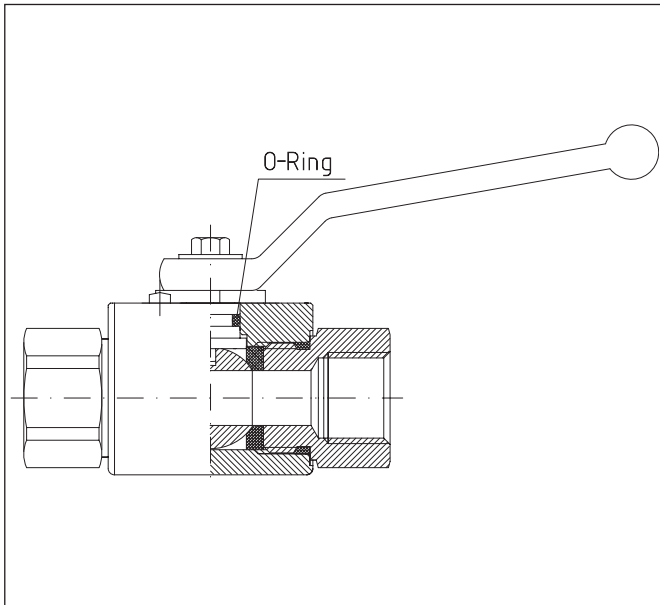


## KUGELHÄHNE UND ABSPERRVENTILE BALL-VALVES AND SPINDLE VALVES

EDELSTAHL-KUGELHÄHNE - RKH	STAINLESS STEEL BALL VALVES - RKH	13.3
EDELSTAHL-KUGELHÄHNE - RKH	STAINLESS STEEL BALL VALVES - RKH	13.4
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BESTELLZEICHEN - WERKSTOFFKOMBINATIONEN - BK 3 - LA	ORDER-CODE - COMBINATION OF MATERIALS - BK 3 - LA	13.9
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HOCHDRUCK-FLANSCH-KUGELHÄHNE	HIGH PRESSURE FLANGE BALL VALVES	13.12
NIEDERDRUCK-KUGELHÄHNE - 2-WEGE	LOW PRESSURE BALL VALVES - 2-PORTS	13.13
NIEDERDRUCK-KUGELHÄHNE - 3-WEGE - L-BOHRUNG	LOW PRESSURE BALL VALVES - 3-WAY - L-BORE	13.14
NIEDERDRUCK-KUGELHÄHNE - 3-WEGE - T-BOHRUNG	LOW PRESSURE BALL VALVES - 3-WAY - T-BORE	13.15
HOCHDRUCK-ABSPERRVENTILE - HVB	HIGH PRESSURE VALVES - HVB	13.16
HOCHDRUCK-ABSPERRVENTILE - HVA	HIGH PRESSURE VALVES - HVA	13.17
NADELVENTILE	NEEDLE VALVES	13.18



## **Edelstahl-Kugelhähne RKH**

**Serie 020**

**DN 4 bis DN 50**

Gehäuse, Stutzen, Kugel und Schaltwelle nichtrostender Stahl, V4a (AISI 316).

Unsere Kugelhähne werden einzeln einer Prüfung auf Festigkeit, Dichtheit und besonderen geltenden Richtlinien unterzogen.

Abnahmeprüfzeugnis 3.1 B oder 3.1 C nach DIN EN 10204 kann auf Anfrage, gegen Berechnung, mitgeliefert werden.

Andere Werkstoffe wie 254Smo oder Hastelloy, etc. auf Anfrage.

## **Stainless steel ball valves RKH**

**Series 020**

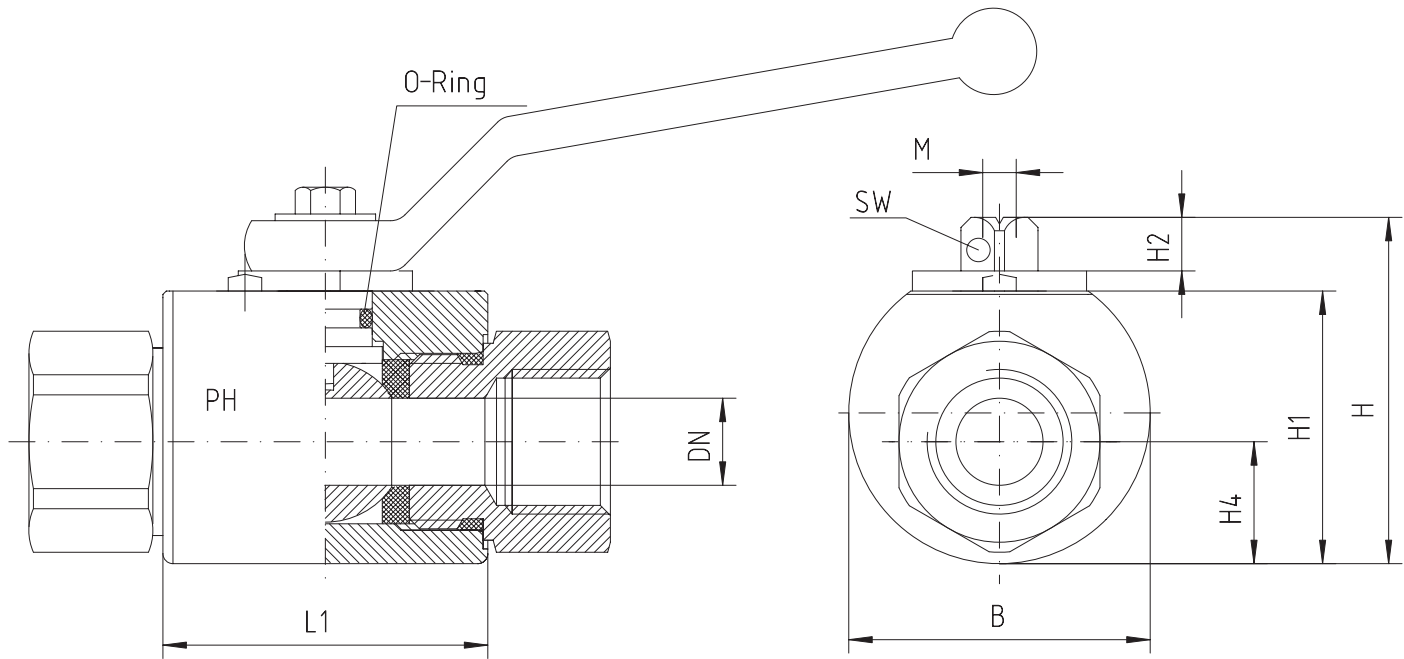
**DN 4 to DN 50**

Body, connecting parts, ball and stem stainless steel, V4a (AISI 316).

Each PH ball valve is subject to an inspection for resistance, sealing and special characteristics.

Inspection control certificates 3.1 B or 3.1 C per DIN EN 10204 can be supplied on request against invoice.

Other materials as 254Smo or Hastelloy, etc. on request.



Gehäusemaße gültig für alle Kombinationen  
Body dimensions are for all the combinations

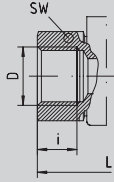
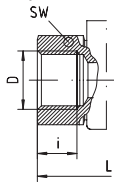
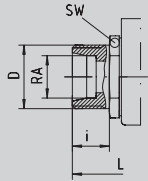
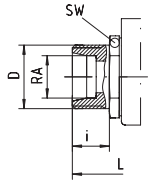
DN mm	PB bar	L1 mm	B mm	H mm	H1 mm	H2 mm	H4 mm	M mm	SW $\varnothing$ mm
5	500	36	35	43,5	32	8,0	13,0	M 5	9
6	500	36	35	43,5	32	8,0	13,0	M 5	9
8	500	36	35	43,5	32	8,0	13,0	M 5	9
10	500	43	42	49,5	38	8,0	16,5	M 5	9
13	500	48	45	51,5	40	8,0	17,5	M 5	9
16	400	48	50	62,0	46	12,0	19,0	M 6	12
20	400	62	60	73,0	57	12,0	24,5	M 6	14
24	400	66	65	79,0	63	12,0	28,0	M 6	14
32	350	81	90	104,0	84	13,5	38,0	M 8	17
38	350	86	100	112,0	93	13,5	42,5	M 8	17
48	350	101	120	131,0	111	13,5	50,0	M 8	17

↑  
Der angegebene Betriebsdruck PB ist nur gültig für die Standardausführung 4423.  
The indicated working pressure PB is only valid for the standard version 4423.

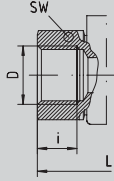
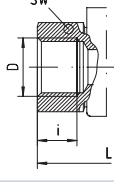
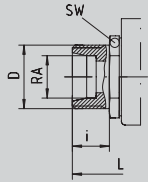
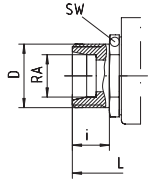
# BESTELLZEICHEN WERKSTOFFKOMBINATIONEN



# ORDER-CODE COMBINATION OF MATERIALS

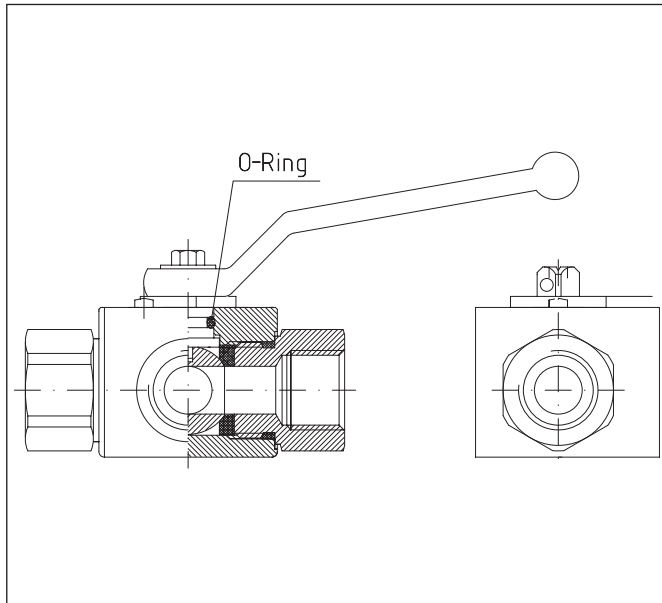
Gehäuseteile / Body Kugel / Ball Schaltwelle / Stem Kugeldichtung / Ball sealing Schaltwellendichtung / Stem sealing				V4a (AISI 316) V4a (AISI 316) V4a (AISI 316) PTFE (bis/to 100 bar) FKM	V4a (AISI 316) V4a (AISI 316) V4a (AISI 316) PTFE (bis/to 100 bar) EPDM	V4a (AISI 316) V4a (AISI 316) V4a (AISI 316) POM NBR
Anschlussart / Connection	DN	D	RA	Korrosive Medien Corrosive media -20°C bis/to 100°C	Wasser und Dampf Water and steam -20°C bis/to 140°C	Hydraulik - Standardausführung Hydraulics - Standard version -20°C bis/to 100°C
				Bestellzeichen Order-Code	Bestellzeichen Order-Code	Bestellzeichen Order-Code
<b>01</b> Rohrgewinde DIN ISO 228 BSP female thread DIN ISO 228 	5	G 1/8"		RKH G 1/8"-4445	RKH G 1/8"-4446	RKH G 1/8"-4423
	6	G 1/4"		RKH G 1/4"-4445	RKH G 1/4"-4446	RKH G 1/4"-4423
	10	G 3/8"		RKH G 3/8"-4445	RKH G 3/8"-4446	RKH G 3/8"-4423
	13	G 1/2"		RKH G 1/2"-4445	RKH G 1/2"-4446	RKH G 1/2"-4423
	16	G 5/8"		RKH G 5/8"-4445	RKH G 5/8"-4446	RKH G 5/8"-4423
	20	G 3/4"		RKH G 3/4"-4445	RKH G 3/4"-4446	RKH G 3/4"-4423
	24	G 1"		RKH G 1"-4445	RKH G 1"-4446	RKH G 1"-4423
	32	G 1 1/4"		RKH G 1 1/4"-4445	RKH G 1 1/4"-4446	RKH G 1 1/4"-4423
	38	G 1 1/2"		RKH G 1 1/2"-4445	RKH G 1 1/2"-4446	RKH G 1 1/2"-4423
	48	G 2"		RKH G 2"-4445	RKH G 2"-4446	RKH G 2"-4423
<b>02</b> NPT-Innengewinde ANSI B 2.1 NPT-female thread ANSI B 2.1 	5	1/8"-27 NPT		RKH 1/8" NPT-4445	RKH 1/8" NPT-4446	RKH 1/8" NPT-4423
	6	1/4"-18 NPT		RKH 1/4" NPT-4445	RKH 1/4" NPT-4446	RKH 1/4" NPT-4423
	10	3/8"-18 NPT		RKH 3/8" NPT-4445	RKH 3/8" NPT-4446	RKH 3/8" NPT-4423
	13	1/2"-14 NPT		RKH 1/2" NPT-4445	RKH 1/2" NPT-4446	RKH 1/2" NPT-4423
	20	3/4"-14 NPT		RKH 3/4" NPT-4445	RKH 3/4" NPT-4446	RKH 3/4" NPT-4423
	24	1"-11,5 NPT		RKH 1" NPT-4445	RKH 1" NPT-4446	RKH 1" NPT-4423
	32	1 1/4"-11,5 NPT		RKH 1 1/4" NPT-4445	RKH 1 1/4" NPT-4446	RKH 1 1/4" NPT-4423
	38	1 1/2"-11,5 NPT		RKH 1 1/2" NPT-4445	RKH 1 1/2" NPT-4446	RKH 1 1/2" NPT-4423
<b>03</b> Rohrverschraubung leichte Reihe DIN 2353 For compression fitting light series DIN 2353 	5	M 12 x 1,5	6	RKH 06-L-4445	RKH 06-L-4446	RKH 06-L-4423
	6	M 14 x 1,5	8	RKH 08-L-4445	RKH 08-L-4446	RKH 08-L-4423
	8	M 16 x 1,5	10	RKH 10-L-4445	RKH 10-L-4446	RKH 10-L-4423
	10	M 18 x 1,5	12	RKH 12-L-4445	RKH 12-L-4446	RKH 12-L-4423
	13	M 22 x 1,5	15	RKH 15-L-4445	RKH 15-L-4446	RKH 15-L-4423
	13	M 26 x 1,5	18	RKH 18-L-4445	RKH 18-L-4446	RKH 18-L-4423
	20	M 30 x 2	22	RKH 22-L-4445	RKH 22-L-4446	RKH 22-L-4423
	24	M 36 x 2	28	RKH 28-L-4445	RKH 28-L-4446	RKH 28-L-4423
	32	M 45 x 2	35	RKH 35-L-4445	RKH 35-L-4446	RKH 35-L-4423
	38	M 52 x 2	42	RKH 42-L-4445	RKH 42-L-4446	RKH 42-L-4423
<b>04</b> Rohrverschraubung schwere Reihe DIN 2353 For compression fitting heavy series DIN 2353 	5	M 14 x 1,5	6	RKH 06-S-4445	RKH 06-S-4446	RKH 06-S-4423
	5	M 16 x 1,5	8	RKH 08-S-4445	RKH 08-S-4446	RKH 08-S-4423
	6	M 18 x 1,5	10	RKH 10-S-4445	RKH 10-S-4446	RKH 10-S-4423
	8	M 20 x 1,5	12	RKH 12-S-4445	RKH 12-S-4446	RKH 12-S-4423
	10	M 22 x 1,5	14	RKH 14-S-4445	RKH 14-S-4446	RKH 14-S-4423
	13	M 24 x 1,5	16	RKH 16-S-4445	RKH 16-S-4446	RKH 16-S-4423
	13	M 30 x 2	20	RKH 20-S-4445	RKH 20-S-4446	RKH 20-S-4423
	20	M 36 x 2	25	RKH 25-S-4445	RKH 25-S-4446	RKH 25-S-4423
	24	M 42 x 2	30	RKH 30-S-4445	RKH 30-S-4446	RKH 30-S-4423
	32	M 52 x 2	38	RKH 38-S-4445	RKH 38-S-4446	RKH 38-S-4423

Maßänderungen vorbehalten  
Measurements subject to alteration.

Anschlussart / Connection	DN	D	RA	L	i	SW	Gewicht / Weight kg
<b>01</b> Rohrgewinde DIN ISO 228 BSP female thread DIN ISO 228 	5	G 1/8"		69	9	22	0,35
	6	G 1/4"		69	12	22	0,35
	10	G 3/8"		73	12	27	0,5
	13	G 1/2"		85	14	30	0,65
	16	G 5/8"		84	14	32	0,75
	20	G 3/4"		96	17	41	1,5
	24	G 1"		113	19	46	1,8
	32	G 1 1/4"		110	20	60	3,8
	38	G 1 1/2"		120	22	70	6,1
	48	G 2"		140	28	85	9,1
<b>02</b> NPT-Innengewinde ANSI B 2.1 NPT-female thread ANSI B 2.1 	5	1/8"-27 NPT		69	12	22	0,35
	6	1/4"-18 NPT		69	17	22	0,35
	10	3/8"-18 NPT		73	17	27	0,5
	13	1/2"-14 NPT		92	22	30	0,65
	20	3/4"-14 NPT		97	23	41	1,5
	24	1"-11,5 NPT		113	27	46	1,8
	32	1 1/4"-11,5 NPT		115	28	60	3,8
	38	1 1/2"-11,5 NPT		135	28	70	6,1
<b>03*</b> Rohrverschraubung leichte Reihe DIN 2353 For compression fitting light series DIN 2353 	5	M 12 x 1,5	6	67	10	22	0,3
	6	M 14 x 1,5	8	67	10	22	0,3
	8	M 16 x 1,5	10	71	11	22	0,3
	10	M 18 x 1,5	12	75	11	27	0,5
	13	M 22 x 1,5	15	84	12	30	0,6
	13	M 26 x 1,5	18	84	12	30	0,6
	20	M 30 x 2	22	102	14	41	1,5
	24	M 36 x 2	28	108	14	46	1,8
	32	M 45 x 2	35	128	16	60	3,6
	38	M 52 x 2	42	133	16	70	5,9
<b>04*</b> Rohrverschraubung schwere Reihe DIN 2353 For compression fitting heavy series DIN 2353 	5	M 14 x 1,5	6	73	12	22	0,3
	5	M 16 x 1,5	8	73	12	22	0,35
	6	M 18 x 1,5	10	73	12	22	0,35
	8	M 20 x 1,5	12	76	12	22	0,35
	10	M 22 x 1,5	14	84	14	27	0,5
	13	M 24 x 1,5	16	87	14	30	0,6
	13	M 30 x 2	20	91	16	30	0,65
	20	M 36 x 2	25	110	18	41	1,5
	24	M 42 x 2	30	120	20	46	1,9
	32	M 52 x 2	38	140	22	60	3,7

\* Max. zulässige Druckstufen (PB) entnehmen Sie bitte den Angaben der Schneidringverschraubungen.

\* Max. allowed pressure (PB) see at the date from the compression couplings.



## **Dreiwege-Umschalt-Kugelhähne BK 3**

***L- oder T-Bohrung***

***Serie 100***

***DN 4 bis DN 50***

Gehäuse, Kugel und Schaltwelle, V4a (AISI 316).

Unsere Kugelhähne werden einzeln einer Prüfung auf Festigkeit, Dichtheit und besonderen geltenden Richtlinien unterzogen.

Abnahmeprüfzeugnis 3.1 B oder 3.1 C nach DIN EN 10204 kann auf Anfrage, gegen Berechnung, mitgeliefert werden.

## **Three-way ball valves BK 3**

***L- or T-bore***

***Series 100***

***DN 4 to DN 50***

Body, ball and stem, V4a (AISI 316).

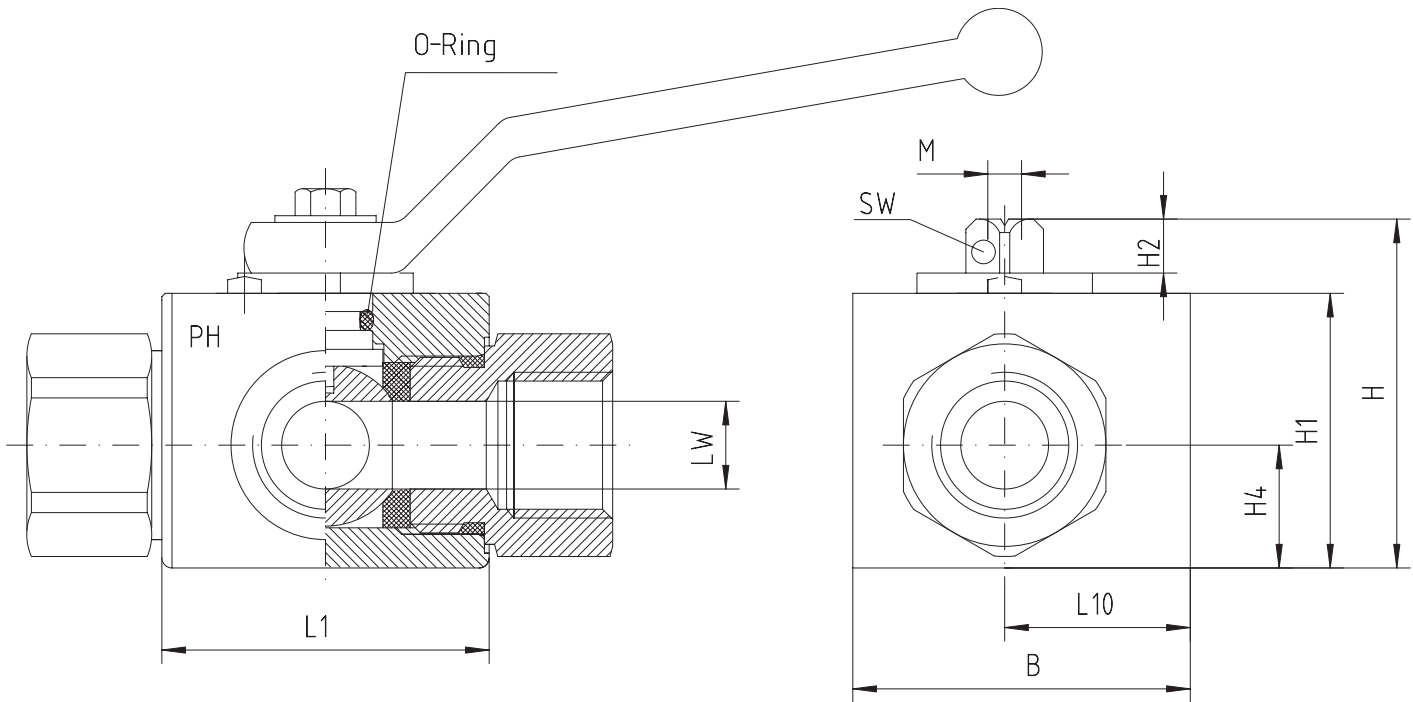
Each PH ball valve is subject to an inspection for resistance, sealing and special characteristics.

Inspection control certificates 3.1 B or 3.1 C per DIN EN 10204 can be supplied on request against invoice.

# DREIWEGE-UMSCHALT-KUGELHÄHNE - BK 3



# THREE-WAY BALL VALVES - BK 3

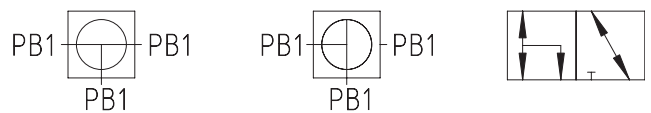
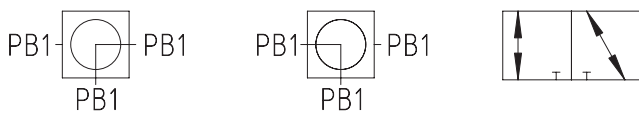


Gehäusemaße gültig für alle Kombinationen  
Body dimensions are for all the combinations

DN mm	PB1 bar	L1 mm	B mm	H mm	H1 mm	H2 mm	H4 mm	M mm	SW ø mm
4	400	36	26	43,5	32	8,0	13,0	M 5	9
6	400	36	26	43,5	32	8,0	13,0	M 5	9
8	400	36	26	43,5	32	8,0	13,0	M 5	9
10	400	43	32	49,0	38	8,0	16,5	M 5	9
13	400	48	35	51,0	40	8,0	17,5	M 5	9
20	320	61	49	73,0	57	12,0	24,5	M 6	14
25	350	65	60	76,0	60	12,0	26,5	M 6	14
32	350	80	76	104,0	84	13,5	38,0	M 8	17
40	250	85	83	113,0	92	13,5	43,0	M 8	17
50	250	100	100	130,0	111	13,5	50,0	M 8	19



Der angegebene Betriebsdruck PB ist nur gültig für die Standardausführung 4423.  
The indicated working pressure PB is only valid for the standard version 4423.



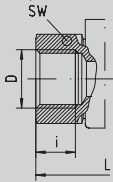
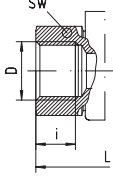
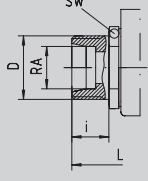
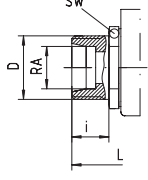
Typ LA: L-Bohrung 0° - 90° allseitig druckbeaufschlagbar  
Type LA: L-bore 0° - 90° pressured from all ports possible

Typ TA: T-Bohrung 0° - 90° allseitig druckbeaufschlagbar  
Type TA: T-bore 0° - 90° pressured from all ports possible

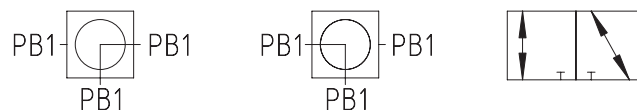
# BESTELLZEICHEN WERKSTOFFKOMBINATIONEN



# ORDER-CODE COMBINATION OF MATERIALS

Gehäuseteile / Body Kugel / Ball Schaltwelle / Stem Kugeldichtung / Ball sealing Schaltwellendichtung / Stem sealing					V4a (AISI 316) V4a (AISI 316) V4a (AISI 316) PTFE (bis/to 100 bar) FKM	V4a (AISI 316) V4a (AISI 316) V4a (AISI 316) POM NBR
Anschlussart / Connection	DN	LW	D	RA	Korrosive Medien Corrosive media -20°C bis/to 100°C	Hydraulik - Standardausführung Hydraulics - Standard version -20°C bis/to 100°C
					Bestellzeichen Order-Code	Bestellzeichen Order-Code
<b>01</b> Rohrgewinde DIN ISO 228 BSP female thread DIN ISO 228 	4	5,0	G 1/8"		BK3 G 1/8"-4445 L	BK3 G 1/8"-4423 LA
	6	6,0	G 1/4"		BK3 G 1/4"-4445 L	BK3 G 1/4"-4423 LA
	10	9,0	G 3/8"		BK3 G 3/8"-4445 L	BK3 G 3/8"-4423 LA
	13	11,5	G 1/2"		BK3 G 1/2"-4445 L	BK3 G 1/2"-4423 LA
	20	18,0	G 3/4"		BK3 G 3/4"-4445 L	BK3 G 3/4"-4423 LA
	25	22,0	G 1"		BK3 G 1"-4445 L	BK3 G 1"-4423 LA
	32	30,0	G 1 1/4"		BK3 G 1 1/4"-4445 L	BK3 G 1 1/4"-4423 LA
	40	35,0	G 1 1/2"		BK3 G 1 1/2"-4445 L	BK3 G 1 1/2"-4423 LA
	50	44,0	G 2"		BK3 G 2"-4445 L	BK3 G 2"-4423 LA
	<b>02</b> NPT-Innengewinde ANSI B 2.1 NPT-female thread ANSI B 2.1 	4	5,0	1/8"-27 NPT		BK3 1/8" NPT-4445 L
6		6,0	1/4"-18 NPT		BK3 1/4" NPT-4445 L	BK3 1/4" NPT-4423 LA
10		9,0	3/8"-18 NPT		BK3 3/8" NPT-4445 L	BK3 3/8" NPT-4423 LA
13		11,5	1/2"-14 NPT		BK3 1/2" NPT-4445 L	BK3 1/2" NPT-4423 LA
20		18,0	3/4"-14 NPT		BK3 3/4" NPT-4445 L	BK3 3/4" NPT-4423 LA
25		22,0	1"-11,5 NPT		BK3 1" NPT-4445 L	BK3 1" NPT-4423 LA
32		30,0	1 1/4"-11,5 NPT		BK3 1 1/4" NPT-4445 L	BK3 1 1/4" NPT-4423 LA
40		35,0	1 1/2"-11,5 NPT		BK3 1 1/2" NPT-4445 L	BK3 1 1/2" NPT-4423 LA
50		44,0	2"-11,5 NPT		BK3 2" NPT-4445 L	BK3 2" NPT-4423 LA
<b>03</b> Rohrverschraubung leichte Reihe DIN 2353 For compression fitting light series DIN 2353 	4	5,0	M 12 x 1,5	6	BK3 6-L-4445 L	BK3 6-L-4423 LA
	6	6,0	M 14 x 1,5	8	BK3 8-L-4445 L	BK3 8-L-4423 LA
	8	7,0	M 16 x 1,5	10	BK3 10-L-4445 L	BK3 10-L-4423 LA
	10	9,0	M 18 x 1,5	12	BK3 12-L-4445 L	BK3 12-L-4423 LA
	13	11,5	M 22 x 1,5	15	BK3 15-L-4445 L	BK3 15-L-4423 LA
	13	11,5	M 26 x 1,5	18	BK3 18-L-4445 L	BK3 18-L-4423 LA
	20	18,0	M 30 x 2	22	BK3 22-L-4445 L	BK3 22-L-4423 LA
	25	18,0	M 36 x 2	28	BK3 28-L-4445 L	BK3 28-L-4423 LA
	32	30,0	M 45 x 2	35	BK3 35-L-4445 L	BK3 35-L-4423 LA
	40	35,0	M 52 x 2	42	BK3 42-L-4445 L	BK3 42-L-4423 LA
<b>04</b> Rohrverschraubung schwere Reihe DIN 2353 For compression fitting heavy series DIN 2353 	4	5,0	M 14 x 1,5	6	BK3 6-S-4445 L	BK3 6-S-4423 LA
	4	5,0	M 16 x 1,5	8	BK3 8-S-4445 L	BK3 8-S-4423 LA
	6	6,0	M 18 x 1,5	10	BK3 10-S-4445 L	BK3 10-S-4423 LA
	8	7,0	M 20 x 1,5	12	BK3 12-S-4445 L	BK3 12-S-4423 LA
	10	9,0	M 22 x 1,5	14	BK3 14-S-4445 L	BK3 14-S-4423 LA
	13	11,5	M 24 x 1,5	16	BK3 16-S-4445 L	BK3 16-S-4423 LA
	13	11,5	M 30 x 2	20	BK3 20-S-4445 L	BK3 20-S-4423 LA
	20	18,0	M 36 x 2	25	BK3 25-S-4445 L	BK3 25-S-4423 LA
	25	22,0	M 42 x 2	30	BK3 30-S-4445 L	BK3 30-S-4423 LA
	32	30,0	M 52 x 2	38	BK3 38-S-4445 L	BK3 38-S-4423 LA

Maßänderungen vorbehalten.  
Measurements subject to alteration.



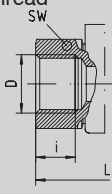
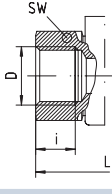
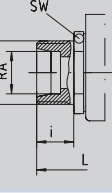
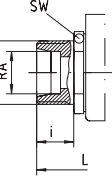
Typ LA: L-Bohrung 0° - 90° allseitig druckbeaufschlagbar  
Type LA: L-bore 0° - 90° pressured from all ports possible



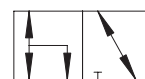
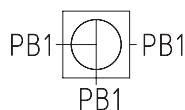
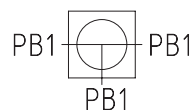
# BESTELLZEICHEN WERKSTOFFKOMBINATIONEN



# ORDER-CODE COMBINATION OF MATERIALS

Gehäuseteile / Body Kugel / Ball Schaltwelle / Stem Kugeldichtung / Ball sealing Schaltwellendichtung / Stem sealing					V4a (AISI 316) V4a (AISI 316) V4a (AISI 316) PTFE (bis/to 100 bar) FKM	V4a (AISI 316) V4a (AISI 316) V4a (AISI 316) POM NBR
Anschlussart / Connection	DN	LW	D	RA	Korrosive Medien Corrosive media -20°C bis/to 100°C	Hydraulik - Standardausführung Hydraulics - Standard version -20°C bis/to 100°C
					Bestellzeichen Order-Code	Bestellzeichen Order-Code
<b>01</b> Rohrgewinde DIN ISO 228 BSP female thread DIN ISO 228 	4	5,0	G 1/8"		BK3 G 1/8"-4445 T	BK3 G 1/8"-4423 TA
	6	6,0	G 1/4"		BK3 G 1/4"-4445 T	BK3 G 1/4"-4423 TA
	10	9,0	G 3/8"		BK3 G 3/8"-4445 T	BK3 G 3/8"-4423 TA
	13	11,5	G 1/2"		BK3 G 1/2"-4445 T	BK3 G 1/2"-4423 TA
	20	18,0	G 3/4"		BK3 G 3/4"-4445 T	BK3 G 3/4"-4423 TA
	25	22,0	G 1"		BK3 G 1"-4445 T	BK3 G 1"-4423 TA
	32	30,0	G 1 1/4"		BK3 G 1 1/4"-4445 T	BK3 G 1 1/4"-4423 TA
	40	35,0	G 1 1/2"		BK3 G 1 1/2"-4445 T	BK3 G 1 1/2"-4423 TA
	50	44,0	G 2"		BK3 G 2"-4445 T	BK3 G 2"-4423 TA
	<b>02</b> NPT-Innengewinde ANSI B 2.1 NPT-female thread ANSI B 2.1 	4	5,0	1/8"-27 NPT		BK3 1/8" NPT-4445 T
6		6,0	1/4"-18 NPT		BK3 1/4" NPT-4445 T	BK3 1/4" NPT-4423 TA
10		9,0	3/8"-18 NPT		BK3 3/8" NPT-4445 T	BK3 3/8" NPT-4423 TA
13		11,5	1/2"-14 NPT		BK3 1/2" NPT-4445 T	BK3 1/2" NPT-4423 TA
20		18,0	3/4"-14 NPT		BK3 3/4" NPT-4445 T	BK3 3/4" NPT-4423 TA
25		22,0	1"-11,5 NPT		BK3 1" NPT-4445 T	BK3 1" NPT-4423 TA
32		30,0	1 1/4"-11,5 NPT		BK3 1 1/4" NPT-4445 T	BK3 1 1/4" NPT-4423 TA
40		35,0	1 1/2"-11,5 NPT		BK3 1 1/2" NPT-4445 T	BK3 1 1/2" NPT-4423 TA
50		44,0	2"-11,5 NPT		BK3 2" NPT-4445 T	BK3 2" NPT-4423 TA
<b>03</b> Rohrverschraubung leichte Reihe DIN 2353 For compression fitting light series DIN 2353 	4	5,0	M 12 x 1,5	6	BK3 6-L-4445 T	BK3 6-L-4423 TA
	6	6,0	M 14 x 1,5	8	BK3 8-L-4445 T	BK3 8-L-4423 TA
	8	7,0	M 16 x 1,5	10	BK3 10-L-4445 T	BK3 10-L-4423 TA
	10	9,0	M 18 x 1,5	12	BK3 12-L-4445 T	BK3 12-L-4423 TA
	13	11,5	M 22 x 1,5	15	BK3 15-L-4445 T	BK3 15-L-4423 TA
	13	11,5	M 26 x 1,5	18	BK3 18-L-4445 T	BK3 18-L-4423 TA
	20	18,0	M 30 x 2	22	BK3 22-L-4445 T	BK3 22-L-4423 TA
	25	18,0	M 36 x 2	28	BK3 28-L-4445 T	BK3 28-L-4423 TA
	32	30,0	M 45 x 2	35	BK3 35-L-4445 T	BK3 35-L-4423 TA
	40	35,0	M 52 x 2	42	BK3 42-L-4445 T	BK3 42-L-4423 TA
<b>04</b> Rohrverschraubung schwere Reihe DIN 2353 For compression fitting heavy series DIN 2353 	4	5,0	M 14 x 1,5	6	BK3 6-S-4445 T	BK3 6-S-4423 TA
	4	5,0	M 16 x 1,5	8	BK3 8-S-4445 T	BK3 8-S-4423 TA
	6	6,0	M 18 x 1,5	10	BK3 10-S-4445 T	BK3 10-S-4423 TA
	8	7,0	M 20 x 1,5	12	BK3 12-S-4445 T	BK3 12-S-4423 TA
	10	9,0	M 22 x 1,5	14	BK3 14-S-4445 T	BK3 14-S-4423 TA
	13	11,5	M 24 x 1,5	16	BK3 16-S-4445 T	BK3 16-S-4423 TA
	13	11,5	M 30 x 2	20	BK3 20-S-4445 T	BK3 20-S-4423 TA
	20	18,0	M 36 x 2	25	BK3 25-S-4445 T	BK3 25-S-4423 TA
	25	22,0	M 42 x 2	30	BK3 30-S-4445 T	BK3 30-S-4423 TA
	32	30,0	M 52 x 2	38	BK3 38-S-4445 T	BK3 38-S-4423 TA

Maßänderungen vorbehalten.  
Measurements subject to alteration.

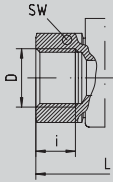
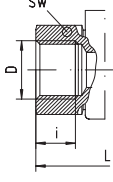
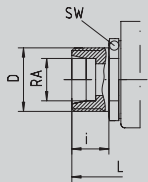
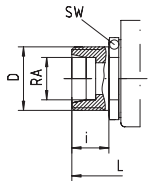


Typ TA: T-Bohrung 0° - 90° allseitig druckbeaufschlagbar  
Type TA: T-bore 0° - 90° pressured from all ports possible

# DREIWEGE-UMSCHALT-KUGEL- HÄHNE - BK 3



# THREE-WAY BALL VALVES - BK 3

Anschlussart / Connection	DN	LW	D	RA	ca. Maße approx. dimensions			
					L	L10	i	SW
<b>01</b> Rohrgewinde DIN ISO 228 BSP female thread DIN ISO 228 	4	5,0	G 1/8"		69	32	9	22
	6	6,0	G 1/4"		69	32	12	22
	10	9,0	G 3/8"		73	35	12	27
	13	11,5	G 1/2"		85	37	14	30
	20	18,0	G 3/4"		96	47	17	41
	25	22,0	G 1"		113	55	19	46
	32	30,0	G 1 1/4"		110	70	20	60
	40	35,0	G 1 1/2"		120	72	24	70
	50	44,0	G 2"		140	85	28	85
<b>02</b> NPT-Innengewinde ANSI B 2.1 NPT-female thread ANSI B 2.1 	4	5,0	1/8"-27 NPT		69	32	12	22
	6	6,0	1/4"-18 NPT		69	32	17	22
	10	9,0	3/8"-18 NPT		73	35	17	27
	13	11,5	1/2"-14 NPT		92	42	22	30
	20	18,0	3/4"-14 NPT		97	47	23	41
	25	22,0	1"-11,5 NPT		113	55	27	46
	32	22,0	1 1/4"-11,5 NPT		115	70	28	60
	40	35,0	1 1/2"-11,5 NPT		135	75	28	70
	50	44,0	2"-11,5 NPT		140	85	30	85
<b>03</b> Rohrverschraubung leichte Reihe DIN 2353 For compression fitting light series DIN 2353 	4	5,0	M 12 x 1,5	6	67	32	10	22
	6	6,0	M 14 x 1,5	8	67	32	10	22
	8	7,0	M 16 x 1,5	10	71	32	11	22
	10	9,0	M 18 x 1,5	12	75	40	11	27
	13	11,5	M 22 x 1,5	15	84	42	12	30
	13	11,5	M 26 x 1,5	18	84	43	12	32
	20	18,0	M 30 x 2	22	102	47	14	41
	25	22,0	M 36 x 2	28	108	55	14	46
	32	30,0	M 45 x 2	35	128	69	16	60
<b>04</b> Rohrverschraubung schwere Reihe DIN 2353 For compression fitting heavy series DIN 2353 	4	5,0	M 14 x 1,5	6				
	4	5,0	M 16 x 1,5	8	73	32	12	22
	6	6,0	M 18 x 1,5	10	73	32	12	22
	8	7,0	M 20 x 1,5	12	76	32	12	22
	10	9,0	M 22 x 1,5	14	84	35	14	27
	13	11,5	M 24 x 1,5	16	87	42	14	30
	13	11,5	M 30 x 2	20	91	43	16	32
	20	18,0	M 36 x 2	25	110	47	18	41
	25	22,0	M 42 x 2	30	120	55	20	46
32	30,0	M 52 x 2	38	140	74	22	60	

\* Max. zulässige Druckstufen (PB) entnehmen Sie bitte den Angaben der Schneidringverschraubungen.

\* Max. allowed pressure (PB) see at the date from the compression couplings.

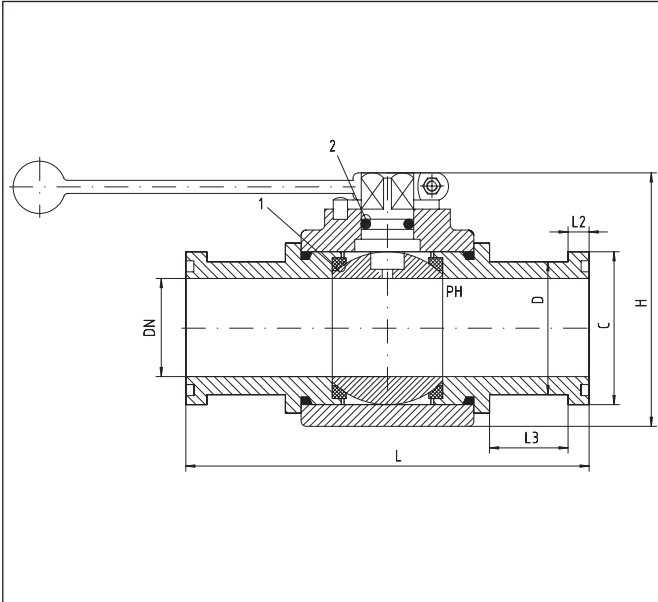
# HOCHDRUCK-FLANSCH-KUGELHÄHNE



# HIGH PRESSURE FLANGE BALL VALVES

mit Flansch nach SAE J 518 / DIN 6162  
3000 + 6000 PSI  
für SAE-Flanschhälften, Seite 2.40

with flange to SAE J 518 / DIN 6162  
3000 + 6000 PSI  
for SAE-split flange halves, page 2.40



1 = Kugeldichtung = POM  
2 = Schaltwellendichtung = NBR



1 = Ball sealing = POM  
2 = Stem sealing = NBR

Druck Pressure PB	DN	ca. Maße approx. dimensions						Bestellzeichen Order-Code
		C	D	H	L	L 2	L 3	
315	13	30,2	24	51,0	151,0	6,7	35	FKH-3000-1/2"-4423
315	20	38,1	32	73,0	162,0	6,7	35	FKH-3000-3/4"-4423
315	24	44,4	38	76,0	178,0	8,0	35	FKH-3000-1"-4423
250	32	50,8	43	105,0	190,5	8,0	35	FKH-3000-1 1/4"-4423
200	38	60,3	50	111,4	231,0	8,0	40	FKH-3000-1 1/2"-4423
200	48	71,4	62	130,0	232,0	9,5	45	FKH-3000-2"-4423
400	13	31,7	24	51,0	151,0	7,7	35	FKH-6000-1/2"-4423
400	20	41,3	32	73,0	174,0	8,8	40	FKH-6000-3/4"-4423
400	24	47,6	38	76,0	198,0	9,5	40	FKH-6000-1"-4423
400	32	54,0	44	105,0	223,0	10,3	45	FKH-6000-1 1/4"-4423
400	38	63,5	51	111,4	281,0	12,6	70	FKH-6000-1 1/2"-4423
400	48	79,4	67	130,0	316,0	12,6	80	FKH-6000-2"-4423

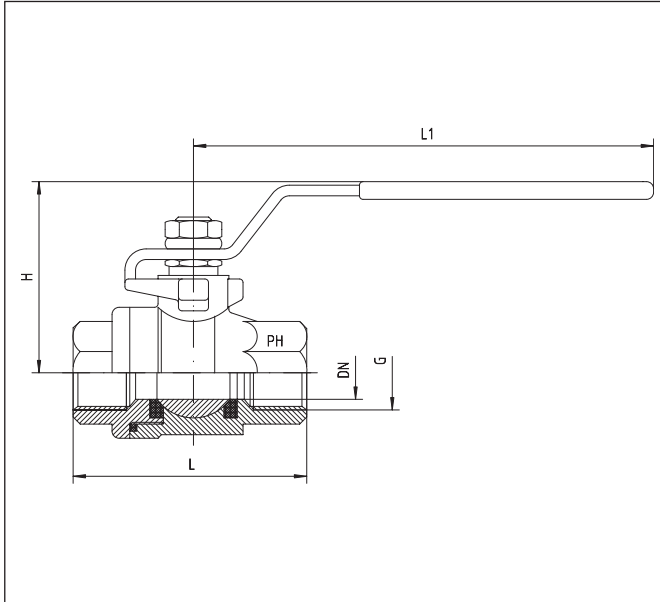
# NIEDERDRUCK-KUGELHÄHNE



# LOW PRESSURE BALL VALVES

Rohr-Innengewinde: DIN / ISO 228  
 2-teilig - 1.4408  
 volle Bohrung

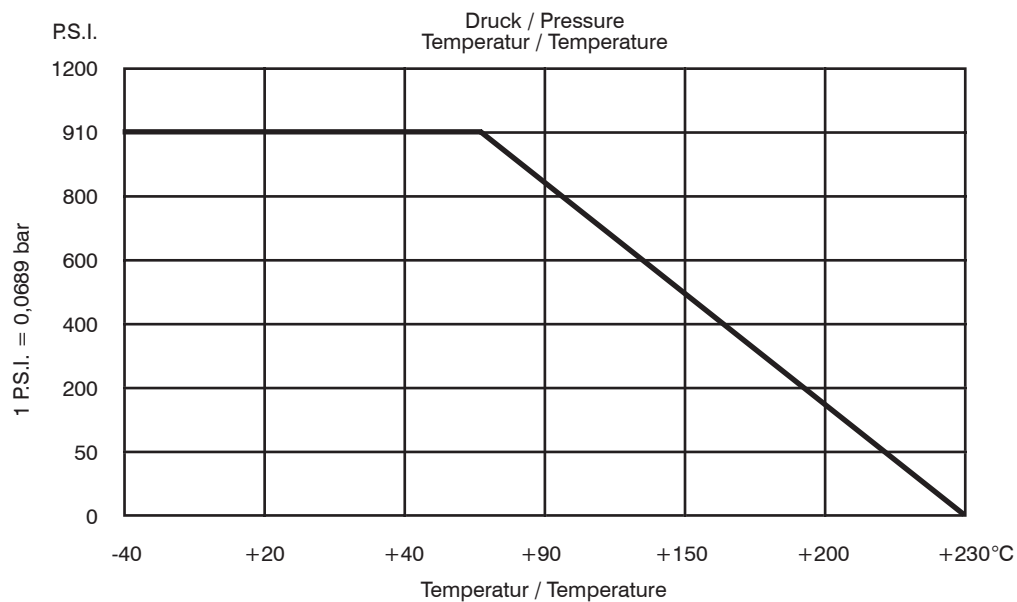
BSP female thread: DIN / ISO 228  
 2-piece - AISI 316  
 full-port



Dichtungen: Kugel + Schaltwelle = PTFE (-20°C bis +180°C)  
 Bei höheren Temperaturen beachten Sie bitte das Druck- /  
 Temperaturdiagramm.

Sealings: Ball + stem = PTFE (-20°C to +180°C)  
 At higher temperatures please note the pressure /  
 temperature diagram.

Größe Size	DN	Druck Pressure PB	ca. Maße approx. dimensions				Bestellzeichen Order-Code
			G	H	L	L1	
1/8"	8,7	63	1/8"	50	55,5	97,5	KH-G 1/8"
1/4"	11,2	63	1/4"	55	54,0	97,5	KH-G 1/4"
3/8"	12,6	63	3/8"	55	54,0	97,5	KH-G 3/8"
1/2"	16,0	63	1/2"	64	68,0	125,5	KH-G 1/2"
3/4"	20,0	63	3/4"	67	76,0	125,5	KH-G 3/4"
1"	25,0	63	1"	83	88,0	143,5	KH-G 1"
1 1/4"	32,0	63	1 1/4"	89	98,0	143,5	KH-G 1 1/4"
1 1/2"	38,1	63	1 1/2"	100	120,0	203,5	KH-G 1 1/2"
2"	50,8	63	2"	108	134,0	203,5	KH-G 2"
2 1/2"	65,0	63	2 1/2"	136	164,0	250,0	KH-G 2 1/2"
3"	70,0	63	3"	149	181,0	250,0	KH-G 3"



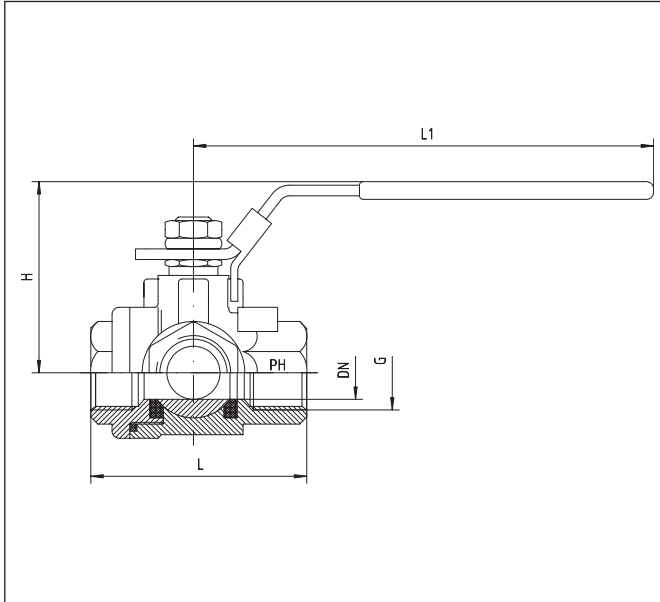
# NIEDERDRUCK-KUGELHÄHNE



# LOW PRESSURE BALL VALVES

Rohr-Innengewinde: DIN / ISO 228  
 3-Wege - 1.4408  
 L-Bohrung

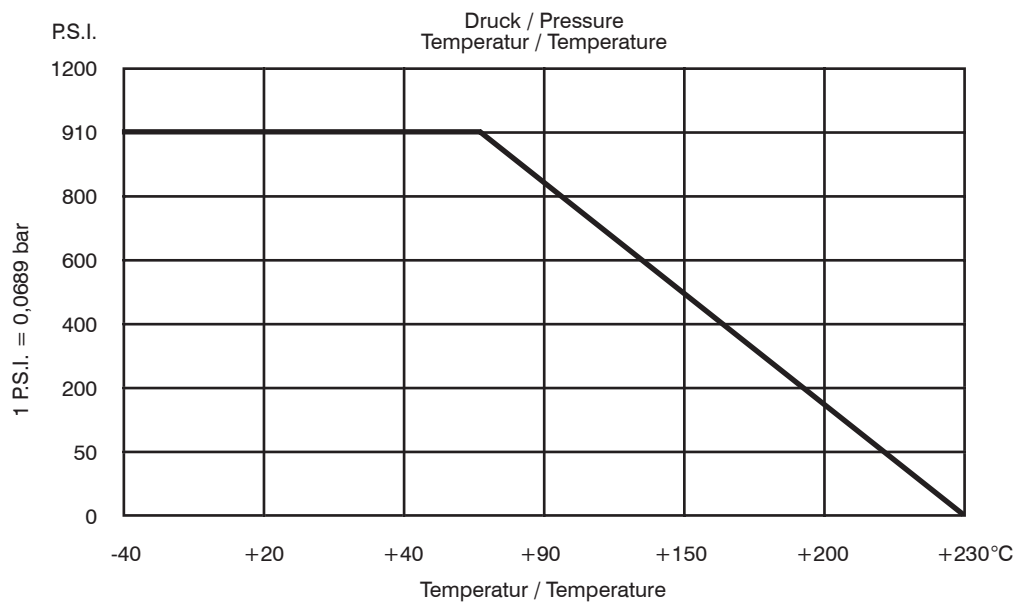
BSP female thread: DIN / ISO 228  
 3-way - AISI 316  
 L-port



Dichtungen: Kugel + Schaltwelle = PTFE (-20°C to +180°C)  
 Bei höheren Temperaturen beachten Sie bitte das Druck- /  
 Temperaturdiagramm.

Sealings: Ball + stem = PTFE (-20°C to +180°C)  
 At higher temperatures please note the pressure /  
 temperature diagram.

Größe Size	DN	Druck Pressure PB	ca. Maße approx. dimensions				Bestellzeichen Order-Code
			G	H	L	L1	
1/4"	11,2	63	1/4"	56	60	96	KH-G 1/4"-3 W-L
3/8"	11,2	63	3/8"	56	60	96	KH-G 3/8"-3 W-L
1/2"	12,7	63	1/2"	56	60	96	KH-G 1/2"-3 W-L
3/4"	16,0	63	3/4"	64	74	125	KH-G 3/4"-3 W-L
1"	20,0	63	1"	66	82	125	KH-G 1"-3 W-L
1 1/4"	25,0	63	1 1/4"	70	96	145	KH-G 1 1/4"-3 W-L
1 1/2"	32,0	63	1 1/2"	83	114	145	KH-G 1 1/2"-3 W-L
2"	38,1	63	2"	88	142	205	KH-G 2"-3 W-L



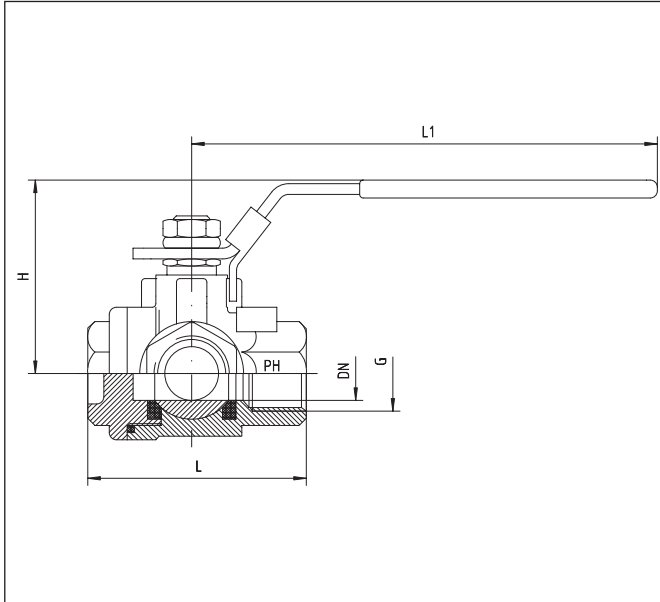
# NIEDERDRUCK-KUGELHÄHNE



# LOW PRESSURE BALL VALVES

Rohr-Innengewinde: DIN / ISO 228  
 3-Wege - 1.4408  
 T-Bohrung

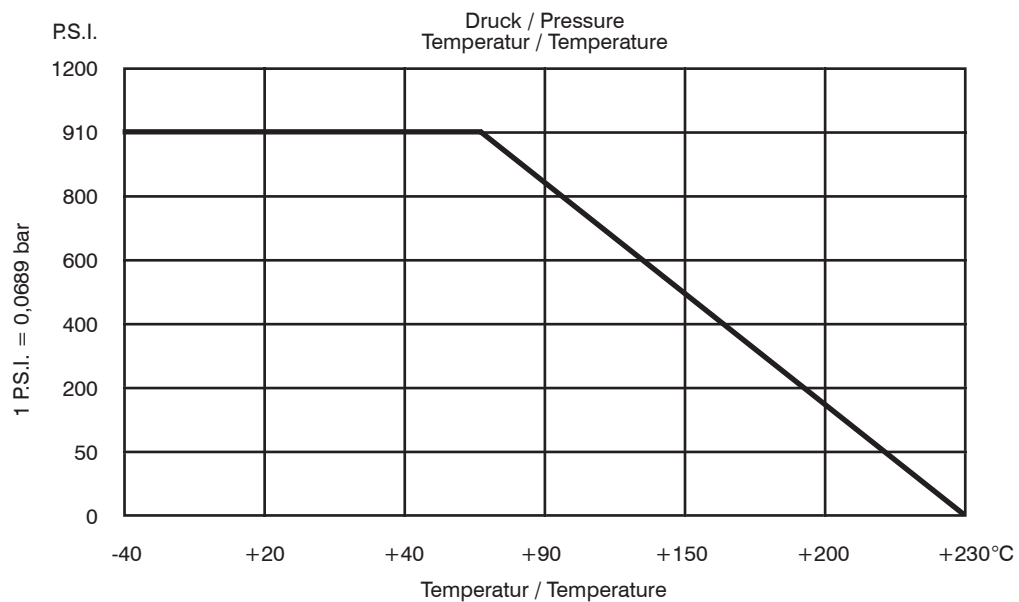
BSP female thread: DIN / ISO 228  
 3-way - AISI 316  
 T-port



Dichtungen: Kugel + Schaltwelle = PTFE (-20°C to +180°C)  
 Bei höheren Temperaturen beachten Sie bitte das Druck- /  
 Temperaturdiagramm.

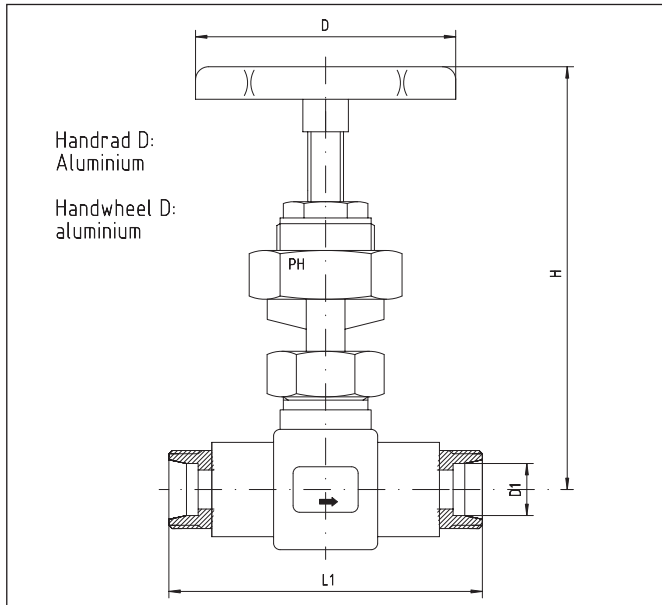
Sealings: Ball + stem = PTFE (-20°C to +180°C)  
 At higher temperatures please note the pressure /  
 temperature diagram.

Größe Size	DN	Druck Pressure PB	ca. Maße approx. dimensions				Bestellzeichen Order-Code
			G	H	L	L1	
1/4"	11,5	63	1/4"	50	75	120	KH-G 1/4"-3 W-T
3/8"	12,5	63	3/8"	50	75	120	KH-G 3/8"-3 W-T
1/2"	12,5	63	1/2"	53	75	120	KH-G 1/2"-3 W-T
3/4"	15,0	63	3/4"	64	85	125	KH-G 3/4"-3 W-T
1"	20,0	63	1"	66	100	125	KH-G 1"-3 W-T
1 1/4"	25,0	63	1 1/4"	79	115	170	KH-G 1 1/4"-3 W-T
1 1/2"	32,0	63	1 1/2"	83	125	170	KH-G 1 1/2"-3 W-T
2"	40,0	63	2"	94	150	170	KH-G 2"-3 W-T



mit außenliegender Spindel  
Anschluss mit 24° Konus für Schneidringverbindung  
DIN 2353

with external threaded spindle  
connection with 24°-cone for compression couplings  
DIN 2353



Reihe Series	Druck Pressure PB	Rohr A.D. Tube O.D. D1	Gewinde Thread G	ca. Maße approx. dimensions			Bestellzeichen Order-Code
				D	H	L 1	
S	400	6	M 14 x 1,5	125	124		HVb-S-06-OMD
S	400	8	M 16 x 1,5	125	124		HVb-S-08-OMD
S	400	10	M 18 x 1,5	125	124	80	HVb-S-10-OMD
S	400	12	M 20 x 1,5	125	124	80	HVb-S-12-OMD
S	400	14	M 22 x 1,5	125	124		HVb-S-14-OMD
S	400	16	M 24 x 1,5	125	124	100	HVb-S-16-OMD
S	400	20	M 30 x 2	125	124	100	HVb-S-20-OMD
S	400	25	M 36 x 2	125	153		HVb-S-25-OMD

**Hinweis:** Stopfbuchspackung (Graphit) vor erster Inbetriebnahme nachziehen.

**Note:** Adjust stuffing box packing (Graphit) prior to initial working period.

#### Erforderliche Druckabschläge

Temperatur	50°C	100°C	200°C	300°C	400°C
Druckabschlag	6%	15%	37%	60%	84%

#### Required pressure reductions

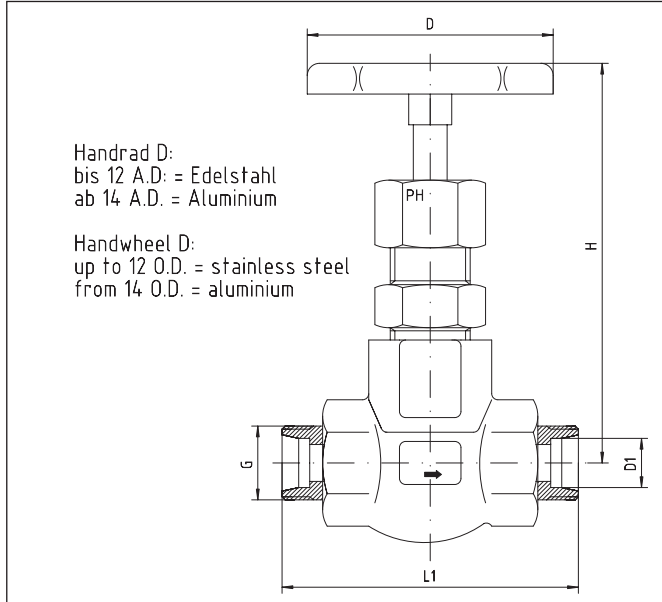
Temperature	50°C	100°C	200°C	300°C	400°C
pressure reductions	6%	15%	37%	60%	84%

Zwischenwerte sind zu interpolieren

Intermediate values are to be interpolated

mit innenliegender Spindel  
Anschluss mit 24° Konus für Schneidringverbindung  
DIN 2353

with internal threaded spindle  
connection with 24°-cone for compression couplings  
DIN 2353



Reihe Series	Druck Pressure PB	Rohr A.D. Tube O.D. D1	Gewinde Thread G	ca. Maße approx. dimensions			Bestellzeichen Order-Code
				D	H	L1	
S	630	6	M 14 x 1,5	70	85	65	HVa-S-06-OMD
S	630	8	M 16 x 1,5	70	85	65	HVa-S-08-OMD
S	630	10	M 18 x 1,5	70	85	65	HVa-S-10-OMD
S	630	12	M 20 x 1,5	70	85	65	HVa-S-12-OMD
S	630	14	M 22 x 1,5	125	110	100	HVa-S-14-OMD
S	400	16	M 24 x 1,5	125	125	100	HVa-S-16-OMD
S	400	20	M 30 x 2	125	125	100	HVa-S-20-OMD
S	400	25	M 36 x 2	125	125	100	HVa-S-25-OMD
S	250	30	M 42 x 2				HVa-S-30-OMD
S	250	38	M 52 x 2				HVa-S-38-OMD
L	315	6	M 12 x 1,5	70	85	65	HVa-L-06-OMD
L	315	8	M 14 x 1,5	70	85	65	HVa-L-08-OMD
L	315	10	M 16 x 1,5	70	85	65	HVa-L-10-OMD
L	315	12	M 18 x 1,5	70	85	65	HVa-L-12-OMD
L	315	15	M 22 x 1,5	125	125	100	HVa-L-15-OMD
L	315	18	M 26 x 1,5	125	125	130	HVa-L-18-OMD
L	160	22	M 30 x 2	125	125	130	HVa-L-22-OMD
L	160	28	M 36 x 2	125	125	130	HVa-L-28-OMD
L	160	35	M 45 x 2				HVa-L-35-OMD
L	160	42	M 52 x 2				HVa-L-42-OMD

**Hinweis:** Stopfbuchspackung (Graphit) vor erster Inbetriebnahme nachziehen.

**Note:** Adjust stuffing box packing (Graphit) prior to initial working period.

Erforderliche Druckabschläge					
Temperatur	50°C	100°C	200°C	300°C	400°C
Druckabschlag	6%	15%	37%	60%	84%

Required pressure reductions					
Temperature	50°C	100°C	200°C	300°C	400°C
pressure reductions	6%	15%	37%	60%	84%

Zwischenwerte sind zu interpolieren

Intermediate values are to be interpolated



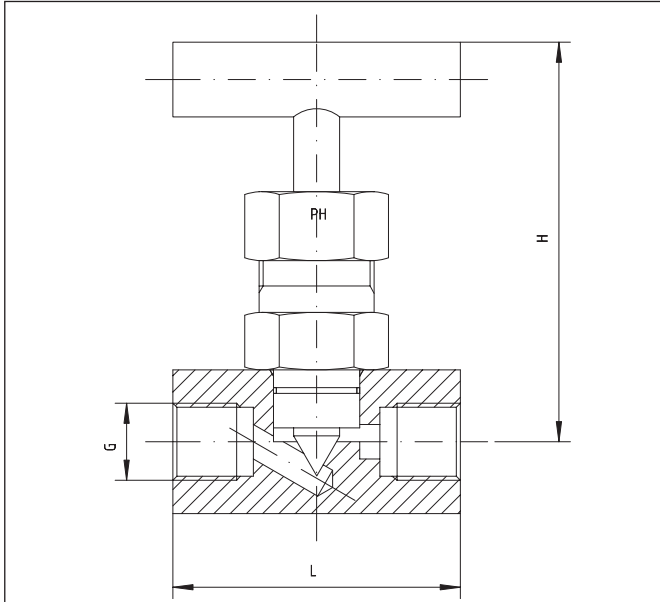
# NADELVENTILE



# NEEDLE VALVES

mit Stopfbuchspackung - PTFE  
Rohrinnengewinde DIN / ISO 228  
NPT-Innengewinde

with stuffing box packing - PTFE  
BSP female thread DIN / ISO 228  
NPT female thread



Druck Pressure PN	Gewinde Thread G	ca. Maße approx. dimensions		Bestellzeichen Order-Code
		H	L	
400	1/8" zyl	75	58,0	NV-G 1/8"-BSP
400	1/4" zyl	75	58,0	NV-G 1/4"-BSP
400	3/8" zyl	75	58,0	NV-G 3/8"-BSP
400	1/2" zyl	85	65,0	NV-G 1/2"-BSP
400	3/4" zyl	90	70,0	NV-G 3/4"-BSP
400	1" zyl	100	80,0	NV-G 1"-BSP
400	1/8" NPT			NV-1/8"-NPT
400	1/4" NPT	75	58,0	NV-1/4"-NPT
400	3/8" NPT	75	58,5	NV-3/8"-NPT
400	1/2" NPT	85	65,0	NV-1/2"-NPT
400	3/4" NPT	90	70,0	NV-3/4"-NPT
400	1" NPT	100	80,0	NV-1"-NPT

Temperatur: -20°C bis +200°C  
Temperature: -20°C up to +200°C

**Hinweis:** Stopfbuchspackung (PTFE) vor erster Inbetriebnahme nachziehen.

**Note:** Adjust stuffing box packing (PTFE) prior to initial working period.