

Flow - variable area



Characteristics

System	Flow - float
Evaluation	Display Switching Measuring
Nominal widths	DN 4 - 50
Range	0.0002..4000 l/min
Media	Water Gases Oils Aggressive media
Pressure resistance	Max. 15 bar
Temperature	-20..+100 °C

Applications

- Display of small flows
- Biogas plants
- Inert gas monitoring in welding equipment
- Flow display of spindles

Function and benefits

The sinker measurement principle is a proven method for the precise measurement of liquid and gaseous media. A lifting body is moved vertically in a transparent tube and indicates the current flow by the respective position on the housing scale.

The immediate display of the position without further functional components enables a very precise measurement result. In the event that magnets have been integrated in the sinker, actuation can take place with limit value contacts or sensors arranged on the measurement tube. In this respect, the sinker system also presents a possibility for monitoring the flow or the generation of a linear, continuous output signal.

Media

If the process data of an application changes so that the flow meter designed for the original process conditions no longer displays correct values, a conversion factor can be calculated for the present scale if the parameters are known.

It must be observed that the results of these formulae are approximate values, which can be applied well with minor deviations from the original calibration conditions. With larger deviations, the measurement device should be completely reconfigured.

Instructions for gaseous media

Calculation of the correction factor F_{tot}

The scale values refer to standard litres of air at 1.013 bar (absolute) and 0 °C. If operating conditions are changed, the conveyed quantity changes according to the accompanying formulae and tables.

Correction factor $F_{ges} = F_T \times F_P \times F_\rho$

Influence of the temperature

Calculation of the correction factor F_T :

$$F_T = \sqrt{\frac{\text{calibration temp. in K}}{\text{operat. temp. in K}}} = \sqrt{\frac{0\text{ °C} + 273}{\text{operating temp. in °C} + 273}}$$

Example for 30 °C

$$F_T = \sqrt{\frac{0\text{ °C} + 273}{30\text{ °C} + 273}} = 0,95$$

Influence of the operating pressure

Calculation of the correction factor K_p

$$F_P = \sqrt{\frac{\text{operating pressure in bar abs.}}{\text{calibration pressure in bar abs.}}}$$

Example at 5 bar

$$F_P = \sqrt{\frac{5,000\text{ bar abs.}}{1,013\text{ bar abs.}}} = 2,22$$

Influence of the density of the gas

Calculation of the correction factor K_ρ












$$F_\rho = \sqrt{\frac{\text{density of air}}{\text{density of the gas at 0 °C}}}$$

Example based on the gas argon

$$F_\rho = \sqrt{\frac{1,292\text{ kg/m}^3}{1,784\text{ kg/m}^3}} = 0,85$$

Gas	Chemical formula	Density kg/m ³ at 0 °C	Correction factor F_ρ
ammonia	NH ₃	0.64	44.93
argon	Ar	1.78	26.94
butane	C ₄ H ₁₀	2.71	21.83
chlorine	Cl ₂	3.13	20.32
ethane	C ₂ H ₆	1.36	30.82
ethylene	C ₂ H ₄	1.26	32.02
helium	He	0.18	84.72
carbon monoxide	CO	1.25	32.15
carbon dioxide	CO ₂	1.98	25.54
air		1.29	1.00
methane	CH ₄	0.72	42.36
oxygen	O ₂	1.42	30.16
nitrogen	N ₂	1.25	32.15
propane	C ₃ H ₈	2.01	0.80
hydrogen	H ₂	0.09	119.81
xenon	Xe	5.90	14.80

Device overview

Device	Switch	Connection	Range l/min	Pressure resistance in bar	Medium temperature	Materials	Accessory	Switching	Page	
GR-065		-	Female thread 1/8" NPT	0.0002..43.3	PN 12	-20..+90 °C	Stainless steel Glass	optionally valve	-	4
GR-150		-	Female thread 1/8" NPT	0.004..44	PN 12	-20..+90 °C	Stainless steel Glass	optionally valve	-	6
UK-020		-	Female thread 1/8" NPT	0.005..25	PN 6	-20..+65 °C	Brass / stainless steel Glass	optionally valve	-	8
UK-040		-	Female thread 1/8" NPT	0.004..100	PN 6	-20..+65 °C	Brass / stainless steel	optionally valve	-	10
UK-050		-	Female thread 1/8" NPT	1..3000	PN 6	-20..+65 °C	PVC	optionally valve	-	12
UK-044		-	Male thread 1/4" NPT	0.07..141	PN 6	-20..+65 °C	PVC	-	-	15
UK-047		-	Female thread 1/2" NPT	2..1500	PN 6	-20..+65 °C	PVC	-	-	18
UK-048		-	Female thread 3/4" NPT	2..2200	PN 6	-20..+65 °C	PVC	-	-	20
VL		optionally Reed switch	Female thread G 1/8..G 1	0.1..50	PN 10	-20..+100 °C	Brass / stainless steel Glass	-	230 V AC, 1 A, 50 VA	22
GK		optionally Reed switch	Female thread Rp 3/8" ..Rp 1" Glue socket Ø16..32	2..650	PN 10..15	-20..+60 °C (-20..+100 °C)	Malleable cast iron / PVC	-	normally closed, normally open 250 V AC, 0,2 A, 10 VA	24
GKL		optionally Reed switch	Female thread Rp 1/8" ..Rp 2" Glue socket Ø32..64	1.3..4150	PN 10..15	-20..+60 °C (-20..+100 °C)	Malleable cast iron / PVC	-	or Output signal 0..10 kOhm 4..20 mA	27
Additional devices for GK / GKL									30	

Errors and technical modifications reserved.

Product Information

Flow Meter
GR-065GK



- Minimum measurement quantity
- Convex cut for enlargement
- Optionally valve
- Good resistance to medium

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	without	
Nominal width	DN 4	
Process connection	female thread 1/8" NPT	
Metering range	0.002..43.3 l/min	for details see table "Ranges"
Q _{max.}	120 % of full scale value	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 12 bar	
Medium temperature	-20..+90 °C	
Ambient temperature	-20..+70 °C	
Media	water, gases	
Electrical data	none	
Materials medium-contact	borosilicate glass , glass, stainless steel, FKM	
Non-medium-contact materials	glass, CW614N valve: ABS, CW614N	
Weight	0.5 kg	
Installation location	vertical inwards flow from below	

Ranges

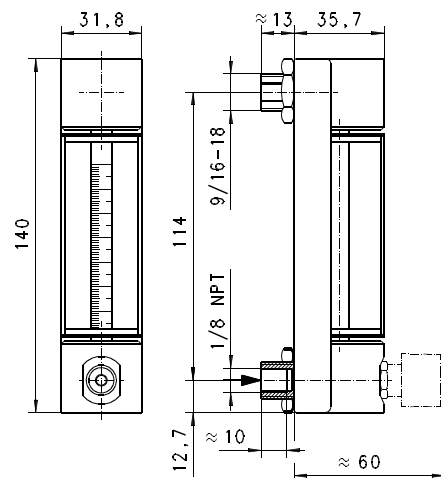
The details in the table correspond to a vertical inwards flow from below.

The metering ranges for air correspond to a temperature of the medium of 0 °C and a pre-pressure of 1.013 bar.

The scale has millimetre divisions. With the aid of the conversion diagrams included in the scope of the delivery, the flow rate can rapidly be determined.

Metering range Air cm ³ /min	Metering range H ₂ O cm ³ /min	Float	Types
2 - 51		Glass	GR-065GK0005G
5 - 103		Stainless steel	GR-065GK0010G
5 - 153			GR-065GK0015K
10 - 298		Glass	GR-065GK0029K
20 - 400			GR-065GK0040G
40 - 855		0.90 - 21.0	Stainless steel
20 - 900	0.20 - 18.2	Glass	GR-065GK0090G
50 - 1800	1.00 - 50.0	Stainless steel	GR-065GK0180K
100 - 2580	2.00 - 55.0	Glass	GR-065GK0258G
100 - 3930	2.00 - 90.0		GR-065GK0393G
277 - 5030	3.27 - 144.0	Stainless steel	GR-065GK0503K
100 - 6000	2.00 - 130.0	Glass	GR-065GK0600G
300 - 7510	5.00 - 220.0	Stainless steel	GR-065GK0751K
150 - 10100	3.00 - 235.0	Glass	GR-065GK1010G
250 - 11450	5.00 - 335.0	Stainless steel	GR-065GK1145K
800 - 15750	10.00 - 375.0	Glass	GR-065GK1575G
400 - 18960	10.00 - 560.0	Stainless steel	GR-065GK1896K
700 - 23640	10.00 - 570.0	Glass	GR-065GK2364G
2000 - 29400	42.00 - 881.0	Stainless steel	GR-065GK2940K
2000 - 43340	50.00 - 1305.0		GR-065GK4334K

Dimensions



Product Information

Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter

Ordering code

GR 1. 2. 065 3. G 4. 5. 6.

○=Option

1. Valve			
-	without valve		
V-	with valve		
2. Length of scale			
065	65 mm		
3. Process connection			
G	female thread		
4. Connection material			
K	stainless steel		
A	○ aluminium		
M	○ brass		
5. Display range cm³/min for vertical inwards flow			
	Air	Water	
	(0 °C, 1.013 bar abs.)		
0005	2 - 51		●
0010	5 - 103		●
0015	5 - 153		●
0029	10 - 298		●
0040	20 - 400		●
0085	40 - 855	0.90 - 21.0	●
0090	20 - 900	0.20 - 18.2	●
0180	50 - 1800	1.00 - 50.0	●
0258	100 - 2580	2.00 - 55.0	●
0393	100 - 3930	2.00 - 90.0	●
0503	277 - 5030	3.27 - 144.0	●
0600	100 - 6000	2.00 - 130.0	●
0751	300 - 7510	5.00 - 220.0	●
1010	150 - 10100	3.00 - 235.0	●
1145	250 - 11450	5.00 - 335.0	●
1575	800 - 15750	10.00 - 375.0	●
1896	400 - 18960	10.00 - 560.0	●
2364	700 - 23640	10.00 - 570.0	●
2940	2000 - 29400	42.00 - 881.0	●
4334	2000 - 43340	50.00 - 1305.0	●
6. Float			
G	glass		
K	stainless steel		

Options

- Float made from sapphire, tantalum, or carbon
- Brass valve
- Valve with fine adjustment
- special ranges are possible

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

**Flow Meter
 GR-150GK**



- Minimum measurement quantity
- Convex cut for enlargement
- Optionally valve
- Good resistance to medium

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	without	
Nominal width	DN 4	
Process connection	female thread 1/8" NPT	
Metering range	0.004..444 l/min	for details see table "Ranges"
Q _{max.}	120 % of full scale value	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 12 bar	
Medium temperature	-20..+90 °C	
Ambient temperature	-20..+70 °C	
Media	water, gases	
Electrical data	none	
Materials medium-contact	borosilicate glass, glass, stainless steel, FKM	
Non-medium-contact materials	glass, CW614N valve: ABS, CW614N	
Weight	0.7 kg	
Installation location	vertical inwards flow from below	

Ranges

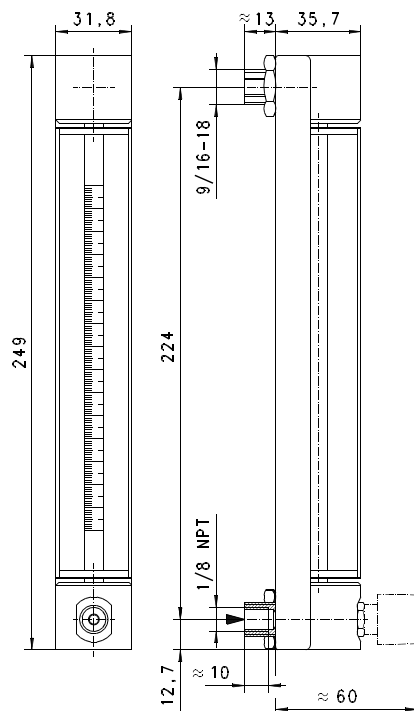
The details in the table correspond to a vertical inwards flow from below.

The metering ranges for air correspond to a temperature of the medium of 0 °C and a pre-pressure of 1.013 bar.

The scale has millimetre divisions. With the aid of the conversion diagrams included in the scope of the delivery, the flow rate can rapidly be determined.

Metering range Air cm ³ /min	Metering range H ₂ O cm ³ /min	Float	Types
2 - 50		Glass	GR-150GK0005G GR-150GK0010G
2 - 106		Stainless steel	GR-150GK0015K
4 - 152			GR-150GK0029K
5 - 308		Glass	GR-150GK0040G
10 - 400	0.4 - 18.0	Stainless steel	GR-150GK0085G GR-150GK0087K
20 - 855	0.6 - 22.2		GR-150GK0171K
40 - 870	1.6 - 47.5	Glass	GR-150GK0229G GR-150GK0342G
60 - 1710	0.5 - 50.0	Stainless steel	GR-150GK0448K
30 - 2290	1.2 - 75.0		GR-150GK0660K
40 - 3425	2.0 - 125.0	Glass	GR-150GK0918G
100 - 4480	2.0 - 190.0	Stainless steel	GR-150GK1781K
100 - 6600	3.0 - 215.0		GR-150GK2374G
150 - 9180	10.0 - 515.0	Glass	GR-150GK4405K
400 - 17810	5.0 - 565.0	Stainless steel	
400 - 23740	20.0 - 1335.0		

Dimensions



Product Information

Handling and operation

- Include straight calming section of 5 x DN in inlet and install an outlet.
- If the media are dirty, install a filter

Ordering code

GR 1. 2. 3. 4. 5. 6.

GR 150 G

○=Option

1. Valve			
-	without valve		
V-	with valve		
2. Length of scale			
150	150 mm		
3. Process connection			
G	female thread		
4. Connection material			
K	stainless steel		
A	<input type="radio"/> aluminium		
M	<input type="radio"/> brass		
5. Display range cm³/min for vertical inwards flow			
	Air (0 °C, 1.013 bar abs.)	Water	
0005	2 - 50		●
0010	2 - 106		●
0015	4 - 152		●
0029	5 - 308		●
0040	10 - 400		●
0085	20 - 855	0.4 - 18.0	●
0087	40 - 870	0.6 - 22.2	●
0171	60 - 1710	1.6 - 47.5	●
0229	30 - 2290	0.5 - 50.0	●
0342	40 - 3425	1.2 - 75.0	●
0448	100 - 4480	2.0 - 125.0	●
0660	100 - 6600	2.0 - 190.0	●
0918	150 - 9180	3.0 - 215.0	●
1781	400 - 17810	10.0 - 515.0	●
2374	400 - 23740	5.0 - 565.0	●
4405	1000 - 44050	20.0 - 1335.0	●
6. Float			
G	glass		
K	stainless steel		

Options

- Float made from sapphire, tantalum, or carbon
- Brass valve
- Valve with fine adjustment
- special ranges are possible

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

Flow Meter UK-020



- Frontal scale imprint
- Optionally valve
- Installation plate

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	without	
Nominal width	DN 4	
Process connection	female thread 1/8" NPT	
Metering range	0.005..25 l/min	for details see table "Ranges"
Q _{max.}	to 30 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 6 bar	
Medium temperature	-20..+65 °C	
Ambient temperature	-20..+65 °C	
Media	water, gases	
Electrical data	none	
Materials medium-contact	Brass construction: acrylic, glass, 1.4305, 1.4310, CW614N, NBR	Stainless steel construction: acrylic, glass, 1.4305, 1.4310, FKM
Non-medium-contact materials	acrylic, CW614N, PS valve: ABS, CW614N	
Weight	0.13 kg	
Installation location	vertical inwards flow from below	

Ranges

Medium water

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

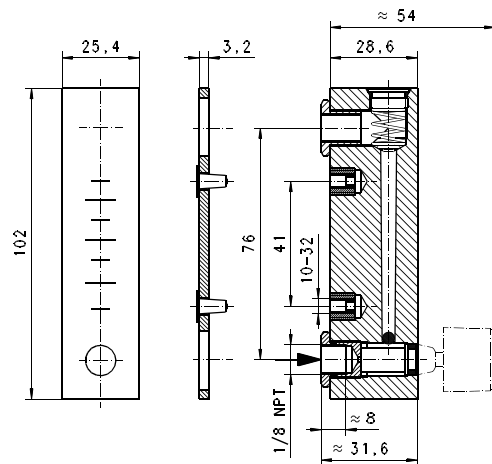
Metering range	Q _{max.} recommended	Type
5.0 - 50 cm ³ /min	6 l/min	UK.-020G.W0050
10.0 - 100 cm ³ /min		UK.-020G.W0100
20.0 - 240 cm ³ /min		UK.-020G.W0240
0.2 - 3 l/h		UK.-020G.W0003
0.5 - 6 l/h		UK.-020G.W0006
1.0 - 15 l/h		UK.-020G.W0015
4.0 - 40 l/h		UK.-020G.W0040
10.0 - 80 l/h	UK.-020G.W0080	

Medium air

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	Q _{max.} recommended	Type
0.04 - 0.5 NI/min	0.7 NI/min	UK.-020G.L0000
0.10 - 1.0 NI/min	1.2 NI/min	UK.-020G.L0001
0.40 - 5.0 NI/min	6.0 NI/min	UK.-020G.L0005
2.00 - 25.0 NI/min	30.0 NI/min	UK.-020G.L0025

Dimensions



Product Information

Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter

Ordering code

UK 1. 2. 3. 4. 5.

1. Valve	
-	without valve
V-	with valve
2. Series	
020	020, 1/8" NPT
3. Process connection	
G	female thread
4. Connection material	
M	brass
K	stainless steel
5. Display range H₂O for vertical inwards flow	
W0050	5.0 - 50 cm ³ /min
W0100	10.0 - 100 cm ³ /min
W0240	20.0 - 240 cm ³ /min
W0003	0.2 - 3 l/h
W0006	0.5 - 6 l/h
W0015	1.0 - 15 l/h
W0040	4.0 - 40 l/h
W0080	10,0 - 80 l/h
Display range air (0 °C 1.013 bar abs.) for vertical inwards flow	
L0000	0.04 - 0.5 NI/min
L0001	0.10 - 1.0 NI/min
L0005	0.40 - 5.0 NI/min
L0025	2.00 - 25.0 NI/min

Options

- Metering ranges and special scales under defined operating pressures / temperatures
- Seal made of FKM only for brass construction)

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

Flow Meter
UK-040



- Frontal scale imprint
- Optionally valve
- Installation plate

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	without	
Nominal width	DN 4	
Process connection	female thread 1/8" NPT	
Metering range	0.004..100 l/min	for details see table "Ranges"
Q_{max.}	to 120 l/min	
Tolerance	±3 % of full scale value	
Pressure resistance	PN 6 bar	
Medium temperature	-20..+65 °C	
Ambient temperature	-20..+65 °C	
Media	water, gases	
Electrical data	none	
Materials medium-contact	<i>Brass construction:</i> acrylic, glass, 1.4305, 1.4310, CW614N, NBR	<i>Stainless steel construction:</i> acrylic, glass, 1.4305, 1.4310, FKM
Non-medium-contact materials	acrylic, CW614N, PS valve: ABS, CW614N	
Weight	0.24 kg	
Installation location	vertical inwards flow from below	

Ranges

Medium water

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

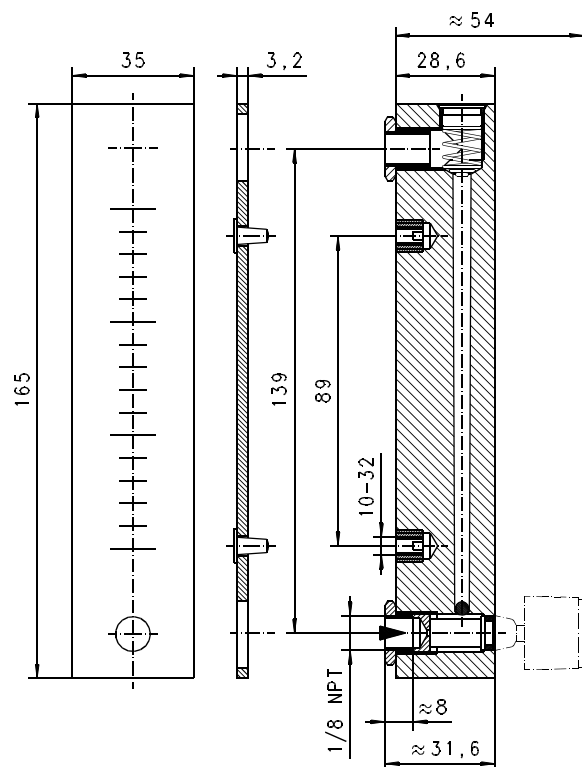
Metering range	Q _{max.} recommended	Type
0.2 - 3 l/h	6 l/min	UK.-040G.W0003
0.6 - 8 l/h		UK.-040G.W0008
1.0 - 14 l/h		UK.-040G.W0014
4.0 - 40 l/h		UK.-040G.W0040
8.0 - 80 l/h		UK.-040G.W0080
20.0 - 220 l/h		UK.-040G.W0220

Medium air

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	Q _{max.} recommended	Type
0.1 - 1 NI/min	1.2 NI/min	UK.-040G.L0001
0.4 - 5 NI/min	6.0 NI/min	UK.-040G.L0005
1.0 - 10 NI/min	12.0 NI/min	UK.-040G.L0010
2.0 - 20 NI/min	24.0 NI/min	UK.-040G.L0020
3.0 - 30 NI/min	36.0 NI/min	UK.-040G.L0030
4.0 - 50 NI/min	60.0 NI/min	UK.-040G.L0050
10.0 - 100 NI/min	120.0 NI/min	UK.-040G.L0100

Dimensions



Product Information

Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter

Ordering code

UK 1. 2. 3. 4. 5.

UK

1. Valve	
-	without valve
V-	with valve
2. Series	
040	040, 1/8" NPT
3. Process connection	
G	female thread
4. Connection material	
M	brass
K	stainless steel
5. Display range H₂O for vertical inwards flow	
W0003	0.2 - 3 l/h
W0008	0.6 - 8 l/h
W0014	1.0 - 14 l/h
W0040	4.0 - 40 l/h
W0080	8.0 - 80 l/h
W0220	20.0 - 220 l/h
Display range air (0 °C 1.013 bar abs.) for vertical inwards flow	
L0001	0.1 - 1 NI/min
L0005	0.4 - 5 NI/min
L0010	1.0 - 10 NI/min
L0020	2.0 - 20 NI/min
L0030	3.0 - 30 NI/min
L0050	4.0 - 50 NI/min
L0100	10.0 - 100 NI/min

Options

- Metering ranges and special scales under defined operating pressures / temperatures
- Seal made of FKM only for brass construction)

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

**Flow Meter
 UK-050**



- Frontal scale imprint
- Optionally valve

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	without	
Nominal width	DN 25	
Process connection	female thread 1 " NPT	
Metering range	1..3000 l/min	for details see table "Ranges"
Q_{max.}	to 4,000 l/min	
Tolerance	±2 % of full scale value	
Pressure resistance	PN 6 bar	
Medium temperature	-20..+65 °C	
Ambient temperature	-20..+65 °C	
Media	water, gases	
Electrical data	none	
Materials medium-contact	acrylic, 1.4305, CW614N, PVC, NBR	
Non-medium-contact materials	acrylic, PVC, CW614N valve: ABS, CW614N	
Weight	0.8 kg	
Installation location	vertical inwards flow from below	

Ranges

Medium water

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

Metering range	Q _{max.} recommended	Type
1 - 19 l/min	21 l/min	UK.-050GHW0019
4 - 36 l/min	44 l/min	UK.-050GHW0036
5 - 75 l/min	90 l/min	UK.-050GHW0075

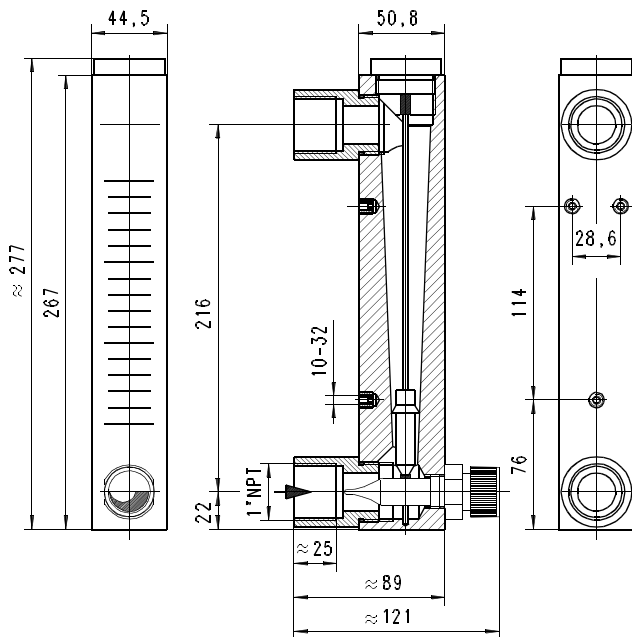
Medium air

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	Q _{max.} recommended	Type
100 - 700 NI/min	850 NI/min	UK.-050GHL0700
100 - 1400 NI/min	1700 NI/min	UK.-050GHL1400
400 - 3000 NI/min	4000 NI/min	UK.-050GHL3000

Product Information

Dimensions



Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter

Ordering code

UK 1. 2. 050 3. G 4. H 5.

1. Valve	-	without valve
	V-	with valve
2. Series	050	050, 1 " FNPT
3. Process connection	G	female thread
4. Connection material	H	PVC
5. Display range H₂O for vertical inwards flow	W0019	1 - 19 l/min
	W0036	4 - 36 l/min
	W0075	5 - 75 l/min
Display range air (0 °C 1.013 bar abs.) for vertical inwards flow	L0700	100 - 700 NI/min
	L1400	100 - 1400 NI/min
	L3000	400 - 3000 NI/min

Product Information

Options

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

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

Flow Meter UK-044



- Frontal scale imprint

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	without	
Nominal width	DN 8	
Process connection	male thread 1/4" NPT	
Metering range	0.07..141 l/min	for details see table "Ranges"
Q_{max.}	to 170 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 6 bar	
Medium temperature	-20..+65 °C	
Ambient temperature	-20..+65 °C	
Media	water, gases	
Electrical data	none	
Materials medium-contact	acrylic, aluminium, PVC, NBR	
Non-medium-contact materials	acrylic, PVC, CW614N	
Weight	0.1 kg	
Installation location	vertical inwards flow from below	

Ranges

Medium water

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

Metering range	Q _{max.} recommended	Type
4 - 50 l/h	65 l/h	UK-044AHW0050
15 - 100 l/h	120 l/h	UK-044AHW0100
30 - 230 l/h	260 l/h	UK-044AHW0230

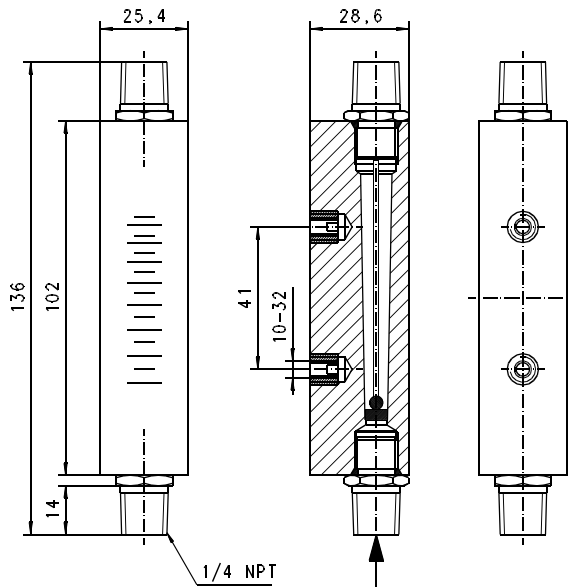
Medium air

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	Q _{max.} recommended	Type
200 - 1700 NI/h	2000 NI/h	UK-044AHL1700
500 - 3000 NI/h	3600 NI/h	UK-044AHL3000
1000 - 8500 NI/h	10000 NI/h	UK-044AHL8500

Product Information

Dimensions



Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter

Ordering code

UK - 1. 044 2. A 3. H 4.

1. Series	
044	044, 1/4" NPT
2. Process connection	
A	male thread
3. Connection material	
H	PVC
4. Display range H₂O for vertical inwards flow	
W0050	4 - 50 l/h
W0100	15 - 100 l/h
W0230	30 - 230 l/h
Display range air (0 °C 1.013 bar abs.) for vertical inwards flow	
L1700	200 - 1700 NI/min
L3000	500 - 3000 NI/min
L8500	1000 - 8500 NI/min

Product Information

Options

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

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

**Flow Meter
 UK-047**



- Frontal scale imprint
- Dual scale l/min and l/h

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	without	
Nominal width	DN 15	
Process connection	female thread 1/2" NPT	
Metering range	2..1500 l/min	for details see table "Ranges"
Q_{max.}	to 1800 l/min	
Tolerance	±3 % of full scale value	
Pressure resistance	PN 6 bar	
Medium temperature	-20..+65 °C	
Ambient temperature	-20..+65 °C	
Media	water, gases	
Electrical data	none	
Materials medium-contact	acrylic, aluminium, 1.4305, PVC, NBR	
Non-medium-contact materials	acrylic, PVC, CW614N	
Weight	0.35 kg	
Installation location	vertical inwards flow from below	

Ranges

Medium water

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

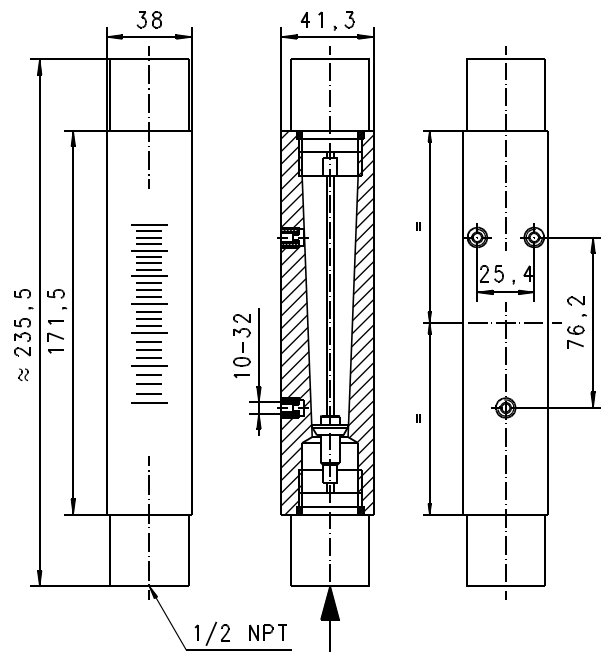
Metering range		Q _{max.} recommended	Type
l/min	l/h		
2 - 10	120 - 600	12 l/min	UK-047GHW0010
2 - 20	120 - 1200	24 l/min	UK-047GHW0020
4 - 40	240 - 2400	48 l/min	UK-047GHW0040

Medium air

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		Q _{max.} recommended	Type
NI/min	NI/h		
80 - 340	4800 - 20400	400 NI/min	UK-047GHL0034
100 - 700	6000 - 42000	850 NI/min	UK-047GHL0070
150 - 1500	9000 - 90000	1800 NI/min	UK-047GHL0150

Dimensions



Product Information

Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter

Ordering code

UK -

1. Series		
047	047, 1/2" NPT	
2. Process connection		
G	female thread	
3. Connection material		
H	PVC	
4. Display range H₂O for vertical inwards flow		
W0010	2 - 10 l/min	120 - 600 l/h
W0020	2 - 20 l/min	120 - 1200 l/h
W0040	4 - 40 l/min	240 - 2400 l/h
Display range air (0 °C 1.013 bar abs.) for vertical inwards flow		
L0034	80 - 340 NI/min	4800 - 20400 NI/h
L0070	100 - 700 NI/min	6000 - 42000 NI/h
L0150	150 - 1500 NI/min	9000 - 90000 NI/h

Options

- Metering ranges and special scales under defined operating pressures / temperatures
- Seal made of FKM

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

Flow Meter
UK-048



- Frontal scale imprint
- Dual scale l/min and l/h

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	without	
Nominal width	DN 20	
Process connection	female thread 3/4" NPT	
Metering range	5..2200 l/min	for details see table "Ranges"
Q_{max.}	to 2500 l/min	
Tolerance	±3 % of full scale value	
Pressure resistance	PN 6 bar	
Medium temperature	-20..+65 °C	
Ambient temperature	-20..+65 °C	
Media	water, gases	
Electrical data	none	
Materials medium-contact	acrylic, aluminium, 1.4305, PVC, NBR	
Non-medium-contact materials	acrylic, PVC, CW614N	
Weight	0.35 kg	
Installation location	vertical inwards flow from below	

Ranges

Medium water

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

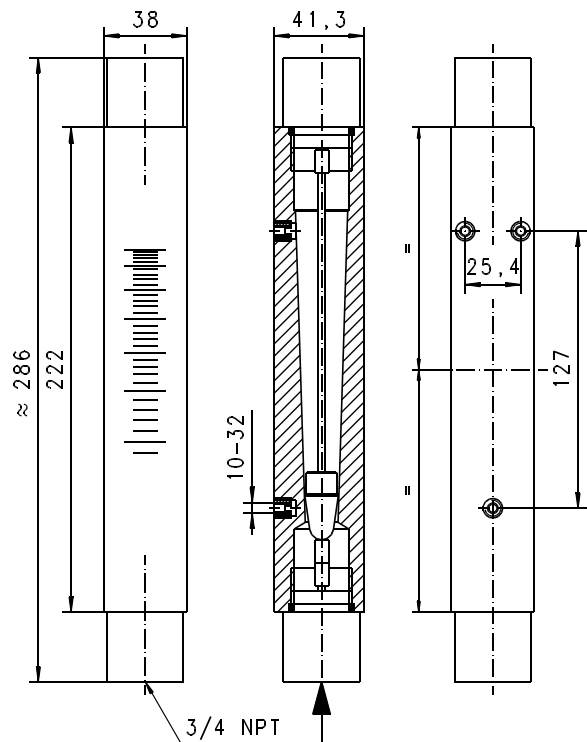
Metering range		Q _{max.} recommended	Type
l/min	l/h		
5 - 45	300 - 2700	55 l/min	UK-048GHW0045
6 - 60	360 - 3600	75 l/min	UK-048GHW0060
8 - 70	480 - 4200	85 l/min	UK-048GHW0070

Medium air

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		Q _{max.} recommended	Type
NI/min	NI/h		
150 - 1400	9000 - 84000	1700 NI/min	UK-048GHL0140
200 - 1800	12000 - 108000	2100 NI/min	UK-048GHL0180
200 - 2200	12000 - 132000	2500 NI/min	UK-048GHL0220

Dimensions



Product Information

Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- If the media are dirty, install a filter

Ordering code

UK -

1. Series		
048	048, 3/4" NPT	
2. Process connection		
G	female thread	
3. Connection material		
H	PVC	
4. Display range H₂O for vertical inwards flow		
W0045	5 - 45 l/min	300 - 2700 l/h
W0060	6 - 60 l/min	360 - 3600 l/h
W0070	8 - 70 l/min	480 - 4200 l/h
Display range air (0 °C 1.013 bar abs.) for vertical inwards flow		
L0140	150 - 1400 NI/min	9000 - 84000 NI/h
L0180	200 - 1800 NI/min	12000 - 108000 NI/h
L0220	200 - 2200 NI/min	12000 - 132000 NI/h

Options

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

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

Flow Indicator/ Switch VL



- Optionally switching contact

Characteristics

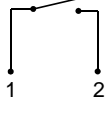
A piston moves in a transparent glass tube, relative to the flow. The position of the float depends on the volume flow (weight force versus resistance to flow), and indicates the flow rate on the scaled glass tube.

Technical data

Flow indicator VL

Nominal width	DN 15..25	
Process connection	female thread G 1/2..G 1	
Display range	0.1..50 l/min	for details see table "Ranges"
Q_{max.}	50 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 10 bar	
Medium temperature	-20..+100 °C	
Ambient temperature	-20..+70 °C	
Media	water (oils, gases and aggressive media available on request)	
Materials medium-contact	<i>Brass construction:</i> CW614N nickelled, Duran 50, hard ferrite, NBR	<i>Stainless steel construction:</i> 1.4571, Duran 50, hard ferrite, FKM
Weight	see table "Dimensions and weights"	
Installation location	vertical inwards flow from below	

Switching contact VLR

Switch	reed switch
Switching range	0.1..50 l/min, for details see "Ranges"
Tolerance	±5 % of full scale value
Ambient temperature	-20..+70 °C
Wiring	normally open (n.o.) no. 0.372
	
Switching voltage	max. 230 V AC
Switching current	1 A
Switching capacity	50 VA
Protection class	2 - safety insulation
Ingress protection	IP 65
Connection	plug DIN 43650-A / ISO 4400
Non-medium-contact materials	PC, PA, NBR, nickelled brass
Weight	0.02 kg

Ranges

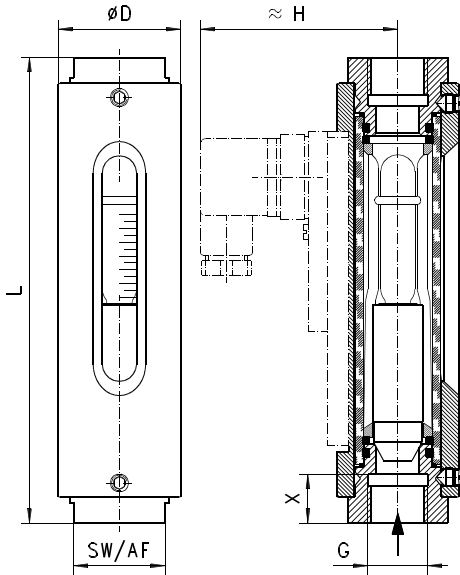
For switching ranges, the details in the table correspond to vertical inwards flow from below, and decreasing flow rate; for display ranges they correspond to vertical inwards flow from below and increasing flow rate.

G	Display/ Switching range l/min H ₂ O	Q _{max.} recommended	Types
G 1/2	0.1 - 1.5	1.5	VL.-015G.002
	0.2 - 3.0	3.0	VL.-015G.003
	0.3 - 8.0	8.0	VL.-015G.008
	1.0 - 12.0	12.0	VL.-015G.012
	2.0 - 18.0	18.0	VL.-015G.018
G 1	3.0 - 35.0	35.0	VL.-025G.035
	4.0 - 50.0	50.0	VL.-025G.050

Product Information

Dimensions and weights

G	Types	D	H	L	X	SW	Weight kg
G 1/2	VL-015G.	43	-	135	13	32	0.63
	VLR-015G.		73				0.65
G 1	VL-025G.	50	-	184	17	41	1.00
	VLR-025G.		77				1.02



Handling and operation

- Include straight calming section of 5 x DN in inlet and outlet
- Include a filter if the media are dirty (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.

Ordering code

1. 2. 3. 4. 5.
 - **G**

1. Types		
VL	flow indicator	
VLR	flow indicator with switching contact	
2. Nominal width		
015	DN 15 - G 1/2	
025	DN 25 - G 1	
3. Process connection		
G	female thread	
4. Connection material		
M	brass	
K	stainless steel	
5. Display / switching range H ₂ O for vertical inwards flow		
002	0.1 - 1.5 l/min	●
003	0.2 - 3 l/min	●
008	0.3 - 8 l/min	●
012	1 - 12 l/min	●
018	2 - 18 l/min	●
035	3 - 35 l/min	●
050	4 - 50 l/min	●

Options

- Display and switching ranges for oil or gas
- Special values
- Scale 0..100 %
- Optionally transformer 250 V AC, 1,5 A, 50 VA, Wiring no. 0.282

Ordering information

- Specify direction of flow, medium, and display range.
- For oils. State viscosity, temperature and designation (e.g. ISO VG 68) (enquire about display range).
- For gases, state pressure (relative or absolute), temperature and medium (e.g. air) (request display range)

Product Information

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	malleable 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	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
		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	
	●		GK-010GTW0160PO	
		○	GK-010GTW0160PM	
DN 15 Rp 1/2 "	20 - 250	●		GK-015GTW0160PO
			○	GK-015GTW0160PM
	●		GK-015GTW0250PO	
		○	GK-015GTW0250PM	
DN 20 Rp 3/4 "	10 - 160	●		GK-020GTW0160PO
			○	GK-020GTW0160PM
	20 - 250	●		GK-020GTW0250PO
			○	GK-020GTW0250PM
	40 - 400	●		GK-020GTW0400PO
			○	GK-020GTW0400PM
DN 25 Rp 1 "	20 - 250	●		GK-025GTW0250PO
			○	GK-025GTW0250PM
	40 - 400	●		GK-025GTW0400PO
			○	GK-025GTW0400PM
60 - 640	●		GK-025GTW0640PO	
		○	GK-025GTW0640PM	

Product Information

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		
	15 - 160	○		GK-010.TW0160KO	
			○	GK-010.TW0160KM	
DN 15 Rp 1/2 "	20 - 160	○		GK-015.TW0160KO	
			○	GK-015.TW0160KM	
	20 - 250	○		GK-015.TW0250KO	
			○	GK-015.TW0250KM	
DN 20 Rp 3/4 "	30 - 400	○		GK-020.TW0250KO	
			○	GK-020.TW0250KM	
	60 - 600	○		GK-020.TW0400KO	
				○	GK-020.TW0400KM
			○		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	

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	
			○		GK-020.TL0055PO
DN 25 Rp 1 "	0.75 - 6.50		○	GK-020.TL0065PM	
	0.40 - 4.00	○		GK-025.TL0040PO	
	0.50 - 6.00	○		GK-025.TL0060PO	
			○		GK-025.TL0100PO
	1.00 - 10.00			○	GK-025.TL0100PM
		○			GK-025.TL0100PM
	1.00 - 16.00	○		GK-025.TL0160PO	
2.00 - 16.00	○	○	GK-025.TL0160PM		

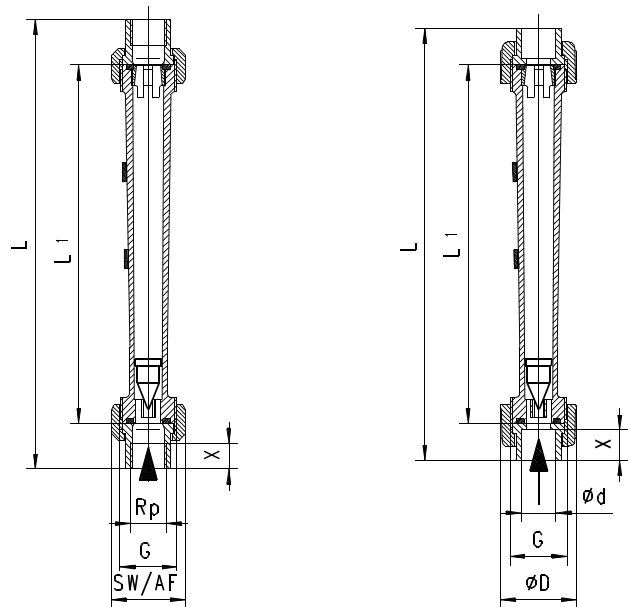
Dimensions and weights

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



Product Information

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	15.0	10.0	10.0
	10	15.0	15.0	10.0	10.0
	20	15.0	15.0	10.0	10.0
	25	15.0	15.0	10.0	10.0
	30	13.5	15.0	8.0	8.0
	40	12.0	13.0	6.0	6.0
	50	10.7	12.0	3.5	3.5
	60	9.5	11.0	1.5	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	○	○		○	
						○
L0160	1.00 - 16.00					○
	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)

Product Information

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	
●			GKL-032.TW1000PO		
		○	GKL-032.TW1000PM		
DN 32 Rp 1 1/4 "	150 - 1600	●		GKL-032.TW1600PO	
			○	GKL-032.TW1600PM	
●			GKL-040.TW1600PO		
		○	GKL-040.TW1600PM		
DN 40 Rp 1 1/2 "	200 - 2500	●		GKL-040.TW2500PO	
			○	GKL-040.TW2500PM	
		●		GKL-040.TW3300PO	
		○	GKL-040.TW3300PM		
DN 50 Rp 2 "		400 - 4000	●		GKL-050.TW2500PO
				○	GKL-050.TW2500PM
	●			GKL-050.TW4000PO	
	○		GKL-050.TW4000PM		
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
600 - 6400	○			GKL-050.TW6400KO	
			○	GKL-050.TW6400KM	

Product Information

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

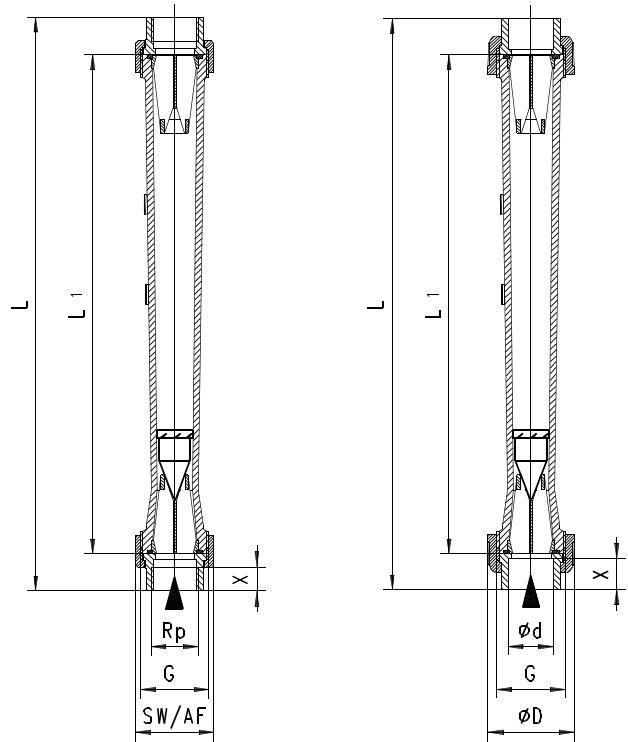
Dimensions and weights

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

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

		Pressure range in bar			
		malleable cast iron		PVC	
Connection		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

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

●=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

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