

Product Information

Sensors and Instrumentation

**Flow Meter
 GK**



- Large, easily visible scale
- Set-point indicator
- Optionally switching output

Characteristics

A float moves in a transparent conical measurement tube, relative to the flow. The position of the float depends on the volume flow (weight force versus resistance to flow), and indicates the flow rate on the scaled measurement tube.

Technical data

Switch	optional reed switch	
Nominal width	DN 10.0.25	
Process connection	maleable cast iron, female thread Rp 3/8 " ..Rp 1 " PVC glue socket Ø16..32 (further process connections available on request)	
Metering range	2..650 l/min	for details see table "Ranges"
Q_{max.}	to 650 l/min	
Tolerance	±1 % of the full scale value and ±3 % of the measured value	
Pressure resistance	malleable cast iron	PN 15 bar
	PVC	PN 10 bar
Medium temperature	malleable cast iron	-20..+60 °C optionally 5..100 °C measurement tube made from PSU
	PVC	+5..+60 °C
Ambient temperature	malleable cast iron	-20..+60 °C
	PVC	+5..+60 °C
Media	water, gases	
Electrical data	see "Additional devices for GK / GKL"	

Materials medium-contact	<i>Malleable cast iron connection:</i> PA 6-3-T, malleable cast iron, Viton float made from PP or 1.4571 optionally, measurement tube made from PSU	<i>PVC connection:</i> PA 6-3-T, PVC, Viton float made from PP or 1.4571 optionally, measurement tube made from PSU
Non-medium-contact materials	PA	
Weight	see table "Dimensions and weights"	
Installation location	vertical inwards flow from below	

Ranges

●=Standard ○=Optional

Medium water / float PP

The details in the table correspond to a vertical inwards flow from below.

	Metering range l/h	Magnet		Type
		With out	with	
DN 10 Rp 3/8 "	2 - 25	●		GK-010GTW0025PO
			○	GK-010GTW0025PM
	2 - 40	●		GK-010GTW0040PO
			○	GK-010GTW0040PM
	5 - 60	●		GK-010GTW0060PO
			○	GK-010GTW0060PM
10 - 110	●		GK-010GTW0110PO	
		○	GK-010GTW0100PM	
DN 15 Rp 1/2 "	15 - 160	●		GK-010GTW0160PO
			○	GK-010GTW0160PM
	20 - 250	●		GK-015GTW0160PO
			○	GK-015GTW0160PM
DN 20 Rp 3/4 "	10 - 160	●		GK-015GTW0250PO
			○	GK-015GTW0250PM
	20 - 250	●		GK-020GTW0160PO
			○	GK-020GTW0160PM
	40 - 400	●		GK-020GTW0250PO
			○	GK-020GTW0250PM
DN 25 Rp 1 "	60 - 640	●		GK-020GTW0400PO
			○	GK-020GTW0400PM
	20 - 250	●		GK-020GTW0640PO
			○	GK-020GTW0640PM
40 - 400	●		GK-025GTW0250PO	
		○	GK-025GTW0250PM	
	●		GK-025GTW0400PO	
60 - 640	●		GK-025GTW0400PM	
		○	GK-025GTW0640PO	

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Medium water / float stainless steel

The details in the table correspond to a vertical inwards flow from below, and increasing flow rate.

	Metering range l/h	Magnet		Type
		with- out	with	
DN 10 Rp 3/8 "	4 - 40	○		GK-010.TW0040KO
			○	GK-010.TW0040KM
	5 - 60	○		GK-010.TW0060KO
			○	GK-010.TW0060KM
		○		GK-010.TW0100KO
10 - 100		○	GK-010.TW0100KM	
		○	GK-010.TW0160KO	
DN 15 Rp 1/2 "	20 - 160	○		GK-015.TW0160KO
			○	GK-015.TW0160KM
	20 - 250	○		GK-015.TW0250KO
			○	GK-015.TW0250KM
		○		GK-020.TW0250KO
30 - 400		○	GK-020.TW0400KO	
		○	GK-020.TW0400KM	
60 - 600		○	GK-020.TW0600KO	
		○	GK-020.TW0600KM	
DN 25 Rp 1 "	40 - 400	○		GK-025.TW0400KO
			○	GK-025.TW0400KM
	50 - 650	○		GK-025.TW0650KO
			○	GK-025.TW0650KM
		○		GK-025.TW0650KM

Medium air / float PP

The details in the table correspond to a vertical inwards flow from below, with the medium at a temperature of 0 °C and a pre-pressure of 1.013 bar.

	Metering range m³/h	Magnet		Type
		with- out	with	
DN 10 Rp 3/8 "	0.02 - 0.36	○		GK-010.TL0003PO
	0.05 - 0.55	○		GK-010.TL0005PO
	0.10 - 0.90	○		GK-010.TL0009PO
	0.15 - 1.50	○		GK-010.TL0015PO
	0.20 - 2.40	○		GK-010.TL0024PO
DN 15 Rp 1/2 "	0.40 - 3.80	○		GK-015.TL0038PO
	0.40 - 4.80	○		GK-015.TL0048PO
DN 20 Rp 3/4 "	0.20 - 2.50	○		GK-020.TL0025PO
	0.25 - 3.75	○		GK-020.TL0037PO
	0.50 - 5.50	○		GK-020.TL0055PO
DN 25 Rp 1 "	0.75 - 6.50		○	GK-020.TL0065PM
	0.40 - 4.00	○		GK-025.TL0040PO
Rp 1 "	0.50 - 6.00	○		GK-025.TL0060PO
	1.00 - 10.00	○		GK-025.TL0100PO
			○	GK-025.TL0100PM
	1.00 - 16.00	○		GK-025.TL0160PO
	2.00 - 16.00	○		GK-025.TL0160PM

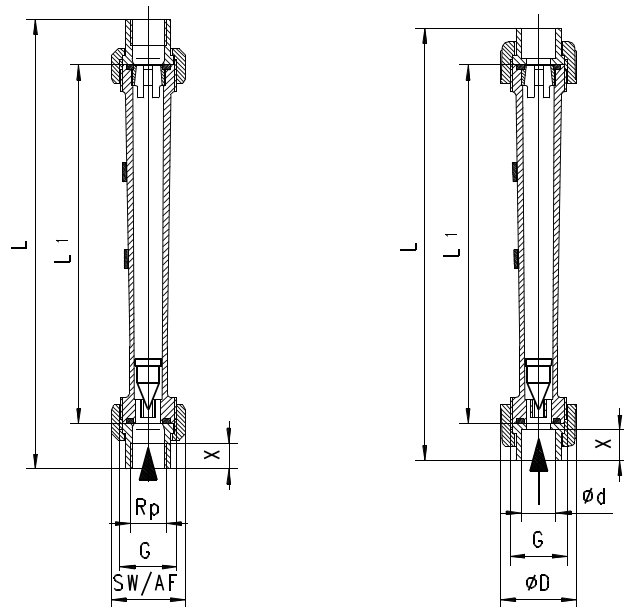
Dimensions and weights

Connection malleable, cast iron female thread

Rp	Types	L	L1	G	SW	X	Weight kg
Rp 3/8 "	GK-010G..	207	165	G 3/4	32	12	0.2
Rp 1/2 "	GK-015G..	215	170	G 1	41	13	0.3
Rp 3/4 "	GK-020G..	230	185	G 1 1/4	50	16	0.5
Rp 1 "	GK-025G..	250	200	G 1 1/2	55	19	0.7

Connection PVC, glue socket

DN	Types	d	G	L	L1	X	D	Weight kg
10	GK-010M..	16	G 3/4	201	165	12	35	0.1
15	GK-015M..	20	G 1	208	170	13	43	0.2
20	GK-020M..	25	G 1 1/4	229	185	16	53	0.6
25	GK-025M..	32	G 1 1/2	250	200	19	59	0.7



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Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter (use magnetic filter for ferritic components).
- It must be ensured that the values given for voltage, current, and power are not exceeded.
- When switched on, a load must be connected in series.
- The electrical details apply to ohmic loads. Capacitive, inductive and lamp loads must be operated using a protective circuit.
- Pay attention to the operating temperature/pressure

Connection		Pressure range in bar			
		Maleable cast iron		PVC	
Measurement tube		PA 6-3-T	PSU	PA 6-3-T	PSU
Temperature °C	-20	15.0	-	-	-
	-10	15.0	-	-	-
	0	15.0	-	-	-
	5	15.0	-	10.0	-
	10	15.0	-	10.0	-
	20	15.0	-	10.0	-
	25	15.0	-	10.0	-
	30	13.5	15.0	8.0	-
	40	12.0	13.0	6.0	-
	50	10.7	12.0	3.5	-
	60	9.5	11.0	1.5	-
	70	-	9.7	-	-
	80	-	8.5	-	-
90	-	7.7	-	-	
100	-	6.0	-	-	

Ordering code

GK - 1. 2. 3. 4. 5.

●=Standard ○=Option

1. Nominal width						
010	DN 10 - Rp 3/8" or Ø16					
015	DN 15 - Rp 1/2" or Ø20					
020	DN 20 - Rp 3/4" or Ø25					
025	DN 25 - Rp 1" or Ø32					
2. Process connection						
G	female thread, Rp made from malleable cast iron					
M	screw connection with glue socket made of PVC					
3. Switching current tube						
T	PA 6-3-T					
P	PSU					
4. Display range H ₂ O for vertical inwards flow						
W0025	2 - 25 l/h	●	○			●
W0040	2 - 40 l/h	●	○			●
	4 - 40 l/h			○	○	○
W0060	5 - 60 l/h	●	○	○	○	●
W0100	10 - 100 l/h	●	○	○	○	●
W0160	15 - 160 l/h	●	○			●
		●	○	○	○	●
W0250	20 - 250 l/h	●	○	○	○	●
W0400	40 - 400 l/h	●	○	○	○	●
W0600	60 - 600 l/h			○	○	○
W0640	60 - 640 l/h	●	○			●
W0650	50 - 650 l/h			○	○	○

Display range air (0 °C 1.013 bar abs.) for vertical inwards flow						
L0003	0.02 - 0.36	○				
L0005	0.05 - 0.55	○				
L0009	0.10 - 0.90	○				
L0015	0.15 - 1.50	○				
L0024	0.20 - 2.40	○				
L0025	0.20 - 2.50	○			○	
L0037	0.25 - 3.75	○			○	
L0038	0.40 - 3.80	○			○	○
L0040	0.40 - 4.00	○			○	
L0048	0.40 - 4.80	○			○	○
L0055	0.50 - 5.50	○			○	
L0060	0.50 - 6.00	○			○	
L0065	0.75 - 6.50		○		○	
L0100	1.00 - 10.00	○	○		○	
	1.00 - 16.00				○	
L0160	2.00 - 16.00	○	○		○	

5. Float						
PO	PP					
PM	PP with magnet					
KO	stainless steel					
KM	stainless steel with magnet					

Options

- Metering ranges and special scales under defined operating pressures / temperatures

Accessories

- GKEH-1256 / GKEL-1257
- GKEH-1251 / GKEL-1252
- GKK-1271
- GKI-1273

Ordering information

- Specify direction of flow, medium, and display range.
- For gases, state pressure (relative or absolute), temperature and medium (e.g. air) (request display range)

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**Additional Devices For
 GK / GKL**

GKEH-1256 / GKEL-1257

for types GK-010 / GK-015 / GK-020



Technical data

Switch/sensor	bistable reed switch (grid)	
Wiring	GKEH-1256 maximum limit value transmitter normally open (n.o.) No. 0.372	GKEL-1257 minimum limit value transmitter normally closed (n.c.) No. 0.441
Switching voltage	max. 250 V AC	
Switching current	max. 0.2 A	
Switch performance	max. 10 VA	
Protection class	2 - safety insulation	
Ingress protection	IP 65	
Connection	DIN 43650-B plug	
Non-medium-contact materials	PBTP, PA	
Weight	0.035 kg	

GKEH-1251 / GKEL-1252

for types GK-025 / GKL



Technical data

Switch/sensor	bistable reed switch (grid)	
Wiring	GKEH-1251 maximum limit value transmitter normally open (n.o.) No. 0.372	GKEL-1252 minimum limit value transmitter normally closed (n.c.) No. 0.441
Switching voltage	max. 250 V AC	
Switching current	max. 0.2 A	
Switching capacity	max. 10 VA	
Protection class	2 - safety insulation	
Ingress protection	IP 65	
Connection	DIN 43650-B plug	
Non-medium-contact materials	PBTP, PA	
Weight	0.075 kg	

GKK-1270 / 1271 GKI-1272 / 1273 / 1273-1



GKK

GKK-1271 for types GK-
 GKK-1270 for types GKL-

Technical data

Switch/sensor	reed switch chain
Wiring	no. 0.451
Supply voltage	max. 24 V DC
Output signal	0..10 kOhm
Protection class	2 - safety insulation
Ingress protection	IP 65
Connection	DIN 43650-B plug
Non-medium-contact materials	ABS, PA
Weight	0.1 kg

GKI

GKI-1273 for types GK-010 / GK-015 / GK-020
 GKI-1273-1 for types GK-025
 GKI-1272 for types GKL-

Technical data

Switch/sensor	reed switch chain with integrated 2-wire transducer
Wiring	no. 0.452
Supply voltage	11..40 V depending on the load
Load	max. 1500 Ohm
Output signal	4..20 mA
Protection class	2 - safety insulation
Ingress protection	IP 65
Connection	DIN 43650-B plug
Non-medium-contact materials	ABS, PA
Weight	0.1 kg