

BBS-3F

Flow indicators with
Clamp connection

Inline flow indicators with Clamp connection, Full view and standard version

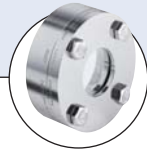


Hygienic Processing Components....



Type BBS-05

Quick connect



Type BBS-07

Block flange



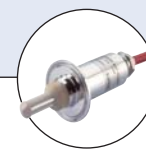
Type BBS-10

Check valve



Type 2103

Diaphragm valve



Type 8221

Conductivity sensor



Type 8650

Process Automation

- Guaranteed crevice free
- Fully traceable wetted materials, traceable seal available on request
- Suitable for CIP and SIP
- Glass mounted without stress

These sterile flow indicators can be installed in any position to observe liquid flow in any direction.

The flow indicator is usually employed to detect either the presence or absence of solutions, or to observe fluids for turbulence, colour or clarity.

They are ideal for high purity applications.

The standard view indicator offers excellent process visualization whilst protecting the glass and the full view version allows a 360° process vision, this means you can observe fluid flow from any position.

Applications

- Biotechnology
- Pharmaceutical
- Chemical industry
- Dairy
- Food
- Cosmetic

Technical data

Available standard sizes

Full view version

ISO DN08 to DN150
BS-OD DN1/4" up to DN8"

Standard version

DIN DN04 up to DN150
ISO DN08 up to DN100
BS-OD DN1/4" up to DN4"
DIN DN04 to DN100
Customized on request

Material medium contact

Stainless steel 1.4435 BN2 (316L)
Special materials e.g. Hastelloy 2.4602, Titanium, 1.4539 etc. on request

Material medium separated

1.4305 or equivalent

Glass

Borosilicate glass

Seals

O-Ring, EPDM, FEP (PTFE coated silicone O-Ring)
special seal material e.g. silicone, pure PTFE etc. on request

Surface quality

Medium contacted surface < Ra 0,8µm,
electro polished, finer surface on request

Operating temperature

EPDM seal material: -40°C to 90°C,
temporary to 140°C
FEP seal material: -60°C to 160°C,
temporary to 205°C

Ambient temperature

-20 to +80 °C

Media

Gases or liquids

Operating pressure

-1 up to +8 bar (higher pressure on request)

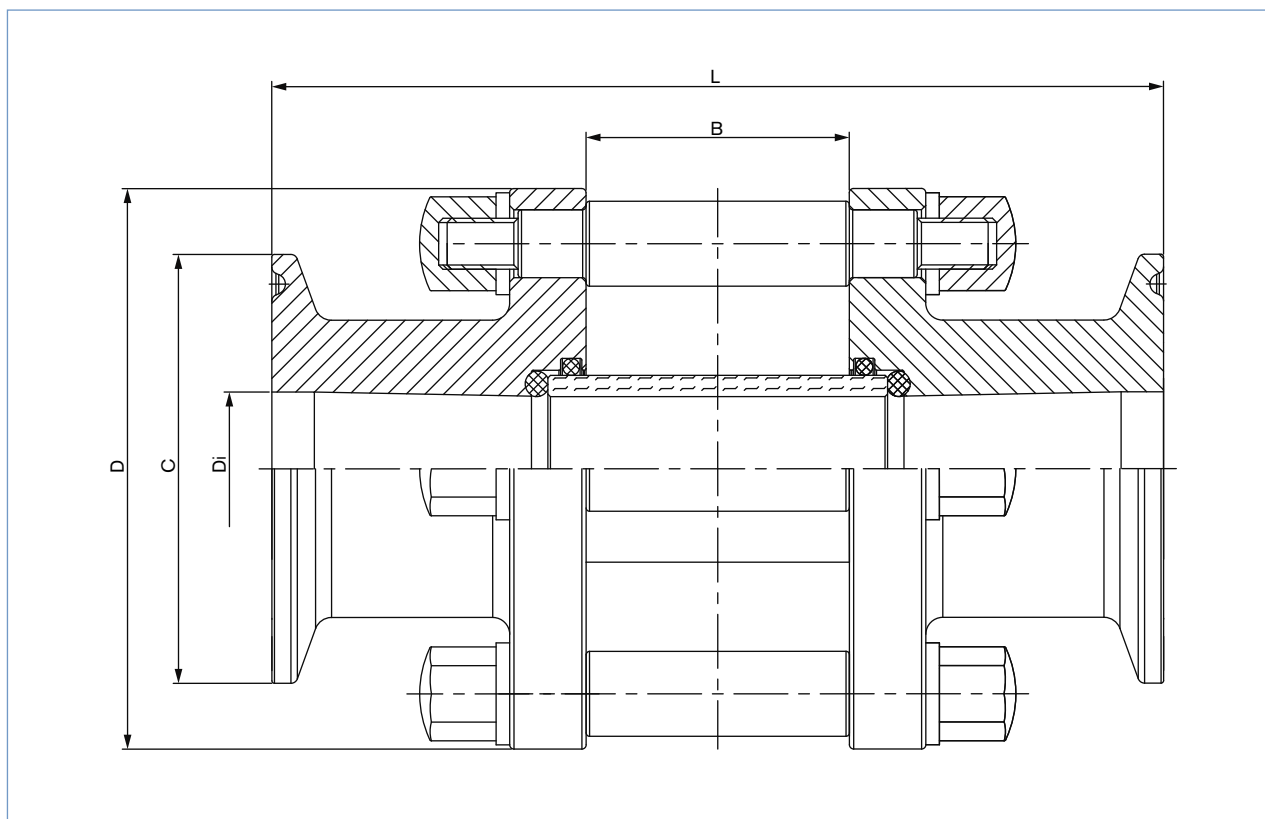
Applicable Standards

Clamp connection acc. to DIN 32676
ISO-Dimensions Series B
DIN-Dimensions Series A
BS-OD-Dimensions Series C (ASME BPE)

Certifications

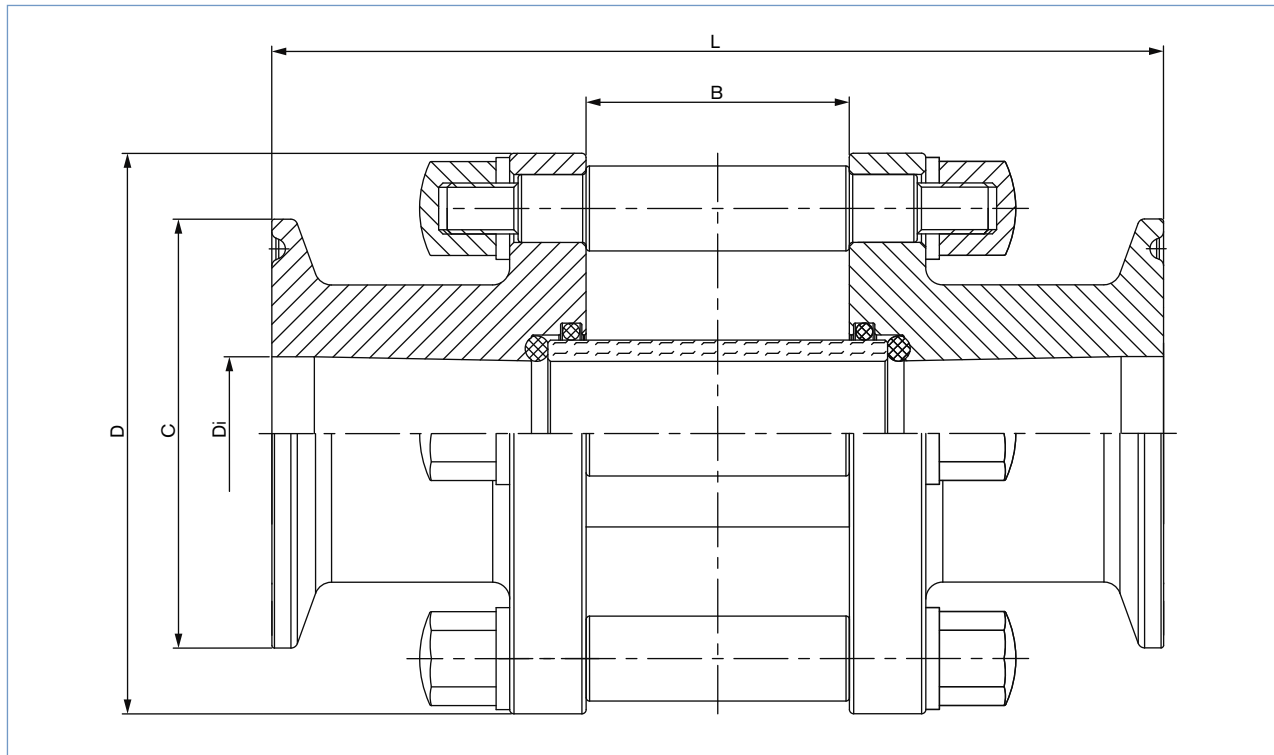
Permissible stress for borosilicate glass
in accordance with DIN EN 1595, Materials 3.1
(glass on request), FDA, USP VI

Dimensions [mm] Inline flow indicator with Clamp connection / full view version



Orifice	D [mm]	C [mm]	Di [mm]	B [mm]	L [mm]	Item no. EPDM		Item no. FEP	
ISO Dimensions Inline flow indicator with Clamp connection / full view version									
DN08	59,00	25,00	10,30	19,50	91,50	BBS-3F.SA.B08.Z00.35.0	(741 399)	BBS-3F.SA.B08.Z00.35.3	(741 401)
DN10	59,00	25,00	14,00	26,40	91,00	BBS-3F.SA.B10.Z00.35.0	(741 409)	BBS-3F.SA.B10.Z00.35.3	(741 411)
DN15	66,00	50,50	18,10	31,00	111,00	BBS-3F-SA.B15.Z00.35.0	(741 429)	BBS-3F-SA.B15.Z00.35.3	(741 431)
DN20	73,00	50,50	23,70	32,00	111,00	BBS-3F-SA.B20.Z00.35.0	(741 436)	BBS-3F-SA.B20.Z00.35.3	(741 438)
DN25	73,00	50,50	29,70	32,00	111,00	BBS-3F-SA.B25.Z00.35.0	(741 448)	BBS-3F-SA.B25.Z00.35.3	(741 450)
DN32	90,00	64,00	38,40	41,00	121,00	BBS-3F-SA.B32.Z00.35.0	(741 458)	BBS-3F-SA.B32.Z00.35.3	(741 460)
DN40	100,00	64,00	44,30	60,00	146,00	BBS-3F-SA.B40.Z00.35.0	(741 466)	BBS-3F-SA.B40.Z00.35.3	(741 468)
DN50	124,10	77,50	56,30	80,00	171,00	BBS-3F-SA.B50.Z00.35.0	(741 474)	BBS-3F-SA.B50.Z00.35.3	(741 476)
DN65	135,00	91,00	71,50	94,00	181,00	BBS-3F-SA.B65.Z00.35.0	(741 481)	BBS-3F-SA.B65.Z00.35.3	(741 483)
DN80	145,00	106,00	84,30	110,00	196,00	BBS-3F-SA.B80.Z00.35.0	(741 488)	BBS-3F-SA.B80.Z00.35.3	(741 490)
DN100	170,00	130,00	109,10	118,00	216,00	BBS-3F-SA.B100.Z00.35.0	(741 417)	BBS-3F-SA.B100.Z00.35.3	(741 419)
DN150	on request	183,00	163,10	on request		BBS-3F-SA.B150.Z00.35.0	(on request)	BBS-3F-SA.B150.Z00.35.3	(on request)

Dimensions [mm] Inline flow indicator with Clamp connection / full view version



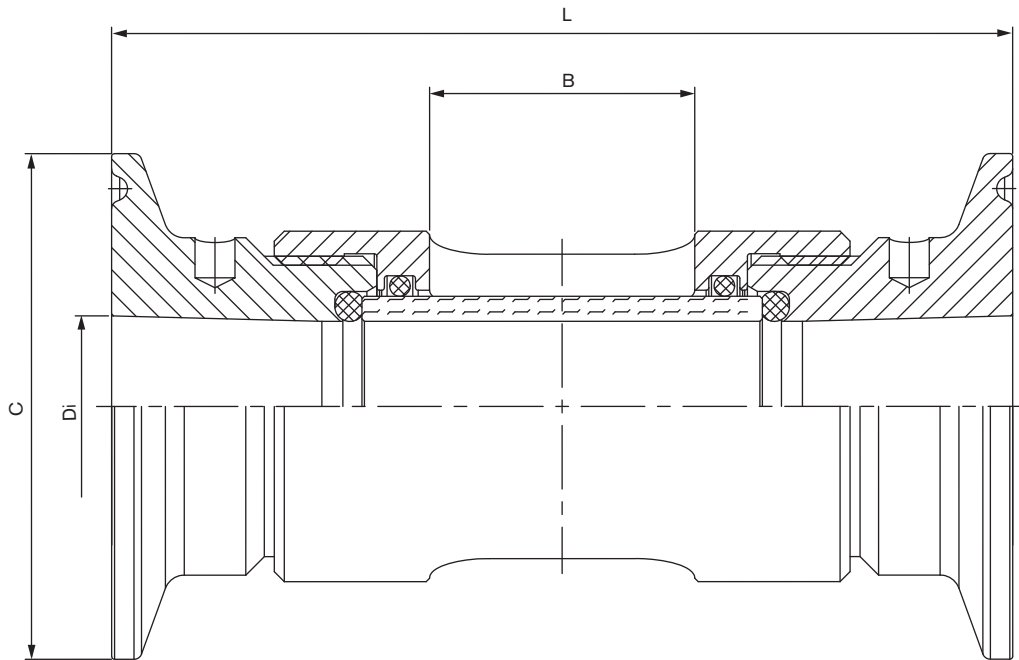
Orifice	D [mm]	C [mm]	Di [mm]	B [mm]	L [mm]	Item no. EPDM	Item no. FEP
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BS-OD Dimensions Inline flow indicator with Clamp connection / full view version							
DN1/4"	50,00	25,00	4,57	19,50	90,00	BBS-3F-SA.C02.M00.35.0 (743 027)	BBS-3F-SA.C02.M00.35.3 (743 028)
DN3/8"	50,00	25,00	7,75	19,50	90,00	BBS-3F-SA.C03.M00.35.0 (741 502)	BBS-3F-SA.C03.M00.35.3 (741 503)
DN1/2"	59,00	25,00	9,40	19,50	91,50	BBS-3F-SA.C05.M00.35.0 (741 511)	BBS-3F-SA.C05.M00.35.3 (741 513)
DN3/4"	65,00	25,00	15,75	33,00	105,00	BBS-3F-SA.C07.M00.35.0 (741 520)	BBS-3F-SA.C07.M00.35.3 (741 522)
DN1"	73,00	50,50	22,10	36,00	105,00	BBS-3F-SA.C10.M00.35.0 (741 537)	BBS-3F-SA.C10.M00.35.3 (741 541)
DN1 1/2"	82,00	50,50	34,80	37,00	105,00	BBS-3F-SA.C15.M00.35.0 (741 552)	BBS-3F-SA.C15.M00.35.3 (741 554)
DN2"	100,00	64,00	47,50	54,00	152,40	BBS-3F-SA.C20.M00.35.0 (741 565)	BBS-3F-SA.C20.M00.35.3 (741 567)
DN2 1/2"	124,00	77,50	60,20	67,00	151,00	BBS-3F-SA.C25.M00.35.0 (741 574)	BBS-3F-SA.C25.M00.35.3 (741 576)
DN3"	135,00	91,00	72,90	97,00	181,00	BBS-3F-SA.C30.M00.35.0 (741 586)	BBS-3F-SA.C30.M00.35.3 (741 588)
DN4"	155,00	119,00	97,38	119,00	206,00	BBS-3F-SA.C40.M00.35.0 (741 596)	BBS-3F-SA.C40.M00.35.3 (741 598)
DN6"	215,00	167,00	146,86	139,00	254,00	BBS-3F-SA.C60.M00.35.0 (741 600)	BBS-3F-SA.C60.M00.35.3 (on request)
DN8"	265,00	217,50	198,00	155,00	302,00	BBS-3F-SA.C80.M00.35.0 (741 606)	BBS-3F-SA.C80.M00.35.3 (on request)

Orifice	D [mm]	C [mm]	Di [mm]	B [mm]	L [mm]	Item no. EPDM	Item no. FEP
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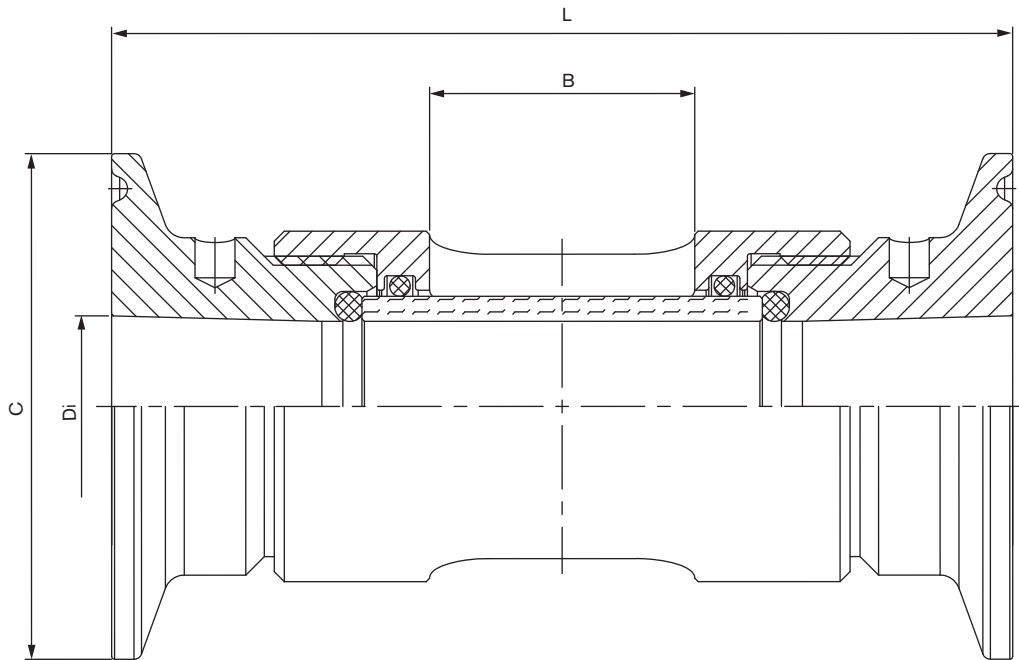
DIN Dimensions Inline flow indicator with Clamp connection / full view version							
DN04	on request	25,00	4,00	on request	on request	BBS-3F-SA.D04.F00.35.0 (on request)	BBS-3F-SA.D04.F00.35.3 (on request)
DN06	59,00	25,00	6,00	19,50	91,00	BBS-3F-SA.D06.F00.35.0 (on request)	BBS-3F-SA.D06.F00.35.3 (on request)
DN08	59,00	25,00	8,00	19,50	91,00	BBS-3F-SA.D08.F00.35.0 (on request)	BBS-3F-SA.D08.F00.35.3 (on request)
DN10	59,00	34,00	10,00	26,40	91,00	BBS-3F-SA.D10.F00.35.0 (on request)	BBS-3F-SA.D10.F00.35.3 (on request)
DN15	65,00	34,00	16,00	31,00	105,00	BBS-3F-SA.D15.F00.35.0 (on request)	BBS-3F-SA.D15.F00.35.3 (741617)
DN20	70,00	34,00	20,00	32,00	105,00	BBS-3F-SA.D20.F00.35.0 (on request)	BBS-3F-SA.D20.F00.35.3 (on request)
DN25	80,00	50,50	26,00	32,00	111,00	BBS-3F-SA.D25.F00.35.0 (on request)	BBS-3F-SA.D25.F00.35.3 (on request)
DN32	82,00	50,50	32,00	41,00	105,00	BBS-3F-SA.D32.F00.35.0 (on request)	BBS-3F-SA.D32.F00.35.3 (on request)
DN40	90,00	50,50	38,00	60,00	121,00	BBS-3F-SA.D40.F00.35.0 (on request)	BBS-3F-SA.D40.F00.35.3 (on request)
DN50	100,00	64,00	50,00	80,00	140,00	BBS-3F-SA.D50.F00.35.0 (on request)	BBS-3F-SA.D50.F00.35.3 (on request)
DN65	130,00	91,00	66,00	94,00	175,00	BBS-3F-SA.D65.F00.35.0 (on request)	BBS-3F-SA.D65.F00.35.3 (on request)
DN80	145,00	106,00	81,00	110,00	196,00	BBS-3F-SA.D80.F00.35.0 (741638)	BBS-3F-SA.D80.F00.35.3 (on request)
DN100	160,00	119,00	100,00	118,00	205,00	BBS-3F-SA.D100.F00.35.0 (on request)	BBS-3F-SA.D100.F00.35.3 (on request)
DN150	on request	174,00	150,00	on request	on request	BBS-3F-SA.D150.F00.35.0 (on request)	BBS-3F-SA.D150.F00.35.3 (on request)

Dimensions [mm] Inline flow indicator with Clamp connection / standard



Orifice	C [mm]	Di [mm]	B [mm]	L [mm]	Item no. EPDM		Item no. FEP	
ISO Dimensions Inline flow indicator with Clamp connection / standard								
DN08	25,00	10,30	20,00	76,00	BBS-3F-SA.B08.B00.35.0	(741 395)	BBS-3F-SA.B08.B00.35.3	(741 397)
DN10	25,00	14,00	22,60	79,30	BBS-3F-SA.B10.B00.35.0	(741 403)	BBS-3F-SA.B10.B00.35.3	(741 405)
DN15	50,50	18,10	26,50	90,00	BBS-3F-SA.B15.B00.35.0	(741 425)	BBS-3F-SA.B15.B00.35.3	(741 427)
DN20	50,50	23,70	24,00	89,00	BBS-3F-SA.B20.B00.35.0	(741 433)	BBS-3F-SA.B20.B00.35.3	(741 434)
DN25	50,50	29,70	24,00	90,00	BBS-3F-SA.B25.B00.35.0	(741 444)	BBS-3F-SA.B25.B00.35.3	(741 446)
DN32	64,00	38,40	35,80	115,00	BBS-3F-SA.B32.B00.35.0	(741 454)	BBS-3F-SA.B32.B00.35.3	(741 456)
DN40	64,00	44,30	48,00	120,00	BBS-3F-SA.B40.B00.35.0	(741 462)	BBS-3F-SA.B40.B00.35.3	(741 464)
DN50	77,50	56,30	79,40	187,00	BBS-3F-SA.B50.B00.35.0	(741 470)	BBS-3F-SA.B50.B00.35.3	(741 472)
DN65	91,00	72,10	on request		BBS-3F-SA.B65.B00.35.0	(741 478)	BBS-3F-SA.B65.B00.35.3	(741 479)
DN80	106,00	84,30	on request		BBS-3F-SA.B80.B00.35.0	(741 485)	BBS-3F-SA.B80.B00.35.3	(741 486)
DN100	130,00	109,10	on request		BBS-3F-SA.B100.B00.35.0	(741 413)	BBS-3F-SA.B100.B00.35.3	(741 415)

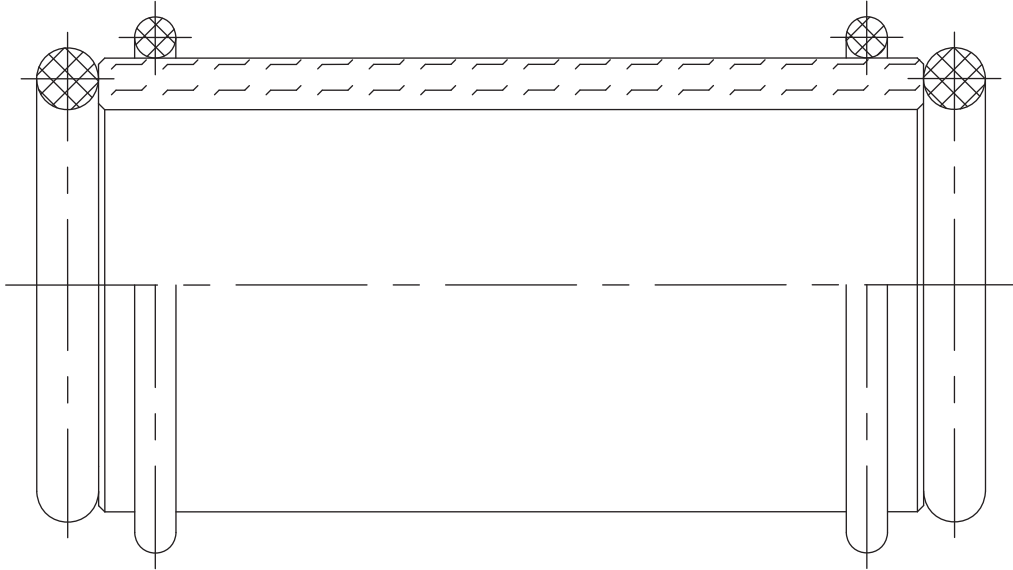
Dimensions [mm] Inline flow indicator with Clamp connection / standard



Orifice	C [mm]	Di [mm]	B [mm]	L [mm]	Item no. EPDM		Item no. FEP	
BS-OD Dimensions Inline flow indicator with Clamp connection / standard								
DN1/4"	25,00	4,57	20,20	65,40	BBS-3F-SA.C02.C00.35.0	(741 492)	BBS-3F-SA.C02.C00.35.3	(741 496)
DN3/8"	25,00	7,75	20,00	78,00	BBS-3F-SA.C03.C00.35.0	(741 498)	BBS-3F-SA.C03.C00.35.3	(741 500)
DN1/2"	25,00	9,40	20,00	76,00	BBS-3F-SA.C05.C00.35.0	(741 505)	BBS-3F-SA.C05.C00.35.3	(741 509)
DN3/4"	25,00	15,75	30,00	87,00	BBS-3F-SA.C07.C00.35.0	(741 516)	BBS-3F-SA.C07.C00.35.3	(741 518)
DN1"	50,50	22,10	30,00	91,00	BBS-3F-SA.C10.C00.35.0	(741 530)	BBS-3F-SA.C10.C00.35.3	(741 533)
DN1 1/2"	50,50	34,80	32,00	105,00	BBS-3F-SA.C15.C00.35.0	(741 546)	BBS-3F-SA.C15.C00.35.3	(741 550)
DN2"	64,00	47,50	48,00	120,00	BBS-3F-SA.C20.C00.35.0	(741 560)	BBS-3F-SA.C20.C00.35.3	(741 563)
DN2 1/2"	77,50	60,20	55,00	150,60	BBS-3F-SA.C25.C00.35.0	(741 571)	BBS-3F-SA.C25.C00.35.3	(741 573)
DN3"	91,00	72,90	90,00	175,00	BBS-3F-SA.C30.C00.35.0	(741 580)	BBS-3F-SA.C30.C00.35.3	(741 584)
DN4"	119,00	97,38	110,00	200,00	BBS-3F-SA.C40.C00.35.0	(741 592)	BBS-3F-SA.C40.C00.35.3	(741 594)

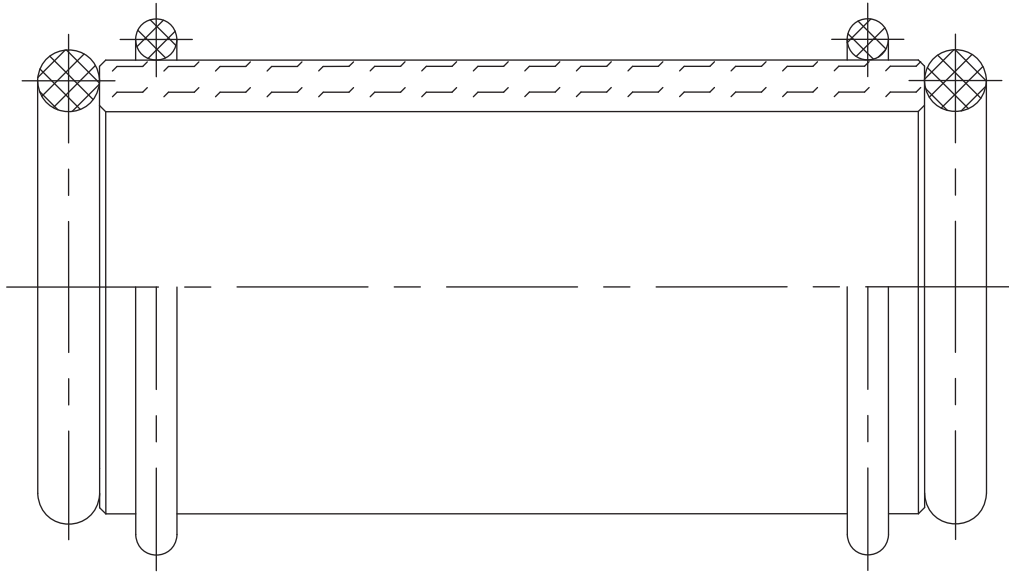
Orifice	C [mm]	Di [mm]	B [mm]	L [mm]	Item no. EPDM		Item no. FEP	
DIN Dimensions Inline flow indicator with Clamp connection / standard								
DN04	25,00	4,00	on request		BBS-3F-SA.D04.D00.35.0	(on request)	BBS-3F-SA.D04.D00.35.3	(on request)
DN06	25,00	6,00	20,00	76,00	BBS-3F-SA.D06.D00.35.0	(on request)	BBS-3F-SA.D06.D00.35.3	(on request)
DN08	25,00	8,00	22,60	79,30	BBS-3F-SA.D08.D00.35.0	(on request)	BBS-3F-SA.D08.D00.35.3	(on request)
DN10	34,00	10,00	26,50	86,00	BBS-3F-SA.D10.D00.35.0	(743 903)	BBS-3F-SA.D10.D00.35.3	(on request)
DN15	34,00	16,00	30,00	92,00	BBS-3F-SA.D15.D00.35.0	(741 612)	BBS-3F-SA.D15.D00.35.3	(741 615)
DN20	34,00	20,00	30,00	91,00	BBS-3F-SA.D20.D00.35.0	(741 619)	BBS-3F-SA.D20.D00.35.3	(on request)
DN25	50,50	26,00	32,00	98,00	BBS-3F-SA.D25.D00.35.0	(741 623)	BBS-3F-SA.D25.D00.35.3	(734 168)
DN 32	50,50	32,00	32,00	90,00	BBS-3F-SA.D32.D00.35.0	(741 625)	BBS-3F-SA.D32.D00.35.3	(741 627)
DN40	50,50	38,00	32,00	108,00	BBS-3F-SA.D40.D00.35.0	(741 629)	BBS-3F-SA.D40.D00.35.3	(on request)
DN50	64,00	50,00	48,00	120,00	BBS-3F-SA.D50.D00.35.0	(741 631)	BBS-3F-SA.D50.D00.35.3	(on request)
DN65	91,00	66,00	55,00	154,80	BBS-3F-SA.D65.D00.35.0	(741 634)	BBS-3F-SA.D65.D00.35.3	(on request)
DN80	106,00	81,00	55,00	177,80	BBS-3F-SA.D80.D00.35.0	(741 636)	BBS-3F-SA.D80.D00.35.3	(on request)
DN100		on request			BBS-3F-SA.D100.D00.35.0	(on request)	BBS-3F-SA.D100.D00.35.3	(on request)

Spare parts kit for flow indicator



Orifice	Item no. EPDM		Item no. FEP	
ISO Spare parts kit (consisting of glass, O-Ring and support ring)				
DN08	BBS-3F-03.N08.BG.EP.0	(740 492)	BBS-3F-03.N08.BG.FE.3	(740 495)
DN10	BBS-3F-03.N10.BG.EP.0	(740 500)	BBS-3F-03.N10.BG.FE.3	(on request)
DN15	BBS-3F-03.N15.BG.EP.0	(740 515)	BBS-3F-03.N15.BG.FE.3	(740 518)
DN20	BBS-3F-03.N20.BG.EP.0	(740 527)	BBS-3F-03.N20.BG.FE.3	(740 530)
DN25	BBS-3F-03.N25.BG.EP.0	(740 539)	BBS-3F-03.N25.BG.FE.3	(740 542)
DN32	BBS-3F-03.N32.BG.EP.0	(740 552)	BBS-3F-03.N32.BG.FE.3	(740 555)
DN40	BBS-3F-03.N40.BG.EP.0	(740 561)	BBS-3F-03.N40.BG.FE.3	(740 564)
DN50	BBS-3F-03.N50.BG.EP.0	(740 573)	BBS-3F-03.N50.BG.FE.3	(740 575)
DN65	BBS-3F-03.N65.BG.EP.0	(on request)	BBS-3F-03.N65.BG.FE.3	(on request)
DN80	BBS-3F-03.N80.BG.EP.0	(740 581)	BBS-3F-03.N80.BG.FE.3	(on request)
DN100	BBS-3F-03.N100.BG.EP.0	(on request)	BBS-3F-03.N100.BG.FE.3	(on request)
DN150	BBS-3F-03.N150.BG.EP.0	(on request)	BBS-3F-03.N150.BG.FE.3	(on request)

Spare parts kit for flow indicator



Orifice	Item no. EPDM		Item no. FEP	
DIN Spare parts kit (consisting of glass, O-Ring and support ring)				
DN04	BBS-3F-03.D04.BG.EP.0	(on request)	BBS-3F-03.D04.BG.FE.3	(on request)
DN06	BBS-3F-03.D06.BG.EP.0	(740 312)	BBS-3F-03.D06.BG.FE.3	(on request)
DN08	BBS-3F-03.D08.BG.EP.0	(740 316)	BBS-3F-03.D08.BG.FE.3	(on request)
DN10	BBS-3F-03.D10.BG.EP.0	(on request)	BBS-3F-03.D10.BG.FE.3	(on request)
DN15	BBS-3F-03.D15.BG.EP.0	(on request)	BBS-3F-03.D15.BG.FE.3	(on request)
DN20	BBS-3F-03.D20.BG.EP.0	(on request)	BBS-3F-03.D20.BG.FE.3	(on request)
DN25	BBS-3F-03.D25.BG.EP.0	(on request)	BBS-3F-03.D25.BG.FE.3	(on request)
DN32	BBS-3F-03.D32.BG.EP.0	(on request)	BBS-3F-03.D32.BG.FE.3	(on request)
DN40	BBS-3F-03.D40.BG.EP.0	(on request)	BBS-3F-03.D40.BG.FE.3	(on request)
DN50	BBS-3F-03.D50.BG.EP.0	(740 334)	BBS-3F-03.D50.BG.FE.3	(on request)
DN65	BBS-3F-03.D65.BG.EP.0	(on request)	BBS-3F-03.D65.BG.FE.3	(on request)
DN80	BBS-3F-03.D80.BG.EP.0	(on request)	BBS-3F-03.D80.BG.FE.3	(on request)
DN100	BBS-3F-03.D100.BG.EP.0	(on request)	BBS-3F-03.D100.BG.FE.3	(on request)
DN150	BBS-3F-03.D150.BG.EP.0	(on request)	BBS-3F-03.D150.BG.FE.3	(on request)

Orifice	Item no. EPDM		Item no. FEP	
BS-OD Spare parts kit (consisting of glass, O-Ring and support ring)				
DN1/4"	BBS-3F-03.K02.BG.EP.0	(on request)	BBS-3F-03.K02.BG.FE.3	(on request)
DN3/8"	BBS-3F-03.K03.BG.EP.0	(on request)	BBS-3F-03.K03.BG.FE.3	(on request)
DN1/2"	BBS-3F-03.K05.BG.EP.0	(740 347)	BBS-3F-03.K05.BG.FE.3	(740 350)
DN3/4"	BBS-3F-03.K07.BG.EP.0	(740 365)	BBS-3F-03.K07.BG.FE.3	(740 368)
DN1"	BBS-3F-03.K10.BG.EP.0	(740 381)	BBS-3F-03.K10.BG.FE.3	(740 384)
DN1 1/2"	BBS-3F-03.K15.BG.EP.0	(740 393)	BBS-3F-03.K15.BG.FE.3	(740 396)
DN2"	BBS-3F-03.K20.BG.EP.0	(740 417)	BBS-3F-03.K20.BG.FE.3	(740 420)
DN2 1/2"	BBS-3F-03.K25.BG.EP.0	(740 433)	BBS-3F-03.K25.BG.FE.3	(740 436)
DN3"	BBS-3F-03.K30.BG.EP.0	(740 446)	BBS-3F-03.K30.BG.FE.3	(740 449)
DN4"	BBS-3F-03.K40.BG.EP.0	(740 458)	BBS-3F-03.K40.BG.FE.3	(740 461)
DN6"	BBS-3F-03.K60.BG.EP.0	(740 467)	BBS-3F-03.K60.BG.FE.3	(740 470)