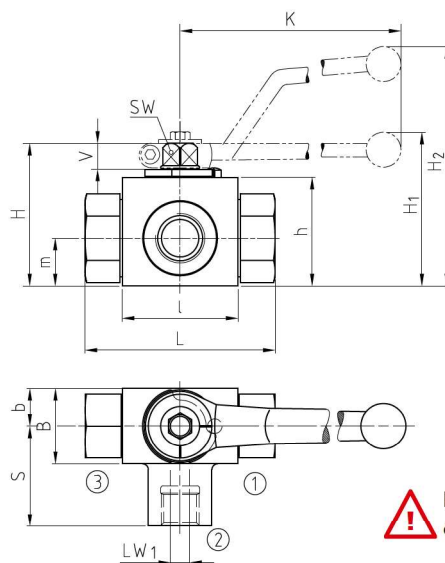




! Pressure inlet only from center port (port 2)!

AVAILABLE SIZES

DN4 - DN50 (1/8" to 2")

CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

ACCESSORIES ON REQUEST

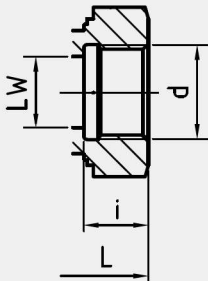
- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes 19
- Position switches 236 - 237
- Combinations 198 - 199
- Detent on request

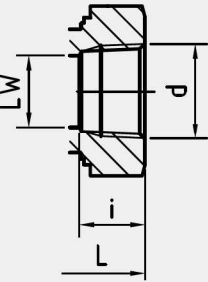
MATERIAL CODE DESCRIPTION

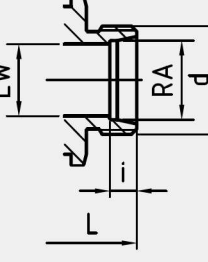
Materials	112A	112A	1128	1128
Body	Steel	Steel	Steel	Steel
Ball	Steel	Steel	Steel	Steel
Stem	Steel	Steel	Steel	Steel
Ball seats	POM	POM	POM	POM
O-rings	NBR	NBR	FPM	FPM
Tmin / Tmax	-20°C / 100°C	-20°C / 100°C	-20°C / 100°C	-20°C / 100°C
Porting pattern	L=SB50	T=SB51	L=SB50	T=SB51

GENERAL DIMENSIONS

Type	l	b	B	H	h	m	V	SW	K	H ₁	H ₂	Lever
BK3-DN4	40	13	29	47	33	13,5	11	9	115	-	82	Zn
BK3-DN6	40	13	29	47	33	13,5	11	9	115	-	82	Zn
BK3-DN8	40	13	29	47	33	13,5	11	9	115	-	82	Zn
BK3-DN10	43	16	35	52	38	17,5	11	9	115	-	86	Zn
BK3-DN13	48	17,5	38	54	40	19	11	9	115	-	89	Zn
BK3-DN20	62	24,5	52	75	57	24,5	14	14	200	79	-	Zn
BK3-DN25	66	29	61	83	65	29,5	14	14	200	87	-	Zn
BK3-DN25/32	66	29	61	83	65	29,5	14	14	200	87	-	Zn
BK3-DN32	81	39	-	106	84,5	39	16,5	17	320	115	-	Al
BK3-DN40	104	53	-	127	106	53	16,5	17	320	136	-	Al
BK3-DN50	118	58	-	137	116	58	16,5	17	320	146	-	Al

CONNECTION TYPE	DIMENSIONS								ORDER CODE PER MATERIAL COMBINATION				
DIN ISO 228 FEMALE THREAD	Type	LW	L	S	LW ₁	i	d	Weight [Kg]	PN [bar]	112A L=SB50	112A T=SB51	1128 L=SB50	1128 T=SB51
	BK3-DN4-G1/8	5	69	34,5	4	10	G1/8	0,40	500	02347*	02401*	03236*	03247*
	BK3-DN6-G1/4	6	69	34,5	6	14	G1/4	0,46	500	02849*	02408*	03237*	03248*
	BK3-DN10-G3/8	10	72	36	10	14	G3/8	0,60	500	02398*	02413*	03238*	03249*
	BK3-DN13-G1/2	13	83	41,5	13	16,3	G1/2	0,70	500	02429*	02430*	03239*	03250*
	BK3-DN13-G5/8	13	83	41,5	13	16	G5/8	0,70	500	02850*	02851*	03240*	03251*
	BK3-DN20-G3/4	20	95	47,5	20	18	G3/4	1,80	315	02708*	02770*	03241*	03252*
	BK3-DN25-G1	25	113	56,5	25	20	G1	2,40	315	02711*	02773*	03242*	03253*
	BK3-DN25/32-G1 1/4	25	120	57	25	22	G1 1/4	2,64	315	02714*	02776*	03243*	03254*
	BK3-DN32-G1 1/4	30	111	55	30	22	G 1 1/4	4,80	350	32154*	32685*	33571*	38015*
	BK3-DN40-G1 1/2	38	130	65	38	24	G 1 1/2	8,90	350	31980*	32038*	36033*	38016*
	BK3-DN50-G2	48	150	75	48	26	G2	12,40	350	38005*	38014*	36034*	38017*

ANSI B1.20.1 NPT FEMALE THREAD	Type	LW	L	S	LW ₁	i	d	Weight [Kg]	PN [bar]	112A L=SB50	112A T=SB51	1128 L=SB50	1128 T=SB51
	BK3-DN4-1/8" NPT	5	69	34,5	4	10,5	1/8" NPT	0,40	500	40221*	40222*	15710*	40223*
	BK3-DN6-1/4" NPT	6	69	34,5	6	13,7	1/4" NPT	0,46	500	13221*	38049*	11333*	25912*
	BK3-DN10-3/8" NPT	10	72	36	10	13,5	3/8" NPT	0,60	500	41291*	38050*	11607*	25913*
	BK3-DN13-1/2" NPT	13	83	41,5	13	17	1/2" NPT	0,70	500	41292*	17198*	11608*	25914*
	BK3-DN20-3/4" NPT	20	95	47,5	20	18,3	3/4" NPT	1,80	315	15425*	38051*	11609*	25915*
	BK3-DN25-1" NPT	25	113	56,5	25	21,6	1" NPT	2,40	315	15426*	22926*	11610*	25916*
	BK3-DN25/32-1 1/4" NPT	25	120	57,5	25	22,1	1 1/4" NPT	2,64	315	38030*	36499*	38032*	25917*
	BK3-DN32-1 1/4" NPT	30	120	60	30	22,1	1 1/4" NPT	5,24	350	35517*	38052*	36538*	38055*
	BK3-DN40-1 1/2" NPT	38	140	70	38	22,1	1 1/2" NPT	10,00	350	38031*	38053*	38033*	38056*
	BK3-DN50-2" NPT	48	150	75	48	30,2	2" NPT	12,20	350	35519*	38054*	38034*	38057*

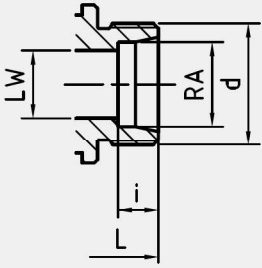
DIN 2353 / ISO 8434-1 LIGHT SERIES	Type	LW	RA	L	S	LW ₁	i	d	Weight [Kg]	PN [bar]	112A L=SB50	112A T=SB51	1128 L=SB50	1128 T=SB51
	BK3-DN4-6L	5	6	67	33,5	4	7	M 12x1,5	0,30	500	02349*	02403*	03214*	03225*
	BK3-DN6-8L	6	8	67	33,5	6	7	M 14x1,5	0,40	500	02348*	02402*	03215*	03226*
	BK3-DN8-10L	8	10	74	34,5	8	7	M 16x1,5	0,40	500	02396*	02409*	03216*	03227*
	BK3-DN10-12L	10	12	74	36,5	10	7	M 18x1,5	0,50	500	02416*	02417*	36116*	03228*
	BK3-DN13-15L	13	15	82	41	13	7	M 22x1,5	0,65	500	02425*	02426*	03218*	03229*
	BK3-DN13-18L	13	18	82	41,5	13	7,5	M 26x1,5	0,69	500	02847*	02848*	03219*	03230*
	BK3-DN20-22L	20	22	101	48	20	7,5	M 30x2	1,50	315	02706*	02768*	03220*	03231*
	BK3-DN25-28L	25	28	108	54	25	7,5	M 36x2	2,10	315	02709*	02771*	03221*	03232*
	BK3-DN25/32-35L	25	35	112	56	25	10,5	M 45x2	2,50	315	02712*	02774*	03222*	03233*

Please note the pressure ratings of the tube connections!

*Article usually in stock.

CONNECTION TYPE

DIN 2353 / ISO 8434-1
HEAVY SERIES



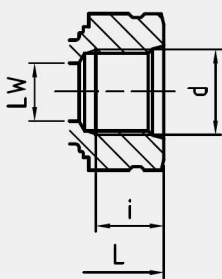
DIMENSIONS

Type	LW	RA	L	S	LW ₁	i	d	Weight [Kg]
BK3-DN4-8S	5	8	73	34,5	4	7	M 16x1,5	0,42
BK3-DN6-10S	6	10	73	34,5	6	7,5	M 18x1,5	0,43
BK3-DN8-12S	8	12	76	34,5	8	7,5	M 20x1,5	0,44
BK3-DN10-14S	10	14	80	36,5	10	8	M 22x1,5	0,50
BK3-DN13-16S	13	16	86	43	13	8,5	M 24x1,5	0,65
BK3-DN13-20S	13	20	90	43	15	10,5	M 30x2	0,70
BK3-DN20-25S	20	25	109	48	20	12	M 36x2	1,70
BK3-DN25-30S	25	30	120	57,5	25	13,5	M 42x2	2,40
BK3-DN25/32-38S	25	38	124	57,5	25	16	M 52x2	2,80

ORDER CODE PER MATERIAL COMBINATION

PN [bar]	112A L=SB50	112A T=SB51	1128 L=SB50	1128 T=SB51
500	02350*	02404*	03194*	03204*
500	02351*	02406*	03195*	03205*
500	02397*	02410*	03196*	03206*
500	02414*	02415*	03197*	03207*
500	02427*	02428*	03198*	03208*
500	02845*	02846*	03199*	03209*
315	02707*	02769*	03200*	37995*
315	02710*	02772*	03201*	03211*
315	02713*	02775*	03202*	03212*

SAE J514/ISO/DIS11926-1
FEMALE THREAD

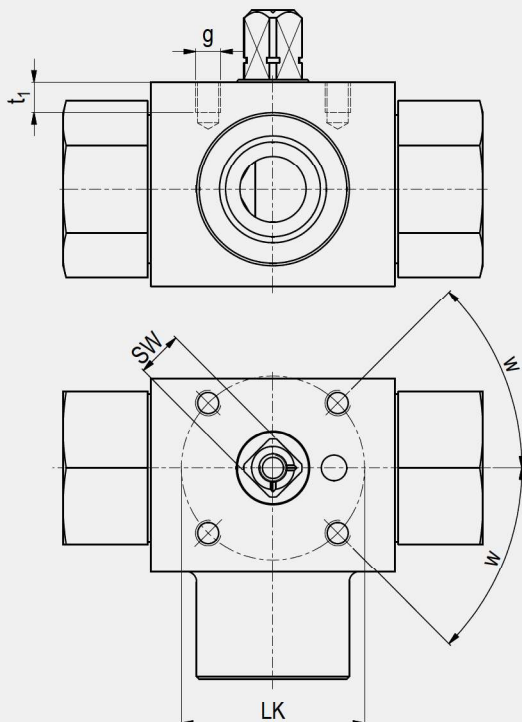


Type	LW	L	S	i	d	Weight [Kg]
BK3-DN6-7/16" UNF	5	69	34,5	12	7/16"-20 UNF	0,50
BK3-DN10-9/16" UNF	10	72	36	13	9/16"-18 UNF	0,60
BK3-DN13-3/4" UNF	13	83	41,5	15	3/4"-16 UNF	0,70
BK3-DN20-1 1/16" UN	20	95	47,5	20	1 1/16"-12 UN	1,80
BK3-DN25-1 5/16" UN	25	113	56,5	20	1 5/16"-12 UN	2,70
BK3-DN32-1 5/8" UN	30	111	60	20	1 5/8"-12 UN	5,20
BK3-DN40-1 7/8" UN	38	140	70	20	1 7/8"-12 UN	10,00
BK3-DN50-2 1/2" UN	48	150	75	20	2 1/2"-12 UN	12,20

PN [bar]	112A L=SB50	112A T=SB51	1128 L=SB50	1128 T=SB51
500	38076*	38094*	38081*	38099*
500	38077*	38095*	38082*	38100*
500	38078*	38096*	38083*	38101*
315	38079*	38097*	11027*	38102*
315	38080*	38098*	11026*	38103*
350	39214*	39215*	39216*	39217*
350	39218*	39219*	39220*	39221*
350	39222*	39223*	39224*	39225*

Please note the pressure ratings of the tube connections!
Due to material availability the material code of the steel valves may vary from 112A (resp. 1128). DN20-32=812A (8128), DN40-50=212A (2128). Material suitability for the application does not differ from 112A (1128).

*Article usually in stock.

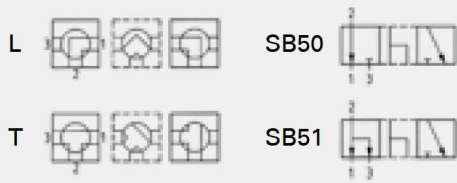


ASSEMBLING THREADS AS PER ISO 5211

DN	SW	LK	g	t ₁	w	ISO 5211
4	9	36	M5	6	30°*	(F03)*
6	9	36	M5	6	30°*	(F03)*
10	9	36	M5	7	45°	F03
13	9	36	M5	6	45°	F03
16	12	42	M5	8	45°	F04
20	14	50	M6	10	45°	F05
25	14	50	M6	10	45°	F05
25/32	14	50	M6	10	45°	F05
25/40	14	50	M6	10	45°	F05

*30° does not correspond to ISO 5211

PORTING PATTERNS

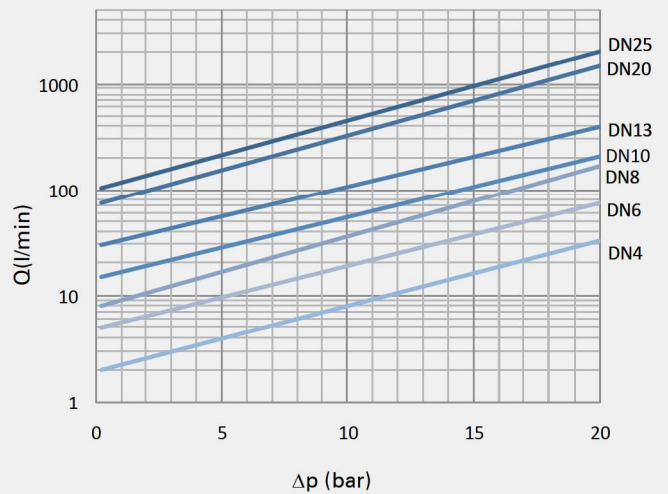


Pressure inlet only from center port (port 2)!

Further porting patterns page 274 to 279

Please see type BK3-S or 3KH in case you need pressure inlet from all ports.

FLOW CHARACTERISTICS BK3-L/T



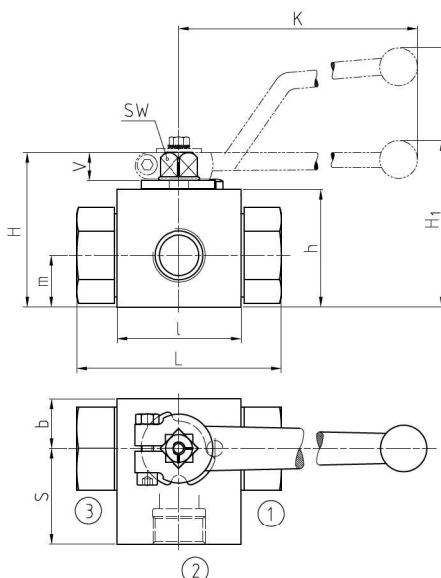
The flow values are measured with usage of hydraulic oil (spissitude 880 kg/m³) and the kinematic viscosity of 35 mm²/s.

Selector ball valve Stainless Steel

BK3

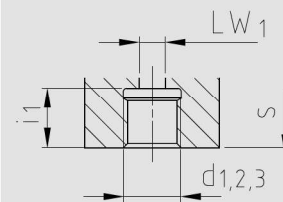


Multiway



CONNECTION TYPE (CONNECTION 2)

d₁ DIN ISO 228
d₂ ANSI B1.20.1
d₃ SAE J 514/ISO/DIS11926-1



! Pressure inlet only from center port (port 2)!

AVAILABLE SIZES

DN4 - DN50 (1/8" to 2")

CONNECTIONS

DIN ISO 228 Female thread, ANSI B1.20.1 NPT Female thread, DIN 2353/ISO 8434-1 Light / Heavy series, SAE J 514/ISO/DIS11926-1 Female thread, others on request

ACCESSORIES ON REQUEST

- Locking devices page 230 - 233
- Actuators 228 - 229
- Mounting holes on request
- Position switches 236 - 237
- Combinations on request
- Detent on request

MATERIAL CODE DESCRIPTION

Materials	442A	442A	4428	4428
Body	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Ball	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Stem	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Ball seats	POM	POM	POM	POM
O-rings	NBR	NBR	FPM	FPM
Tmin / Tmax	-30°C / 100°C	-30°C / 100°C	-20°C / 100°C	-20°C / 100°C
Porting pattern	L=SB50	T=SB51	L=SB50	T=SB51

GENERAL DIMENSIONS

Type	L	H	h	m	V	SW	K	H ₁	H ₂	Lever
BK3-DN4	40	47	33	13,5	11	9	115	-	82	Zn
BK3-DN6	40	47	33	13,5	11	9	115	-	82	Zn
BK3-DN8	40	47	33	13,5	11	9	115	-	82	Zn
BK3-DN10	43	52	38	17,5	11	9	115	-	86	Zn
BK3-DN13	48	54	40	19	11	9	115	-	89	Zn
BK3-DN20	62	75	57	24,5	14	14	200	79	-	Zn
BK3-DN25	66	83	65	29,5	14	14	200	87	-	Zn
BK3-DN25/32	66	83	65	29,5	14	14	200	87	-	Zn
BK3-DN32	81	106	84,5	39	16,5	17	320	115	-	Al
BK3-DN40	104	127	106	53	16,5	17	320	136	-	Al
BK3-DN50	118	137	116	58	16,5	17	320	146	-	Al

Selector ball valve Stainless Steel

BK3

CONNECTION TYPE (CONNECTIONS 1 AND 3)		DIMENSIONS										ORDER CODE PER MATERIAL COMBINATION					
DIN ISO 228 FEMALE THREAD		Type	LW	L	b	S	i	d	i ₁	d ₁	LW ₁	Weight [Kg]	PN [bar]	442A L=SB50	442A T=SB51	4428 L=SB50	4428 T=SB51
	BK3-DN4-G1/8	5	69	13	34,5	10	G1/8	10	G1/8	4	0,55	500	40910*	41806*	41812*	41817*	
	BK3-DN6-G1/4	6	69	13	34,5	14	G1/4	14	G1/4	6	0,55	500	40911*	41807*	41813*	41818*	
	BK3-DN10-G3/8	10	72	16	36	14	G3/8	14	G3/8	10	0,77	500	40868*	41808*	41814*	41819*	
	BK3-DN13-G1/2	13	83	17,5	39,5	16,3	G1/2	16,3	G1/2	13	0,90	500	40912*	41809*	40949*	41820*	
	BK3-DN13-G5/8	13	83	17,5	39,5	16	G5/8	16	G5/8	13	0,90	500	40913*	41810*	41815*	41821*	
	BK3-DN20-G3/4	20	95	24,5	47,5	18	G3/4	18	G3/4	20	1,95	315	40914*	41811*	41816*	41822*	
	BK3-DN25-G1	25	113	29	56,5	20	G1	20	G1	25	2,40	315	42177*	38282*	42180*	38283*	
	BK3-DN25/32-G1 1/4	25	120	29	57	22	G1 1/4	22	G1 1/4	25	2,64	315	42179*	38284*	38275*	38285*	
	BK3-DN32-G1 1/4	30	111	39	55	22	G1 1/4	22	G1 1/4	30	5,40	350	62849*	62850*	62851*	38289*	
	BK3-DN40-G1 1/2	38	130	53	65	24	G1 1/2	24	G1 1/2	38	9,40	350	38290*	38292*	38291*	38293*	
BK3-DN50-G2	48	150	58	75	26	G2	26	G2	48	13,00	350	62852*	62853*	62854*	38296*		

ANSI B1.20.1 NPT FEMALE THREAD		Type	LW	L	b	S	i	d	i ₁	d ₂	LW ₁	Weight [Kg]	PN [bar]	442A L=SB50	442A T=SB51	4428 L=SB50	4428 T=SB51
	BK3-DN4-1/8"NPT	5	69	13	34,5	10,5	1/8"NPT	10,5	1/8"NPT	4	0,55	500	41080*	41823*	41828*	41833*	
	BK3-DN6-1/4"NPT	6	69	13	34,5	13,7	1/4"NPT	13,7	1/4"NPT	6	0,55	500	41081*	41824*	41829*	41834*	
	BK3-DN10-3/8"NPT	10	72	16	36	13,5	3/8"NPT	13,5	3/8"NPT	10	0,77	500	41082*	41825*	41830*	41835*	
	BK3-DN13-1/2"NPT	13	83	17,5	39,5	17	1/2"NPT	17	1/2"NPT	13	0,90	500	41083*	41826*	41831*	41836*	
	BK3-DN20-3/4"NPT	20	95	24,5	47,5	18,3	3/4"NPT	18,3	3/4"NPT	20	1,95	315	41084*	41827*	41832*	41837*	
	BK3-DN25-1"NPT	25	113	29	56,5	21,6	1"NPT	21,6	1"NPT	25	2,40	315	38347	38349	38348	38350	
	BK3-DN25/32-1 1/4"NPT	25	120	29	57,5	22,1	1 1/4"NPT	22,1	1 1/4"NPT	25	2,65	315	38351	38353	38352	38354	
	BK3-DN32-1 1/4"NPT	30	120	39	60	22,1	1 1/4"NPT	22,1	1 1/4"NPT	30	5,40	350	38355	38357	38356	38358	
	BK3-DN40-1 1/2"NPT	38	140	53	70	22,1	1 1/2"NPT	22,1	1 1/2"NPT	38	9,40	350	62855	38361	38360	38362	
	BK3-DN50-2"NPT	48	150	58	75	30,3	2"NPT	30,3	2"NPT	48	13,00	350	38363	40284	40285	40286	

DIN 2353 / ISO 8434-1 LIGHT SERIES		Type	LW	RA	L	b	S	i	d	i ₁	d ₁ ⁽¹⁾	LW ₁	Weight [Kg]	PN [bar]	442A L=SB50	442A T=SB51	4428 L=SB50	4428 T=SB51
	BK3-DN4-6L	5	6	67	13	34,5	7	M 12x1,5	10	G1/8	4	0,50	500	41838*	41845*	41852*	41859*	
	BK3-DN6-8L	6	8	67	13	34,5	7	M 14x1,5	14	G1/4	6	0,52	500	41839*	41846*	41853*	41860*	
	BK3-DN8-10L	8	10	74	13	34,5	7	M 16x1,5	14	G1/4	6	0,54	500	41840*	41847*	41854*	41861*	
	BK3-DN10-12L	10	12	74	16	36	7	M 18x1,5	14	G3/8	10	0,73	500	41841*	41848*	41855*	41862*	
	BK3-DN13-15L	13	15	82	17,5	39,5	7	M 22x1,5	16,3	G1/2	13	0,85	500	41842*	41849*	41856*	41863*	
	BK3-DN13-18L	13	18	82	17,5	39,5	7,5	M 26x1,5	16	G5/8	13	0,89	500	41843*	41850*	41857*	41864*	
	BK3-DN20-22L	20	22	101	24,5	47,5	7,5	M 30x2	18	G3/4	20	1,87	315	41844*	41851*	41858*	41865*	
	BK3-DN25-28L	25	28	108	29	56,5	7,5	M 36x2	20	G1	25	2,45	315	42181*	42182*	42185*	42186*	
	BK3-DN25/32-35L	25	35	112	29	57	10,5	M 45x2	22	G1 1/4	25	2,90	315	42183*	42184*	42187*	42188*	

Please note the pressure ratings of the tube connections!
⁽¹⁾Transition adapters for light and heavy series on request.

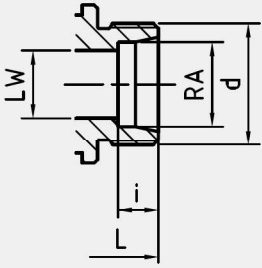
*Article usually in stock.

Selector ball valve Stainless Steel

BK3

CONNECTION TYPE (CONNECTIONS 1 AND 3)

DIN 2353 / ISO 8434-1
HEAVY SERIES



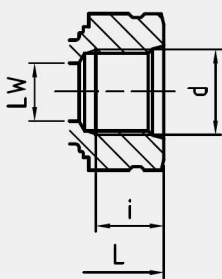
DIMENSIONS

Type	LW	RA	L	b	S	i	d	i ₁	d ₁ ⁽¹⁾	LW ₁	Weight [Kg]
BK3-DN4-8S	5	8	73	13	34,5	7	M 16x1,5	10	G1/8	4	0,52
BK3-DN6-10S	6	10	73	13	34,5	7,5	M 18x1,5	14	G1/4	6	0,54
BK3-DN8-12S	8	12	76	13	34,5	7,5	M 20x1,5	14	G1/4	6	0,56
BK3-DN10-14S	10	14	80	16	36	8	M 22x1,5	14	G3/8	10	0,73
BK3-DN13-16S	13	16	86	17,5	39,5	8,5	M 24x1,5	16,3	G1/2	13	0,86
BK3-DN13-20S	13	20	90	17,5	39,5	10,5	M 30x2	16	G5/8	13	0,94
BK3-DN20-25S	20	25	109	24,5	47,5	12	M 36x2	18	G3/4	20	1,95
BK3-DN25-30S	25	30	120	29	56,5	13,5	M 42x2	20	G1	25	2,65
BK3-DN25/32-38S	25	38	124	29	57	16	M 52x2	22	G1 1/4	25	3,10

ORDER CODE PER MATERIAL COMBINATION

PN [bar]	442A L=SB50	442A T=SB51	4428 L=SB50	4428 T=SB51
500	41866*	41873*	41880*	41887*
500	41867*	41874*	41881*	41888*
500	41868*	41875*	41882*	41889*
500	41869*	41876*	41883*	41890*
500	41870*	41877*	41884*	41891*
500	41871*	41878*	41885*	41892*
315	41872*	41879*	41886*	41893*
315	42189*	42190*	42193*	42194*
315	42191*	42192*	42195*	42196*

SAE J514/ISO/DIS11926-1 FEMALE THREAD

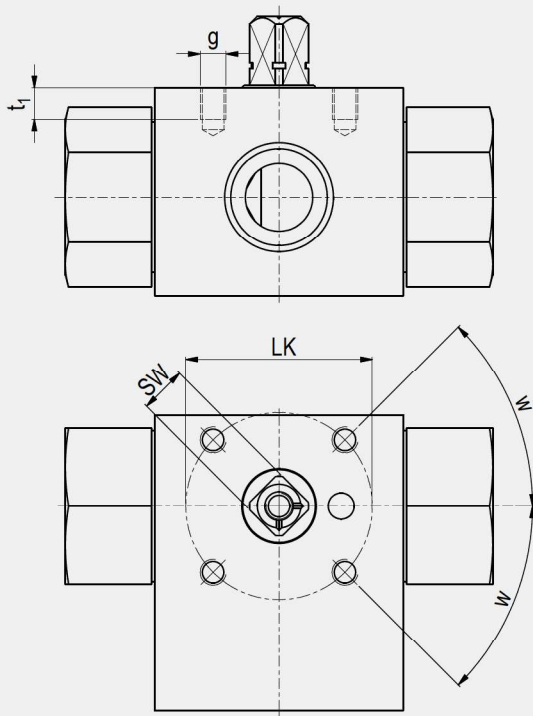


Type	LW	L	b	S	i	d	i ₁	d ₂	LW ₁	Weight [Kg]
BK3-DN6-7/16"UNF	5	69	13	34,5	12	7/16"-20 UNF	12	7/16"-20 UNF	6	0,55
BK3-DN10-9/16"UNF	10	72	16	36	13	9/16"-18 UNF	13	9/16"-18 UNF	7,5	0,77
BK3-DN13-3/4"UNF	13	83	17,5	39,5	15	3/4"-16 UNF	15	3/4"-16 UNF	13	0,90
BK3-DN20-1 1/16"UN	20	95	24,5	47,5	20	1 1/16"-12 UN	20	1 1/16"-12 UN	16	1,95
BK3-DN25-1 5/16"UN	25	113	29	56,5	20	1 5/16"-12 UN	20	1 5/16"-12 UN	21	2,80
BK3-DN32-1 5/8"UN	30	111	39	60	20	1 5/8"-12 UN	20	1 5/8"-12 UN	30	7,00
BK3-DN40-1 7/8"UN	38	140	53	70	20	1 7/8"-12 UN	20	1 7/8"-12 UN	38	10,50
BK3-DN50-2 1/2"UN	48	150	58	75	20	2 1/2"-12 UN	20	2 1/2"-12 UN	48	14,50

PN [bar]	442A L=SB50	442A T=SB51	4428 L=SB50	4428 T=SB51
500	41894*	41898*	41902*	41906*
500	41895*	41899*	41903*	41907*
500	41896*	41900*	41904*	41908*
315	41897*	41901*	41905*	41909*
315	38312	38314	38313	38315
350	38316	38318	38317	38319
350	38320	38322	38321	38323
350	38324	38326	38325	38327

Please note the pressure ratings of the tube connections!
(1) Transition adapters for light and heavy series on request.

*Article usually in stock.

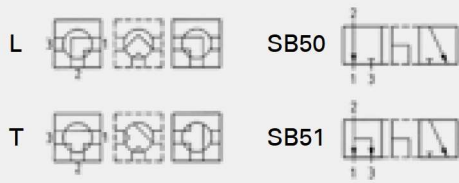


ASSEMBLING THREADS AS PER ISO 5211

DN	SW	LK	g	t ₁	w	ISO 5211
4	9	36	M5	6	30°*	(F03)*
6	9	36	M5	6	30°*	(F03)*
10	9	36	M5	7	45°	F03
13	9	36	M5	6	45°	F03
16	12	42	M5	8	45°	F04
20	14	50	M6	10	45°	F05
25	14	50	M6	10	45°	F05
25/32	14	50	M6	10	45°	F05
25/40	14	50	M6	10	45°	F05

*30° does not correspond to ISO 5211

PORTING PATTERNS

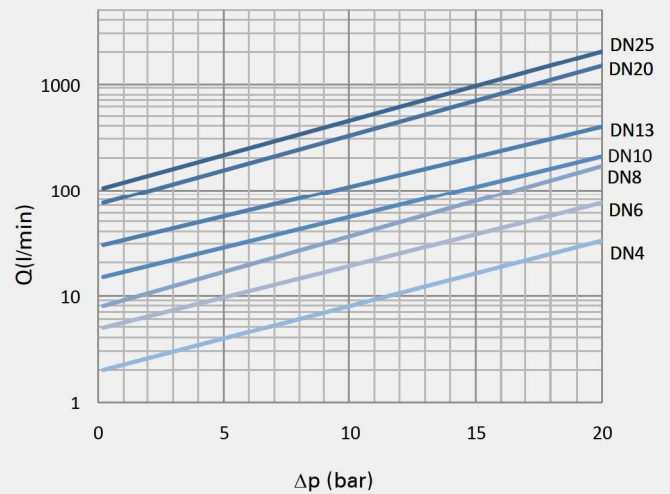


Pressure inlet only from center port (port 2)!

Further porting patterns page 274 to 279

Please see type BK3-S or 3KH in case you need pressure inlet from all ports.

FLOW CHARACTERISTICS BK3-L/T



The flow values are measured with usage of hydraulic oil (spissitude 880 kg/m³) and the kinematic viscosity of 35 mm²/s.