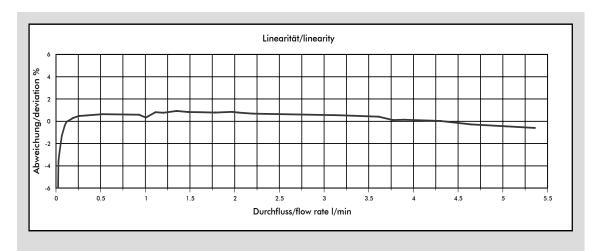
#### RESISTANCE

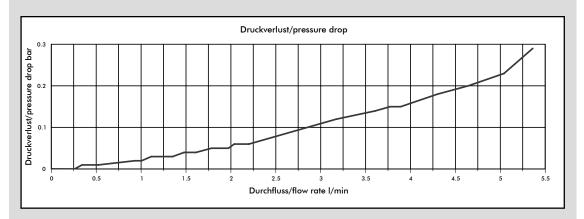
Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation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

Version 01 EPI 930-0501/CV02 GB Page 2-5

# Interface Connection: Examples with LED







Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

The values specified must be considered as approximate values.

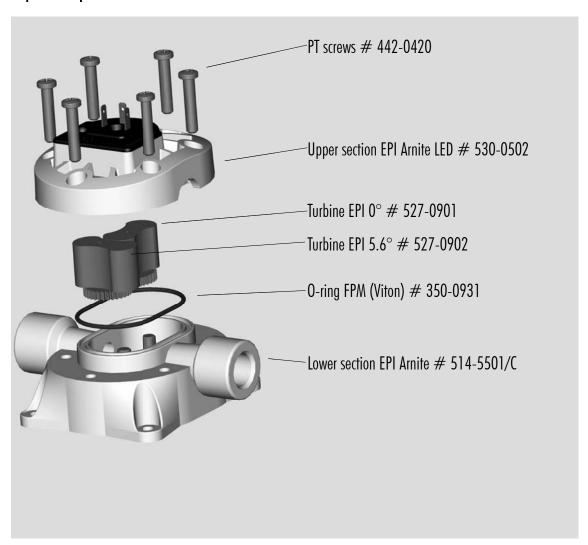
The number of pulses per litre may differ depending on medium and installation. We recommend to calibrate the number of pulses per litre in line with the complete installation.

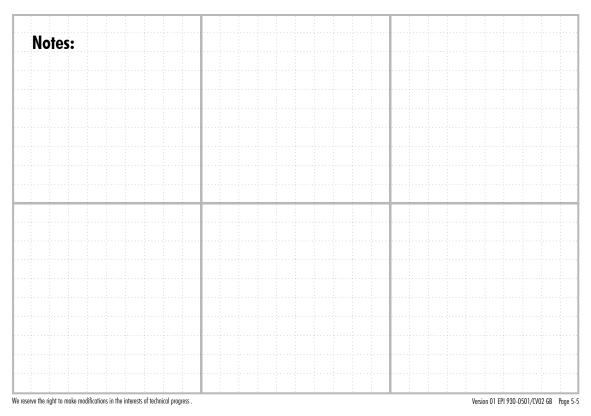
## MEASUREMENT TIPS

- 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
- 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 01 EPI 930-0501/CV02 GB Page 4-5





# DATA SHEET



# **DiGINESA**

# EPI Arnite chemistry Double-Hall (suitable for calibration) Part number: 930-0501/CV03

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

Version 01 EPI 930-0501/CV03 GB Page 1-5

# General Description

The EPI flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the EPI flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

Can be calibrated via the 4th pin (Double-Hall).

#### **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% glass fibre (Arnite)
Bearing pin: Aluminium oxide (Al2 O3)

O-ring: FPM (Viton)

EPDM on request

Turbine: PEEK

Magnets: NdFeB (Neodym)

(not in contact with the medium)

#### Technical data:

Flow rate: 0.06 - 16.0 I/min

depending on viscosity

Measuring accuracy:  $\pm$ /- 1.0%

depending on viscosity

Repetition: <+/-0.25%

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

14°F to 149°F

Pressure range: 10 bar at 20°C

145 psi /68°F

Mounting position: Horizontal recommended

Nozzle size: Ø 7.0 mm

Viscosity range: approx. 5 - 8000 centistokes

#### **Electrical connection ratings:**

Power supply: 4.5—24 V DC

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  $\mu$ A

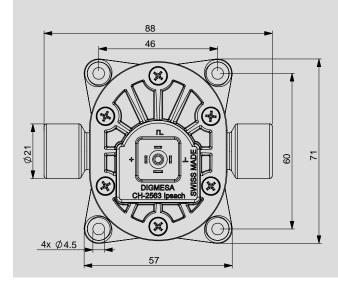
Connections: 3-pin AMP 2.8 x 0.8 mm

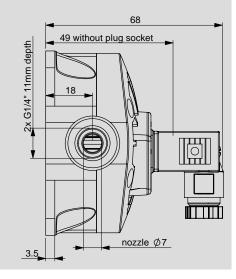
1-pin AMP 3.5 x 0.8 mm

Signal: Square-wave output

Duty Cycle:  $50\% / \pm 3\%$ 

### **Dimensions in mm:**





## Included in the delivery:

4-pin solenoid socket Item number: 941-0002/4

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

#### 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)!

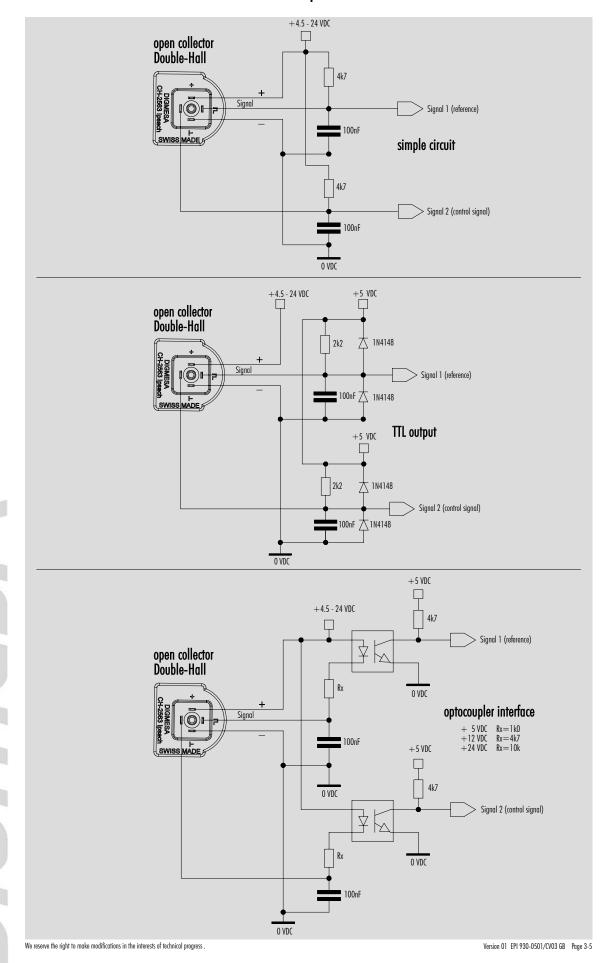
#### FIFCTRONIC

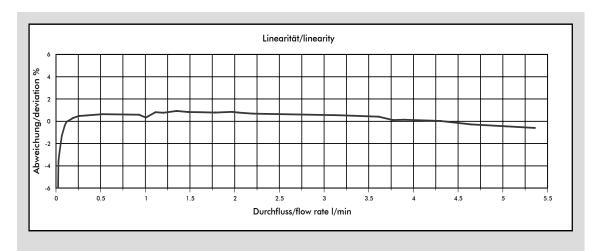
DIGMESA electronic circuitry is always designed for operation with DIGMESA flowmeters. Please note the following if connecting to other electronic circuitry:

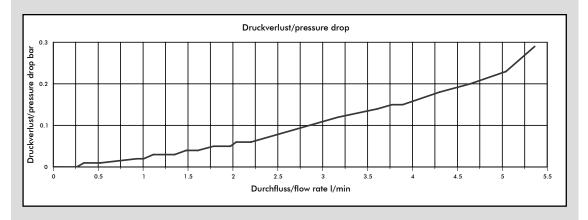
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (nonactuated)
- ullet There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

Version 01 EPI 930-0501/CV03 GB Page 2-5

# Interface Connection: Examples Double-Hall







Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in litres/min at Linear start	max. flow rate in litres/min	Pressure loss
Ø 7.00 mm	462	2.166	0.0653	5.35	0.29

The min. and max. flow rate and the pressure loss may vary depending on viscosity.

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
- 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

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