

Low Volume Variable Area Flow Meters

for liquids and gases

KFS



- Measuring ranges:
Water: 4 ... 50 cm³/min...
1 ... 10 l/min
0.08 ... 0.8 GPH
16 ... 160 GPH
Air: 0.04 ... 0.5 l/min...
100 ... 700 l/min
0.08 ... 1 SCFH
200 ... 1400 SCFH
- Accuracy:
±2 % ... 5 % of full scale
- p_{max} 6.5 bar; t_{max} 65 °C
- Connection:
1/8 ... 1" NPT female
- Material:
acrylic/stainless steel/PVC
- Needle valve (Standard with smaller sizes)



KOBOLD companies worldwide:

AUSTRALIA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHINA, CZECHIA, FRANCE, GERMANY, GREAT BRITAIN, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, REPUBLIC OF KOREA, SPAIN, SWITZERLAND, THAILAND, TUNISIA, TURKEY, USA, VIETNAM

KOBOLD Messring GmbH
Nordring 22-24
D-65719 Hofheim/Ts.
Head Office:
+49(0)6192 299-0
+49(0)6192 23398
info.de@kobold.com
www.kobold.com

Method of Operation

The flow meter model KFS operates on the proven suspended float system, that is, the installation position is vertical and the flow is from bottom to top.

The instrument is constructed as a single unit, that is, it has an acrylic housing with removable connections made of PVC or stainless steel.

The flow meter is thus very reasonably priced.

Areas of Application

- Gas analysis
- Water applications

KFS versions

1. KFS-22... and KFS-42...:
acrylic with stainless steel
connection at the back
2. KFS-53...:
acrylic with PVC
connection at top and bottom

Technical Details

See order details for technical details and measuring ranges

Accuracy:

KFS-2...: ±5 % of full scale

KFS-4...: ±3 % of full scale

KFS-5...: ±2 % of full scale

Max. temperature: 65 °C

Max. pressure: 6.5 bar

Connection:

KFS-2 and KFS-4

1/4" NPT female at the back: measuring ranges 69, 70, 73

1/8" NPT female at the back: all other ranges

Accessories: hose connector PPH, white,
straight for 1/4" hose diameter

KFS-5...: 1" NPT female at bottom and
top

Materials

Wetted parts	KFS-22 + KFS-42	KFS-53
Housing	Acrylic	Acrylic
Connection	St. steel	PVC
Gasket	FPM	NBR
Float	Glass, st. steel, PTFE	St. steel

Glass: agate

Stainless steel: 1.4301

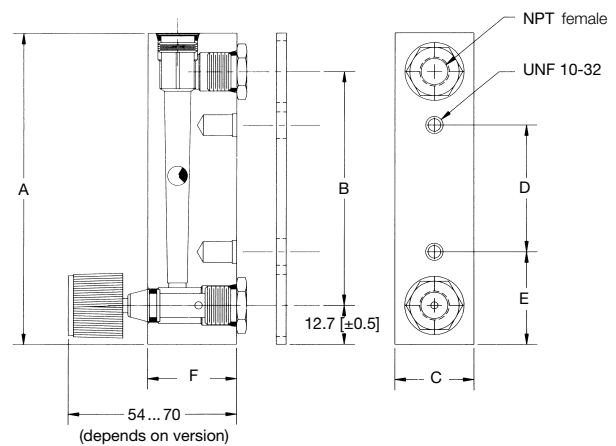
Options

Needle valves in stainless steel are available as standard for models KFS-2... and KFS-4...

We can supply model KFS-5... with a panel installation kit. Please note that in this case the connections are at the rear.

Dimensions [mm] KFS-2... and KFS-4...

Model	A [±0.5]	B [±0.5]	C [±0.5]	D [±0.3]	E [±0.5]	F [±0.5]
KFS-2...	102	76.2	25.4	41.3	30.2	28.6
KFS-4... (1/8")	165	140	34.9	88.9	38.1	28.6
KFS-4... (1/4")	168	140	28.6	88.9	38.1	34.9



	Weight [g] *		
	KFS-2...	KFS-4...	KFS-5...
net	136	233	275
w. packing	155	264	305

* includes back plate for KFS-2/KFS-4 (not for KFS-5)

Order Details

Model KFS-2... (overall length 102 mm, connection at the back, accuracy $\pm 5\%$ of full scale)

Air* measuring range Dual scale		Float material	Stainless steel connection	Option
0.04 ... 0.5 l/min	0.08 ... 1 SCFH	Glass	KFS-2212	NO = needle valve
0.1 ... 1 l/min	0.2 ... 2 SCFH	Glass	KFS-2213	
0.2 ... 2.5 l/min	0.6 ... 6 SCFH	Glass	KFS-2229	
0.4 ... 5 l/min	1 ... 10 SCFH	Glass	KFS-2214	
1 ... 10 l/min	2 ... 20 SCFH	St. steel	KFS-2215	
2 ... 25 l/min	5 ... 50 SCFH	St. steel	KFS-2216	
5 ... 80 l/min	10 ... 160 SCFH	St. steel	KFS-2219	

* at 1 bar abs., 20°C

Model KFS-4... (overall length 165 mm, connection at the back, accuracy $\pm 3\%$ of full scale)

Measuring range (water) Dual scale		Float material	Stainless steel connection	Air* measuring range Dual scale		Float material	Stainless steel connection	Option
4 ... 50 cm³/min	0.08 ... 0.8 GPH	Glass	KFS-4238	0.4 ... 5 l/min	1 ... 10 SCFH	Glass	KFS-4240	NO = needle valve
10 ... 120 cm³/min	0.1 ... 2 GPH	Glass	KFS-4256	1 ... 10 l/min	2 ... 20 SCFH	St. steel	KFS-4241	
25 ... 225 cm³/min	0.4 ... 4 GPH	St. steel	KFS-4251	2 ... 20 l/min	4 ... 40 SCFH	St. steel	KFS-4242	
40 ... 400 cm³/min	0.6 ... 6 GPH	St. steel	KFS-4250	3 ... 30 l/min	6 ... 60 SCFH	Glass	KFS-4243	
40 ... 660 cm³/min	1 ... 10 GPH	PTFE	KFS-4252	4 ... 45 l/min	10 ... 100 SCFH	St. steel	KFS-4244	
100 ... 1500 cm³/min	2.5 ... 25 GPH	St. steel	KFS-4253	10 ... 100 l/min	20 ... 200 SCFH	St. steel	KFS-4247	
200 ... 3000 cm³/min	3 ... 50 GPH	St. steel	KFS-4254	25 ... 255 l/min**	55 ... 550 SCFH	St. steel	KFS-4270**	
300 ... 3700 cm³/min	5 ... 60 GPH	St. steel	KFS-4255	50 ... 560 l/min**	100 ... 1200 SCFH	St. steel	KFS-4273**	
1 ... 10 l/min **	16 ... 160 GPH	St. steel	KFS-4269**					

* at 1 bar abs., 20°C

** Connection: 1/4" NPT female at the back, cannot be combined with hose connector set KFR-PPH W 024

Model KFS-5... (overall length 343 mm), accuracy $\pm 2\%$ of full scale)

Air measuring range (at 1 bar abs., 20°C)	Float material	PVC connection	Option
100 ... 700 l/min 200 ... 1400 SCFH	St. steel	KFS-5353	00 = no option

Accessories

Order code	Description	Picture
KFR-PPHW024	Hose Connector set, PP, 1/8" NPT x 6.4 mm, straight	
KFR-PAHW032	Hose Connector set, PA, 1/4" NPT x 8 mm, straight	
KFR-PAVW032	Hose Connector set, PA, 1/4" NPT x 8 mm, angled	



Low Volume Variable Area Flow Meters Model KFS

Scale resolution

KFS-2212N0

KFS-2213N0

KFS-2214N0

KFS-2215N0



KFS-2216N0

KFS-2219N0

KFS-2229N0

KFS-4238N0



Scale resolution (cont'd)

KFS-4240N0



KFS-4242N0



KFS-4243N0



KFS-4244N0



KFS-4247N0



KFS-4250N0



KFS-4251N0



KFS-4252N0





Low Volume Variable Area Flow Meters Model KFS

Scale resolution (cont'd)

KFS-4253N0



KFS-4254N0



KFS-4255N0



KFS-4256N0



KFS-5353N0



KFS-4269N0



KFS-4270N0



KFS-4273N0



Dimensions [mm]

KFS-5...

