

## 3-WAY BALL VALVE WITH MOUNTING FLANGE FOR AUTOMATION



## Description:

- 4-pieces body construction
- full passageway
- 4 seat sealing
- NKC65: L-bore  
NKD65: T-bore
- female thread acc. to EN 10226
- blow out safe, spindle mounted from inside
- top flange acc. to EN ISO 5211
- any installation position
- maintenance-free by self-adjusting triple sealing for the spindle

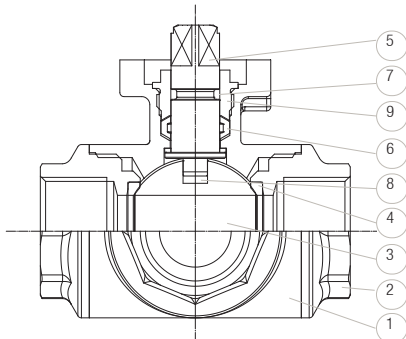
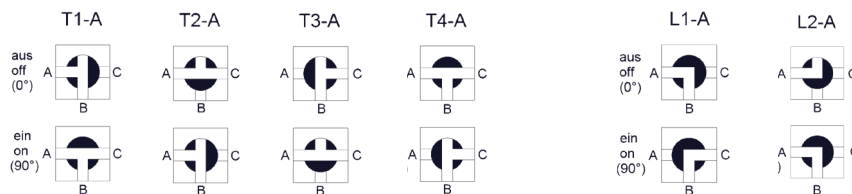
## Range of application:

- heavy-weight design for applications in rugged environment
- with mounting flange acc. to DIN ISO 5211 for direct mounting
- working pressure PN25 up to PN40 (see pressure temperature diagram)
- temperature range: -20°C up to +150°C (see pressure temperature diagram)
- hot and cold water, compressed air, oils, not corrosive liquids, hydrocarbon

## Comments:

**Threads according to EN 10226:** It describes the threaded connection of a conical male thread (R) with a parallel female thread (Rp).

**L-bore/T-bore:** Different switch positions are possible, please specify with your order. The ball position is marked on the spindle! T=T-bore, L=L-bore, A=automation



pos.	part	standard material		optional material
1	body	CW617N nickel plated	E	-
2	connector	CW617N nickel plated		-
3	ball	CW614N chromium-plated	F	-
4	seat sealing	PTFE	T	-
5	spindle	CW614N nickel plated		-
6	sealing for spindle	PTFE	T	-
7	o-ring	HNBR		-
8	sealing	PTFE		-
9	gland	CW614N		-

## options:

- SV: spindle extension
- EB: relief well
- OF: free of oil and grease
- SF: free of silicone
- HS: steel hand lever
- PS: positioning indicator

For details see data sheet "MCM2" (mechanical), "MCN2" (inductive, with ATEX 94/9/EC) and "MCS2" (inductive). Other types on request.

## For electric actuated valves only:

- AP: accumulator security pack
- PT: potentiometer
- PO: positioning system

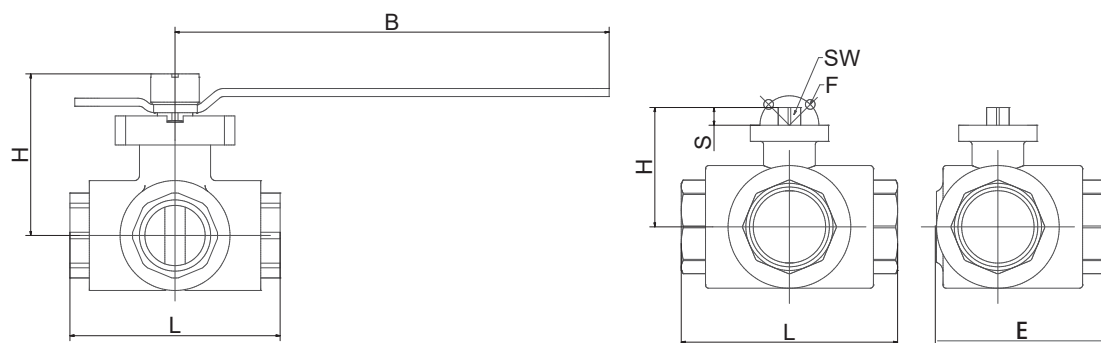
## For pneumatic actuated valves only:

- SD: sound absorber
- AD: exhaust air regulator
- PV: pilot valve

For details see data sheet "GMV3197", "GMV3163" (3/2 way) and "MVA01" (5/2 way). Other types on request.

An overview of the complete material code you can find at the beginning of each product section of the product catalogue.

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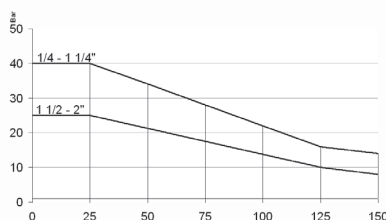


match code	size [inch]	no-minal pressure	no-minal size [mm]	L [mm]	H [mm]		E [mm]	B [mm]	thread depth [mm]	F [mm]	SW* [mm]	S [mm]	CV** [m³/h]	breakaway torque*** [Nm]	weight [kg]	
					free spindle	hand lever									NKC65	NKC65
NKx65-02ETFT	1/4	PN40	8	64.5	47	52	49.5	135	15	F03	9	9	5.9	5	0.53	0.52
NKx65-03ETFT	3/8	PN40	10	64.5	47	52	49.5	135	15	F03	9	9	9.4	5	0.50	0.46
NKx65-04ETFT	1/2	PN40	14.1	64.5	47	52	49.5	135	15	F03	9	9	17	5	0.46	0.46
NKx65-05ETFT	3/4	PN40	17.6	76	51	56	59.6	135	16.3	F03	9	9	41	6.5	0.72	0.70
NKx65-06ETFT	1	PN40	25	97	55.5	60.5	74.5	135	19.1	F03+F04	9	9	70	9.5	1.29	1.25
NKx65-07ETFT	1 1/4	PN40	32	118	72.5	77.5	95.5	156	21.4	F04+F05	11	11	121	15	2.99	2.93
NKx65-08ETFT	1 1/2	PN25	40	135	74.5	79.5	105	156	21.4	F04+F05	11	11	200	20	3.26	3.19
NKx65-09ETFT	2	PN25	50	157	88	93	121.5	192	25.7	F05	11	14	292	30	4.47	4.32

\* Spindle as square (standard).

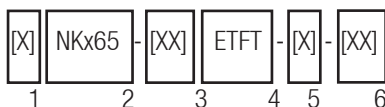
\*\*CV value: The nominal flow rate CVs acc. to VDI/VDE 2173 shows the water quantity in cubic meter per hour with the valve fully opened,  $\Delta p=1$  and the water temperature between 5°C and 30°C.

\*\*\*Breakaway torque: all data is determined with water at max  $\Delta p$  and normal ambient temperature. Multiplier for frictional media is 1.3. If your configuration has special sealing material or your application has critical media consultation is obligatory.



### Pressure temperature diagram

The pressure temperature diagram refers to the ball valve of this type. For the actuated units the actuator limits the permissible pressure range to the operating pressure as indicated above, as long as this is lower than the pressure range of the ball valve. If your application has strong temperature variations, you may need additional options like a relief well, to meet the figures. Please tell us your temperature variations with your order.



### Order information:

#### 1: automation:

- no specification: free spindle / manually operated
- D: pneumatic double acting
- S: pneumatic single acting
- E: electric actuated

#### 2: type:

- NKC65 (L-bore)
- NKD65 (T-bore)

#### 3: connection size: 02-09 (see table)

#### 4: materials:

- 1. digit: body material (brass nickel plated)
- 2. digit: sealing for spindle (PTFE)
- 3. digit: ball material (brass chromium-plated)
- 4. digit: seat sealing (PTFE)

#### 5: actuator:

- no specification: free spindle / manually operated (consider option -HS for steel hand lever)
- automated: see column "actuator"

#### 6: options (see "options")

Please ask for field specifications that are not listed in this data sheet.

Before installation please consider the installation and maintenance manual, especially the safety indications!

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## DNKC65 / DNKD65 / SNKC65 / SNKD65

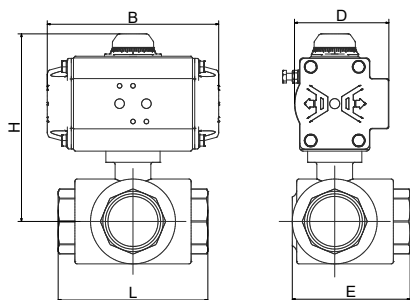
High quality pneumatic actuator made of alloy with air connection according to NAMUR and positioning indicator. The actuator works with the rack/bevel method. For further details see the technical data sheet "DR/SC".

Types double acting (the actuator opens and closes with compressed air) and single acting (the actuator opens with compressed air and closes with spring pressure).

The actuators are configured for use with fluid, gas and antifriction medium. **For critical media it is strictly recommended to inform us!**

## Description:

- working pressure: 0 - 16 bar
- medium temperature: -20°C up to +100°C (at max. ambient temperature 40°C)
- pilot pressure: 6 - 8 bar



**Attention!** To avoid corrosion inside the spring chamber for single acting actuators caused by aggressive ambient air we recommend pilot valves with integrated air recirculation.

match code	double acting: DNKx65					single acting: SNKx65				
	actuator	H [mm]	B [mm]	D [mm]	weight [kg]	actuator	H [mm]	B [mm]	D [mm]	weight [kg]
xNKx65-02ETFT-	DR010	124	118	62	1.3	SC015-G	127	136	72	1.7
xNKx65-03ETFT-	DR010	124	118	62	1.3	SC015-G	127	136	72	1.7
xNKx65-04ETFT-	DR010	124	118	62	1.3	SC015-G	127	136	72	1.7
xNKx65-05ETFT-	DR010	127	118	62	1.5	SC015-I	131	136	72	1.8
xNKx65-06ETFT-	DR010	132.5	118	62	2.0	SC030-G	151.5	153.5	84.5	3.0
xNKx65-07ETFT-	DR015	150.5	136	72	4.0	SC060-G	183.5	203.5	93	6.0
xNKx65-08ETFT-	DR030	168.5	153.5	84.5	4.8	SC060-I	185.5	203.5	93	6.3
xNKx65-09ETFT-	DR060	196	203.5	93	7.1	SC100-G	209	241	106	8.7

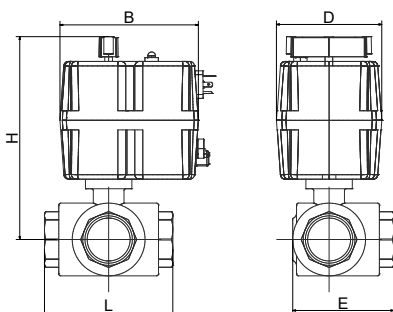


## ENKA27

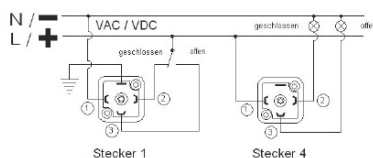
High-quality electric actuator in compact design with a body made of high-strength plastics. It has a high-performance motor and a gear drive made of metal. A central control room heater and an electronic torque limiter are equipped as standard. For further details see the technical data sheet "J".

## Description:

- working pressure: 0 - 16 bar
- medium temperature: -20°C up to +70°C (at max. ambient temperature of 40°C)



match code	actuator	H [mm]	B [mm]	D [mm]	weight [kg]
ENKx65-02ETFT-	J210-	164.5	169	104	1.3
ENKx65-03ETFT-	J210-	164.5	169	104	1.3
ENKx65-04ETFT-	J210-	164.5	169	104	1.2
ENKx65-05ETFT-	J210-	168.5	169	104	1.5
ENKx65-06ETFT-	J210-	173	169	104	2.0
ENKx65-07ETFT-	J420-	210.5	177	110	4.4
ENKx65-08ETFT-	J420-	212.5	177	110	4.6
ENKx65-09ETFT-	J435-	245	177	110	6.1

AC/DC Beschaltung  
(3 Draht):

## connection voltage type:

- 19: 24V AC/DC up to 240V AC/ DC
- other voltages on request