



Zertifiziertes  
QM-System  
DIN EN ISO 9001  
Zertifikat-Nr. 01017

## Rotating Vane Flow Indicator

threaded connections · for liquids



measuring  
·  
monitoring  
·  
analysing

DAF-1



- Indication range:  
0.03 - 0.1 ... 5 - 150 l/min water
- $p_{max}$ : 16 bar;  $t_{max}$ : 110 °C
- Connection:  
G 1/8 ... 1 1/2;  
1/8 ... 1 1/2" NPT
- Material:  
polyamide PA 6-3-T, polysulfone,  
nickel plated brass, stainless steel

SS



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### Application and Operating Principle

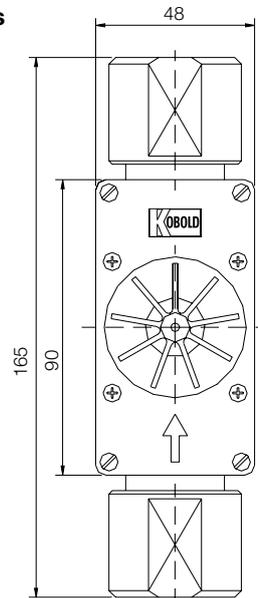
The KOBOLD Rotating Vane Flow Indicator is applied where visual flow indication without flow measurement is required. A square housing with transparent windows front and back, contains a rotating vane whose rotary motion, caused by the flowing medium, indicates presence of "flow".

Within the same housing dimensions, differing minimum and maximum flow ranges are obtained by changing the inlet port orifice.

The instruments can be installed in any position. Flow, however, must be in the direction indicated by the arrow.

They are pivot-mounted, which enables the sight glass of the indicating unit to be turned to an optimum viewing direction even during operation (not with material combination DAF-14...).

### Dimensions



### Material Combination/Technical Details

DAF-	11...	12...	13...	14...
Housing	PA 6-3-T	PSU	nickel plated brass	st. steel
Housing cover	PA 6-3-T	PSU	PSU	PSU
Threaded connections	nickel plated brass	st. steel <sup>1)</sup>	nickel plated brass	st. steel <sup>1)</sup>
Locking pins	brass	brass	brass	-
O rings	NBR	FPM	NBR	FPM
Rotating vane	POM	PTFE	POM	PTFE
Axle	st. steel <sup>1)</sup>	st. steel <sup>1)</sup>	st. steel <sup>1)</sup>	st. steel <sup>1)</sup>
Axle bearing	PTFE	PTFE	PTFE	PTFE
Max. operating pressure	10 bar	10 bar	16 bar	16 bar
Max. operating temperature	60 °C	110 °C	110 °C	110 °C

<sup>1)</sup>Material code 1.4571

### Installation Hints

- The instruments can be installed in any position. Flow however must be in the direction of arrow.
- PTFE tape to be used for sealing of connections.
- During installation, housing fittings must be held static to avoid transmission of stresses into the housing.
- During operation, observe that the maximum permitted flow is not exceeded, otherwise under certain conditions, this can lead to damage to the rotating vanes.

### Connections

G 1/8	G 1/4	G 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2
R06	R08	R15	R20	R25	R32	R40
1/8" NPT	1/4" NPT	1/2" NPT	3/4" NPT	1" NPT	1 1/4" NPT	1 1/2" NPT
N06	N08	N15	N20	N25	N32	N40

### Order Details (Example: DAF-1101H R06)

Indication range		Model				Connection			
Water [l/min]	Δ P [bar]	DAF-11..	DAF-12..	DAF-13..	DAF-14..	G-thread		NPT-thread	
0.03 ... 0.1	0.25	DAF-1101H..	DAF-1201H..	DAF-1301H..	DAF-1401H..	R06	R08	N06	N08
0.03 ... 0.5	0.8	DAF-1102H..	DAF-1202H..	DAF-1302H..	DAF-1402H..	R06	R08	N06	N08
0.2 ... 3	0.85	DAF-1103H..	DAF-1203H..	DAF-1303H..	DAF-1403H..	R06	R08	N06	N08
0.5 ... 12	0.55	DAF-1104H..	DAF-1204H..	DAF-1304H..	DAF-1404H..	R08	R15	N08	N15
1 ... 25	0.35	DAF-1105H..	DAF-1205H..	DAF-1305H..	DAF-1405H..	R15	R20	N15	N20
2 ... 50	0.35	DAF-1106H..	DAF-1206H..	DAF-1306H..	DAF-1406H..	R20	R25	N20	N25
5 ... 150	1.25	DAF-1107H..	DAF-1207H..	DAF-1307H..	DAF-1407H..	R32	R40	N32	N40



## Rotating Vane Flow Indicator

flanged connections · for liquids



measuring  
·  
monitoring  
·  
analysing

DAF-2



- Indication range:  
0.03 - 0.1 ... 5 - 150 l/min water
- $p_{\max}$ : 16 bar;  $t_{\max}$ : 110°C
- Connection:  
DN 15 ... DN 50;  
1/2 ... 2" ANSI
- Material:  
Housing: stainless steel  
Cover: Polysulfone

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Within the same housing dimensions, differing minimum and maximum flow ranges are obtained by changing the inlet port orifice. The instruments can be installed in any position. Flow, however, must be in the direction indicated by the arrow.

Connection is made by means of stainless steel flanges in accordance with DIN/Form C in standard sizes DN 15, 25, 40 or 50.

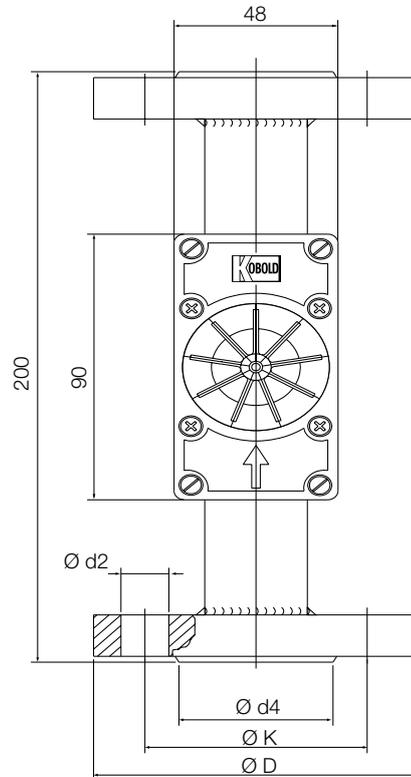
### Material Combination/Technical details

Housing	stainless steel 1.4571 / 1.3955
Housing cover	polysulfone
Connection	stainless steel 1.4571
O rings	FPM
Rotating vane	PTFE
Axle	stainless steel 1.4571
Axle bearing	PTFE
Max. operating pressure	16 bar
Max. operating temperature	110 °C

### Installation hints

- The instruments can be installed in any position. Flow however must be in the direction of arrow.
- PTFE tape to be used for sealing of connections.
- During operation, observe that the maximum permitted flow is not exceeded, otherwise under certain conditions, this can lead to damage to the rotating vanes.

### Dimensions [mm]



### Connections

DN	D [mm]	K [mm]	d4 [mm]	d2 [mm]	Number of screws
15	95	65	45	14	4
25	115	85	68	14	4
40	150	110	88	18	4
50	165	125	102	18	4

### Order Details (Example: DAF-2401H F15)

Indication range		Model DAF-24..	Connection DIN-Flange				Connection ANSI-Flange			
Water [l/min]	Δ P [bar]		DN15 PN16	DN25 PN16	DN40 PN16	DN50 PN16	½" 150 lbs	1" 150 lbs	1 ½" 150 lbs	2" 150 lbs
0.03...0.1	0.25	DAF-2401H..	F15	-	-	-	A15	-	-	-
0.03...0.5	0.8	DAF-2402H..	F15	-	-	-	A15	-	-	-
0.2...3	0.85	DAF-2403H..	F15	-	-	-	A15	-	-	-
0.5...12	0.55	DAF-2404H..	F15	F25	-	-	A15	A25	-	-
1...25	0.35	DAF-2405H..	F15	F25	F40	-	A15	A25	A40	-
2...50	0.35	DAF-2406H..	-	F25	F40	-	-	A25	A40	-
5...150	1.25	DAF-2407H..	-	F25	F40	F50	-	A25	A40	A50