meister®
MEMBER OF THE MEISTER-GROUP

MASTERPIECES
MADE IN GERMANY

Flowmeter

DMIK

H_2O

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 drop
– Maintenance free
– Low demands on the inlet section
– Wide measuring range
– Pulse output
– Short response time
– Optional analog output

Installation information

– The operating instructions for DMIK must be observed!
– **Download: www.meister-flow.de/portfolio-dokumentation/**

DMIK 1 0004 12-15 E M

OPERATING DATA

Nominal diameter	
DMIK-2	DN 2
DMIK-7	DN 7
DMIK-10	DN 10
DMIK-20	DN 20
Nominal pressure	PN 16
Pressure drop	see diagrams on page 6
Media temperature	-20 °C - 90 °C
Ambient temperature	see diagram on page 5
Accuracy [1]	
DMIK-2	
0 ... 50 % of measuring range	± 1 % of full scale
50 ... 100 % of measuring range	± 2 % of full scale
DMIK-7 and DMIK-10	± (0,7 % of measured value + 0,3 % of full scale)
DMIK-20	± (1,5 % of measured value + 0,3 % of full scale)
Repeatability [1]	1 %
Response time	< 500 ms
Medium	Water and other conductive liquids
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-Ringe:	EPDM, FKM optional
Non-wetted parts	
Housing:	Cast aluminum

MEASURING RANGES

Type	Measuring range for H_2O [2] l/min
DMIK-2	0,0083 – 1
DMIK-2	0,05 – 2
DMIK-7	0,1 – 30
DMIK-10	0,2 – 60
DMIK-20	5 – 250

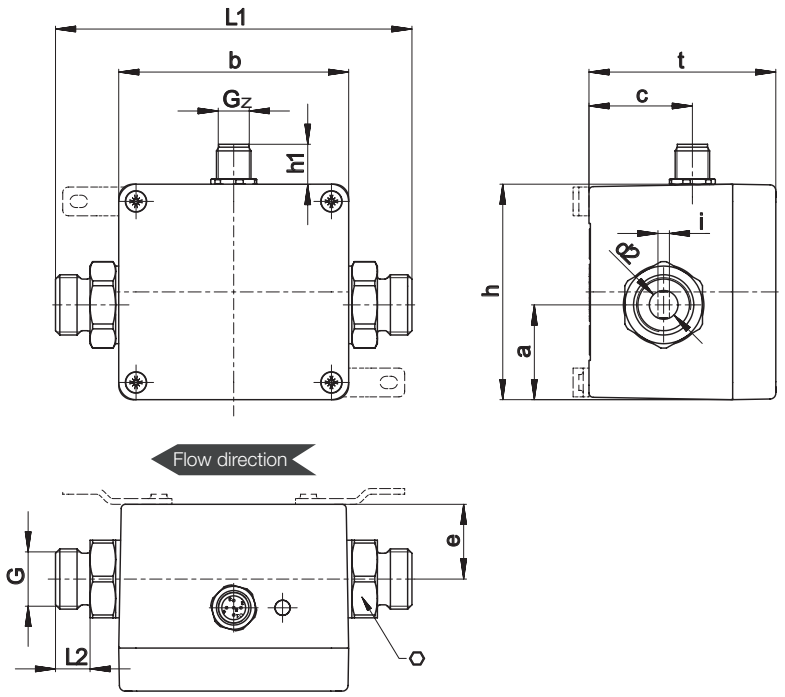
[2] Water, 23 °C, 150 ±100 µS/cm

VERSIONS

Type	Output
DMIK-2	
Standard	Pulse output
Optional	Pulse output + Analog output 4 - 20 mA
	Pulse output + Analog output 0 -10 V
DMIK-7	
Standard	Pulse output
Optional	Pulse output + Analog output 4 - 20 mA
	Pulse output + Analog output 0 -10 V
DMIK-10	
Standard	Pulse output
Optional	Pulse output + Analog output 4 - 20 mA
	Pulse output + Analog output 0 -10 V
DMIK-20	
Standard	Pulse output
Optional	Pulse output + Analog output 4 - 20 mA
	Pulse output + Analog output 0 -10 V

TECHNICAL DRAWING

DMIK



SUMMARY OF TYPES

Type	Technical Data [mm]														
	L1	**L2**	**G_A[3]**	**SW**	**d2**	**i**	**b**	**h**	**t**	**a**	**c**	**e**	**Gz**	**h1**	**Weight [g]**
DMIK-2	120	12	1/4"	17	Ø 3	1,9	80	75	65	34	36	26	M12X1	14	ca. 620
DMIK-7	124	12	1/2"	27	Ø 10	4	80	75	65	33	36	26	M12X1	14	ca. 750
DMIK-10	124	12	1/2"	27	Ø 10	—	80	75	65	33	36	26	M12X1	14	ca. 750
DMIK-10	124	12	3/4"	27	Ø 10	—	80	75	65	33	36	26	M12X1	14	ca. 750
DMIK-20	140	18	1"	36	Ø 20	—	80	75	65	35,5	36	29	M12X1	14	ca. 905

[3] External thread in accordance with ISO 228

ELECTRICAL DATA

Power supply

DMIK-2 to DMIK-10	12 ... 24 V DC (± 10 %)
DMIK-20	24 V DC (± 10 %)
For analog output 0 ... 10 V minimum 16 V DC	
Current consumption	≤ 150 mA
Flow indicator	LED, green blinking proportional to flow rate

There are three different versions available for the electrical output:

Pulse output
Pulse output and analog output 4 ... 20 mA
Pulse output and analog output 0 ... 10 V

Pulse output	
Signal form	Square wave signal Duty cycle 50:50 Push-Pull
Signal current	≤ 100 mA, current-limited
DMIK-2	
Pulse rate	10000 pulses/l
Resolution	0,1 ml/pulse
upon request	1 ... 20000 pulses/l
DMIK-7	
Pulse rate	1000 pulses/l
Resolution	1 ml/pulse
upon request	1 ... 2000 pulses/l
DMIK-10	
Pulse rate	500 pulses/l
Resolution	2 ml/pulse
upon request	1 ... 1000 pulses/l
DMIK-20	
Pulse rate	100 pulses/l
Resolution	10 ml/pulse
upon request	1 ... 200 pulses/l

ELECTRICAL CONNECTION

Connection

Connector 5-Pin, M12x1

Ingress Protection

IP65 + IP67 (with mounted connector socket)

Analog output

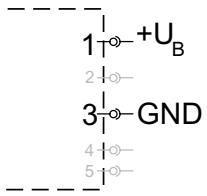
Current output	4 - 20 mA
Max. load	250 Ω against GND
DMIK-2	
corresponds to a range of	0 ... 1 l/min
or	
corresponds to a range of	0 ... 2 l/min
DMIK-7	
corresponds to a range of	0 ... 30 l/min
DMIK-10	
corresponds to a range of	0 ... 60 l/min
DMIK-20	
corresponds to a range of	0 ... 200 l/min
or	
corresponds to a range of	0 ... 250 l/min

Voltage output	0 - 10 V
DMIK-2	
corresponds to a range of	0 ... 1 l/min
or	
corresponds to a range of	0 ... 2 l/min
DMIK-7	
corresponds to a range of	0...30 l/min
DMIK-10	
corresponds to a range of	0...60 l/min
DMIK-20	
corresponds to a range of	0...200 l/min
or	
corresponds to a range of	0...250 l/min

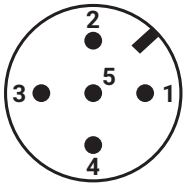
CONNECTION DIAGRAMS

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

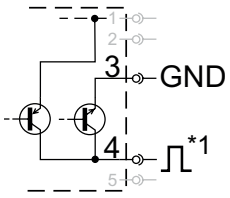


PIN 1: $+U_B$
PIN 2: d.n.c. (do not connect) / analog U/I
PIN 3: **GND**
PIN 4: Pulses
PIN 5: n.c. (not connected)

Please wire the connection cables according to your selected configuration of the device and the pin assignment on the rating plate.

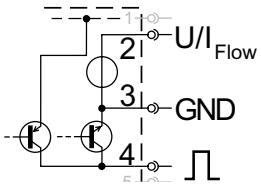
DMIK with pulse output

Push-Pull



DMIK with pulse output and analog output

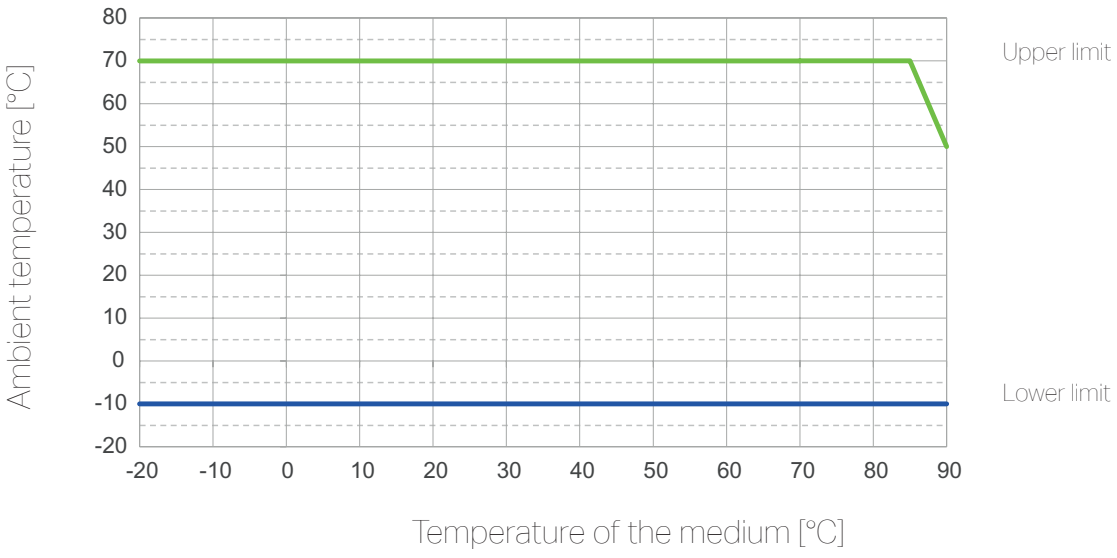
Push-Pull



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

DIAGRAMS

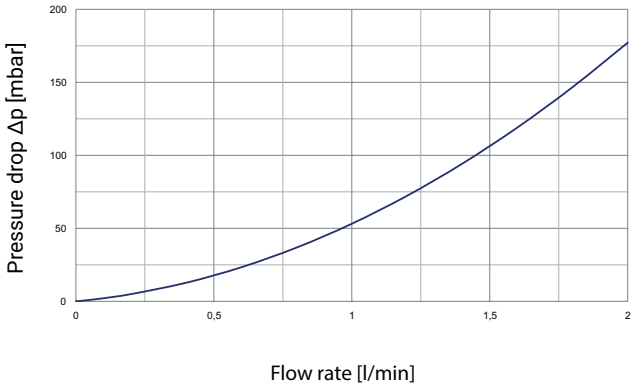
Temperature limits



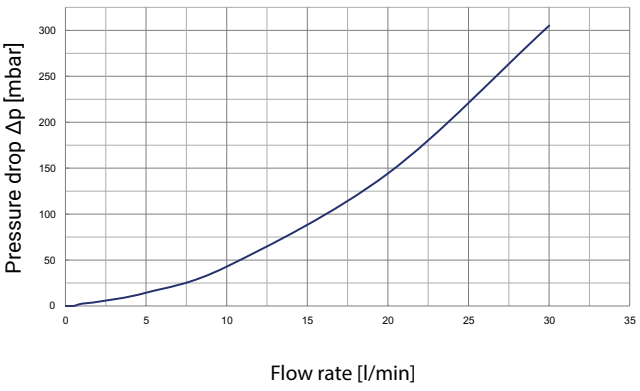
DIAGRAMS

Pressure drop diagrams

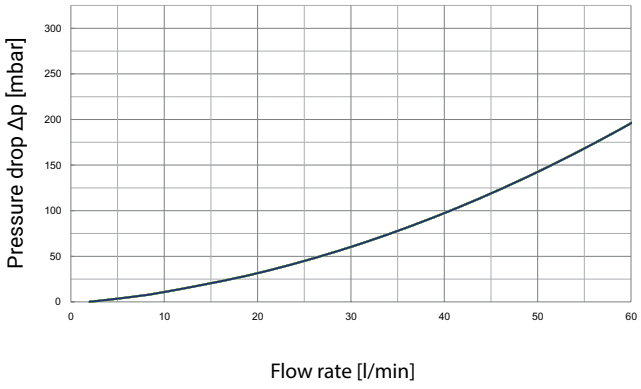
DMIK-2



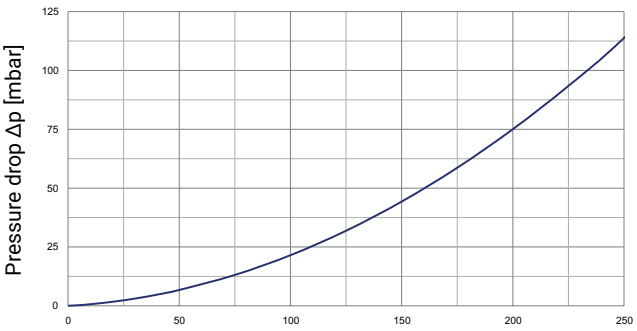
DMIK-7



DMIK-10



DMIK-20



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