



Sight Glass Flow Indicator

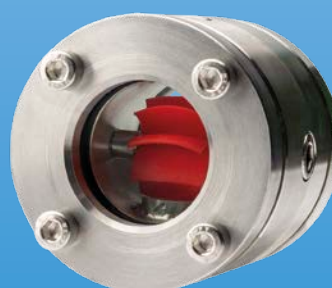


measuring
•
monitoring
•
analysing

DAI



- Connection:
G 1/2 ... 3, 1/2" ... 3" NPT,
DN 15 ... DN 200,
ANSI 1/2" ... 8"
- p_{max} : 40 bar; t_{max} : 260 °C
- Materials:
carbon steel, stainless steel,
PVC, PP, PVDF
- Visual internals:
rotor, ball, flap, chain



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Sight Glass Flow Indicator Model DAI

Materials / Mounting position

	DAI-C	DAI-S	DAI-V	DAI-P	DAI-D
Rotor	SS316 or PTFE (optional)				
Housing	carbon steel	st. st. 316/316L	PVC	PP	PVDF
Cover plates	carbon steel	stainless steel 316/316L			
Sight glass	soda-lime glass DIN 8902 (up to 150 °C); option: borosilicate glass DIN 7080 (up to 260 °C)				
Screws	zinc plated steel	stainless steel			
Gasket	see table Order Details				
Mounting position	universal				
Operating pressure	see table Order Details				
Operating temp.	-10 ... +150 °C (+260 °C with borosilicate glass)	-196 ... +150 °C (+260 °C with borosilicate glass)	0 ... +60 °C*	-10 ... +80 °C*	-10 ... +140 °C*

* see tables Pressure Derating Curve with Temperature

Order Details (Example: DAI- C G E 50 G N 0 0)

Model	Material ¹⁾	Connection ¹⁾	Connection type ¹⁾	Size ¹⁾	Gasket
DAI-	C = carbon steel S = stainless steel V⁴⁾ = PVC P⁴⁾ = PP D⁴⁾ = PVDF	G = G-thread N = NPT female	6 = Thread connection, PN6 max. Z = Thread connection, PN10 max. 5 = Thread connection, PN25 max. 4 = Thread connection, PN40 max.	15 = DN 15 (½") 20 = DN 20 (¾") 25 = DN 25 (1") 32 = DN 32 (1 ¼") 40 = DN 40 (1 ½") 50 = DN 50 (2") 65 = DN 65 (2 ½") 80 = DN 80 (3") 1H = DN 100 (4") 1Z = DN 125 (5") 1F = DN 150 (6") 2H = DN 200 (8")	G = Graphite (Standard for Material C and S) T = PTFE (Optional for Material C and S) V = FPM (Standard for Material V/P/D)
		F = flange	D = Flange acc. EN 1092-1, PN10 C = Flange acc. EN 1092-1, PN16 B = Flange acc. EN 1092-1, PN25 (only up to DN80) A = Flange acc. EN 1092-1, PN40 (only up to DN50) L = Flange acc. ASME Class 150, PN 10 max. (Sealing surface: RF for Material C/S, FF for Material V/P/D) N = Flange acc. ASME Class 150, PN 16 max. (Sealing surface: RF for Material C/S, FF for material V/P/D) M³⁾ = Flange acc. ASME Class 300, PN40 max. (Sealing surface: RF for Material C/S, FF for Material V/P/D)		

Order Details (Example: DAI- C G E 50 G N 0 0) (continued)

Sight glass	Visual internals	Option
N = Soda Lime Glass up to +150°C (Standard) B²⁾ = Borosilicate Glass up to +260°C	0 = none R²⁾ = SS316 Rotor for liquids B = PTFE Ball (temperature limit: -30 ... +200 °C) F²⁾ = Flap SS316, fixed at 45° K²⁾ = Chain SS316 hanging only for horizontal mounting position	0 = without M = Material Certificate 3.1 (to be ordered as separate line item with code DOK-FR03A) Y = special (specify in clear text)

¹⁾ for possible Material/Size combinations, please see table on following page

²⁾ not for Material V/P/D

³⁾ only up to Size "50"

⁴⁾ pressure rating limited to PN6 (see tables Pressure Derating Curve with Temperature)



Possible Material / Size combinations

Material / Connection / Connection type	Size*												Visual internals*			
	15	20	25	32	40	50	65	80	1H	1Z	1F	2H	R	B	F	K
CGZ	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
CG5	✓	✓	✓	N/A	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
CG4	✓	✓	✓	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓
CNZ	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
CN5	✓	✓	✓	N/A	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
CN4	✓	✓	✓	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓
CFD	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CFC	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓
CFB	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
CFA	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓
CFL	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CFN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CFM	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SGZ	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SG5	✓	✓	✓	N/A	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SG4	✓	✓	✓	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SNZ	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SN5	✓	✓	✓	N/A	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SN4	✓	✓	✓	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SFD	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SFC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SFB	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SFA	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓
SFL	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SFN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SFM	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓
VG6	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
VN6	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
VFD	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
VFL	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
PG6	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
PN6	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
PFD	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
PFL	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
DG6	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
DN6	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
DFD	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A
DFL	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A

* ✓ = possible; N/A = not applicable

Dimensions/Weights (not valid for material codes C/S and threaded connections $\leq 2''$)

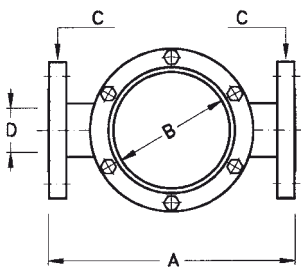
Model without visual internals

Free passage visual flow indicator for horizontal and vertical mounting. Made in metallic and plastic materials. The plastic type is available up to size DN80 (3") and for operating pressures as per the tables "Pressure Derating Curve with Temperature for PVC/PP/PVDF".

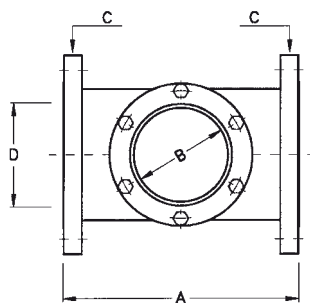
Flanged Version

Standard "C" flange EN 1092-1 PN 16 - ANSI 150 RF
On request, other types of flanges can be made.

DN 15... DN 80

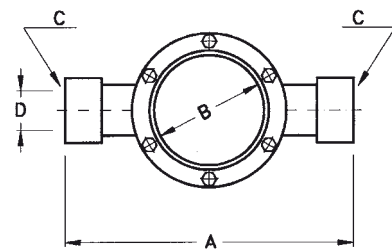


DN 100... DN 200



Threaded Version

Standard "C" threaded connections G/NPT-F and socket welding



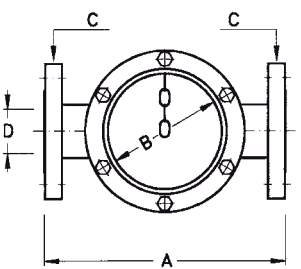
Model with chain

Visual flow indicator with chain to further improve the visibility of flow. This model is not made in plastic materials.

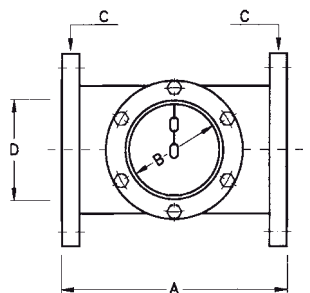
Flanged Version

Standard "C" flange EN 1092-1 PN 16 - ANSI 150 RF
On request, other types of flanges can be made.

DN 15... DN 80

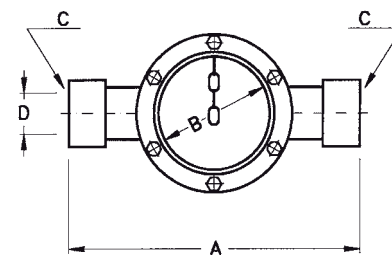


DN 100... DN 200



Threaded Version

Standard "C" threaded connections G/NPT-F and socket welding



Dimensions/Weights (not valid for material codes C/S and threaded connections $\leq 2''$) (continued)

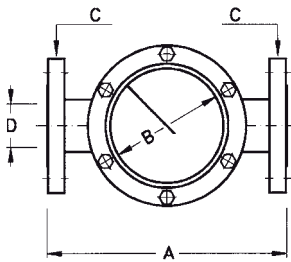
Model with fixed flap

Visual flow indicator with fixed paddle to create vortex in the passage of the fluid and improve the visibility of flow. This model is not available in plastic materials.

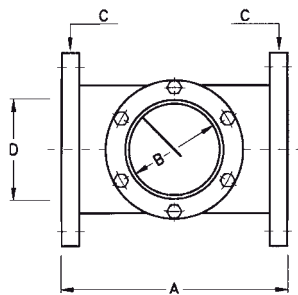
Flanged Version

Standard "C" flange EN 1092-1 PN 16 - ANSI 150 RF
On request, other types of flanges can be made.

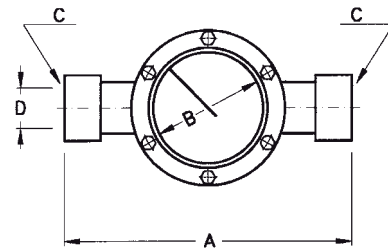
DN 15 ... DN 80



DN 100 ... DN 200


Threaded Version

Standard "C" threaded connections G/NPT-F
and socket welding


Flanged version

Size	A [mm]	B [mm]	D		Approx. Weight ¹⁾ [kg]	Approx. Weight ²⁾ [kg]
			EN1092-1	ANSI		
15	180	47	15	1/2"	2.5	1.5
20	180	47	20	3/4"	3	2.0
25	180	47	25	1"	3.5	2.5
32	180	47	32	1 1/4"	5	3.0
40	240	80	40	1 1/2"	8	3.5
50	240	80	50	2"	9	4.0
65	280	90	65	2 1/2"	15	6.5
80	290	90	80	3"	16.5	7.0
100	250	78	100	4"	18.5	-
125 ³⁾	300	120	125	5"	24	-
150 ³⁾	300	120	150	6"	25.5	-
200 ⁴⁾	350	140	200	8"	32	-

¹⁾ refers to metallic type

²⁾ refers to plastic type

³⁾ max. operating pressure 10 bar

⁴⁾ max. operating pressure 9 bar

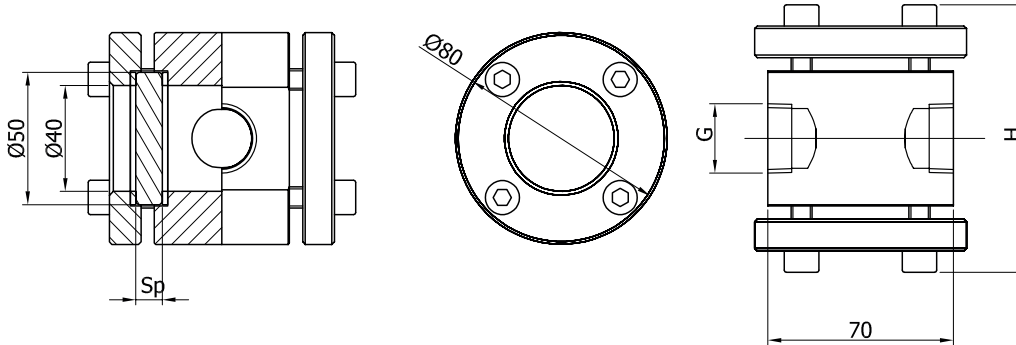
Threaded version

Size	A [mm]	B [mm]	D	Approx. Weight ¹⁾ [kg]	Approx. Weight ²⁾ [kg]
65	350	90	2 1/2"	15	11.0
80	360	90	3"	16.5	12.5

¹⁾ refers to metallic type

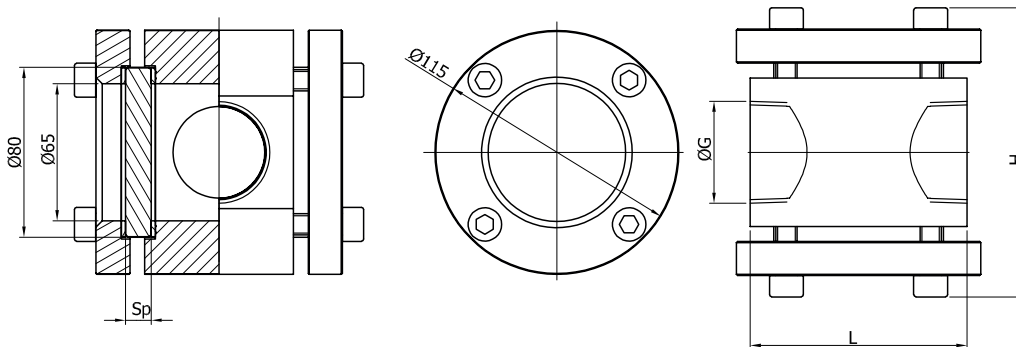
²⁾ refers to plastic type

Dimensions/Weights (valid for material codes C/S and threaded connections ≤2")



Rating	DN	G*	Sp [mm]	H [mm]	Approx. weight [kg]
PN25	DN 15	½" NPT-F	10	100	3.0
	DN 20	¾" NPT-F			3.0
	DN 25	1" NPT-F			3.0
PN40	DN 15	½" NPT-F	12	110	3.0
	DN 20	¾" NPT-F			3.0
	DN 25	1" NPT-F			3.0

* G connection as option



Rating	DN	G*	Sp [mm]	L [mm]	H [mm]	Approx. weight [kg]
PN25	DN 40	1½" NPT-F	15	102	150	5.5
	DN 50	2" NPT-F		94	150	6.5
PN40	DN 40	1½" NPT-F	20	102	160	6.0
	DN 50	2" NPT-F		94	160	7.0

* G connection as option





Pressure Derating Curve with Temperature for PVC

Temperature	Max. pressure
0 ... 20 °C	6 bar
30 °C	ca. 5 bar
40 °C	ca. 4 bar
50 °C	ca. 2.2 bar
60 °C	ca. 1.5 bar

Pressure Derating Curve with Temperature for PP

Temperature	Max. pressure
-10 ... +10 °C	7 bar
20 °C	ca. 6 bar
30 °C	ca. 5 bar
40 °C	ca. 4.5 bar
50 °C	ca. 3.5 bar
60 °C	ca. 3 bar
70 °C	ca. 2.4 bar
80 °C	ca. 1.4 bar

Pressure Derating Curve with Temperature for PVDF

Temperature	Max. pressure
-10 ... +10 °C	7 bar
20 °C	ca. 6.5 bar
30 °C	ca. 6 bar
40 °C	ca. 5.7 bar
50 °C	ca. 5.2 bar
60 °C	ca. 5 bar
70 °C	ca. 4 bar
80 °C	ca. 3.5 bar
90 °C	ca. 3.2 bar
100 °C	ca. 3 bar
110 °C	ca. 2.5 bar
120 °C	ca. 2 bar
130 °C	ca. 1.5 bar
140 °C	ca. 1 bar