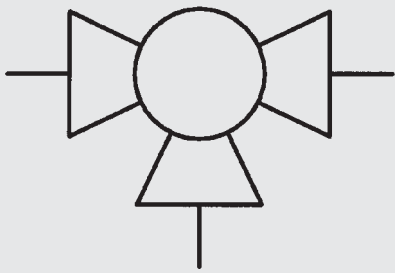


Change-over Low Pressure Ball Valves

KHN3K



up to 40 bar
up to DN 40



1. DESCRIPTION

1.1. GENERAL

According to DIN 2429, HYDAC change-over low pressure ball valves are units which shut off or divert the flow of an operating medium.

The change-over valves are available in nominal bores DN 11 - 40.

These ball valves have the following advantages:

- Visual indication of the switching position by means of a slot on the control spindle (with handle removed)
- Switching limited by means of the handle
- Adjustment of the control spindle seals possible by means of glands
- Sealing principle with ball at all ports, sealing on inlet side
- Easy operation
- Compact, space-saving construction
- Surface nickel-plated

For HYDAC change-over ball valves, see brochure no. E 5.504../..

HYDAC change-over ball valves are available in stainless steel.

On request we can supply other models to cover nearly all applications.

1.2. FUNCTION

Turning the control spindle diverts the flow according to the ball bore, and the opposite side or the other ports are shut off leakage-free. Any of the ball valve ports can be pressurised.

1.3. APPLICATION

HYDAC change-over low pressure ball valves are used to divert flow of an operating medium in hydraulic circuits or compressed air systems.

Areas of application are for example:

- Gas supply
- Water hydraulics
- Compressed air systems
- Machine tools
- System engineering

1.4. NOTES

Ball valves are not designed to be used as flow control valves; therefore they should always be either fully open or fully closed in order to avoid damaging the sealing cups.

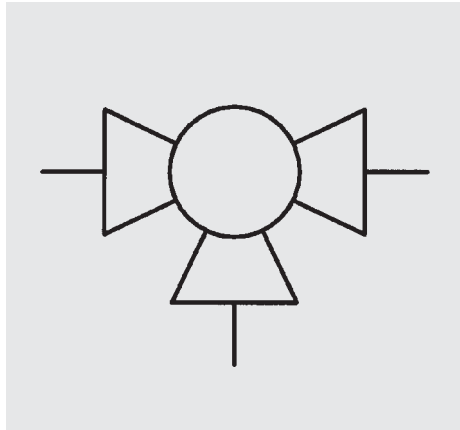
To ensure correct functioning, pressure and temperature specifications must be observed.

2. TECHNICAL SPECIFICATIONS

2.1. GENERAL

2.1.1 Designation and symbol

Change-over low pressure ball valve KHN3K



2.1.2 Model code (also order example)

KHN3K - G1/2 - L - 2233

Designation _____
KHN3K = change-over low pressure ball valve

Type of connection _____
Thread size

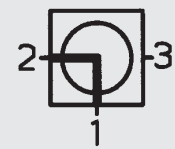
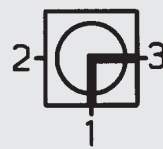
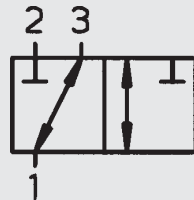
Ball bore _____
L
T

Materials _____
See point 2.1.11

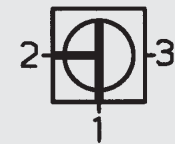
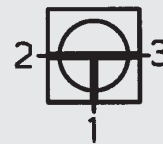
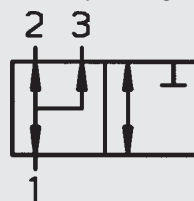
When ordering, please quote stock no. (see table 2.1.4)

2.1.3 Switching functions (as supplied)

3/2 way change-over ball valve L-bore 90° switching movement

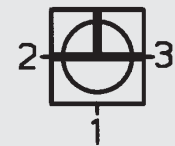
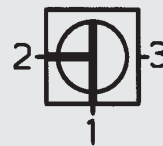
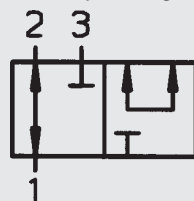


3/2 way change-over ball valve T-bore 90° switching movement

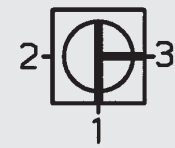
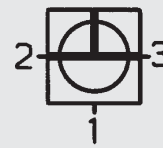
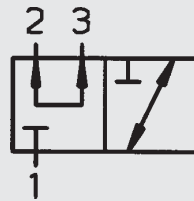


By moving the control spindle through 90°, the following switching positions can also be achieved.

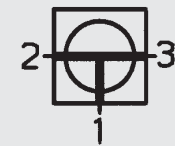
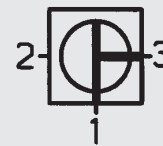
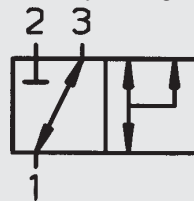
3/2 way change-over ball valve T-bore 90° switching movement



3/2 way change-over ball valve T-bore 90° switching movement



3/2 way change-over ball valve T-bore 90° switching movement



2.1.4 Standard models

Type/ thread size	Ball bore	Nominal bore DN	Nominal pressure PN [bar]	Order no. = stock no.	Weight [kg]
KHN3K – G 1/4	L	11	40	702411	0.78
KHN3K – G 3/8	L	11	40	702413	0.74
KHN3K – G 1/2	L	11	40	702415	0.77
KHN3K – G 3/4	L	15	40	702417	1.26
KHN3K – G 1	L	20	25	702419	1.91
KHN3K – G 1 1/4	L	25	16	702421	2.64
KHN3K – G 1 1/2	L	32	16	702423	4.20
KHN3K – G 2	L	40	16	702425	6.66
KHN3K – G 1/4	T	11	40	702410	0.77
KHN3K – G 3/8	T	11	40	702412	0.74
KHN3K – G 1/2	T	11	40	702414	0.77
KHN3K – G 3/4	T	15	40	702416	1.25
KHN3K – G 1	T	20	25	702418	1.89
KHN3K – G 1 1/4	T	25	16	702420	2.56
KHN3K – G 1 1/2	T	32	16	702422	4.11
KHN3K – G 2	T	40	16	702424	6.55

2.1.5 Type of construction

The shut-off and/or diverting device is a ball.

2.1.6 Type of connection

Whitworth internal thread to ISO 228

2.1.7 Mounting position

Optional

2.1.8 Weight

See table 2.1.4

2.1.9 Flow direction

Optional

2.1.10 Ambient temperature

-20 °C to +150 °C

2.1.11 Materials

2 =Housing, connection adaptors and control spindle in brass, nickel-plated

2 =Control ball in brass, hard chromed

3 =Ball seal in Teflon (PTFE)

3 =Control spindle seal in Teflon (PTFE)

Cranked handle in aluminium

2.2. HYDRAULIC DETAILS

2.2.1 Nominal pressure

PN 16 bar to PN 40 bar (see table 2.1.4)

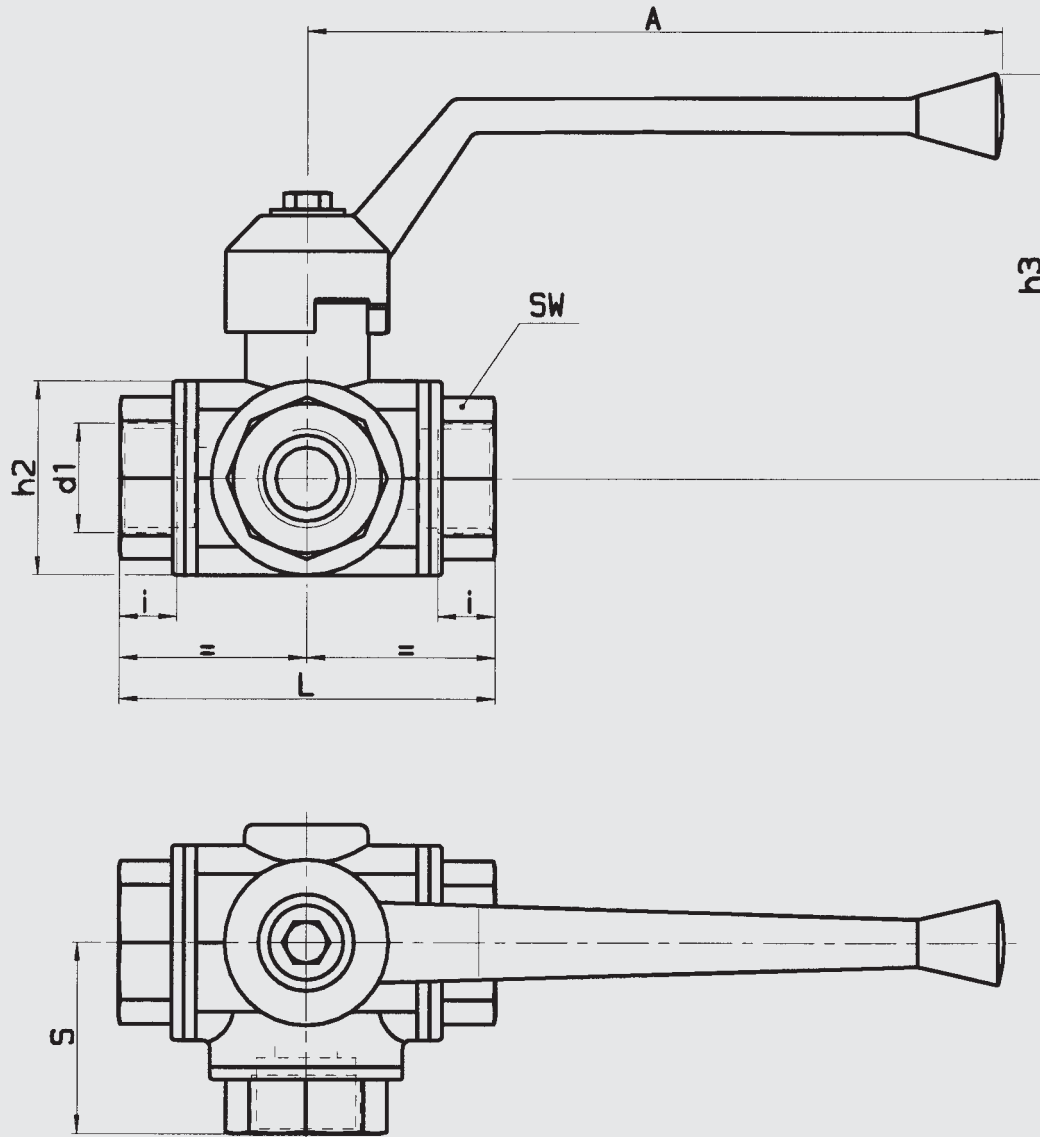
2.2.2 Operating media

Mineral oil to DIN 51524, Part 1 and Part 2, water and compressed air (other media on request)

2.2.3 Temperature of media

-20 °C to +150 °C

3. DIMENSIONS



Type of ball valve	Ball bore	Nominal bore DN	h2	i	S	L	h3	A	SW
KHN3K – G 1/4	L, T	11	39	12.5	40.5	81.0	79.5	134	22
KHN3K – G 3/8	L, T	11	39	12.5	40.5	81.0	79.5	134	22
KHN3K – G 1/2	L, T	11	39	14.0	40.5	81.0	79.5	134	31
KHN3K – G 3/4	L, T	15	47	14.0	46.0	92.0	97.5	170	34
KHN3K – G 1	L, T	20	54	17.0	53.5	106.5	106.0	205	41
KHN3K – G 1 1/4	L, T	25	66	19.0	59.0	118.0	111.0	205	50
KHN3K – G 1 1/2	L, T	32	80	23.0	70.5	141.0	117.0	205	57
KHN3K – G 2	L, T	40	95	27.0	82.0	163.5	133.5	260	70

4. NOTE

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.