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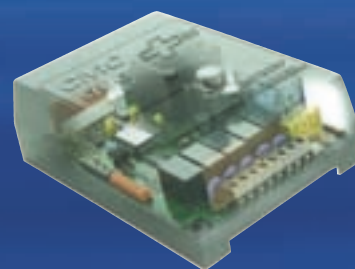
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DIGimesa

Why Digimesa?

Digimesa's meters will also work perfectly well under extreme conditions. Amongst other things, Swiss precision manifests itself in a measurement accuracy of ± 2 percent and a repeating accuracy of ± 0.25 percent — even under constant loading. Due to cleverly devised construction, no deposits can form, so our meters operate completely hygienically.

We offer you a further advantage in the wide variety of models that permit an optimum adaptation to given circumstances. Whether it is for a new project or for fitting as an extra, we will make every effort to find a solution.



What is Digmaesa?

We are a medium-sized firm with our head office in Ipsach. Wide expertise, high flexibility in respect of individual customer requirements and the manufacture of high-quality Swiss products have all contributed to the fact that we can now enjoy a worldwide acclaim.

All this began with a vision: At the beginning of the '70s Heinz Plüss had the idea of constructing a meter to achieve the simple measurement of water into coffee machines. He developed the first device on his own, convinced a succession of potential customers of the advantages of his design and enjoyed such an excellent response that he founded DIGMESA AG in 1983, at that time with its head office still in Biel.

Management (from left to right): Roger Plüss, André Plüss, Heinz Plüss



What does Digmaesa do?

We manufacture high-quality precision flowmeters and high-tech electronics for the food and non-food industries. Small and minute quantities of fluids such as aqueous, highly viscose and also chemically aggressive media can be measured, regulated, monitored, metered and evaluated using our devices and come to be used in the most varied of sectors, throughout the world.

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Catering trade

Digmesa's food flowmeters are patented and universally usable precision products. All devices meet the conditions of the German bar dispensing standard (SK 223.01) and can just as easily be fitted retroactively. As well, which devices are right for beer, wine, mineral water, milk or other soft drinks, that we will explain to you starting at page 6.

Chemicals

Aggressive media such as acids and alkalis can be measured, monitored and metered using Digmesa devices. However, not every material reacts in the same way. With chemicals it depends on whether medium and material are compatible. So don't just look for your solution from page 22!

Electronics

Measurements can be made by using flowmeters. So that the quantities flowing can also be monitored and evaluated, we will leading you through the world of high-tech electronics from Digmesa, starting at page 26.



Coffee

It was once Digma's revolution that coffee machines could be equipped with the latest microprocessor electronics. Today that is no longer a luxury — leading manufacturers of professional and household coffee machines know why they have decided on Digma. You can find out more starting at page 10.

Industry

Industry's requirements with regard to measuring, metering and monitoring are many and diverse in the extreme. We accommodate these requirements using a wide range of products and components and a healthy portion of flexibility. You will not just find meters, electronics, control systems etc. starting at page 14, but also throughout this brochure.

Control systems

Obtain the desired quantity with the press of a button? Level monitoring and regulation? You will find more about highly accurate metering control systems and level relays from Digma, starting at page 28.

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Do you need help? Do you want to visit us? No problem, we will be there for you. How can you reach us? Have a quick look at page 30.

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The customer is happy, but what about the till?

In almost every catering outlet 12.5 to 25 percent of the cold drinks 'sold' are not charged for. That take's away the money and the business's, that is. No surprise then that at the end of a long day the money is not in the cashregister.





The catering trade - precise measuring and better accounting.



Happiness is everywhere, when quantity and quality are right.

Using Digma's meters and electronics the problem of inaccurate accounting can be solved. Our devices have been developed in accordance with state-of-the-art knowledge in drinks dispensing technology and will ensure the accuracy of measurement. And: Digma's food flowmeters are not only extremely accurate; they will also offer you an excellent cost-performance ratio.



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Food-Flowmeters

Fitting position	using ruby bearing; freely selectable using pin bearing; horizontal
Electrical connection	Standard 3-pin, AMP 2.8 x 0.8 mm Micro-DIN 43650-C
Temperature range	-10°C to +65°C/14°F to 149°F
Pressure range	max. 5.5 bars/79 psi at 20°C/68°F

Materials

Housing	PBT 35% GF (Arnite)
Seal	MVQ (Silicon O-ring)
Bearing/bearing pin	Ruby bearing: ruby Pin bearing: INOX 18/8 (1.4305)
Turbine	PVDF with two magnets. (In devices with ruby bearing the magnets are welded ultrasonically, in devices with pin bearing the magnets are in contact with the medium.)
Magnets	Ceramic Sr Fe O
Options	Foam detector sm (3-pin) Foam detector sm SIG (4-pin)

The magnetic-socket set (IP 65 - EN 60529) is included within the supply specifications for all food-flowmeters.

Approvals/Norms	NSF, SK 223.01, CE
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The food-flowmeter is a precision device that finds universal application. It measures with constant precision and guarantees the most exact of fluid measurements. The electronic pulse generator integrated into the food-flowmeter guarantees in addition a practically unlimited serviceable life. The food-flowmeter finds particularly successful application in bar and post-mix systems. What is more, it will likewise accurately measure spirits or chemically aggressive media and can therefore find usage in the most varied branches of industry.

You can find other SK-validated devices for larger throughput quantities in the 'Industry' section on pages 20 and 21.

Catering trade

Important notes

These meters are suitable above all for watery fluids. It is possible to measure fluids of a higher viscosity, but this causes the range of measurement to be restricted.

Details such as temperature, pressure and flowrange measurement are based on tests that were carried out using water (at 20°C / 68°F).

Devices for the measurement and metering of spirits and syrup etc are to be found in the Industry section. See at to the devices with SK approval.





Food-Flowmeter FFC 40 / FF JG 40

Suitable for soft drinks, milk, wine etc



Connections	FFB2 50: 2 x external thread 5/8" FF JG 50: «John Guest» hose connection hose OD: 8.0 mm / 5/16" or 9.5 mm / 3/8" or 10.0 mm
nozzle size	Ø 5,0 mm
Flowrange	0,3–10,0 l/min
Weight	Approx. 122 g
Dimen. (L x B x H)	Approx. 89 x 57 x 64 mm

Food-Flowmeter FFB2 50/ FF JG 50

Suitable for beer, as well as for soft drinks, milk, wine etc.



Connections	FFB2 50: 2 x external thread 5/8" FF JG 50: «John Guest» hose connection, hose OD: 8.0 mm / 5/16" or 9.5 mm / 3/8" or 10.0 mm
nozzle size	Ø 5.0 mm
Flowrange	0.3–10.0 l/min
Weight	Approx. 122 g
Dimen. (L x B x H)	Approx. 89 x 57 x 64 mm

Food-Flowmeter FFB 50

Suitable for soft drinks, milk, wine etc.



Connections	1 x external thread 5/8" and 1 x swivel nut
nozzle size	Ø 5,0 mm
Flowrange	0,3–10,0 l/min
Weight	Approx. 176 g
Dimen. (L x B x H)	Approx. 103 x 57 x 64 mm

Can only be supplied with jewel bearing

Food-Flowmeter FFP 50

Suitable for soft drinks, milk, wine etc.



Connections	2 x external thread UNF 7/16" (Pepsi screw connection)
nozzle size	Ø 5,0 mm
Flowrange	0,3–10,0 l/min
Weight	Approx. 122 g
Dimen. (L x B x H)	Approx. 94 x 57 x 64 mm

Ruby bearing

The pin bearings manufactured with Swiss accuracy sit in two cups made of ruby and have absolute freedom of movement due to their degree of hardness. Devices with jewel bearings can be fitted in any position.



Foam detector sm

Foam detectors come into contact with the medium. They recognize whether fluid or foam is present. This information is fed to the integrated electronics contained in the upper part. In the 3-pin version the electronics interrupt the pulse emission. In the 4-pin (SIG) version a signal can be evaluated.



Pin bearings

To prevent measurement errors, devices that use pin bearings must be fitted **horizontally** (right-angled wall fitting of a board or piece of angle steel).



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Perfection in the enjoyment of coffee does not happen by chance.



Digmesa and a well-kept secret.

You can leave the precise control of your coffee machine and exact metering to Digmesa. Many people do that, by the way: Throughout the world nowadays our meters and electronic high-tech control systems are being fitted to semi and fully-automatic coffee machines.



Take a handful of selected coffee beans . . .

For a high-grade coffee mixture to produce a good cup of coffee, everything connected with its preparation must be right. Coffee producers take care of the careful roasting of the beans, but that is not the end of it: Even during preparation nothing must be left to chance.



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Important notes

These meters are suitable above all for watery fluids. It is possible to measure fluids of a higher viscosity, but this causes the range of measurement to be restricted.

Details such as temperature, pressure and range of flowrange measurement are based on tests that were carried out using water (at 20°C / 68°F).

Devices for the measurement and metering of spirits and syrup etc are to be found in the Industry section. Pay heed to the devices with SK approval.

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Flowmeter FH in Green Brass

Fitting position	horizontal
Connections	2 x interior thread G 1/4"
nozzle size	Ø 0.7 mm, 1.0 mm, 1.2 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 6.5 mm (less press-in jet)
Temperature range	-10°C to +100°C / 14°F to 212°F
Pressure range	max. 20 bars / 290 psi at 20°C / 68°F
Weight	Approx. 300 g, according to version
Dimensions (L x B x H)	Approx. 55 x 40 x 47 mm

Materials

Housing	Green brass (lead-free brass)
nozzle size	INOX 18/8 (1.4305)
Seal	MVQ (Silicon O-ring)
Bearing/bearing pin	INOX 18/8 (1.4305) Pin bearing: INOX 18/8 (1.4305)
Turbine	PVDF, using two magnets
Magnets	Ceramic Sr Fe O

Options	Foam detector sm (3-pin) Foam detector sm SIG (4-pin) The magnetic-socket set (IP 65 - EN 60529) for upper sections FH, FHI
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Approvals/Norms	NSF, CE
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Made coffee

More and more often made coffee is also being measured. For this application we recommend the FFS 60 Ryton food-flowmeter with Serto connection (OD 12.0 mm). The housing and the parts coming in contact with the medium are made of the same material as for example the FHK Ryton flowmeter (see pages 17 to 18). The Flowrange lies between 0.7 and 12.0 l/min.





Flowmeter FH

3 Pin — AMP 2.8 x 0.8 mm
Micro-DIN 43650-C



Flowmeter FHP

Plug-in connection
Panduit MAS-CON 098 mils



Flowmeter FHF

Faston AMP 6.3/2.8 mm



Flowmeter FHI

3 Pin — AMP 2.8 x 0.5 mm (Italy)
with integrated resistor R1.2K
Option: LED (R1.8K)



Please note that flowmeters in the FHK Arnite and Ryton model series are very often used in coffee machines. You will find out more about this in the Industry section, pages 17 to 18.



FHKSC flowmeter

Fitting position	Horizontal
Connections	Hose nipple OD 6.0 mm
Electrical connection	Molex 3-pin, Panduit MAS-CON 156 mils
nozzle size	Ø 1.0 / 1.2 / 1.8 / 2.0 mm
Temperature range	-10°C to +65°C / 14° to 149°F
Pressure range	-1 bar (sucking) to 0.3 bars 14.5 to +4.35 psi
Flowrange	approx. 0.8 - 1.35 l/min according to nozzle size
Weight	approx. 50 g
Dimensions (L x B X H)	approx. 57-73 x 57 x 39 mm, according to fitting direction

Materials

Housing	PBT 35% GF (Arnite)
Seal	MVQ (silicon O-ring)
Bearing/bearing pin	Injection-moulded like the housing
Turbine	PVDF using two magnets
Magnets	Ceramic Sr FE O

Options	Integrated pull-up resistor R1.2K Inlet/outlet 0°, 90°, 180° or 270° Double pulse (not NSF certified)
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Approvals, Norms	NSF, CE
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Lower part with snapper for 2.9 or 5.1 mm Ø hole



Lower part with 3.0 mm Ø pin for locking washer



The FHKSC Flowmeter is a device that finds universal application and that has been specially constructed for coffee machines using vibrating pumps. The meter is installed between the water tank and the vibration pump (suction side) thus preventing the metering errors that arise with the pulsating water flow created by vibration pumps. This way most precise metering and water quantity measurements can be achieved. Thanks to the sealing system, the water outlet side can be fitted in four different positions.

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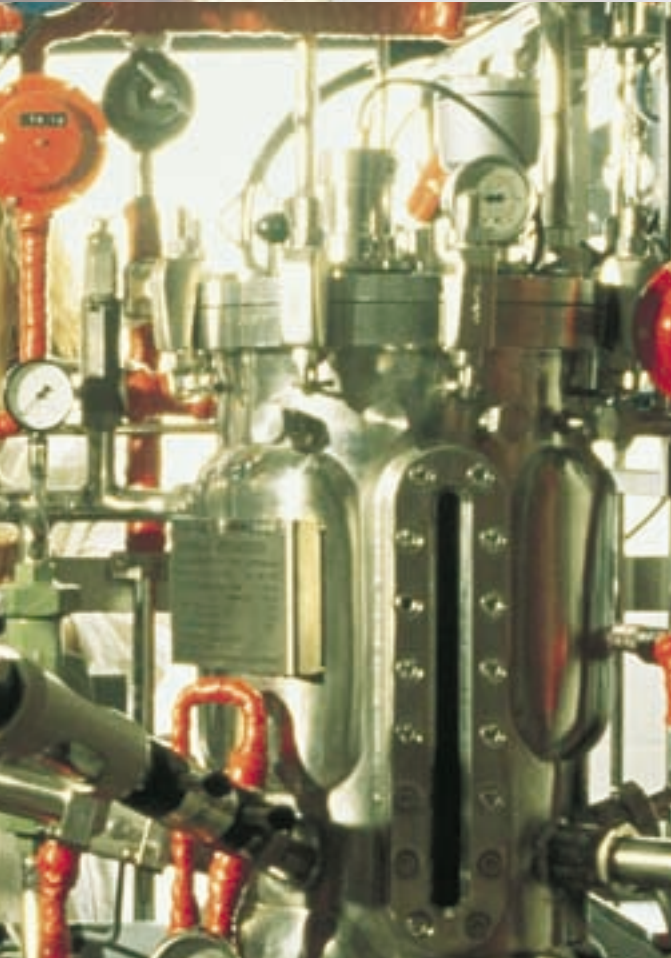
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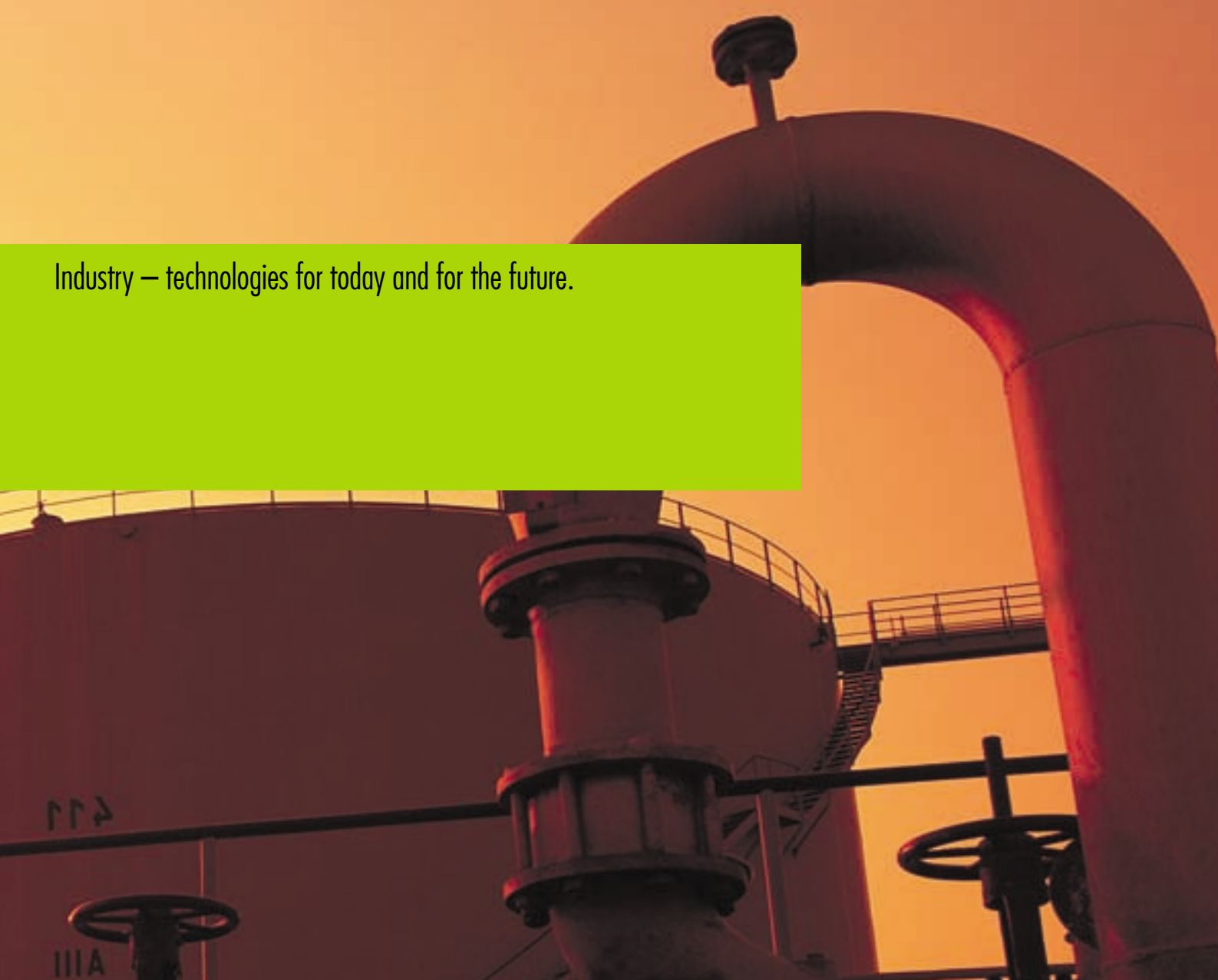
Heating and cooling under control.

Precise measurement and monitoring of flowing media is more and more in demand by industry. Cooling and heating fluids have to be permanently monitored, since if a machine should carry on working despite lack of fluid, then considerable damage could be caused. By using Digma meters you will make sure that this does not happen. Our meters are also used in water treatment and softening, or in the monitoring of cooling water quantities, active carbon filters, laser function etc.



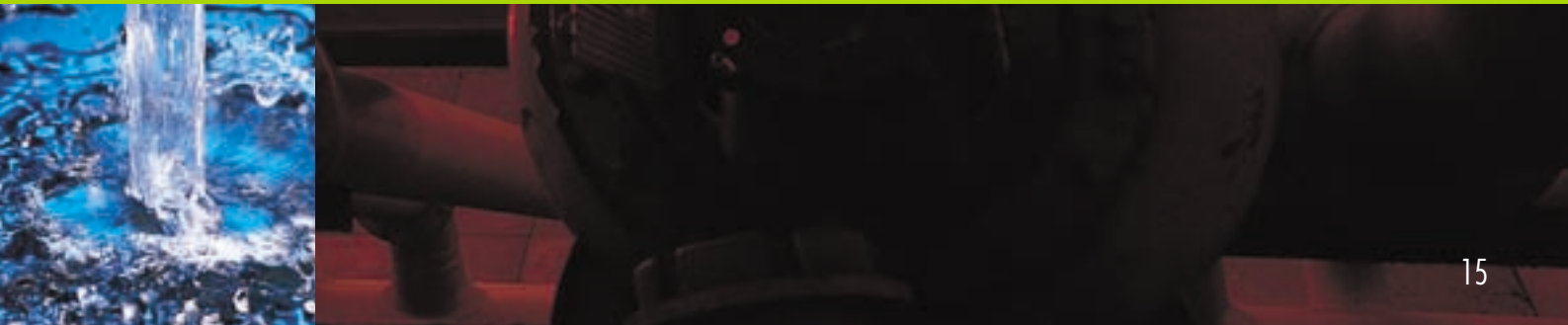


Industry – technologies for today and for the future.



Individual solutions for individual needs.

In the manufacture of our meters we use only high-quality materials. The wide and diverse range of connections enables us to find a solution even for complicated solutions. Our rigorous observance of international guidelines and norms, as well as appropriate certification, make it easier for our worldwide customer base to obtain approval for our meters and their systems.



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Important notes

These meters are suitable above all for watery fluids. It is possible to measure fluids of a higher viscosity, but this causes the range of measurement to be restricted.

Details such as temperature, pressure and range of flowrange measurement are based on tests that were carried out using water (at 20°C / 68°F).

Other devices that can also be used in the industrial sector are to be found in the Catering trade, Coffee and Chemicals sections. Please take note also of the electronics and control systems.

For usage in the food industry, the FHK G¹/₄" flowmeter in Arnite can also be supplied with SK 223.02 approval.



FHK Flowmeters – the flexible alternative in Arnite or Ryton

Fitting position	horizontal
Temperature range	Arnite: -10°C to +65°C / 14°F to 149°F Ryton: -10°C to +100°C / 14°F to 212°F
Pressure range	Arnite/Ryton: max 20 bars /290 psi at 20°C / 68°F
Flowrange	Approx. 0.08 - 9.0 l/min, according to nozzle size
Weight	Approx. 150 g, according to version
Dimensions (L x B x H)	54-63 x 40 x 49, according to version

Materials

Housing	PBT 35% (Arnite) or PPS 40% GF (Ryton)
nozzle size	INOX 18/8 (1.4305)
Seal	MVQ (silicon O-ring)
Bearing/ bearing pin	INOX 18/8 (1.4305) or injection moulded like the housing

Turbine	PVDF, using two magnets
Magnets	Ceramic Sr Fe O

Options	Magnetic-socket set (IP 65 - EN 60529) for upper sections FHK, FHKI, FHKN SK 223.02 for FHK Arnite flowmeters
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Approvals/norms	NSF, CE
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The FHK flowmeter finds universal application. It measures with constant precision and guarantees the most exact of fluid measurements. The electronic pulse generator integrated into the food-flowmeter guarantees in addition a practically unlimited serviceable life. Thanks to an extremely precise injection moulding technique, the upper and lower parts can be freely assembled, thus finding the optimum solution for every application.



INOX pin bearing

Injection-moulded pin

For industrial application we recommend pin bearings in INOX. According to the application, e.g. for low throughput and/or low-pressure devices using an injection-moulded pin can also be used. For use with deionized water we offer a special version.





Upper parts

FHK

3 Pin — AMP 2.8 x 0.8 mm
Micro-DIN 43650-C



Lower parts

G 1/4" internal thread

(can only be supplied with INOX pin bearing)
nozzle sizes: Ø 1.0 mm, 1.2 mm, 1.5 mm
2.0 mm, 2.5 mm, 3.3, (without press-in jet)



FHKF

Faston AMP 6.3 / 2.8 mm



G 1/8" external thread

nozzle sizes: Ø 1.0 mm, 1.2 mm, 1.5 mm
2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.6 mm
(without press-in jet)



FHKC

Plug-in connection
Panduit MAS-CON 156 mils
Option: Pull-up resistor R1.8K



Flange connection

nozzle sizes: Ø 1.0 mm, 1.2 mm, 1.5 mm
2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm,
5.6 mm (without press-in jet)



FHKI

3-pin — AMP 2.8 x 0.5 mm (Italy)
Micro-DIN 43650-C
with integrated pull-up resistor R1.2K
Option: LED (pull-up resistor R1.8K)



Hose nipple Ø 10.0 mm

nozzle sizes: Ø 1.0 mm, 1.2 mm, 1.5 mm
2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.6 mm
(without press-in jet)



FHKN

4-pin — AMP 2.8 x 0.8 mm
Micro-DIN 43650-C
Level probe (also suitable for combination with the level relay HF2 PP (Page 29))



«John Guest» nipple OD Ø 8.0 mm

nozzle sizes: Ø 1.0 mm, 1.2 mm, 1.5 mm
2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.6 mm
(without press-in jet)



FHKP

Plug-in connection
Panduit MAS-CON 098 mils



External thread BSF 1/2"

(Cola screw-connection)
nozzle sizes: Ø 1.0 mm, 1.2 mm, 1.5 mm
2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.6 mm
(without press-in jet)



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These meters are suitable above all for watery fluids. It is possible to measure fluids of a higher viscosity, but this causes the range of measurement to be restricted.

Details such as temperature, pressure and range of flowrange measurement are based on tests that were carried out using water (at 20°C / 68°F).

Other devices that can also be used in the industrial sector are to be found in the Catering trade, Coffee and Chemicals sections. Please take note also of the electronics and control systems.

For usage in the food industry, the FHK G¹/₄" flowmeter in Arnite can also be supplied with SK 223.02 approval.

www.digmesa.com

Flowmeter FHKU – the universal in Arnite or Ryton

Fitting position	horizontal
Temperature range	Arnite: -10°C to +65°C / 14°F to 149°F Ryton: -10°C to +100°C / 14°F to 212°F
Pressure range	Arnite/Ryton: max 20 bars /290 psi at 20°C / 68°F
Flowrange	Approx. 0.08 - 30.0 l/min, according to nozzle size
Weight	Approx. 150 g, according to version
Dimensions (L x B x H)	81 x 43 x 49, according to version

Materials

Housing	PBT 35% (Arnite) or PPS 40% GF (Ryton)
nozzle size	INOX 18/8 (1.4305)
Seal	MVQ (silicon O-ring)
Bearing/ bearing pin	INOX 18/8 (1.4305) or injection moulded like the housing
Turbine	PVDF, using two magnets
Magnets	Ceramic Sr Fe O

Options	Magnetic-socket set (IP 65 - EN 60529) for upper sections FHK, FHKI, FHKN SK 223.02 for FHK Arnite flowmeters
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Approvals/norms	NSF, CE
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The FHKU flowmeter finds universal application. It was developed specially for higher throughputs of up to approx. 30 l/min. Thanks to differing lower sections and to jets that can be pressed in; it also measures in the lower range with the highest accuracy. For this model series, upper and lower sections can likewise be freely selected, so as provide optimum satisfaction of customer requirements.





Upper sections

FHKU

3 Pin — AMP 2.8 x 0.8 mm
Micro-DIN 43650-C



Lower sections

G 1/4" external thread

nozzle sizes: Ø 1.0 mm, 1.2 mm, 1.5 mm
2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm,
5.6 mm (without press-in jet)



FHKUF

Faston AMP 6.3 / 2.8 mm



G 1/2" external thread

nozzle size: Ø 10 mm



FHKUC

Plug-in connection
Panduit MAS-CON 156 mils
Option: Pull-up resistor R1.2K



Hose connection

OD Ø 12.0 mm
nozzle size: Ø 7.0 mm



FHKUI

3-pin — AMP 2.8 x 0.5 mm (Italy)
with integrated pull-up resistor R1.2K
Option: LED (pull-up resistor R1.8K)



external thread BSF 1/2"

(Cola screw-connection)
nozzle sizes: Ø 1.0 mm, 1.2 mm, 1.5 mm
2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.6 mm
(without press-in jet)



FHKUN

4-pin — AMP 2.8 x 0.8 mm
Micro-DIN 43650-C
Level probe (also suitable for
combination with the level relay HF2
PP (Page 29))



FHKUP

Plug-in connection
Panduit MAS-CON 098 mils



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These meters are suitable above all for watery fluids. It is possible to measure fluids of a higher viscosity, but this causes the range of measurement to be restricted.

Details such as temperature, pressure and range of flowrange measurement are based on tests that were carried out using water (at 20°C / 68°F).

Other devices that can also be used in the industrial sector are to be found in the Catering trade, Coffee and Chemicals sections. Please take note also of the electronics and control systems.

For usage in the food industry, the FHK G¹/₄" flowmeter in Arnite can also be supplied with SK 223.02 approval.

www.digmesa.com

FM Flowmeters – the multistream flowmeter in Arnite, Ryton or Hostalen.

Fitting position	horizontal
Connections	External thread G ¹ / ₄ " (nozzle size Ø 8.0 mm) Hose nipple OD 9.0 mm, (nozzle size: Ø 6.0 mm)
Temperature range	Arnite: -10°C to +65°C / 14°F to 149°F Ryton: -10°C to +100°C / 14°F to 212°F Hostalen: -10°C to +65°C / 14°F to 149°F
Pressure range	Arnite: max 20 bars / 290 psi at 20°C / 68°F Ryton: max 20 bars / 290 psi at 20°C / 68°F Hostalen: max. 6 bars / 87 psi at 20°C / 68°F
Flowrange	Approx. 0.05 - 18.0 l/min, according to nozzle size
Weight	Approx. 180-190 g, according to version
Dimensions (L x B x H)	116 x 82 x 58, according to version

Materials

Housing	PBT 35% (Arnite) or PPS 40% GF (Ryton) or PP 20% talcum
nozzle size	INOX 18/8 (1.4305)
Seal	MVQ (silicon O-ring) Spacer
Bearing/ bearing pin	INOX 18/8 (1.4305) PVDF, using two magnets
Turbine	Ceramic Sr Fe O
Magnets	Magnetic-socket set (IP 65 - EN 60529) for upper sections 3-pin
Options	SK 223.002 for FHK Arnite flowmeters
Approvals/norms	Arnite and Ryton: NSF, CE Hostalen: CE

The flowmeter FM was especially developed for a **large measuring range**. Exact precision and the excellent linearity (from 0.5-18.0 l/min) from the smallest up to the largest possible flow volume distinguish this device.

For this model series, different upper and lower sections can likewise be flexibly assembled.





FMIG Flowmeter

External thread G 1/2"
 3-pin – AMP 2.8 x0.5 mm
 Micro-DIN 43650C
 Option: Pull-up resistor R1.2K or PNP outlet



FMIS Flowmeter

Hose connection:
 3-pin – AMP 2.8 x0.5 mm
 Option: Pull-up resistor R1.2K or
 PNP outlet



FMFG Flowmeter

External thread G 1/2"
 Faston AMP 6.3 / 2.8 mm



FMIG Flowmeter Arnite SK

Specially for the food industry
 Uses special screw-connection, SK tested (SK 223.003)
 Weight approx. 230 g. The remaining technical data is identical to
 that of the FMIG Arnite flowmeter



The FM flowmeter is a device that finds application in the measurement of watery fluids. A very high degree of precision is achieved due to the principle of multistream measuring. The forces acting centrally on the leaves and the electronic contact maker guarantee a practically unlimited serviceable life.



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Measuring and metering under the most difficult conditions.

A practical example: The measuring and metering of highly-aggressive fluids for the etching of electronic chips can only be achieved using meters, the constituents of which are of an absolute high purity. For a minute particle could destroy whole wafers. Our devices comply with these especially high requirements and not just these ones.



So that everything is likewise OK in chemicals.

Chemicals - sometimes quite simple - sometimes though, a tricky matter.

As explained at the beginning of this brochure, a so-called aggressive fluid does not have to have an aggressive effect! Amongst other things it depends on the material's composition, as well as on the liquid's concentration! A clarification of the aggressive activity in respect of the materials used in the meter and which come into contact with the medium can be of eminent importance. Nothing will stand in the way of a serious co-operation and discussion with manufacturers (of media and materials), neither for you nor for us. . .

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Important notes

These meters are suitable above all for watery fluids. It is possible to measure fluids of a higher viscosity, but this causes the range of measurement to be restricted.

Details such as temperature, pressure and range of flowrange measurement are based on tests that were carried out using water (at 20°C / 68°F).

Devices for the measurement and metering of spirits and syrup etc are to be found in the Industry section. Pay heed to the devices with SK approval.

www.digmesa.com

FFG 60/ FFS 60 Food-Flowmeters in PVDF

Fitting position	horizontal
Connections	Gas thread G $\frac{1}{4}$ or Serto connection OD 12.0 mm
Electrical connection	3-pin - AMP 2.8 x 0.8 mm Micro-DIN 43650-C
nozzle size	Ø 6.0 mm
Temperature range	-10°C to +100°C / 14°F to 212°F
Pressure range	max 5.5 bars /79 psi at 20°C / 68°F
Flowrange	0.8 - 12.0 l/min, according to nozzle size
Weight	Approx. 125 g, according to version
Dimensions (L x B x H)	95 x 57 x 65, according to version

Materials

Housing	PVDF
Seal	FPM quad-ring
Bearing/ bearing pin	PCTFE
Turbine	PVDF, using 2 or 4 magnets, ultrasonically welded
Magnets	Ceramic Sr Fe O Magnetic-socket set (IP 65 - EN 60529) is included
Options	Press-in jets, PTFE, Ø 1.0 mm, 2.0 mm, 3.0 mm, 4.0 mm

Approvals/norms CE

*The FFG 60 food-flowmeter can also be supplied in PBT 35% GF (Arnite)



FFG 60 PVDF*



FFS 60 PVDF

FHK Flow meters in PVDF or PVDF Kynar

Fitting position	horizontal
Connections	2 x internal thread G $\frac{1}{4}$
Electrical connection	3-pin - AMP 2.8 x 0.8 mm Micro-DIN 43650-C
nozzle size	Ø 1.0 mm, 1.2 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.3 mm (without press-in jet)
Temperature range	-10°C to +100°C / 14°F to 212°F
Pressure range	max 20 bars /290 psi at 20°C / 68°F
Flowrange	0.8 - 9.0 l/min, according to nozzle size
Weight	Approx. 75 g, according to version
Dimensions (L x B x H)	54 x 40 x 49, according to version

Materials

Housing	PVDF or PVDF Kynar (graphite)
Jet	PTFE
Seal	FPM (Viton O-ring)
Bearing/ bearing pin	PCTFE
Turbine	PVDF, using 2 or 4 magnets, ultrasonically welded
Magnets	Ceramic Sr Fe O
Options	Magnetic-socket set (IP 65 - EN 60529)
Approvals/norms	CE



FHK PVDF



FHK Kynar



EPI Flowmeters – for highly viscous media

Fitting position	horizontal
Connections	2 x internal thread G ¹ / ₄
Electrical connection	3-pin - AMP 2.8 x 0.8 mm Micro-DIN 43650-C
nozzle size	Ø 7.0 mm
Temperature range	Depends on viscosity and pressure
Pressure range	max 6 bars /87 psi
Flowrange	Depends on viscosity, pressure and temperature
Weight	Approx. 150 g
Dimensions (L x B x H)	86 x 68 x 50
Measurement accuracy	+/- 1%
Repetition accuracy	+/-0.25%

Materials

Housing	PP (Polypropylene)
Seal	FPM
Bearing/ bearing pin	INOX 1.4435 or aluminium oxide
Leaves	PEEK
Magnets	Ceramic Sr Fe O, ultrasonically welded
Options	Magnetic-socket set (IP 65 - EN 60529) is included Double reverberation (can be calibrated)



The EPI flowmeter has been developed especially for the measurement of fluid quantities of higher viscose media, such as syrup, oil or concentrated detergent. Initial experience has proven that fluids of this kind are no problem to meter or measure. Thanks to its special construction and its epicycloid leaves, the EPI flowmeter is highly accurate and enables most precise quantity metering with the least amount of pressure loss. According to the material selected, it can be employed both in the food sector as well as for aggressive media, for example in chemicals. The EPI flowmeter has already been fitted to systems that are subject to weights and measures verification!

The EPI flowmeter will be supplied as from 2002 in a new livery, injection-moulded in PA (NSF approved) or PP.

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The most modern microprocessor electronics, developed by us and continually tailored to customer requirements, enable an accurate monitoring and evaluation of throughput quantities. But that's not all! The FCD II flowcomputer is supplied with an RSD232 interface and can be connected to a PC. There is no longer anything to prevent evaluation via computer or even remote interrogation via modem.



FCD II Flowcomputer



The FCD II is equipped with the most modern microprocessor electronics. When connected to Digimesa meters the result is a highly accurate monitoring system that can be employed both in the catering trade, as well as in industry or chemicals. Local or remote interrogation or administration is available at any time. Even during an interrogation, the measurement output being received is registered continuously. Stored data remain intact even after a power cut.

Basic system	1 module for 4 lines, RS232 interface (RS485 can be supplied on request)
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
Mains voltage	Standard 230V~, 115V~ on request
Flowmeters	Whole Digimesa programme
Supply specification	Included in the supply specification are cable connections, 1 master key and 1 clean key (cleaner's key)

FC Flowcontroller with or without limit



The FC flowcontroller (without limit) is the single-line version of the FCD II. However, remote interrogation is not available. When used in combination with Digimesa meters, 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 active carbon filters, being used for cleaning and detoxifying of water.

A zero setting is made using 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).

Mains voltage	Standard 230 V ~, 115V ~ or 12-24 V~ on request
Flowmeters	all Digimesa flowmeters, with the exception of 4-pin versions (SIG, FHKUN, FHKUN)

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.

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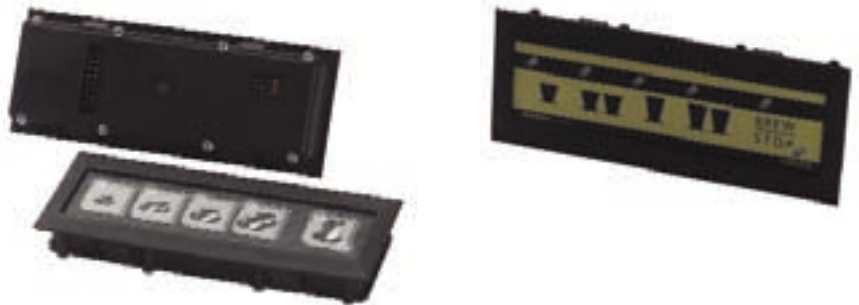
Control

Important note

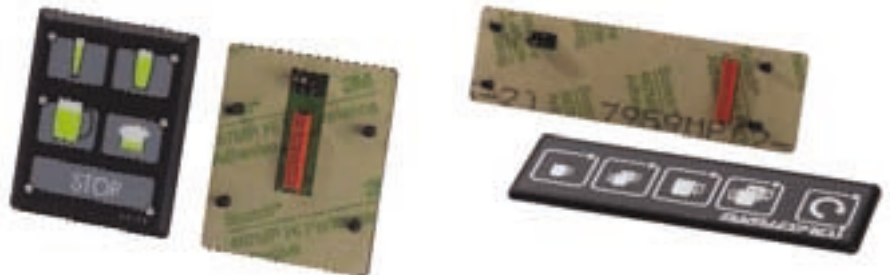
CMC cables and/ or ribbon cables have to be ordered according to length and distance from the keypad. They are not included in the supply specification.

CMC keypads

To complement our metering and monitoring systems we also offer suitable keypads. Up to four lines are connected to the control system electronics by a single ribbon cable. Addressing is carried out by means of a jumper on the reverse. In plain language this means that you only need one keypad, which you can adapt to the desired group at any time. Whether it is to be for coffee machines, bar dispensing systems or other areas of application in the industrial and chemicals sectors: The keypad layout can be adapted to individual customer requirements as desired.



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



CMC Quattro



The CMC Quattro, when used in combination with Digmesa meters, a highly accurate electronic control and metering system. It is employed everywhere that different (or the same) quantities of different (or the same) fluids need to be metered, controlled, or regulated. Whether it is to be for coffee machines, bar dispensing systems or mixing and filling plants: 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, 1 interface (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.

Power connection Standard 230V ~, 115V ~ on request

Flowmeter all Digmesa flowmeters, except 4-pin versions (FF-SIG)

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 timer, 1 safety sensor or temperature probe as an option. A single ribbon cable leads to all the keypads.

Group system 4 lines and 1 multi-function key (stop/free running or fifth portion)

Power connection Standard 230 V~, 115 V~ on request

Flowmeter all Digmesa flowmeters, except 4-pin versions (FF-SIG)

Level relays

DIGMESA level relays are highly accurate, universally usable control devices that carry out very precise monitoring of fluid levels in a most varied range of applications. By means of a cleverly devised high-frequency sensing system, they guarantee that little lime will be deposited on the probes and in addition they will prevent any electrolytic erosion. The relays are protected before they are welded together (spark erosion) and this extends their serviceable life substantially. The level relays thus offer additional security for the whole system.



Timed level relay 11P 1E

With one switchover contact. This is specially protected and provides the relay with spark protection. The switching on time can be set as required between 2 to 20 seconds. Comes with 11-pin relay plug or AMP plug.



Timed level relay 11P 2E

With two switchover contacts. 1 contact is specially protected for operating the pump and provides the relay with spark protection. Here too, the switching on time can be set as required (2-20 secs.).



HF1 PP or HF2 PP level relays (pump protection)

In connection with The Digmesa flowmeters FHKN or FHKUN (see Pages 17 and 19), damage to the pump as a result of running dry is ruled out. The HF PP level relays process the signals of two probes that work independently. They can be supplied with either 1 or 2 switchover contacts. The contact connection is made via an 11-pin relay plug.

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We will make ourselves available to you at any time to respond to enquiries and suggestions

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