

Flowmeter

DMIK

H₂O



OVERVIEW

Operation

- Magnetic-inductive

Application

- Cooling systems and cooling circuits
- Mechanical engineering
- Plant construction
- Chemical industry
- Process industry

Features

- Universal orientation
- No moving parts
- Unimpeded cross section
- Minimal pressure loss
- Maintenance free
- Low demand on the inlet section
- Wide measuring range
- Frequency output
- Short response time
- Optional analog output

Installation information

- The operating instructions for DMIK must be observed!
- **Download: www.meister-flow.com**

OPERATING DATA

Nominal width	
DMIK-7	DN 7
DMIK-10	DN 10
DMIK-20	DN 20
Nominal pressure	PN 16
Pressure drop	see diagram on page 6
Media temperature	5 °C - 90 °C
Ambient temperature	see diagram on page 6
Accuracy ⁽¹⁾	± 1,5 % of measured value ± 0,3 % of full scale
Repeatability ⁽¹⁾	1 %
Response time	< 500 ms
Signal activation from:	
DMIK-7	approx. 0,4 l/min
DMIK-10	approx. 0,9 l/min
DMIK-20	approx. 4 l/min
Medium	Water and other conductive fluids
Minimum conductivity	50 µS / cm

⁽¹⁾ Test conditions
Water, 23 °C,
150 ±100 µS/cm,
Standard pulse rate

MATERIALS

Wetted parts	
Electrodes:	Stainless steel, 1.4571
Measuring tube:	PEEK-GF30
Process connections:	Stainless steel, 1.4571
O-Rings:	EPDM, FKM optional
Non-wetted parts	
Housing:	Cast aluminum

MEASURING RANGES

Type	Measuring range for H ₂ O ⁽²⁾
	l/min
DMIK-7	0,5 – 30
DMIK-10	1 – 60
DMIK-20	5 – 250

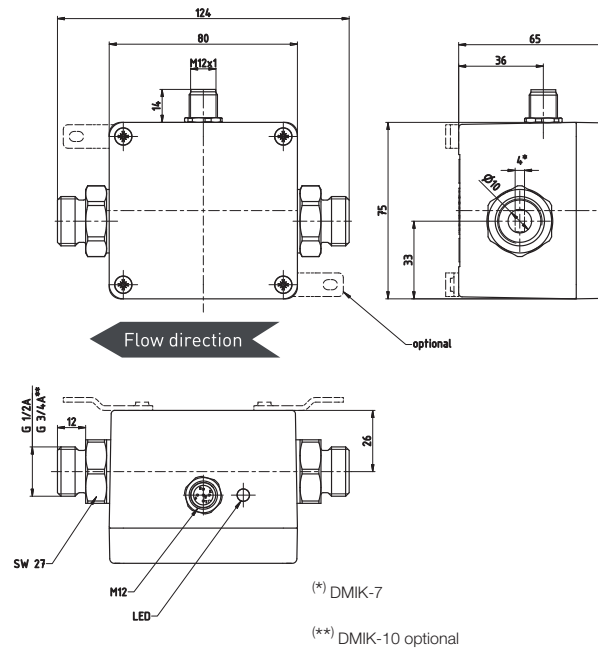
⁽²⁾ Water, 23 °C, 150 ±100 µS/cm

VERSIONS

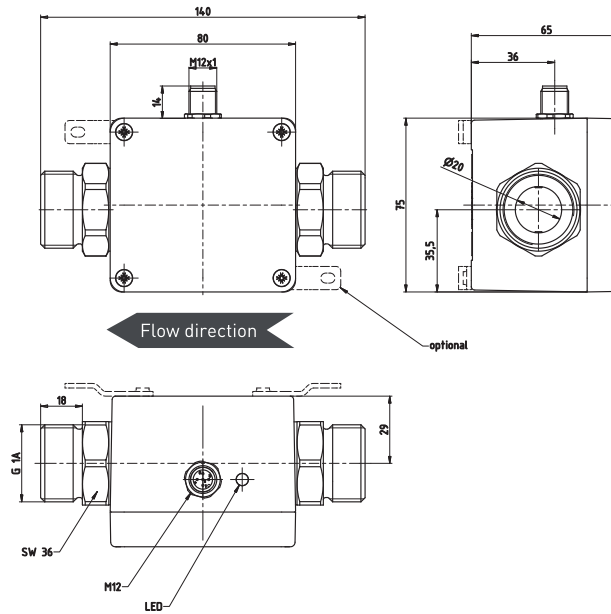
Type	Output
DMIK-7	
Standard	Impulse output
Optional	Impulse output + Analog output 4 - 20 mA Impulse output + Analog output 0 -10 V
DMIK-10	
Standard	Impulse output
Optional	Impulse output + Analog output 4 - 20 mA Impulse output + Analog output 0 -10 V
DMIK-20	
Standard	Impulse output
Optional	Impulse output + Analog output 4 - 20 mA Impulse output + Analog output 0 -10 V

TECHNICAL DRAWING

DMIK-7 and DMIK-10



DMIK-20



SUMMARY OF TYPES

Type	Technical Data		
	G ⁽³⁾	DN	PN
DMIK-7	1/2"	7	16
DMIK-10	1/2"	10	16
optional	3/4"	10	16
DMIK-20	1"	20	16

⁽³⁾ External thread in accordance with ISO 228

ELECTRICAL DATA

Power supply	24 V DC ($\pm 10\%$)
Start of signal	
DMIK-7	approx. 0,4 l/min
DMIK-10	approx. 0,9 l/min
DMIK-20	approx. 4 l/min
Response time	< 500 ms
Current consumption	≤ 150 mA
Flow indicator	LED, green
	blinking proportional to flow through

Pulse output (standard)

Signal form	Square wave signal duty cycle 50:50 push-pull
Signal current	≤ 100 mA, current limited
DMIK-7	
Puls rate	1000 pulses/l
Resolution	1 ml/pulse
upon request	1...2000 pulses/l
DMIK-10	
Puls rate	500 pulses/l
Resolution	2 ml/pulse
upon request	1...1000 pulses/l
DMIK-20	
Puls rate	100 pulses/l
Resolution	10 ml/pulse
upon request	1...200 pulses/l

Analog output (optional)

Current output	4 - 20 mA
Max. load	250 Ω to GND
DMIK-7	
corresponds to range	0...30 l/min ⁽⁴⁾
DMIK-10	
corresponds to range	0...60 l/min ⁽⁴⁾
DMIK-20	
corresponds to range	0...250 l/min ⁽⁴⁾
Voltage output	
	0 - 10 V
DMIK-7	
corresponds to range	0...30 l/min ⁽⁴⁾
DMIK-10	
corresponds to range	0...60 l/min ⁽⁴⁾
DMIK-20	
corresponds to range	0...250 l/min ⁽⁴⁾

⁽⁴⁾ other ranges on request

ELECTRICAL CONNECTION

- Connector M12x1, 5-Pin

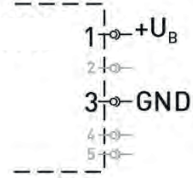
Ingress Protection

IP65 (with mounted connector socket)

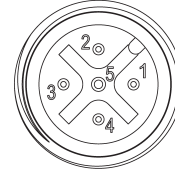
CONNECTION DIAGRAMS

The pin assignment differs depending on the selected configuration of the device. Please note the pin assignment on the rating plate.

Power supply

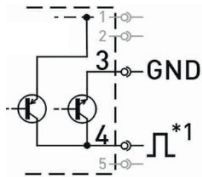


Pin assignment M12x1



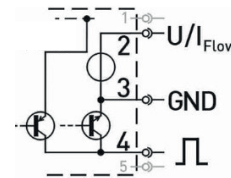
DMIK with frequency output:

Push-Pull



DMIK with frequency- and analog-output:

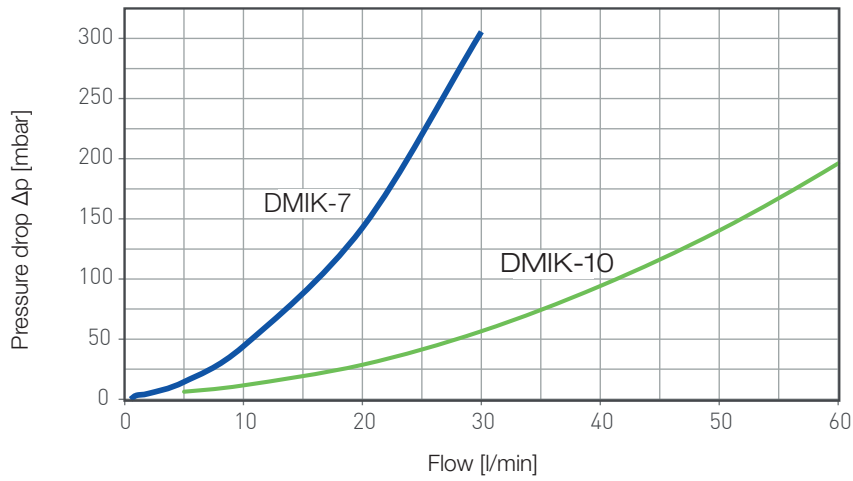
Push-Pull



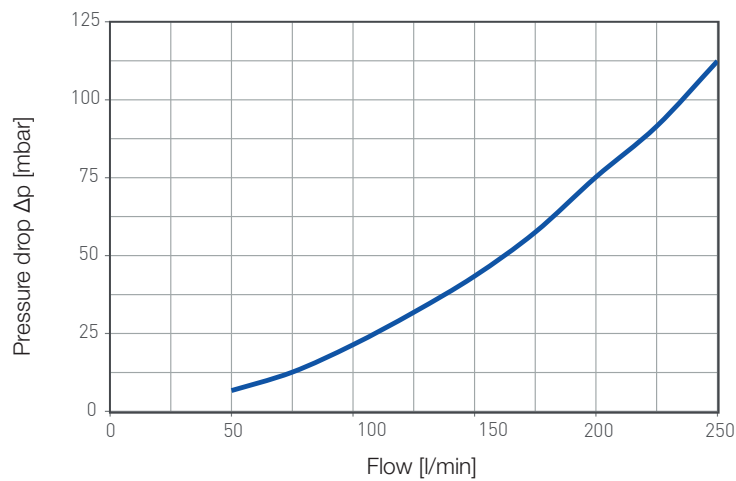
*1: Push-pull switching outputs of multiple devices must not be connected in parallel.

DIAGRAMS

Pressure drop Diagram DMIK-7 and DMIK-10



Pressure drop Diagram DMIK-20



Temperature limits chart Diagram

