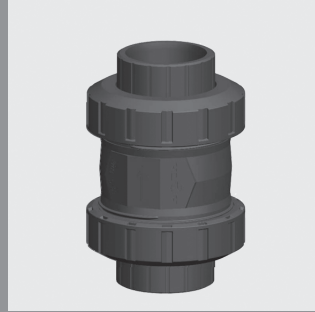


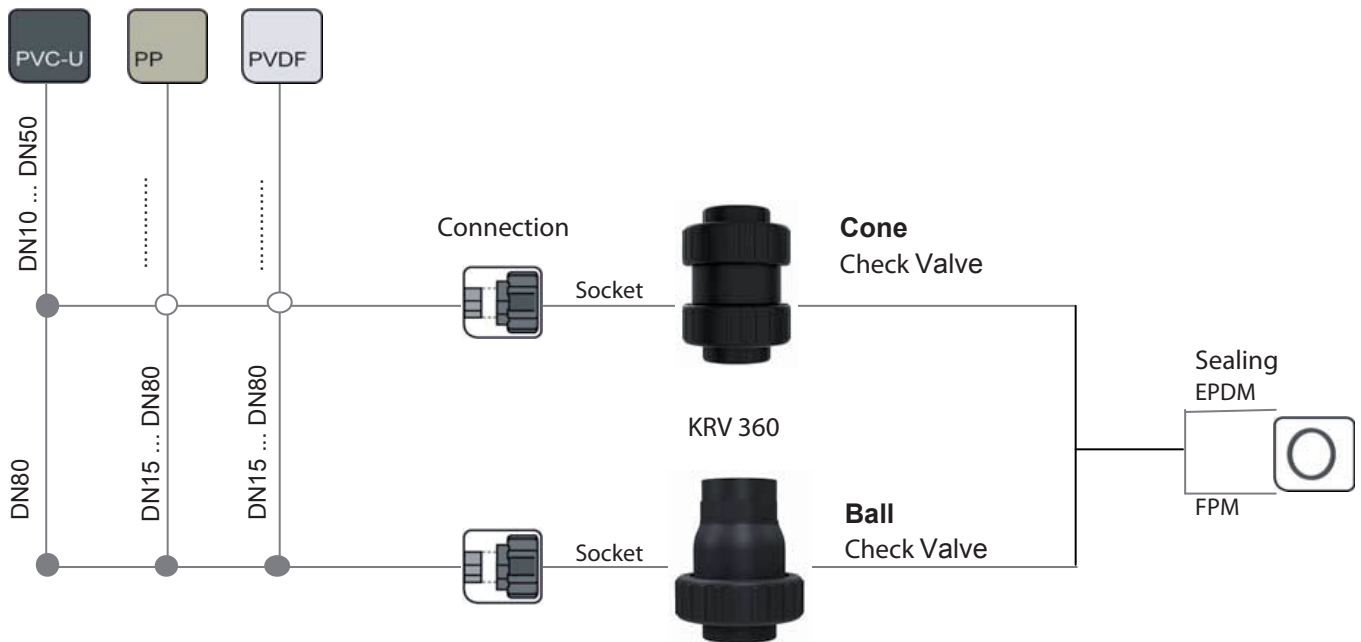
Cone- and Ball Check Valve KRV 360



page 2 - 7

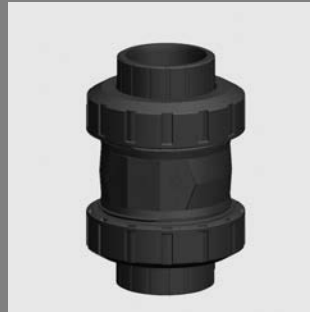
page 8 - 15

Material



Cone check valves KRV 360

standard without Spring



Advantage

- hermetically sealed at low working pressures
- optimized check cone, for less flow resistance
- alignment guide prevents sticking

Application

- chemical plants
- industrial plants
- water treatment
- electroplating plants

Intended Use

- for regulation of a prescribed flow direction - backflow preventer

Flow Media

- Neutral and aggressive fluid or gaseous media free of solid particles, provided that the valve components coming into contact with the media are resistant at the operating temperature in accordance with the ASV-resistance guide.

Nominal Pressure (H₂O, 20°C)

- PN 16

Fluid Temperature

- see pressure-/temperature diagram

Operating Pressure

- see pressure-/temperature diagram

Size

- DN 10 - DN 50

Body

- PVC-U

Cone

- PVC-U

Sealing

- FPM
- EPDM

Actuation

- medium controlled

Connection

- union featuring a connection thread suitable for plastic materials
- union socket end for solvent welding DIN ISO (PVC-U)

Mounting Position

- vertical, please note the direction of the arrow on the valve housing

Flow Direction

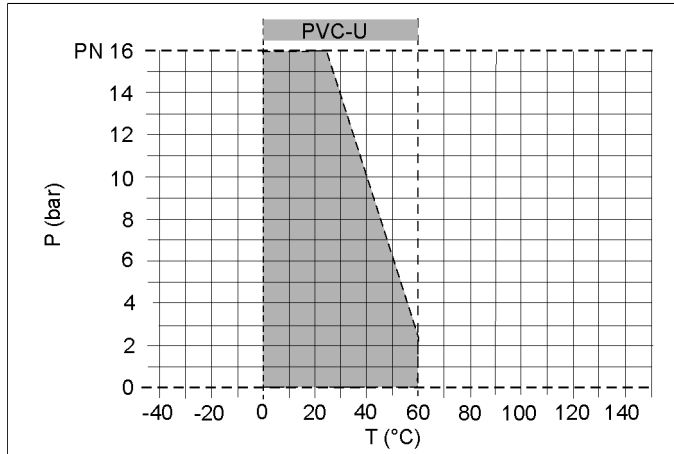
- always in the direction of the arrow

Colour

- body: PVC-U, grey, RAL 7011

Non-return valves, Cone check valves KRV 360

Pressure/temperature diagram



P = operating pressure

T = temperature

The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years. These are standard values for harmless media (DIN 2403), to which the valve material is resistant.

For other media please refer to the ASV resistance guide.

The durability of wear parts depends on the operating conditions of the application.

For temperatures below 0°C (PP < +10°C) please specify the precise operating conditions of the application.

The rated pressure depends on the valve size and material. For the corresponding rated pressure value of the valve, please refer to the »Order table«.

Opening and Closing pressure

d	Pö	Pv	Qv	Vmin	Ps1	Ps2
(mm)	(bar)	(bar)	(l/min)	(m/s)	(bar)	(bar)
16	0,003	0,01	8	0,7	0,2	0,1
20	0,003	0,01	9	0,7	0,2	0,1
25	0,003	0,01	13	0,7	0,2	0,1
32	0,005	0,01	18	0,8	0,2	0,1
40	0,005	0,01	35	0,8	0,2	0,1
50	0,01	0,01	70	0,8	0,2	0,1
63	0,02	0,01	100	0,8	0,2	0,1

$Pö$ = differential pressure to lift the cone (vertical, without spring)

Pv = difference for full-lift of cone (vertical, without spring)

Qv = flow for full-lift of cone (vertical, without spring)

$Vmin$ = min. flow velocity for full-lift (vertical, without spring)

$Ps1$ = close pressure tight (without spring)

$Ps2$ = close pressure tight (with spring)

kv100 Value

d (mm)	DN (mm)	DN (inch)	kv 100 (l/min)
16	10	3/4	190
20	15	1/2	190
25	20	3/8	380
32	25	1	460
40	32	1 1/4	850
50	40	1 1/2	1080
63	50	2	1670

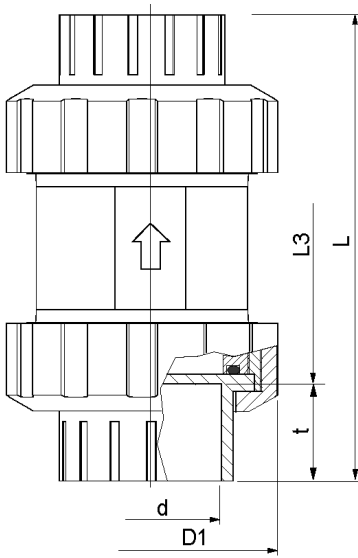
Non-return valves, Cone check valves KRV 360



body PVC-U

<i>size</i>	d(mm)	16	20	25	32	40	50	63
	<i>pressure range</i>	10	15	20	25	32	40	50
	DN(mm)							
	DN(inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
	PN(bar)	16	16	16	16	16	16	16
<i>Connection</i>	<i>sealing</i>	<i>ident No.</i>						
	PVC-U							
socket end DIN ISO	EPDM	143451	143452	143453	143454	143455	143456	143457
	FPM	143458	143459	143460	143461	143462	143463	143464
	<i>weight</i>	0.12 kg	0.13 kg	0.25 kg	0.29 kg	0.51 kg	0.75 kg	1.33 kg

Non-return valves, Cone check valves KRV 360

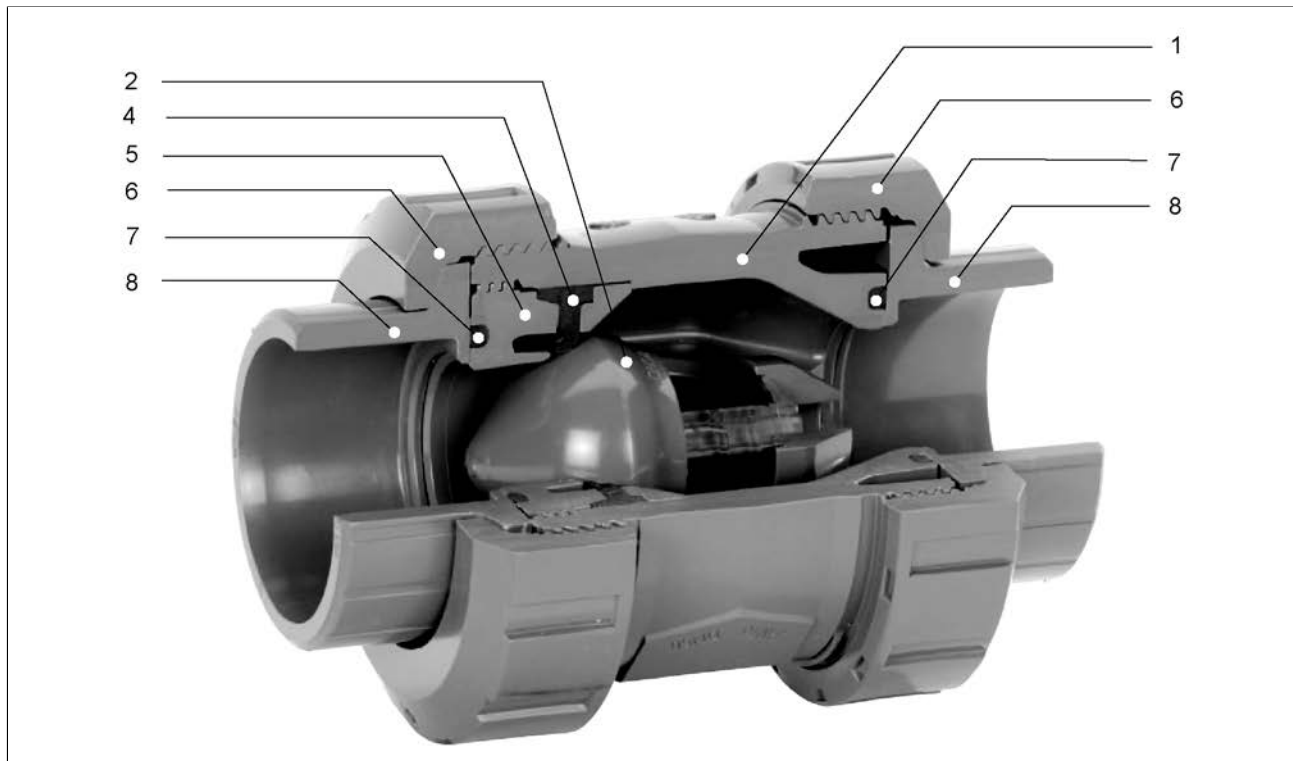


dimensions

d(mm)	16	20	25	32	40	50	63
DN(mm)	10	15	20	25	32	40	50
DN(inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
dimensions(mm)							
D1	50	50	58	68	84	97	124
L	92	95	110	123	146	157	183
L3	64	64	72	79	94	95	107
t	14	16	19	22	26	31	38

Non-return valves, Cone check valves KRV 360

Item Overview



position	quantity	designation
1	1	housing/body
2	1	cone
4	1	sealing
5	1	union threaded neck
6	2	union nut
7	2	O-ring
8	2	union end

Non-return valves, Cone check valves KRV 360

Ball check valve KRV 360



Advantage

- corrosion resistant
- maintenance-free
- metal-free
- hermetically sealed at low working pressures

Application

- chemical plants
- industrial plants
- water treatment

Intended Use

- for regulation of a prescribed flow direction - backflow preventer

Flow Media

- Neutral and aggressive fluid or gaseous media free of solid particles, provided that the valve components coming into contact with the media are resistant at the operating temperature in accordance with the ASV-resistance guide.

Testing

- Requirements and testing according to DIN 3441, 3442, 8063 and 16962.

Nominal Pressure (H₂O, 20°C)

- PN 5 - PN 10

Fluid Temperature

- see pressure-/temperature diagram

Operating Pressure

- see pressure-/temperature diagram

Size

- DN 15 - DN 100

Body

- PVC-U
- PP
- PVDF

Ball

- PVC-U
- PP
- PVDF

Attention

- Take the low density of the PP ball into consideration. Media with a higher density than PP cause the ball to float. Use balls made of PVDF, if necessary.

Sealing

- FPM
- EPDM

Actuation

- medium controlled

Connection

- socket end for solvent welding DIN ISO (PVC-U, PVC-C)
- fusion socket end DIN ISO (PP, PVDF)

Mounting Position

- vertical

Flow Direction

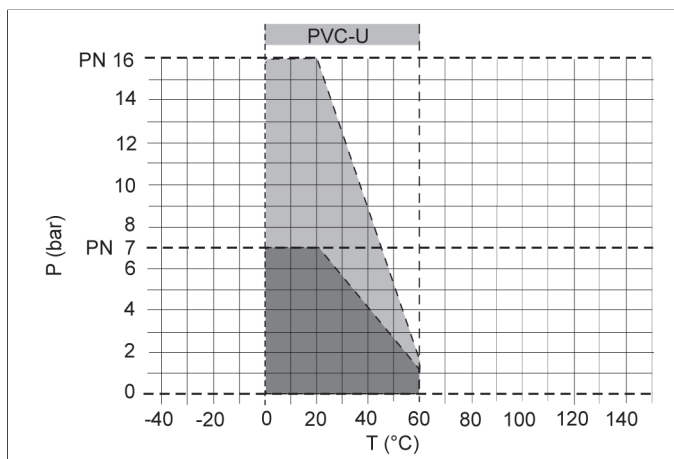
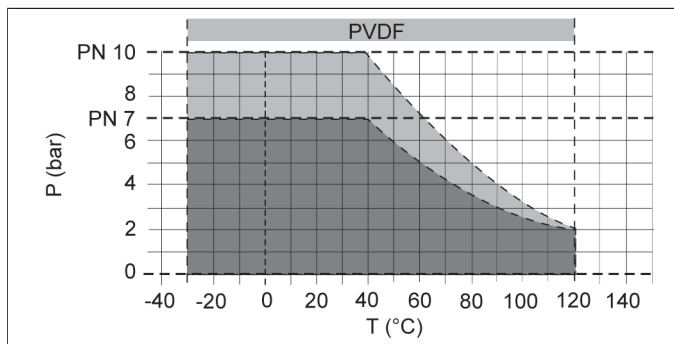
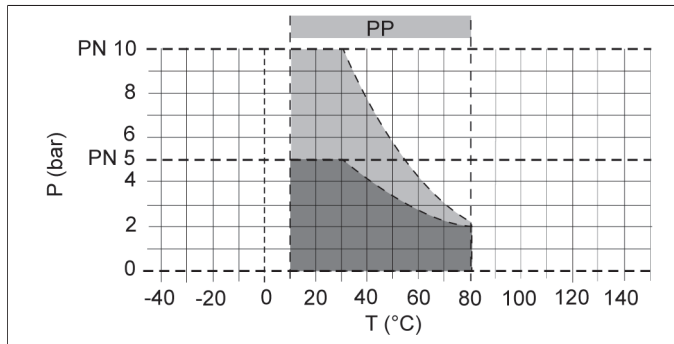
- from bottom to top

Colour

- body: PVC-U, grey, RAL 7011
- body: PP, grey, RAL 7032
- body: PVDF, opaque, yellowish-white

Ball check valve KRV 360

Pressure/temperature diagram



P = operating pressure

T = temperature

The pressure/temperature limits are applicable for the stated nominal pressures and a computed operating life factor of 25 years. These are standard values for harmless media (DIN 2403), to which the valve material is resistant.

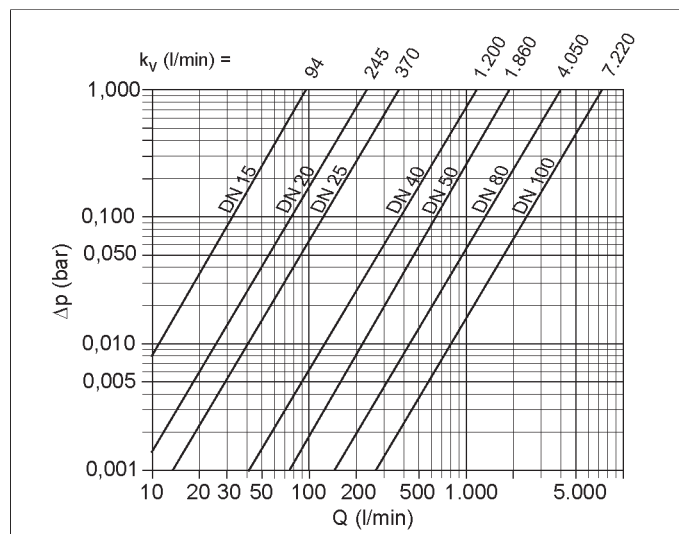
For other media please refer to the ASV resistance guide.

The durability of wear parts depends on the operating conditions of the application.

For temperatures below 0°C (PP < +10°C) please specify the precise operating conditions of the application.

The rated pressure depends on the valve size and material. For the corresponding rated pressure value of the valve, please refer to the »Order table«.

Pressure loss curve (standard values for H₂O, 20°C)



ΔP = pressure loss

Q = flow

pressure loss and *k_v* value

The diagram shows the pressure loss ΔP in relation to the flow *Q*.

Conversion aid:

$$c_v = k_v \times 0.07; f_v = k_v \times 0.0585$$

Units:

k_v [l/min]; *c_v* [gal/min] US; *f_v* [gal/min] GB

KRV 360: Opening pressure/Closing pressure (mbar)

d (mm)	20	25	32	40	50	63	90	110
pö (mbar)	50	50	50	-	100	100	100	100
ps (mbar) PVC	-	-	-	-	-	-	300	300
ps (mbar) PP/PVDF	200	200	300	-	300	300	300	300

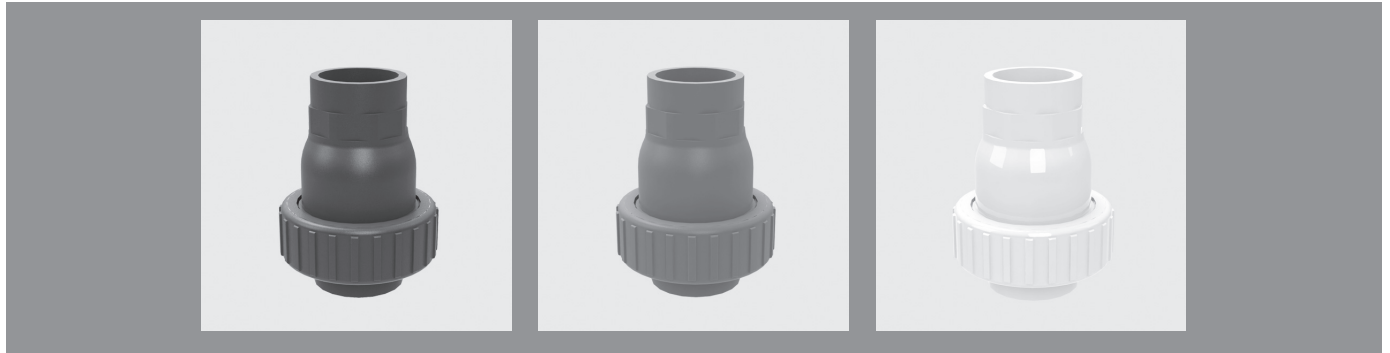
pö = Opening pressure

ps = Closing pressure

Operating note

Safe operation of the valve can only be ensured if it is properly installed, operated, serviced or repaired by qualified personnel according to its intended use while observing the accident prevention regulations, safety regulations, relevant standards, directives/technical regulations or codes of practice such as e.g. DIN, DIN EN, DIN ISO and DVS*. *DVS = German Welding Society. The intended use includes adhering to specified limit values for pressure and temperature, as well as checking the resistance. This requires all components coming into contact with the medium to be "resistant" in accordance with the ASV resistance guide.

Ball check valve KRV 360, [d16 - d63]



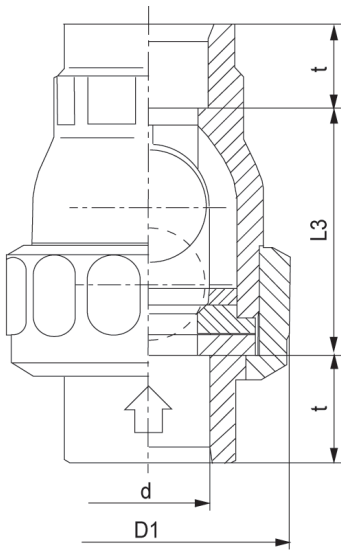
body PP

<i>size</i>	d(mm)		20	25	32	50	63
	<i>pressure range</i>	DN(mm)	15	20	25	40	50
		DN(inch)	1/2	3/4	1	1 1/2	2
		PN(bar)	10	10	10	10	10
<i>Connection</i>	<i>sealing</i>	<i>ident No.</i>					
	PP	EPDM	48070	48046	48071	48072	48073
socket end DIN ISO		FPM	41149	41150	41151	48075	41499
		<i>weight</i>	0.06 kg	0.10 kg	0.15 kg	0.35 kg	0.50 kg

body PVDF

<i>size</i>	d(mm)		20	25	32	50	63
	<i>pressure range</i>	DN(mm)	15	20	25	40	50
		DN(inch)	1/2	3/4	1	1 1/2	2
		PN(bar)	10	10	10	10	10
<i>Connection</i>	<i>sealing</i>	<i>ident No.</i>					
	PVDF	FPM	64865	62343	61345	62344	61346
socket end DIN ISO		<i>weight</i>	0.12 kg	0.20 kg	0.30 kg	0.75 kg	1.00 kg

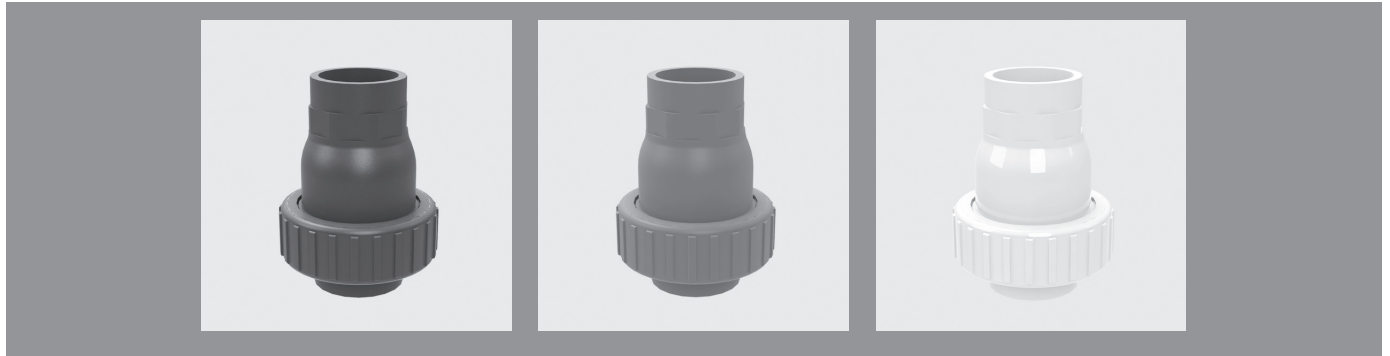
Ball check valve KRV 360, [d16 - d63]



dimensions

d(mm)	20	25	32	50	63
DN(mm)	15	20	25	40	50
DN(inch)	1/2	3/4	1	1 1/2	2
dimensions(mm)					
D1	48	60	70	95	106
L3	50	59	63	90	107
t	16	19	22	31	38

Ball check valve KRV 360, [d90 - d110]



body PVC-U

<i>size</i>	d(mm)		90	110
	<i>pressure range</i>	DN(mm)	80	100
		DN(inch)	3	4
		PN(bar)	7	7
<i>Connection</i>	<i>sealing</i>	<i>ident No.</i>		
	PVC-U	EPDM	43932	120986
socket end DIN ISO		FPM	59034	128756
		<i>weight</i>	2.80 kg	7.20 kg

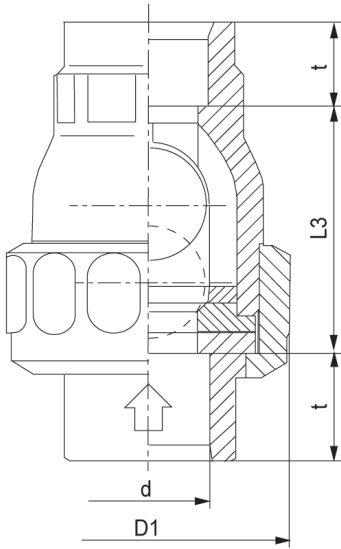
body PP

<i>size</i>	d(mm)		90	110
	<i>pressure range</i>	DN(mm)	80	100
		DN(inch)	3	4
		PN(bar)	5	5
<i>Connection</i>	<i>sealing</i>	<i>ident No.</i>		
	PP	EPDM	48074	114725
socket end DIN ISO		FPM	41505	128757
		<i>weight</i>	1.60 kg	4.00 kg

body PVDF

<i>size</i>	d(mm)		90	
	<i>pressure range</i>	DN(mm)	80	
		DN(inch)	3	
		PN(bar)	7	
<i>Connection</i>	<i>sealing</i>	<i>ident No.</i>		
	PVDF	FPM		62345
socket end DIN ISO		<i>weight</i>		2.80 kg

Ball check valve KRV 360, [d90 - d110]

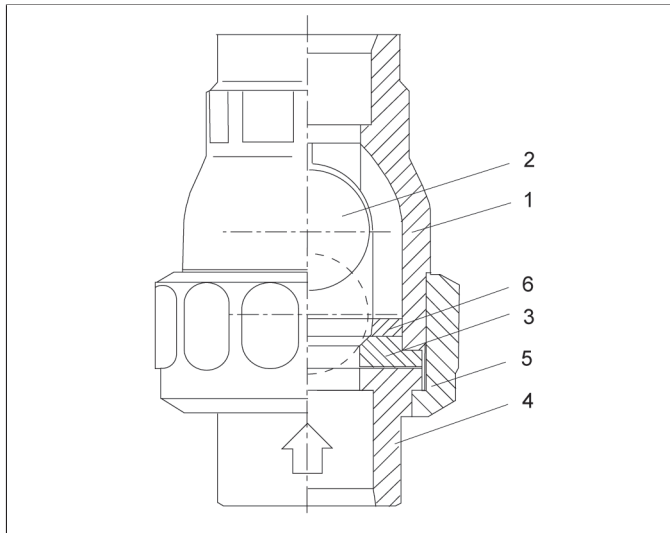


dimensions

d(mm)	90	110
DN(mm)	80	100
DN(inch)	3	4
dimensions(mm)		
D1	152	210
L3	150	209
t	51	61

Ball check valve KRV 360

Item Overview



position	quantity	designation
1	1	housing/body
2	1	ball
3	1	ball seat
4	1	union end
5	1	union nut
6	1	pressure disc
7	1	O-ring

Ball check valve KRV 360