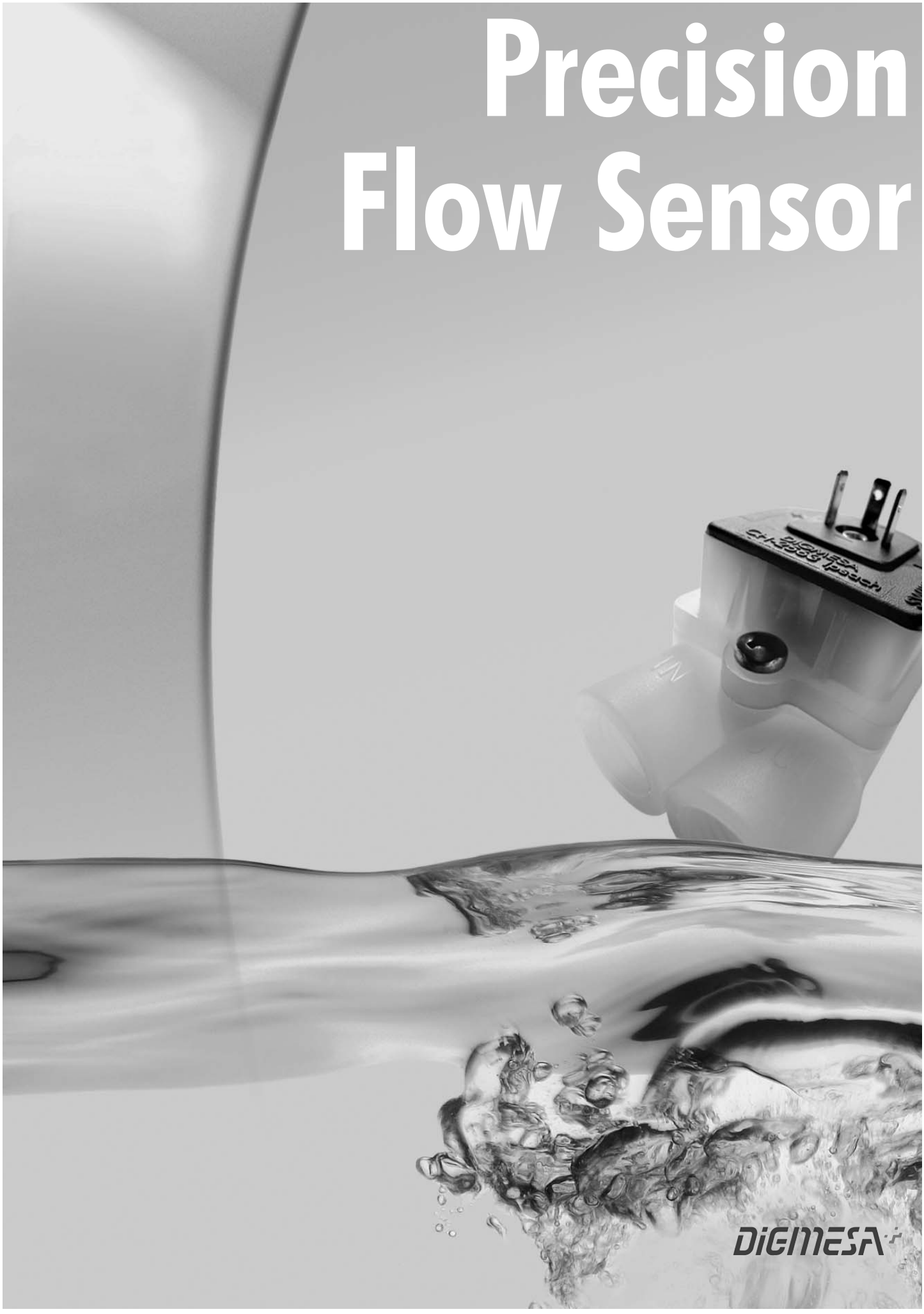
Precision Flow Sensor



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→ Content

FLOW SENSOR

ELECTRONICS

CONTROL SYSTEMS

1

Flow Sensor FF

1.1 → FF

GENERAL DESCRIPTION:

The FFC 40 Flow Sensor is a general-purpose precision device. It measures with constant precision and guarantees maximum accuracy in the measurement of fluid volumes. Its integrated electronic pulse emitter gives an additional guarantee for a practically unlimited useful life. This Flow Sensor measures with great success spirits or chemically-aggressive products and therefore finds use in a lot of industrial sectors.

SHOULD BE CONSIDERED:

Material Resistance:
Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

Electronics:
DIGMESA Electronic Circuitry is always designed for operation with DIGMESA Flow Sensor. Please note the following if connecting to other electronic circuitry:

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

Designation:	**FFJG 40 Arnite 6mm**	**FFJG 40 Arnite 1/4" (6.35mm)**	**FFJG 50 Arnite 8mm (5/16")**
Part number:	934-5540	934-5541	934-5550
Connections:	2 x John Guest 6mm	2 x John Guest 1/4" (6.35mm)	2 x John Guest 8mm (5/16")
Housing:	PBT 35% GF (Arnite)	PBT 35% GF (Arnite)	PBT 35% GF (Arnite)
O-ring:	MVQ (silicon)	MVQ (silicon)	MVQ (silicon)
Mounting position:	freely selectable	freely selectable	freely selectable
Nozzle size:	Ø 4.0mm	Ø 4.0mm	Ø 5.0mm
Turbine:	PVDF 2 Magnets	PVDF 2 Magnets	PVDF 2 Magnets
Temperature range:	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 65 °C (14 °F to 149 °F)
Flow rate:	0.22 - 7.75 l/min	0.22 - 7.75 l/min	0.34 - 11.5 l/min
Dimensions in mm (LxBxH):	90.5 x 56 without MSD (67 with MSD) x 64	90.5 x 56 without MSD (67 with MSD) x 64	90.5 x 56 without MSD (67 with MSD) x 64
Bearing pin:	jewelled bearing: Inox 1.4404, Ruby	jewelled bearing: Inox 1.4404, Ruby	jewelled bearing: Inox 1.4404, Ruby
Special features:	By means of its special jewelled bearing, its fitting position can be freely selected. Inlet and outlet are freely selectable. Hose diameters from 6.0mm can be directly connected.	By means of its special jewelled bearing, its fitting position can be freely selected. Inlet and outlet are freely selectable. Hose diameters from 1/4" (6.35mm) can be directly connected.	By means of its special jewelled bearing, its fitting position can be freely selected. Inlet and outlet are freely selectable. Hose diameters from 8mm (5/16") can be directly connected.

FFJG 40 SM Arnite 6mm	**FFJG 40 SM Arnite 1/4" (6.35mm)**	**FFJG 50 SM Arnite 8mm (5/16")**
Part number 981-5540 same device as above but with foam detection.	Part number 981-5541 same device as above but with foam detection.	Part number 981-5550 same device as above but with foam detection.

more information under

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MATERIAL:
- Magnet Ceramic Sr Fe O (not contact with the medium)

ELECTRICAL CONNECTION RATINGS:
- Power supply without foam detection 4.5 – 24 VDC
  with foam detection 10 – 16 VDC
- Consumption 5 mA to max. 13 mA
- Signal connection Open collector NPN
- Signal voltage 0V GND
- Signal load max. 20 mA
- Leakage current max. 10 μA
- Signal Square-wave output
- Duty Cycle 50% / $\pm$ 3%

TECHNICAL DATA:
- Measuring accuracy $\pm$ 2%
- Repetition $<$ $\pm$ 0.25%
- Pressure range 5.5 bar at 20 °C
  79 psi at 68 °F

INCLUDED IN THE DELIVERY:
- 3-pin solenoid socket Item number 941-0002/3

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

APPROVALS:

FFJG 50 Arnite 3/8"	**FFJG 50 Arnite 10mm**	**FFG 60 Arnite**	**FFG 60 PVDF**
934-6550	934-5551	934-2560	934-2360
2 x John Guest 3/8"	2 x John Guest 10mm	2 x G1/4" external thread	2 x G1/4" external thread
PBT 35% GF (Arnite)	PBT 35% GF (Arnite)	PBT 35% GF (Arnite)	PVDF
MVQ (silikon)	MVQ (silikon)	MVQ (silikon)	FPM (Viton)
freely selectable	freely selectable	freely selectable	Horizontal recommended
Ø 5.0mm	Ø 5.0mm	Ø 6.0mm	Ø 6.0mm
PVDF 2 Magnets	PVDF 2 Magnets	PVDF 2 Magnets	PVDF 4 Magnets
-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 100 °C (14 °F to 212 °F)
0.34 - 11.5 l/min	0.34 - 11.5 l/min	1.46 - 16.20 l/min	0.35 - 15.75 l/min
90.5 x 56 without MSD (67 with MSD) x 64	90.5 x 56 without MSD (67 with MSD) x 64	94 x 56 without MSD (67 with MSD) x 64	94 x 56 without MSD (67 with MSD) x 63
jewelled bearing: Inox 1.4404, Ruby	jewelled bearing: Inox 1.4404, Ruby	jewelled bearing: Inox 1.4404, Ruby	Bearing pin: PCTFE
By means of its special jewelled bearing, its fitting position can be freely selected. Inlet and outlet are freely selectable. Hose diameters from 3/8" (9.5mm) can be directly connected.	By means of its special jewelled bearing, its fitting position can be freely selected. Inlet and outlet are freely selectable. Hose diameters from 10.0mm can be directly connected.	By means of its special jewelled bearing, its fitting position can be freely selected. Inlet and outlet are also freely selectable.	Able to withstand high temperatures, good resistance to chemicals. Compact design, great working range. Inlet and outlet are freely selectable. Employed in the semiconductor (wafer polishing) sector due to the high purity of materials used.

FFJG 50 SM Arnite 3/8"	**FFJG 50 SM Arnite 10mm**	**FFG 60 SM Arnite**
Part number 981-6550 same device as above but with foam detection.	Part number 981-5551 same device as above but with foam detection.	Part number 981-2560 same device as above but with foam detection.

2

Flow Sensor FH

2.1 → FH

GENERAL DESCRIPTION:

The FH Flow Sensor is a general-purpose device; its working range can be individually defined according to its nozzle size. It is employed for measuring, regulating or metering and guarantees most precise measurement of fluid quantities. In addition, a pulse generator integrated into the Flow Sensor guarantees an almost unrestricted life span.
Specific applications: Inlet and outlet on the same side, compact design, great working range, depending on the nozzle diameter.

SHOULD BE CONSIDERED:

Material Resistance:
Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

Electronics:
DIGMESA Electronic Circuitry is always designed for operation with DIGMESA Flow Sensor. Please note the following if connecting to other electronic circuitry:

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

Designation:	**FH 12 oc Green-Brass**	**FHF 12 oc Green-Brass**	**FHI 10 R1.2K Green-Brass**
Part number:	931-0612	931-2612	974-1610
Nozzle size:	Ø 1.2mm	Ø 1.2mm	Ø 1.0mm
Flow rate:	0.052 - 0.80 l/min	0.052 - 0.80 l/min	0.037 - 0.57 l/min
Dimensions in mm (LxBxH):	55 x 40 x 46 without MSD (65.50 with MSD)	55 x 40 x 46.60	55 x 40 x 46 without MSD (65.50 with MSD)
Electrical connection:	3 Pin-AMP 2.8mm x 0.8mm	Faston AMP 6.3/2.8mm	3 Pin-AMP 2.8mm x 0.5mm
Special features:			Integrated 1.2K pull-up resistor.

FH 30 Green-Brass Viton	**FHF 25 Green-Brass**	**FHI 12 R1.8K LED Green-Brass**
Part number 931-0630/VITON same device as above but with nozzle size Ø 3.0mm and FPM (Viton) O-ring.	Part number 931-2625 same device as above but with nozzle size Ø 2.5mm	Part number 974-1612/LED same device as above but with nozzle size Ø 1.2mm and LED

more information under

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MATERIAL:

- Housing Green Brass (lead-free brass)
- O-ring MVQ (silicon)
- Bearing pin Inox 1.4305 (18/8)
- Nozzle Inox 1.4305 (18/8)
- Turbine PVDF
- Magnet Ceramic Sr Fe O (in contact with the medium)

OPTIONS:

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

ELECTRICAL CONNECTION RATINGS:

- Power supply 4.5 – 24 VDC
- Consumption 5 mA to max. 13 mA
- Signal connection Open collector NPN
- Signal voltage 0V GND
- Signal load max. 20 mA
- Leakage current max. 10 μA
- Signal Square-wave output
- Duty Cycle 50% / $\pm$ 5%

APPROVALS:

TECHNICAL DATA:

- Connections 2 x G1/4" internal thread
- Flow rate 0.025 - 12 l/min
  depending on the nozzle diameter
- Measuring accuracy $\pm$ 2%
- Repetition $<$ $\pm$ 0.25%
- Temperature range -10 °C to 100 °C
  14 °F to 212 °F
- Pressure range 20 bar at 20 °C
  290 psi at 68 °F
- Mounting position horizontal recommended
- Nozzle size Ø 0.7, 1.0, 1.2, 1.5, 2.0, 2.5, 3.0, 6.5mm

FHI 12 R1.2K Green G1/8"	**FHF 12 R1.2K Green-Brass**	**FH 12 AMP-Plug Green-Brass**	**FH 12 Molex Green-Brass**
974-4612	974-2612	973-3612	973-1612
Ø 1.2mm	Ø 1.2mm	Ø 1.2mm	Ø 1.2mm
0.052 - 0.80 l/min	0.052 - 0.80 l/min	0.052 - 0.80 l/min	0.052 - 0.80 l/min
55 x 40 x 46 without MSD (65.50 with MSD)	55 x 40 x 46.60	55 x 40 x 43.5 without Cable (287 with Cable)	55 x 40 x 43.5 without Cable (267 with Cable)
3 Pin-AMP 2.8mm x 0.5mm	Faston AMP 6.3/2.8mm	Cable 3 pin to 105°C / 221°F Plug CSC B 5041	Cable 3 pin to 105°C / 221°F Molex MINI-FIT
Integrated 1.2K pull-up resistor. Connections 2 x G1/8" internal thread.	Integrated 1.2K pull-up resistor.		

FHI 10 R1.2K G1/8" Green-Brass	**FHF 10 R1.2K Green-Brass**
Part number 974-4610 same device as above but with nozzle size Ø 1.0mm	Part number 974-2610 same device as above but with nozzle size Ø 1.0mm

3

Flow Sensor FHK

3.1 → FHK

GENERAL DESCRIPTION:

The FHK Flow Sensor is a general-purpose device; its working range can be individually defined according to its nozzle size. It is employed for measuring, regulating or metering and guarantees most precise measurement of fluid quantities. In addition, a pulse generator integrated into the Flow Sensor guarantees an almost unrestricted life span.
Specific applications: Inlet and outlet on the same side, compact design, great working range, depending on the nozzle diameter.

SHOULD BE CONSIDERED:

Material Resistance:
Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

Electronics:
DIGMESA Electronic Circuitry is always designed for operation with DIGMESA Flow Sensor. Please note the following if connecting to other electronic circuitry:

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

Designation:	FHK 10 Arnite	FHK 10 PVDF	FHK 20 PVDF Viton
Part number:	937-1510/01	937-1310/C014	937-1320/V01
Connections:	2 x G1/4" internal thread	2 x G1/4" internal thread	2 x G1/4" internal thread
Housing:	PBT 35% GF (Arnite)	PVDF	PVDF
O-ring:	MVQ (silicon)	FPM (Viton)	FPM (Viton)
Bearing pin:	Inox 1.4305 (18/8)	PCTFE	Inox 1.4305 (18/8)
Magnets:	2 x Ceramic Sr Fe O (in contact with the medium)	4 x Ceramic Sr Fe O (not in contact with the medium)	2 x Ceramic Sr Fe O (in contact with the medium)
Nozzle size:	Ø 1.0mm, Inox 1.4305	Ø 1.0mm, PTFE	Ø 2.0mm, Inox 1.4305
Temperature range:	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 100 °C (14 °F to 212 °F)	-10 °C to 100 °C (14 °F to 212 °F)
Flow rate:	0.027 - 0.58 l/min	0.055 - 0.47 l/min	0.069 - 2.34 l/min
Dimensions in mm (LxBxH):	54 x 40 x 47.20 without MSD (66.60 with MSD)	54 x 39.75 x 46.90 without MSD (66.30 with MSD)	54 x 39.75 x 46.90 without MSD (66.30 with MSD)
Electrical connection:	3 Pin-AMP 2.8mm x 0.8mm	3 Pin-AMP 2.8mm x 0.8mm	3 Pin-AMP 2.8mm x 0.8mm
Special features:	Approvals: NSF COMPONENT	Employed in the semiconductor (wafer polishing) sector due to the high purity of materials used.	

FHK 12 Arnite	FHK 33 PVDF	FHK 15 PVDF Viton
Part number 937-1512/01 same device as above but with nozzle size Ø 1.2mm	Part number 937-1333/C014 same device as above but with nozzle size Ø 3.3mm	Part number 937-1315/V01 same device as above but with nozzle size Ø 1.5mm

more information under

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MATERIAL:
- Turbine PVDF

ELECTRICAL CONNECTION RATINGS:
- Power supply 4.5 – 24 VDC
- Consumption 5 mA to max. 13 mA
- Signal connection Open collector NPN
- Signal voltage 0V GND
- Signal load max. 20 mA
- Leakage current max. 10 µA
- Signal Square-wave output
- Duty Cycle 50% / ± 5%

TECHNICAL DATA:
- Flow rate 0.041 - 10 l/min depending on the nozzle diameter
- Measuring accuracy ± 2%
- Repetition < ± 0.25%
- Pressure range 20 bar at 20 °C
  290 psi at 68 °F
- Mounting position horizontal recommended
- Nozzle size G1/4" Ø 1.0, 1.2, 1.5, 2.0, 2.5, 3.3mm
  Flange Ø 1.0, 1.2, 1.5, 2.0, 2.5, 3.0, 4.0, 5.6mm

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

APPROVALS:

CE

FHK 20 PVDF	**FHK 33 Ryton EPDM**	**FHKC 12 Flange Arnite**	**FHK 10 PEEK**
937-1320/CE012	937-1833/AE012	937-5512/03	937-1210/P014
2 x G1/4" internal thread	2 x G1/4" internal thread	Flange	2 x G1/4" internal thread
PVDF	PPS 40% GF (Ryton)	PBT 35% GF (Arnite)	PEEK
EPDM	EPDM	MVQ (silicon)	FPM (Viton)
PCTFE	Inox 1.4571	Inox 1.4305	PEEK
2 x Ceramis Sr Fe O (not in contact with the medium)	2 x Ceramic Sr Fe O (not in contact with the medium)	2 x Ceramic Sr Fe O (in contact with the medium)	4 x Ceramic Sr Fe O (not in contact with the medium)
Ø 2.0mm, PTFE	Ø 3.3mm, PPS 40 % GF (Ryton)	Ø 1.2mm, Inox 1.4305	Ø 1.0mm, PEEK
-10 °C to 100 °C (14 °F to 212 °F)	-10 °C to 100 °C (14 °F to 212 °F)	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 100 °C (14 °F to 212 °F)
0.10 - 2.21 l/min	1.39 - 5.36 l/min	0.031 - 0.77 l/min	0.055 - 0.47 l/min
54 x 39.75 x 46.90 without MSD (66.30 with MSD)	54 x 40 x 47.20 without MSD (66.60 with MSD)	46 x 59 x 40.70	54 x 39.75 x 46.90 without MSD (66.30 with MSD)
3 Pin-AMP 2.8mm x 0.8mm	3 Pin-AMP 2.8mm x 0.8mm	PANCON MAS-CON 156 MLSS	3 Pin-AMP 2.8mm x 0.8mm
Employed in the semiconductor (wafer polishing) sector due to the high purity of materials used.		Approvals: NSF COMPONENT	Material: Turbine PFA

FHK 25 PVDF	**FHK 12 Ryton EPDM**
Part number 937-1325/CE012 same device as above but with nozzle size Ø 2.5mm	Part number 937-1812/AE012 same device as above but with nozzle size Ø 1.2mm

4 Flow Sensor FHKU

4.1 → FHKU

GENERAL DESCRIPTION:

The FHKU Flow Sensor is a general-purpose device; its working range can be individually defined according to its nozzle size. It is employed for measuring, regulating or metering and guarantees most precise measurement of fluid quantities. In addition, a pulse generator integrated into the Flow Sensor guarantees an almost unrestricted life span.

Special features: Linear inlet and outlet, compact design, great working range, depending on the nozzle diameter.

SHOULD BE CONSIDERED:

Material Resistance:

Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

Electronics:

DIGMESA Electronic Circuitry is always designed for operation with DIGMESA Flow Sensor. Please note the following if connecting to other electronic circuitry:

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

Designation:	FHKU 40 G1/4" Arnite	FHKU 20 G1/4" Ryton	FHKUC 15 Ryton EPDM
Part number:	938-1540/01	938-1820/01	938-1815/AE032
Connections:	2 x G1/4" external thread	2 x G1/4" external thread	2 x G1/4" external thread
Housing:	PBT 35% GF (Arnite)	PPS 40% GF (Ryton)	PPS 40% GF (Ryton)
O-ring:	MVQ (silicon)	MVQ (silicon)	EPDM
Bearing pin:	Inox 1.4305 (18/8)	Inox 1.4305 (18/8)	Inox 1.4571
Magnets:	2 x Ceramic Sr Fe O (in contact with the medium)	2 x Ceramic Sr Fe O (in contact with the medium)	2 x Ceramic Sr Fe O (not in contact with the medium)
Nozzle size:	Ø 4.0mm, Inox 1.4305	Ø 2.0mm, Inox 1.4305	Ø 1.50mm, PTFE
Temperature range:	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 100 °C (14 °F to 212 °F)	-10 °C to 100 °C (14 °F to 212 °F)
Flow rate:	0.123 - 8.38 l/min	0.091 - 2.40 l/min	0.042 - 1.25 l/min
Dimensions in mm (LxBxH):	77 x 43 x 47.50 without MSD (67 with MSD)	77 x 43 x 47.50 without MSD (67 with MSD)	77 x 43 x 40.50
Electrical connection:	3 Pin-AMP 2.8mm x 0.8mm	3 Pin-AMP 2.8mm x 0.8mm	PANCON MAS-CON 156 MLSS
Special features:	Approvals: NSF COMPONENT	Approvals: NSF COMPONENT	Suitable for measurement of high purity water.

FHKU 10 G1/4" Arnite
Part number 938-1510/01 same device as above but with nozzle size Ø 1.0mm

FHKU 56 G1/4" Ryton
Part number 938-1856/01 same device as above but with nozzle size Ø 5.6mm

more information under

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MATERIAL:
- Turbine PVDF

ELECTRICAL CONNECTION RATINGS:
- Power supply 4.5 – 24 VDC
- Consumption 5 mA to max. 13 mA
- Signal connection Open collector NPN
- Signal voltage 0V GND
- Signal load max. 20 mA
- Leakage current max. 10 μA
- Signal Square-wave output
- Duty Cycle 50% / $\pm$ 5%

TECHNICAL DATA:
- Flow rate 0.041 - 10 l/min depending on the nozzle diameter
- Measuring accuracy $\pm$ 2%
- Repetition $<$ $\pm$ 0.25%
- Pressure range 20 bar at 20 °C
  290 psi at 68 °F
- Mounting position horizontal recommended
- Nozzle size G1/2" Ø 10.0mm (no other size possible)
  Hose connection Ø 7.0mm (no other size possible)
  other connection Ø 1.0, 1.2, 1.5, 2.0, 2.5, 3.0, 4.0, 5.6mm

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

APPROVALS:

CE

FHKUC 70 Hose Ryton	**FHKU 100 G1/2" Arnite**	**FHKU 40 JG 3/8" (9.5mm) Arnite**	**FHKU 100 G1/2" PNP PVDF**
938-3870/AE032	938-6500/01	938-7540/01	938-6300/C182
2 x Hose connection Ø12mm	2 x G1/2" external thread	2 x John Guest 3/8" (9.5mm)	2 x G1/2" external thread
PPS 40% GF (Ryton)	PBT 35% GF (Arnite)	PBT 35% GF (Arnite)	PVDF
EPDM	MVQ (silicon)	MVQ (silicon)	FPM (Viton)
Inox 1.4571	Inox 1.4305 (18/8)	Inox 1.4305	PCTFE
2 x Ceramic Sr Fe O (not in contact with the medium)	2 x Ceramic Sr Fe O (in contact with the medium)	2 x Ceramic Sr Fe O (in contact with the medium)	2 x Ceramic Sr Fe O (not in contact with the medium)
Ø 7.0mm (no other size possible)	Ø 10.0mm (no other size possible)	Ø 4.0mm, Inox 1.4305	Ø 10.0mm (no other size possible)
-10 °C to 100 °C (14 °F to 212 °F)	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 65 °C (14 °F to 149 °F)	-10 °C to 100 °C (14 °F to 212 °F)
1.40 - 18.00 l/min	3.00 - 30.00 l/min	0.123 - 8.38 l/min	3.00 - 30.00 l/min
81 x 43 x 40.50	75 x 43 x 47.50 without MSD (67 with MSD)	86 x 43 x 47.50 without MSD (67 with MSD)	75 x 43 x 47.50 without MSD (67 with MSD)
PANCON MAS-CON 156 MLSS	3 Pin-AMP 2.8mm x 0.8mm	3 Pin-AMP 2.8mm x 0.8mm	3 Pin-AMP 2.8mm x 0.8mm
Suitable for measurement of high purity water.	Approvals: NSF COMPONENT	Hose diameters from 3/8" (9.5mm) can be directly connected.	Signal connection: Open collector PNP.

	FHKU 100 G1/2" Ryton	**FHKU 56 JG 3/8" (9.5mm) Arnite**
	Part number 938-6800/01 same device as above but housing material in PPS 40% GF (Ryton).	Part number 938-7556/01 same device as above but with nozzle size Ø 5.6mm

5

Flow Sensor FHK / FHKU-LCD

5.1 → FHK / FHKU-LCD

GENERAL DESCRIPTION:

The Flow Sensor FHK LCD is an universally applicable control device and Flow Sensor. It's working range can be individually defined according to its nozzle size. It guarantees most precise fluid measurements. Excellent suitably to the monitoring of ion exchanger filter cartridges and for the treatment of water.

Special features: Current supply over lithium battery. Time and date administration, upward or backwards counters, history with date, instantaneous value announcement, automatic impulse calibration, date alarm. With a battery change (measurements are not possible without battery) all attitudes and values are stored.

SHOULD BE CONSIDERED:

Material Resistance:

Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

	FHKU LCD 40 G1/4" Arnite	FHKU LCD 100 G1/2" Arnite	FHK LCD 25 Flange
Designation:			
Part number:	938-1540/21	938-6500/21	937-5525/21
Connections:	2 x G1/4" external thread	2 x G1/2" external thread	Flange
Nozzle size:	Ø 4.0mm	Ø 10.0mm (no other size possible)	Ø 2.5mm
Flow rate:	0.123 - 8.38 l/min	3 - 30.00 l/min	0.06 - 2.74 l/min
Dimensions in mm (LxBxH):	77 x 43 x 47.60	75 x 43 x 47.60	59 x 46 x 47.60
Special features:			

FHKU LCD 10 G1/4" Arnite	**FHKU LCD-EX 100 G1/2" Arnite**	**FHK LCD 56 Flange**
Part number 938-1510/21 same device as above but with nozzle size Ø 1.0mm	Part number 938-6500/22 same device as above but with cable for external display.	Part number 937-5556/21 same device as above but with nozzle size Ø 5.6mm

more information under

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MATERIAL:

- O-ring MVQ (silicon)
- Bearing pin Inox 1.4305 (18/8)
- Nozzle Inox 1.4305 (18/8)
- Turbine PVDF
- Magnet Ceramic Sr Fe O (in contact with the medium)

TECHNICAL DATA LCD:

- Splash-proof IP 65
- Limit measurement 1 - 99999 litres
- Pulses / litre 1 - 65000
- Statistics memory, the last 5 zero resets
- Display with 5 digit
- Counter upward 0 to 99999 litres with and without limit
- Counter downward 99999 to -9999 liters
- Instantaneous value l/min
- Battery lithium CR 2032

TECHNICAL DATA:

- Flow rate 0.041 - 30 l/min depending on the nozzle diameter
- Measuring accuracy ± 2%
- Repetition < ± 0.25%
- Temperature range -10 °C to 65 °C
  14 °F to 149 °F
- Pressure range 10 at 20 °C
  145 psi at 68 °F
- Mounting position horizontal recommended
- Nozzle size G 1/4" internal thread Ø 1.0, 1.2, 1.5, 2.0, 2.5, 3.3mm
  G 1/2" external thread Ø 10.0mm (not other size possible)
  other connection Ø 1.0, 1.2, 1.5, 2.0, 2.5, 3.0, 4.0, 5.6mm

EXTERNAL DISPLAY: Battery and electronics are integrated in the housing. Connection of electronic and Flow Sensor with a cable. All functions have to be served from the external housing.

Flow Sensor for external display: Upper section FHK with cable.

APPROVALS:

FHK LCD 33 G1/4" Arnite

937-1533/21

2 x G1/4" internal thread

Ø 3.3mm

1.396 - 5.36 l/min

54 x 40 x 47.60

FHK LCD 56 G1/8" Arnite

937-6556/21

2 x G1/8" external thread

Ø 5.6mm

0.180 - 8.30 l/min

53 x 37 x 47.60

FHKU LCD 40 JG 3/8" (9.5mm) Arnite

938-7540/21

2 x John Guest Ø 3/8" (9.5mm)

Ø 4.0mm

0.123 - 8.38 l/min

86 x 43 x 47.60

Hose diameters from 3/8" (9.5mm) can be directly connected.

FHK LCD 30 JG Arnite

937-2530/21

2 x Ø 8mm x 20mm

Ø 3.0mm

0.758 - 4.88 l/min

63 x 37 x 47.60

FHK LCD 20 G1/4" Arnite
Part number 937-1520/21 same device as above but with nozzle size Ø 2.0mm

FHKU LCD 56 JG 3/8" (9.5mm) Arnite
Part number 938-7556/21 same device as above but with nozzle size Ø 5.6mm

FHK LCD-EX 30 JG Arnite
Part number 937-2530/22 same device as above but with cable for external display.

6

Flow Sensor FHK / FHKU Thermal

6.1 → FHK / FHKU Thermal

GENERAL DESCRIPTION:

The FHK / FHKU Flow Sensor with termal probe is a general-purpose device; its working range can be individually defined according to its nozzle size. It is employed for measuring, regulating or metering and guarantees most precise measurements of fluid quantities. In addition, a pulse generator integrated into the Flow Sensor guarantees an almost unrestricted life span.
Special features: Great working range, depending on the nozzle diameter. Temperature range sonde integrated.

SHOULD BE CONSIDERED:

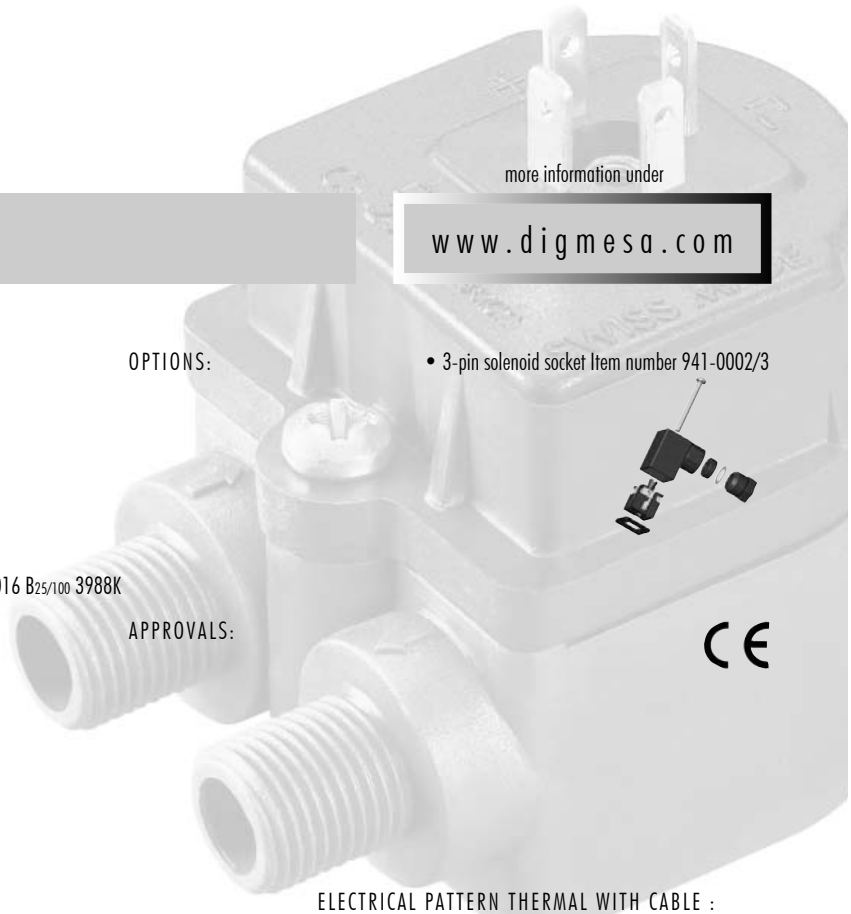
Material Resistance:
Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

Electronics:
DIGMESA Electronic Circuitry is always designed for operation with DIGMESA Flow Sensor. Please note the following if connecting to other electronic circuitry:

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

Designation:	FHK 30 G1/8" Ryton thermal	FHKU 70 Schlauch Ryton thermal	FHK 25 PVDF thermal
Part number:	937-6830/AE232	938-3870/AV244	937-1420/AE192
Connections:	2 x G1/8" external thread	2 x Host connection Ø 12mm	2 x G1/4" internal thread
Housing:	PPS 40% GF (Ryton)	PPS 40% GF (Ryton)	PVDF 30% GK
O-ring:	EPDM	FPM (Viton)	EPDM
Magnets:	2 x Ceramic Sr Fe O (not in contact with the medium)	4 x Ceramic Sr Fe O (not in contact with the medium)	2 x Ceramic Sr Fe O (not in contact with the medium)
Nozzle size:	Ø 3.0mm, PTFE	Ø 7.0mm (no other size possible)	Ø 2.0mm, PTFE
Flow rate:	0.758 - 4.88 l/min	1.40 - 18.00 l/min	0.069 - 2.34 l/min
Dimensions in mm (LxBxH):	53 x 37 x 47.50 without MSD (66.90 with MSD)	81 x 43 x 45 without Cable	54 x 39.75 x 45 without Cable
Electrical connection:	3 Pin-AMP 2.8mm x 0.8mm / 1 Pin 3.5 x 0.8mm	Cable 4 pin, 2000mm length	Cable 4 pin, 650mm length
Special features:	Thermal probe integrated.	Thermal probe integrated.	Thermal probe integrated.

FHK 56 G1/8" Ryton thermal	FHKU 70 Schlauch Ryton thermal	FHK 15 PVDF thermal
Part number 937-6856/AE232 same device as above but with nozzle size Ø 5.6mm	Part number 938-3870/AV242 same device as above but with 2 Magnets.	Part number 937-1420/AE242 same device as above but with cable 2000mm length.



more information under

www.digmesa.com

MATERIAL:

- Turbine PVDF
- Bearing pin Inox 1.4571
- Hull inox 1.4571

ELECTRICAL CONNECTION RATINGS:

- Power supply 4.5 – 24 VDC
- Consumption 5 mA to max. 13 mA
- Signal connection Open collector NPN
- Thermal probe NTC 10kΩ 60 mW R/T8016 $B_{25/100}$ 3988K
- Signal voltage 0V GND
- Signal load max. 20 mA
- Leakage current max. 10 µA
- Signal Square-wave output
- Duty Cycle 50% / ± 5%

TECHNICAL DATA:

- Flow rate 0.041 - 10 l/min
  depending on the nozzle diameter
- Measuring accuracy ± 2%
- Repetition < ± 0.25%
- Temperature range -10 °C to 100 °C
  14 °F to 212 °F
- Pressure range 20 bar at 20 °C
  290 psi at 68 °F
- Mounting position horizontal recommended
- Nozzle size G1/4" internal thread Ø 1.0, 1.2, 1.5, 2.0, 2.5, 3.3mm
  G1/8" external thread Ø 1.0, 1.2, 1.5, 2.0, 2.5, 3.0, 4.0, 5.6mm
  Hose connection Ø 7.0mm (not other size possible)

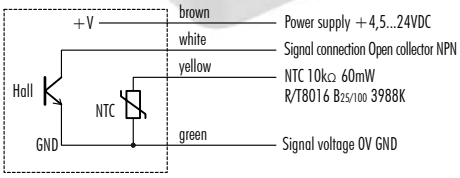
OPTIONS:

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

APPROVALS:

CE

ELECTRICAL PATTERN THERMAL WITH CABLE :



7

Flow Sensor FHKSC

7.1 → FHKSC

GENERAL DESCRIPTION:

The FHKSC Flow Sensor is a general-purpose device that has been specially designed for the use with vibratory pumps. The device is installed between the water container and the vibratory pump (on the suction side) and in this way prevents the measuring errors that arise during pulsating water flow caused by vibratory pumps.
Specific applications: Thanks to its closure system, the water outlet side can be assembled in four different positions.

SHOULD BE CONSIDERED:

Material Resistance:
Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

Electronics:
DIGMESA Electronic Circuitry is always designed for operation with DIGMESA Flow Sensor. Please note the following if connecting to other electronic circuitry:

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

Designation:	**FHKSC 12 R1.2K 0° Arnite**	**FHKSC 18 R1.2K 0° Arnite**	**FHKSC 12 double pulse snapper Ø 3.9**
Part number:	974-8501	974-8502	932-8523
Montage Positions:	0°	0°	0°
Nozzle size:	Ø 1.2mm	Ø 1.8mm	Ø 1.2mm
Flow rate:	0.075 - 0.56 l/min	0.075 - 0.89 l/min	0.075 - 0.56 l/min
Dimensions in mm (LxBxH):	56.5 x 41 x 35.20	56.5 x 41 x 35.20	56.5 x 41 x 35.20
Special features:	Central sprayed fastening pin Ø 2.8 mm x 7.5 mm. Recommended washer disc: Quicklock® Benzing Ø 3 mm. Integrated 1.2K pull-up resistor.	Central sprayed fastening pin Ø 2.8 mm x 7.5 mm. Recommended washer disc: Quicklock® Benzing Ø 3 mm. Integrated 1.2K pull-up resistor.	Centrally ball catch fitting for hole Ø 3.9mm on the lower part of the Flow Sensor.
			Not NSF certified.

FHKSC 12 0° Arnite	**FHKSC 18 R1.2K 180° Arnite**	**FHKSC 12 double pulse snapper Ø 3.9**
Part number 932-8501 same device as above but without pull-up resistor.	Part number 974-8502/180° same device as above but 180° installs.	Part number 974-8523 same device as above but with integrated 1.2K pull-up resistor.

more information under

www.digmesa.com

MATERIAL:

- Housing PBT 35%GF (Arnite)
- Bearing pin injection-moulded like the housing
- O-ring MVQ (silicon)
- Turbine PVDF
- Magnet Ceramic Sr Fe O (in contact with the medium)

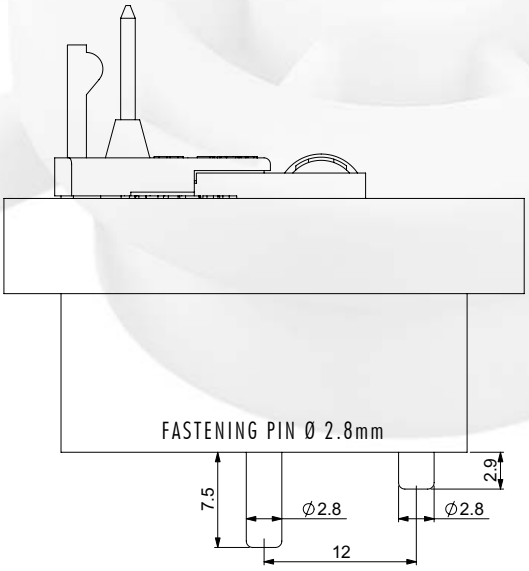
APPROVALS:

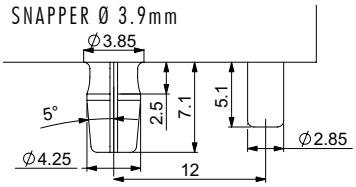
ELECTRICAL CONNECTION RATINGS:

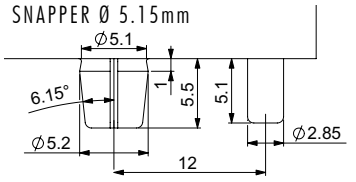
- Power supply 4.5 – 24 VDC
- Consumption 5 mA to max. 13 mA
- Signal connection Open collector NPN
- Signal voltage 0V GND
- Signal load max. 20 mA
- Leakage current max. 10 μA
- Electrical connection PANCON MAS-CON 156 MLSS
- Signal Square-wave output
- Duty Cycle 50% / $\pm$ 5%

TECHNICAL DATA:

- Connections 2 x hose nipple Ø 6mm
- Flow rate 0.041 - 2 l/min
  depending on the nozzle diameter
- Measuring accuracy $\pm$ 2%
- Repetition $<$ $\pm$ 0.25%
- Temperature range -10°C to +65°C
  14°F to 149°F
- Pressure range -1 bar to 0.3 bar at 20 °C
  -14.5 psi to 4.35 psi at 68 °F
- Mounting position horizontal recommended
- Nozzle size Ø 1.0, 1.2, 1.8, 2.0mm

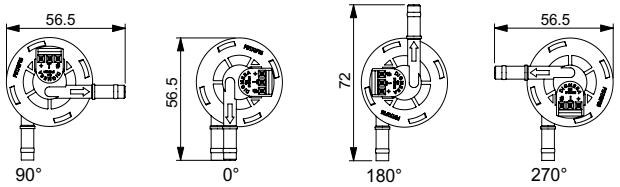


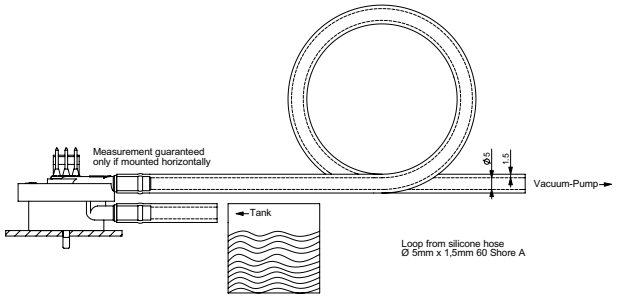




FHKSC 18 R1.2K snapper Ø 3.9	**FHKSC 18 R1.2K snapper Ø 5.4**
974-8522/180	974-8530
180°	0°
Ø 1.8mm	Ø 1.8mm
0.075 - 0.89 l/min	0.075 - 0.89 l/min
72 x 41 x 35.20	56.5 x 41 x 35.20
Centrally ball catch fitting for hole Ø 3.9mm on the lower part of the Flow Sensor. Integrated 1.2K pull-up resistor.	Centrally ball catch fitting for hole Ø 5.4mm on the lower part of the Flow Sensor. Integrated 1.2K pull-up resistor.

ASSEMBLY POSITIONS and RECOMMENDATION:





FHKSC 18 R1.2K snapper Ø 3.9	**FHKSC 18 R1.2K snapper Ø 5.4**
Part number 974-8522 same device as above but 0° installs.	Part number 974-8530/180 same device as above but 180° installs.

8 Flow Sensor FM

8.1 → FM

GENERAL DESCRIPTION:

The FM Flow Sensor is a general-purpose precision device. It measures with constant precision and guarantees maximum accuracy in the measurement of fluid volumes. Its integrated electronic pulse emitter, plus the forces acting centrally upon its vane give an additional guarantee for a practically unlimited useful life. By means of its multi-jet metering principle, a very high degree of accuracy is achieved and for this reason it is employed in many different industrial sectors.
Special features: High accuracy. Sturdy bearing. Impulses can be doubled (turbine with 4 magnets).

SHOULD BE CONSIDERED:

Material Resistance:
Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

Electronics:
DIGMESA Electronic Circuitry is always designed for operation with DIGMESA Flow Sensor. Please note the following if connecting to other electronic circuitry:

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

Designation:	**FMIG 1/2" Arnite 2 Magnets**	**FMFG 1/2" Denilen 4 Magnets**	**FMIG 1/2" Ryton 2 Magnets**
Part number:	935-1500/2	935-2904/4	935-1800/2
Housing:	PBT 35% GF (Arnite)	PP 20% Talk (Denilen)	PPS 40% GF (Ryton)
Parting disk:	PBT 35% GF (Arnite)	PP 20% Talk (Denilen)	PPS 40% GF (Ryton)
Pressure range:	20 bar at 20°C / 290 psi at 68 °F	6 bar at 20°C / 87 psi at 68 °F	20 bar at 20°C / 290 psi at 68 °F
Magnets:	2 Magnets	4 Magnets	2 Magnets
Dimensions in mm (LxBxH):	116 x 82 x 66 without MSD (85.5 with MSD)	116 x 81.5 x 65.5	116 x 82 x 66 without MSD (85.5 with MSD)
Electrical connection:	3 Pin-AMP 2.8mm x 0.5mm	Faston AMP 6.3mm x 0.8mm	3 Pin-AMP 2.8mm x 0.5mm
Special features:	Temperature range: -10 °C to 65 °C 14 °F to 149 °F	Temperature range: -10 °C to 65 °C 14 °F to 149 °F	Temperature range: -10 °C to 100 °C 14 °F to 212 °F

Not NSF certified.

FMIG 1/2" Arnite 4 Magnets
Part number 935-1500/4 same device as above but with 4 Magnets.

FMIG 1/2" Ryton 4 Magnets
Part number 935-1800/4 same device as above but with 4 Magnets.

more information under

www.digmesa.com

MATERIAL:

- O-ring MVQ (silicon)
- Bearing pin Inox 1.4305 (18/8)
- Turbine PVDF
- Magnet Ceramic Sr Fe O (in contact with the medium)

ELECTRICAL CONNECTION RATINGS:

- Power supply 4.5 – 24 VDC
- Consumption 5 mA to max. 13 mA
- Signal connection Open collector NPN
- Signal voltage 0V GND
- Signal load max. 20 mA
- Leakage current max. 10 μA
- Signal Square-wave output
- Duty Cycle 50% / $\pm$ 5%

TECHNICAL DATA:

- Connections 2 x G1/2" external thread
- Flow rate 0.24 - 18 l/min
- Measuring accuracy $\pm$ 2%
- Repetition $<$ $\pm$ 0.25%
- Mounting position horizontal recommended
- Nozzle size Ø 8mm

OPTIONS:

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

APPROVALS:

FMIG 1/2" Denilen 4 Magnets

935-1904/4	
PP 20% Talk (Denilen)	
PP 20% Talk (Denilen)	
6 bar at 20°C / 87 psi at 68 °F	
4 Magnets	
117 x 81.5 x 66 without MSD (85.5 with MSD)	
3 Pin-AMP 2.8mm x 0.5mm	
Temperature range: -10 °C to 65 °C 14 °F to 149 °F	

FMFG 1/2" Arnite 2 Magnets

935-2500/2	
PBT 35% GF (Arnite)	
PBT 35% GF (Arnite)	
20 bar at 20°C / 290 psi at 68 °F	
2 Magnets	
116 x 82 x 65.5	
Faston AMP 6.3mm x 0.8mm	
Temperature range: -10 °C to 65 °C 14 °F to 149 °F	

FMFG 1/2" Ryton 2 Magnets

935-2800/2	
PPS 40% GF (Ryton)	
PPS 40% GF (Ryton)	
20 bar at 20°C / 290 psi at 68 °F	
2 Magnets	
116 x 82 x 65.5	
Faston AMP 6.3mm x 0.8mm	
Temperature range: -10 °C to 100 °C 14 °F to 212 °F	

Not NSF certified.

FMIG 1/2" Denilen 2 Magnets Part number 935-1904/2 same device as above but with 2 Magnets.	**FMFG 1/2" Arnite 4 Magnets** Part number 935-2500/4 same device as above but with 4 Magnets.	**FMFG 1/2" Ryton 4 Magnets** Part number 935-2800/4 same device as above but with 4 Magnets.

9

Flow Sensor EPI

9.1 → EPI

GENERAL DESCRIPTION:

The EPI Flow Sensor 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 Flow Sensor is highly precise and allows extremely accurate flow measurements with minimal pressure loss.
Specific applications: Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

SHOULD BE CONSIDERED:

Material Resistance:
Special regulations which must be in compliance with the Flow Sensor manufacturer appliable in each country, e.g. CE, NSF, FDA and SK. The various media flowing through the Flow Sensor differs from application to application. Clarifications over the entire installation and Flow Sensor resistance to the medium itself (see material) are recommended!

Electronics:
DIGMESA Electronic Circuitry is always designed for operation with DIGMESA Flow Sensor. Please note the following if connecting to other electronic circuitry:

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

Designation:	**EPI PA 6.6 Verton**	**EPI PA 6.6 Verton LED**	**EPI PA 6.6 Verton double-Hall**
Part number:	930-0101/V01	930-0101/V02	930-0101/V03
Housing:	PA 6.6 50% GF (Verton)	PA 6.6 50% GF (Verton)	PA 6.6 50% GF (Verton)
Electrical connection:	3 Pin-AMP 2.8mm x 0.8mm	3 Pin-AMP 2.8mm x 0.5mm	3 Pin-AMP 2.8mm x 0.8mm / 1 Pin 3.5 x 0.8mm
Special features:		Pulse detection by incorporated LED in cover (lights once per pulse).	Can be calibrated via the 4th pin (Double-Hall).

EPI PA 6.6 Verton chemistry	**EPI PA 6.6 Verton LED chemistry**	**EPI PA 6.6 Verton double-Hall chemistry**
Part number 930-0101/CV01 same device as above but with bearing pin aluminium oxide.	Part number 930-0101/CV02 same device as above but with bearing pin aluminium oxide.	Part number 930-0101/CV03 same device as above but with bearing pin aluminium oxide.

more information under

www.digmesa.com

MATERIAL:

- O-ring FPM (Viton)
- Bearing pin Inox 1.4435
- Turbine PEEK
- Magnet NdFeB (Neodym) not in contact with the medium

ELECTRICAL CONNECTION RATINGS:

- Power supply 4.5 – 24 VDC
- Consumption 5 mA to max. 13 mA
- Signal connection Open collector NPN
- Signal voltage 0V GND
- Signal load max. 20 mA
- Leakage current max. 10 μA
- Signal Square-wave output
- Duty Cycle 50% / $\pm$ 5%

TECHNICAL DATA:

- Connections 2 x G1/4" internal thread
- Flow rate 0.06 - 16 l/min
- Measuring accuracy $\pm$ 2%
- Repetition $<$ $\pm$ 0.25%
- Temperature range -10°C to +65°C
  14°F to 149°F
- Pressure range 10 bar at 20 °C
  145 psi at 68 °F
- Mounting position horizontal recommended
- Nozzle size Ø 7.0mm
- Viscosity range: approx. 5 - 8000 centistokes
- Dimensions in mm L x B x H: 88 x 71 x 49 without MSD (68 with MSD)

OPTIONS:

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

APPROVALS:

CE

EPI PP Verton	**EPI PP Verton LED**	**EPI PP Verton double Hall**	**EPI PA 6.6 Verton chemistry**
930-0901/V01	930-0901/V02	930-0901/V03	930-0101/CV01
PP 50% GF (Verton)	PP 50% GF (Verton)	PP 50% GF (Verton)	PA 6.6 50% GF (Verton)
3 Pin-AMP 2.8mm x 0.8mm	3 Pin-AMP 2.8mm x 0.5mm	3 Pin-AMP 2.8mm x 0.8mm / 1 Pin 3.5 x 0.8mm	3 Pin-AMP 2.8mm x 0.8mm
	Pulse detection by incorporated LED in cover (lights once per pulse).	Can be calibrated via the 4th pin (Double-Hall).	Bearing pin aluminium oxide (industry diamond Al_2O_3).

EPI PP Verton chemistry	**EPI PP Verton LED chemistry**	**EPI PP Verton double Hall chemistry**
Part number 930-0901/CV01 same device as above but with bearing pin aluminium oxide.	Part number 930-0901/CV02 same device as above but with bearing pin aluminium oxide.	Part number 930-0901/CV03 same device as above but with bearing pin aluminium oxide.

10

FCD 3

more information under

www.digmesa.com

10.1 → FCD 3

GENERAL DESCRIPTION:

The FCD 3 is equipped with most modern microprocessor electronics. In connection with Digmesa measuring instruments a higly precise monitoring systems is the result. Local or remote interrogation or administration is available at any time. Even during an interrogation, the measurement output being received is registered continuously. Stored dada remain intact even after a power cut.

Special features: With attached Flow Sensor which must have over foam recognition (sm) with 4Pin, there exists the possibility to attach an extension line (barrel empty), an external alarm (barrel change-over, acoustic / indicator).

BASIC SYSTEM:

- 1 module for 4 lines (up to 4 Flow Sensors can be connected)
- RS232 interface (RS485 can be supplied on request)
- cable connections
- 1 master key
- 1 clean key (cleaner's key)
- mains voltage 230 VAC
- operating manual
- dimensions in mm L x H x T: 204 x 217 x 116

MAXIMUM SYSTEM:

- 4 modules, each with 4 lines for administration of up to 16 lines, making a subsequent extension possible at any time of 4 lines each.
- cable connections

Designation:	FCD 3 4 lines with RS232 interface	FCD 3 12 lines with RS232 interface	FCD 3 16 lines with RS485 interface
Part number:	923-9304/RS232	923-9312/RS232	923-9316/RS485
Lines:	4	12	16
Modules (4 lines):	1 (Part number 923-9200)	3 (Part number 923-9200)	4 (Part number 923-9200)
Special features:	Up to 4 Flow Sensor can be connected.	Up to 12 Flow Sensor can be connected.	Up to 16 Flow Sensor can be connected.

FCD 3 4 lines with RS485 interface	FCD 3 12 lines with RS485 interface	FCD 3 16 lines with RS232 interface
Part number 923-9304/RS485 same device as above but with RS485 interface.	Part number 923-9312/RS485 same device as above but with RS485 interface.	Part number 923-9316/RS232 same device as above but with RS232 interface.

11

FC I

11.1

→ FC I

more information under

www.digmesa.com

GENERAL DESCRIPTION:

The FC Flowcontroller (without limit) is the single-line version of the FCD 3. However, remote interrogation is not available. When used in combination with Digmesa Flow Sensor, it will permit the most simple and accurate measurement and control of fluids. With the aid of the FC Programmer, the FC Flowcontroller can be pre-programmed with the desired limit values or number of impulses. It is therefore extremely suitable for the monitoring of decalcifiers, ion-exchangers or activ carbon filters, being used for cleaning ans detoxifying of water. A zero setting is carried out the reset button; the last 24 values are stored and will remain intact even in the event of a power cut. To prevent manipulation, the FC can also be supplied with a reset cable (for key switches).

SCOPE OF SUPPLY:

- 1 Flow Sensor can be connected.
  all Digmesa Flow Sensor, with the exeption of 4-pin versions (SIG,FHKN,FHKUN).
- 1 3-pin solenoid socket
- 1 4-pin solenoid socket
- mains voltage 230 VAC
- operating manual
- dimensions in mm L x H x T: 104 x 92 x 39

FC PROGRAMMER:

The FC Programmer is required to program and/or alter the impulse and limit values for the FC Flowcontroller. The FC Programmer can be used again and again, even for additional FCs. For this reason it is not contained in the supply specification.

- dimensions in mm L x B x T: 85 x 46 x 16, cable-lengthens 400 mm

Designation:	**FC I with limit**	**FC Programmer**	**FC I without limit**
Part number:	925-1100	925-0200	925-1101
Special features:	As soon as the adjusted limit value is reached, the red LED begins to flash.		

FC I with limit and reset-cable
Part number 925-1120 same device as above but with reset-cable.

FC I without limit and reset-cable
Part number 925-1130 same device as above but with reset-cable.

12 CMC Quattro / Duo

12.1 → CMC Quattro / Duo

more information under

www.digmesa.com

GENERAL DESCRIPTION CMC QUATTRO:

The CMC Quattro is, when used in combination with Digmesa meters, a highly accurate electronic control and metering system. It is employed everywhere where different (or the same) quantities of different (or same) fluids need to be metered, controlled, or regulated. In connection with the RS232 interface, the CMC Quattro will control and record every process and can also be connected to any billing system and controlled remotely.

MAXIMUM SYSTEM:

- 4 groups (keypads) with 5 portions (keys)
- 2 level sensors
- 1 timer (Tee)
- 1 interface RS232 (optional)

GROUP SYSTEM:

- 4 lines and one multi-function key (stop / free running or fifth portion)
- a single ribbon cable (optional) leads to all the keypads
- mains voltage 230 VAC
- all Digmesa Flow Sensor can be connected, except 4-pin versions (FF-SIG)

GENERAL DESCRIPTION CMC DUO:

The CMC Duo is the CMC Quattro's little brother. It is suitable for the control and metering of two groups and cannot be supplied with an interface.

MAXIMUM SYSTEM:

- 2 groups (keypads) with 5 portions (keys)
- 1 level probe
- 1 safety sensor (optional)
- 1 timer (Tee)

GROUP SYSTEM:

- 2 lines and one multi-function key (stop / free running or fifth portion)
- a single ribbon cable (optional) leads to all the keypads
- mains voltage 230 VAC
- all Digmesa Flow Sensor can be connected, except 4-pin versions (FF-SIG)

Designation:	CMC Quattro 4NT	CMC Quattro 4NT RS232	CMC Duo 2NT
Part number:	921-0000	921-0000/RB	921-0231
Dimensions in mm (LxBxH):	206 x 120 x 48	206 x 120 x 48	125 x 89 x 41.5
Level sensors:	2	2	1
Special features:		Interface RS 232 (optional)	

13

CMC Keypads

13.1

→ CMC Keypads

more information under

www.digmesa.com

GENERAL DESCRIPTION:

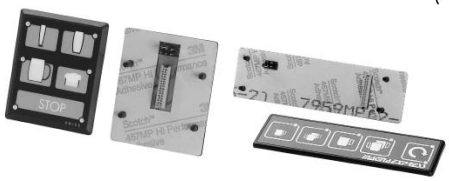
To complement our metering and monitoring systems we also offer suitable Keypads. Up to four lines are connected to the control system electronic by a single ribbon cable. Addressing is carried out by means of a jumper on the reserve. In plain language this means that you only need one Keypad, which you can adapt to the desired group at any time. The Keypad layout also can be adapted to individual customer requirements on request.

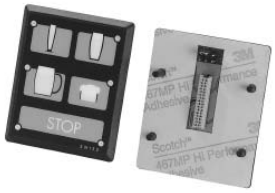
FRONTAL FRAME KEYPAD:

Frontal frame Keypad with 5 keys and an LED display. Very simple to assemble by means of a snap-on mechanism (front plate thickness)

FLAT KEYPADS:

Flat Keypads with 5 clicking buttons and an LED display. Very simple to assemble by means of 4 pegs (Ø 3.0mm) and self-adhesive plastic foil.





Designation:	CMC Keypad frontal frame	CMC Keypad flat	CMC Keypad flat
Part number:	924-9000/09	924-9050	923-9040
Front plate thickness:	0.9mm		
Dimensions in mm (LxBxH):	117 x 46 x 16	60 x 50 x 12	122 x 35 x 12
Special features:	The simplest assembly by means of a snap-on mechanism (front plate thickness 0.6, 0.9, 1.2, 1.5, 2.0 und 2.5mm).	The simplest assembly by means of 4 pegs (Ø 3.0mm) and self-adhesive plastic foil.	The simplest assembly by means of 4 pegs (Ø 3.0mm) and self-adhesive plastic foil.

CMC Keypad frontal frame
Part number 924-9000/15 same device as above but for front plate thickness 1.5mm.

Where trust flows, enduring partnerships are formed.

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