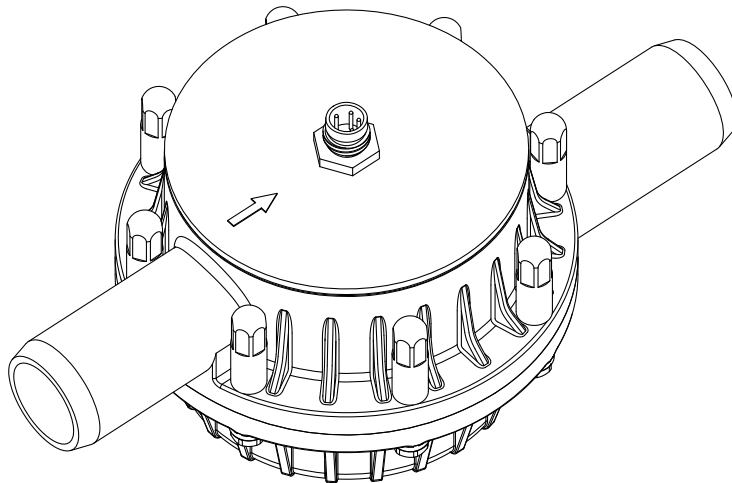


DATA SHEET



DIGIMESA[®]
CHOOSE THE ORIGINAL

FM 15 Grivory
Part number: 935-3901/04

Digimesa AG, Keltenstrasse 31, CH-2563 Ipsach / Switzerland

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General Description

The FM 15 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.

Specific applications: Compact design, great working range. High accuracy, high precision, suitably for continuous operation.

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:	Grivory HT1V-5 FWA
Bearing pin:	Ceramic
Nozzle:	Ø 15.0mm
O-ring:	EPDM
Turbine:	Grivory HT1V-5 FWA 6 Magnets
Magnete:	SmCo (not in contact with the medium)
Cap nuts:	Inox A2
Screw:	Inox A2

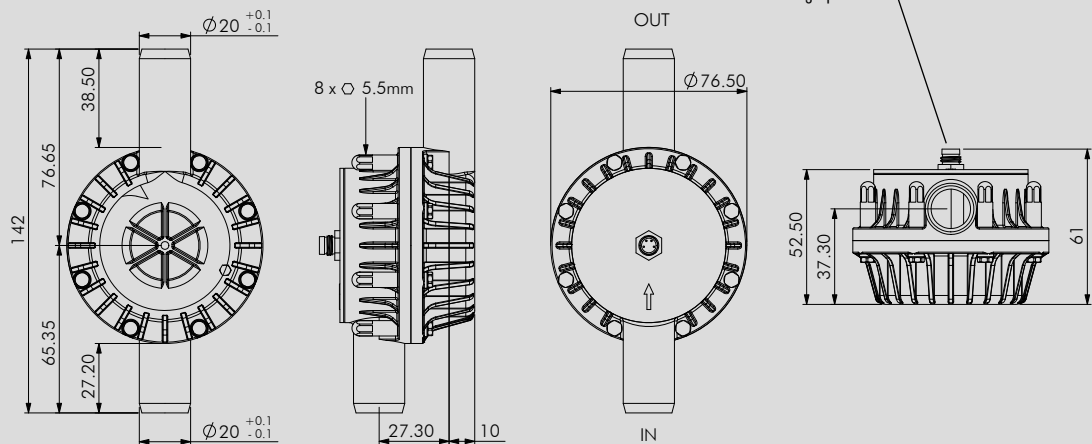
Technical data:

Flow rate:	from 2.83 l/min
Speed:	max. 1900 rpm
Measuring accuracy:	+/- 2.0%
Repetition:	< +/- 0.25%
Temperature range:	-10°C to +65°C 14°F to 149°F
Pressure range:	12 bar at 20°C 174 psi /68°F
Mounting position:	Horizontal *
Nozzle size:	Ø 15.0mm

Electrical connection ratings:

Power supply:	+ 4.5 to +24 VDC
Consumption:	< 8 mA
Signal connection:	Open collector NPN
Signal voltage:	0 VDC GND (saturation < 0.7 V)
Signal load:	max. 20 mA
Leakage current:	max. 10 µA
Connections:	Lumberg RSMF4/0.5 M
Signal:	Square-wave output
Duty Cycle:	~ 50%

Dimensions in mm:



IMPORTANT

Drying and/or operating with compressed air destroys the flow sensor!



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)!

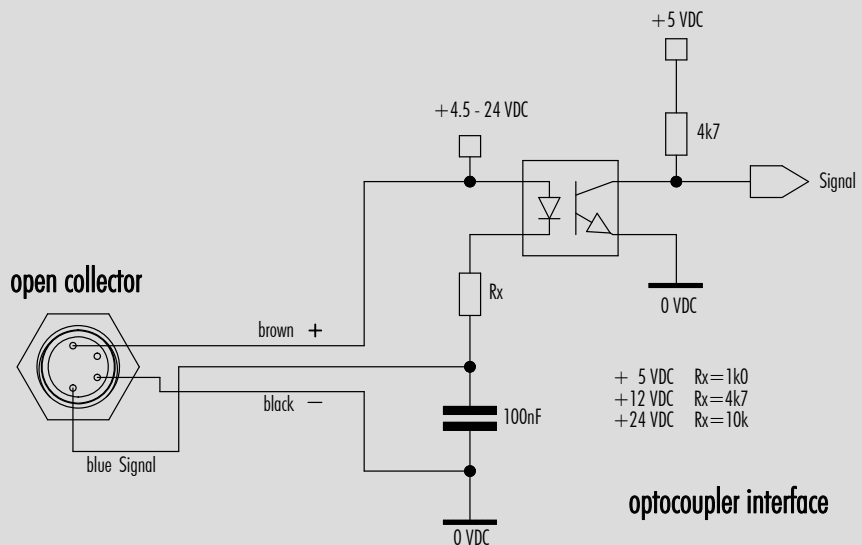
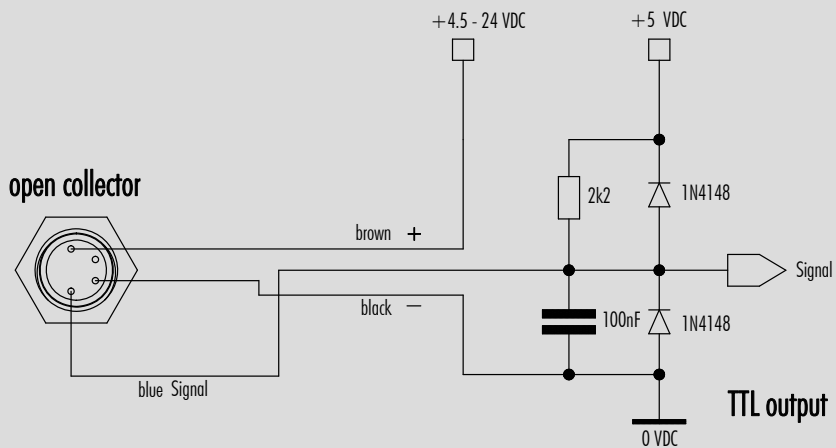
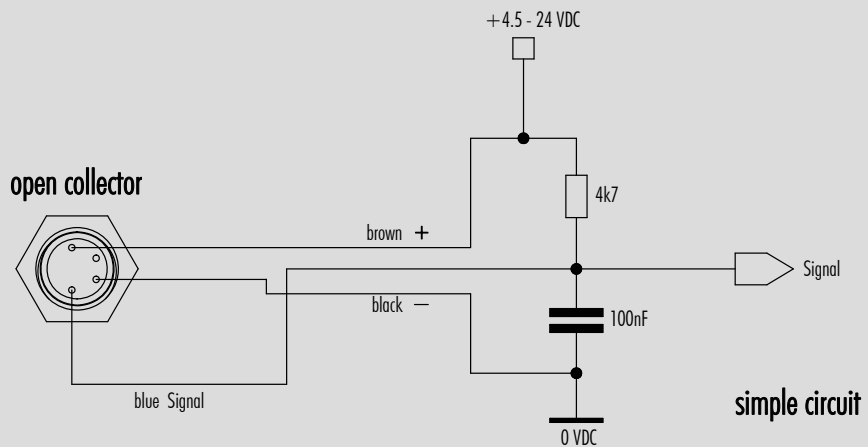
ELECTRONIC

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

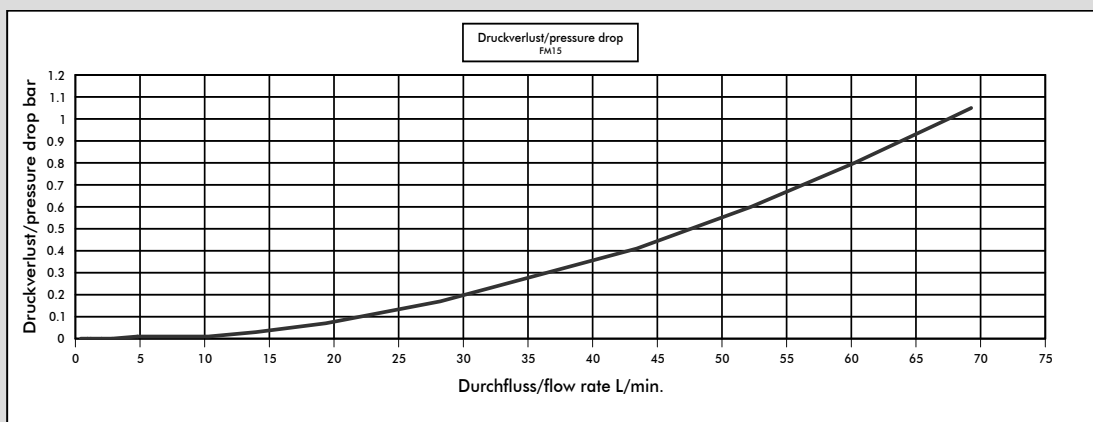
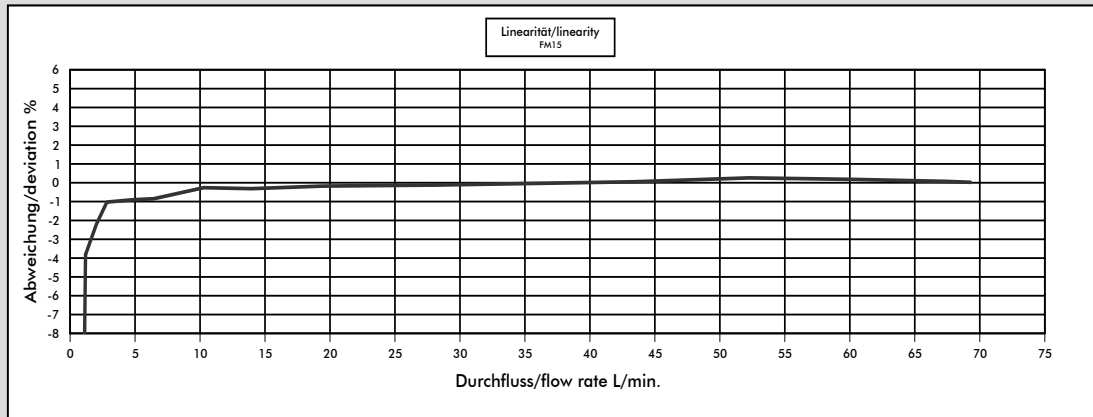
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (non-actuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

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Interface Connection: Examples Open Collector



Measurement Curve FM Ø15.00 mm with 6 Magnets



Medium: Water / max. Pressure: 3.3 bar

Number of magnets	Nozzle size	Pulses/Litres	Gramm/Puls	Recommended min. flow rate at [l/min]	Flow rate at 1900 rpm [l/min]
6	Ø 15.00 mm	450	2.22	2.83	25.30

MEASUREMENT TIPS

- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate intervals
- Avoid electrical current peaks
- Incorrect cabling of power supply +, signal and ground will destroy the flowmeter
- Do not mechanically load electrical contacts
- Avoid moisture on the electrical contacts
- Avoid stray pick-up via the cable (Do not lay cables in parallel with high current loads)

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.