

Product Information

Sensors and Instrumentation

**Flow Meter
 GKL**



- 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 25..50	
Process connection	malleable cast iron, female thread Rp 1 " ..Rp 2 " PVC glue socket Ø32..63	
Metering range	1.3..4150 l/min	for details see table "Ranges"
Q_{max.}	to 4150 l/min	
Tolerance	±3 % of full scale 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	malleable cast iron connection: PA 6-3-T, malleable cast iron, Viton float made from PP or 1.4571 optionally, measurement tube made from PSU	PVC connection: 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
		without	with	
DN 25 Rp 1 "	100 - 1000	●		GKL-025.TW1000PO
			○	GKL-025.TW1000PM
DN 32 Rp 1 1/4 "	150 - 1600	●		GKL-032.TW1000PO
			○	GKL-032.TW1000PM
DN 40 Rp 1 1/2 "	200 - 2500	●		GKL-040.TW1600PO
			○	GKL-040.TW1600PM
DN 50 Rp 2 "	300 - 3300	●		GKL-040.TW2500PO
			○	GKL-040.TW2500PM
DN 50 Rp 2 "	400 - 4000	●		GKL-050.TW2500PO
			○	GKL-050.TW2500PM
DN 50 Rp 2 "	600 - 6400	●		GKL-050.TW4000PO
			○	GKL-050.TW4000PM
DN 50 Rp 2 "	600 - 6400	●		GKL-050.TW6400PO
			○	GKL-050.TW6400PM

Medium water / float stainless steel

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

	Metering range l/h	Magnet		Type
		without	with	
DN 25 Rp 1 "	100 - 1000	○		GKL-025.TW1000KO
			○	GKL-025.TW1000KM
DN 32 Rp 1 1/4 "	150 - 1600	○		GKL-032.TW1500KO
			○	GKL-032.TW1500KM
DN 40 Rp 1 1/2 "	300 - 2500	○		GKL-040.TW2500KO
			○	GKL-040.TW2500KM
DN 50 Rp 2 "	400 - 4000	○		GKL-050.TW4000KO
			○	GKL-050.TW4000KM
DN 50 Rp 2 "	600 - 6400	○		GKL-050.TW6400KO
			○	GKL-050.TW6400KM

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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.

Rp	Metering range m ³ /h	Magnet		Type
		without	with	
DN 25	1 - 10	○		GKL-025.TL0100PO
Rp 1 "	1.25 - 10		○	GKL-025.TL0100PM
	1.5 - 16	○		GKL-025.TL0160PO
			○	GKL-025.TL0160PM
	3 - 25		○	GKL-025.TL0250PM
DN 32	1.5 - 16	○		GKL-032.TL0160PO
Rp 1 1/4 "	2 - 25	○		GKL-032.TL0250PO
	4 - 40	○		GKL-032.TL0400PO
			○	GKL-032.TL0400PM
	6 - 64		○	GKL-032.TL0640PM
DN 40	2 - 25	○		GKL-040.TL0250PO
Rp 1 1/2 "	4 - 40	○		GKL-040.TL0400PO
	5 - 50	○		GKL-040.TL0500PO
	5 - 60		○	GKL-040.TL0600PM
DN 50	4 - 40	○		GKL-050.TL0400PO
Rp 2 "	5 - 65	○		GKL-050.TL0640PO
	10 - 100	○		GKL-050.TL1000PO
	15 - 160		○	GKL-050.TL1600PM
	20 - 250		○	GKL-050.TL2500PM

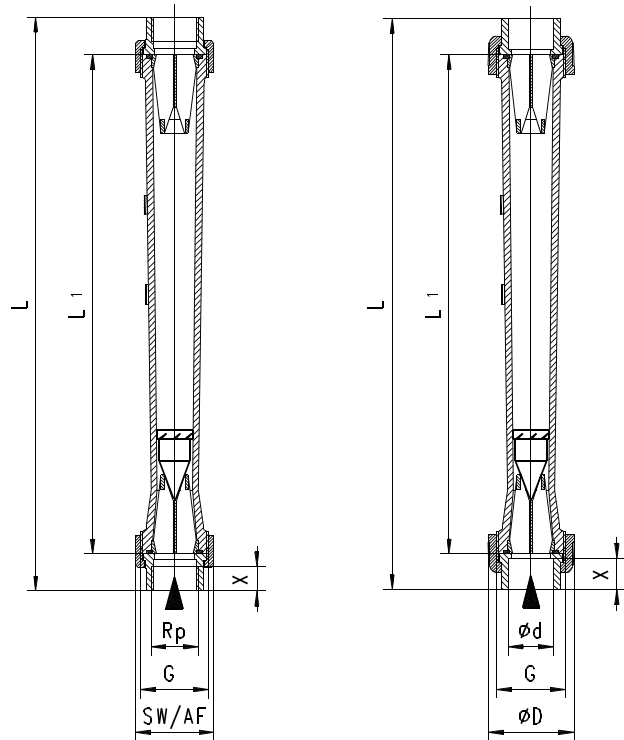
Dimensions and weights

Connection malleable, cast iron female thread

Rp	Types	L	L1	G	SW	X	Weight kg
Rp 1 "	GKL-025G..	402	350	G 1 1/2	55	17	0.8
Rp 1 1/4 "	GKL-032G..	410	350	G 2	66	19	1.3
Rp 1 1/2 "	GKL-040G..	414	350	G 2 1/4	74	20	1.8
Rp 2 "	GKL-050G..	420	350	G 2 3/4	90	24	2.4

Connection PVC, glue socket

DN	Types	d	G	L	L1	X	D	Weight kg
25	GKL-025M..	32	G 1 1/2	400	350	17	60	0.4
32	GKL-032M..	40	G 2	408	350	19	74	0.8
40	GKL-040M..	50	G 2 1/4	418	350	20	83	1.1
50	GKL-050M..	63	G 2 3/4	433	350	24	103	1.5



Product Information

Sensors and Instrumentation

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			
		malleable 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

1. 2. 3. 4. 5.
GKL -

●=Standard ○=Option

1. Nominal width							
025	DN 25 - Rp 1 " or Ø32						
032	DN 32 - Rp 1 1/4 " or Ø40						
040	DN 32 - Rp 1 1/2 " or Ø50						
050	DN 50 - Rp 2 " or Ø63						
3. 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 H₂O for vertical inwards flow							
W1000	100 - 1000 l/h	●	○				●
		●	○	○	○		●
W1600	150 - 1600 l/h	●	○				●
		●	○	○	○		●
W2500	200 - 2500 l/h	●	○			●	●
	300 - 2500 l/h			○	○		○
W3300	300 - 3300 l/h	●	○				●
W4000	400 - 4000 l/h	●	○	○	○	●	
W6400	600 - 6400 l/h	●	○	○	○	●	

		Display range air (0 °C 1.013 bar abs.) for vertical inwards flow							
L0100	1.00 - 10 m³/h	○							○
	1.25 - 10 m³/h		○						○
L0160	1.50 - 16 m³/h	○	○						○
		○							○
L0250	2.00 - 25 m³/h	○					○	○	
	3.00 - 25 m³/h		○						○
L0400	4.00 - 40 m³/h	○	○						○
L0500	5.00 - 50 m³/h	○						○	
L0600	5.00 - 60 m³/h		○					○	
L0640	6.00 - 64 m³/h		○						○
L1000	10.00 - 100 m³/h	○						○	
L1600	15.00 - 160 m³/h		○					○	
L2500	20.00 - 250 m³/h		○					○	
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-1251 / GKEL-1252
- GKK-1270
- GKI-1272

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)

Product Information

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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