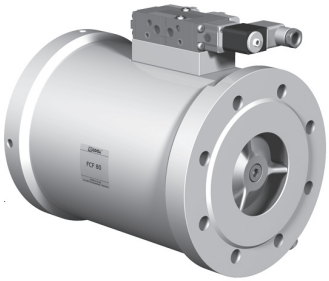
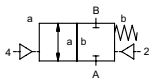
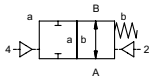
coaxial valve
type FCF 80

5-FCF 80

valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 80 mm	
connection	flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

design	pressure balanced, with spring return	
body materials	⓪ aluminium	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, PU	PTFE, FPM, PE

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	FCF	flanges PN 16/40	
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	133,0	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request (max. 16 bar)
switching cycles	1/min	50	
switching time	ms	opening 350-3000 closing 350-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			inductive
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF 14,5	
additional equipment		sensor / manometer connection G 1/4	

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

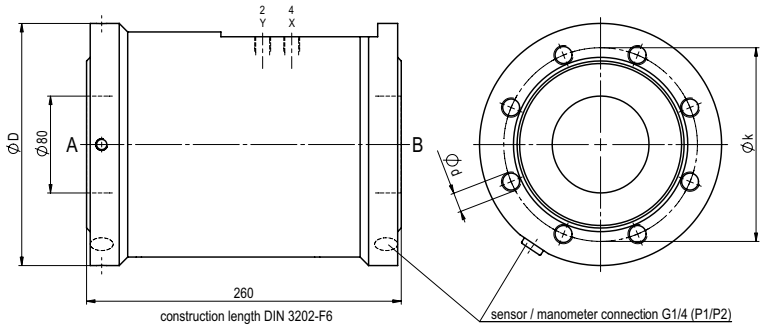
pneumatic specifications			**options**
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	100	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
pilot valve interface		NAMUR VDI / VDE 3845	ISO 1 DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications			**options**
actuation pressure range	bar	30-60	
by media			
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **FCF 80**

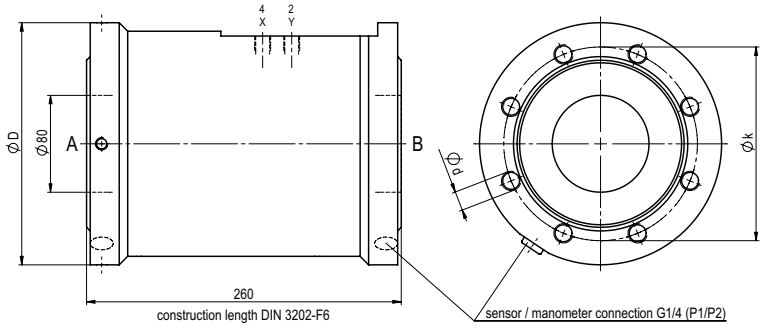
function: **NC**
closed when not energized



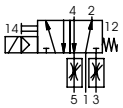
flanges PN	DIN	øD	øk	ød
16	2633	200	160	M16
40	2635	200	160	M16

type **FCF 80**

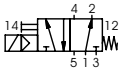
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

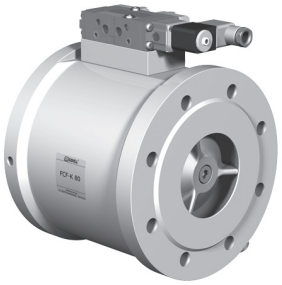


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

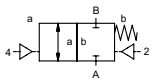
coaxial valve
type FCF-K 80

5-FCF-K 80

valve type with pilot valve



2/2 way valve	**externally controlled**
pressure range	PN 0-40 bar
orifice	DN 80 mm
connection	flange
function	valve normally closed symbol **NC**



⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

design	pressure balanced, with spring return	
body materials	⓪ aluminium	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, PU	PTFE, FPM, PE

details needed for main valve
- orifice
- port
- function NC
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	FCF-K	flanges PN 16/40	
function		NC	
pressure range	bar	0-16/0-40	
Kv value	m³/h	122,0	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request (max. 16 bar)
switching cycles	1/min	50	
switching time	ms	opening 350-3000 closing 350-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF-K 11,5	
additional equipment		sensor / manometer connection G 1/4	

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

pneumatic specifications			**options**
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	100	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	NAMUR VDI / VDE 3845		ISO 1 DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications			**options**
actuation pressure range	bar	30-60	
by media			
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

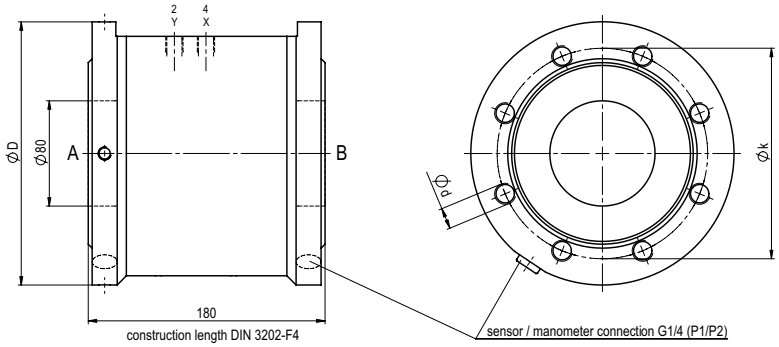
⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

- specifications not highlighted are standard

specifications highlighted in grey are optional

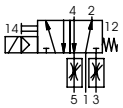
type **FCF-K 80**

function: **NC**
closed when not energized

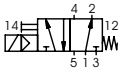


flanges PN	DIN	øD	øk	ød
16	2633	200	160	M16
40	2635	200	160	M16

pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

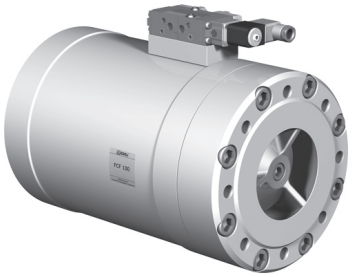


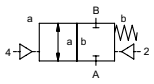
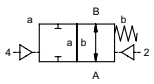
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type FCF 100

5-FCF 100

valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 100 mm	
connection	flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	⓪ aluminium	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, PU	PTFE, FPM, PE

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	FCF	flanges PN 16/40	
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	215,0	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request (max. 16 bar)
switching cycles	1/min	40	
switching time	ms	opening 450-3000 closing 300-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			inductive upon request
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF 34,0	
additional equipment		sensor / manometer connection G 1/4	

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

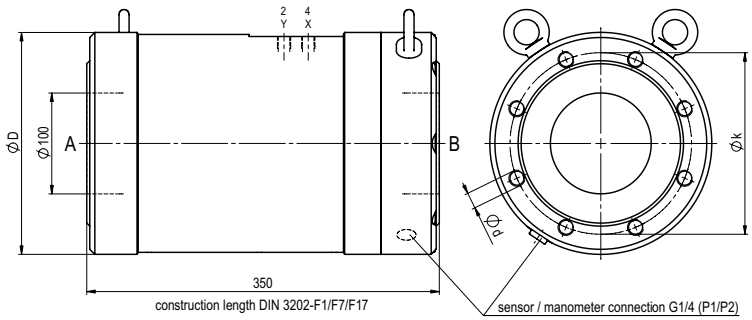
pneumatic specifications			**options**
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	250	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
pilot valve interface	NAMUR VDI / VDE 3845		ISO 1 DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications			**options**
actuation pressure range	bar	30-60	
by media			
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **FCF 100**

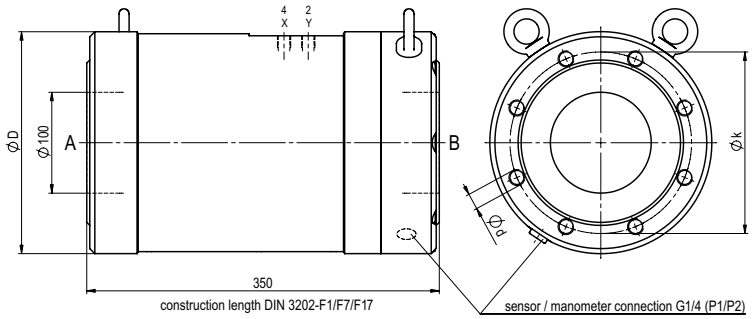
function: **NC**
closed when not energized



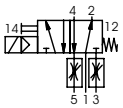
flanges PN	DIN	øD	øk	ød
16	2633	220	180	M16
40	2635	235	190	M20

type **FCF 100**

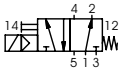
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

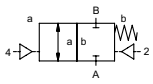


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type FCF-K 100

5-FCF-K 100
valve type with pilot valve

2/2 way valve	**externally controlled**
pressure range	PN 0-40 bar
orifice	DN 100 mm
connection	flange
function	valve normally closed symbol **NC**



⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

design	pressure balanced, with spring return		
body materials	⓪ aluminium	②	
	③	⑤	
	④	⑥	
valve seat	synthetic resin on metal		
seal materials	NBR, PU	PTFE, FPM, PE	

details needed for main valve
- orifice
- port
- function NC
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	FCF-K	flanges PN 16/40	
function		NC	
pressure range	bar	0-16/0-40	
Kv value	m³/h	193,0	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request (max. 16 bar)
switching cycles	1/min	40	
switching time	ms	opening 450-3000 closing 300-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF-K 25,0	
additional equipment		sensor / manometer connection G 1/4	

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

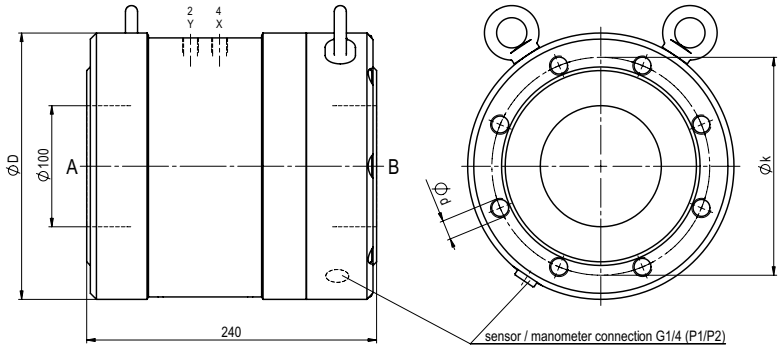
pneumatic specifications			**options**
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	250	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
pilot valve interface	NAMUR VDI / VDE 3845		ISO 1 DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications			**options**
actuation pressure range	bar	30-60	
by media			
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

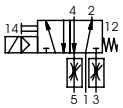
type **FCF-K 100**

function: **NC**
closed when not energized

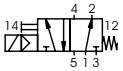


flanges PN	DIN	øD	øk	ød
16	2633	220	180	M16
40	2635	235	190	M20

pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

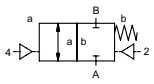
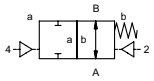


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type FCF 125

5-FCF 125

valve type with pilot valve

2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 125 mm	
connection	flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	⓪ aluminium	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, PU	PTFE, FPM, PE

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			options
ports	FCF	flanges PN 16/40	
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	227	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request (max. 16 bar)
switching cycles	1/min	30	
switching time	ms	opening 700-3000 closing 450-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			inductive upon request
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF 52,0	
additional equipment		sensor / manometer connection G 1/4	

electrical specifications			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

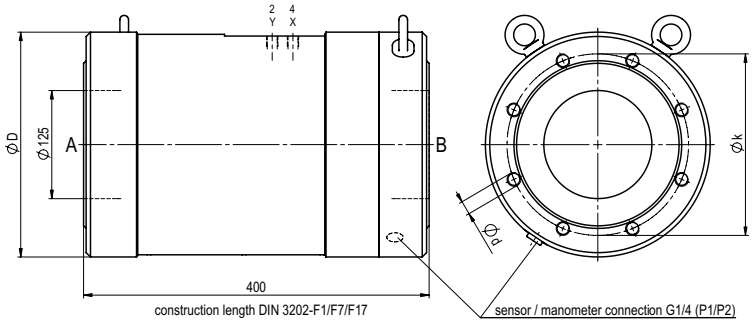
pneumatic specifications			options
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	480	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
pilot valve interface	NAMUR VDI / VDE 3845		ISO 1 DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications			options
actuation pressure range	bar	30-60	
by media			
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **FCF 125**

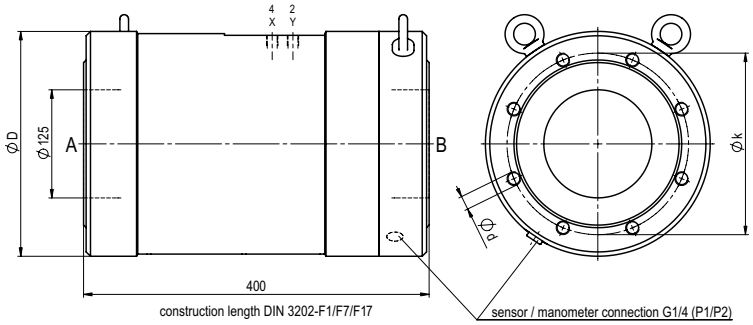
function: **NC**
closed when not energized



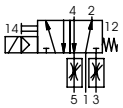
flanges PN	DIN	øD	øk	ød
16	2633	260	210	M16
40	2635	280	220	M24

type **FCF 125**

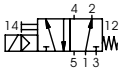
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



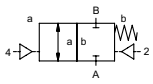
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type FCF-K 125

5-FCF-K 125

valve type with pilot valve

2/2 way valve	**externally controlled**
pressure range	PN 0-40 bar
orifice	DN 125 mm
connection	flange
function	valve normally closed symbol **NC**



⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

design	pressure balanced, with spring return	
body materials	⓪ aluminium	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, PU	PTFE, FPM, PE

details needed for main valve
- orifice
- port
- function NC
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	FCF-K	flanges PN 16/40	
function		NC	
pressure range	bar	0-16/0-40	
Kv value	m³/h	221	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request (max. 16 bar)
switching cycles	1/min	30	
switching time	ms	opening 700-3000 closing 450-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF-K 42,0	
additional equipment		sensor / manometer connection G 1/4	

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

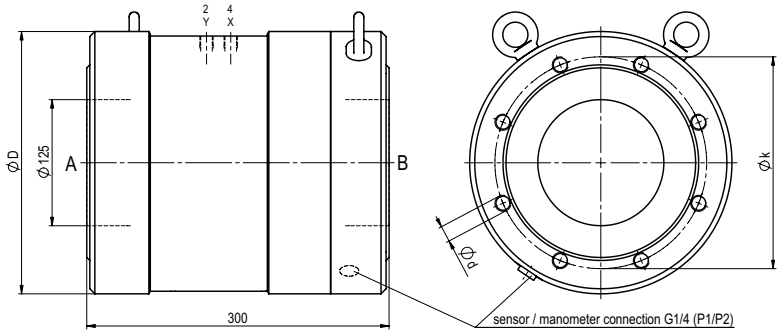
pneumatic specifications			**options**
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	480	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
pilot valve interface	NAMUR VDI / VDE 3845		ISO 1 DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications			**options**
actuation pressure range	bar	30-60	
by media			
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

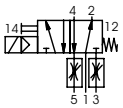
type **FCF-K 125**

function: **NC**
closed when not energized

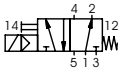


flanges PN	DIN	øD	øk	ød
16	2633	260	210	M16
40	2635	280	220	M24

pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

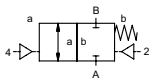
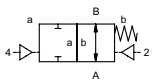


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type CFM 08

3-CFM 08

valve type with pilot valve

2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 8 mm	
connection	thread	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	① brass	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, FPM, PE	PU, PTFE

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve

- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation

- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

general specifications			options
ports	CFM	threads G 3/8	
function		NC	NO
pressure range	bar	0-40	
Kv value	m³/h	1,6	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing		
flow direction	A ⇨ B	as marked	
switching cycles	1/min	400	
switching time	ms	opening 70 closing 80	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			reed, temperature range max 70°C
manual override		via pilot valve	
approvals			
mounting			mounting brackets
weight	kg	0,3	
additional equipment			

electrical specifications			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 40-60 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

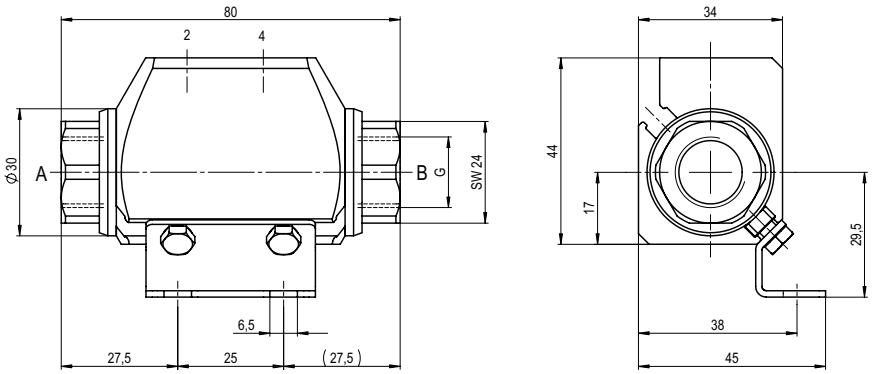
pneumatic specifications			options
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	1,2	
cycle speed			
control		by 3/2-way pilot valve	
pilot valve interface	co-ax		CNOMO upon request
actuator ports	2/4	G 1/8	

hydraulic specifications	options
actuation pressure range	
control	
actuator ports	

- specifications not highlighted are standard
- specifications highlighted in grey are optional

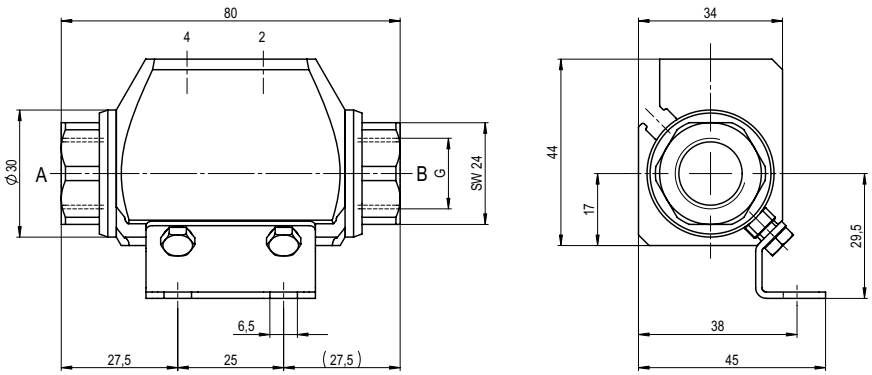
type **CFM 08**

function: **NC**
closed when not energized

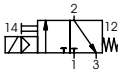


type **CFM 08**

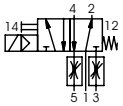
function: **NO**
open when not energized



pneumatic actuation (5/2 separately)



3/2-way-pilot valve
flow rate 60 l/min
pressure range 3-10 bar



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

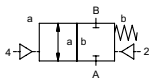
The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

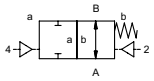
coaxial valve
type MCF 08

5-MCF 08

valve type with pilot valve

2/2 way valve	**externally controlled**	
pressure range	PN 0-100 bar	
orifice	DN 8 mm	
connection	thread	
function	valve normally closed symbol	**NC**
	valve normally open symbol	**NO**





design	pressure balanced, with spring return	
body materials	① brass	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, FPM, PTFE	

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve

- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation

- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

general specifications			options
ports	MCF	threads G 3/8	
function		NC	NO
pressure range	bar	0-100	
Kv value	m³/h	1,6	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 100 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	
switching cycles	1/min	600	
switching time	ms	opening 30-3000 closing 30-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			reed, temperature range max 70°C
manual override		via pilot valve	
approvals			
mounting			mounting brackets
weight	kg	1,3	
additional equipment			

electrical specifications			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 40-60 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

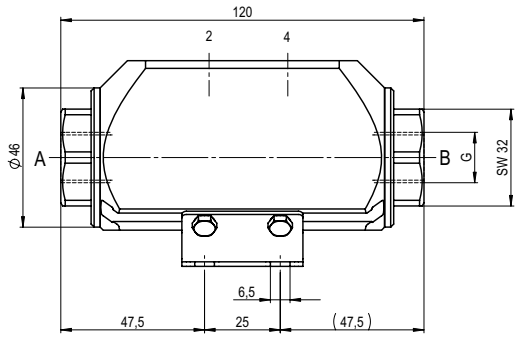
pneumatic specifications			options
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	4,5	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	co-ax		NAMUR VDI / VDE 3845
actuator ports	2/4	G 1/8	

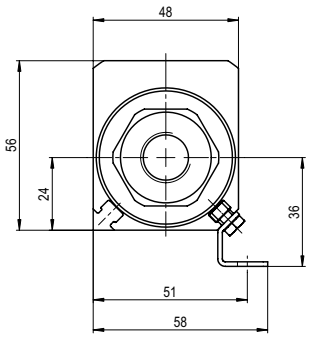
hydraulic specifications	options
actuation pressure range	
control	
actuator ports	

- specifications not highlighted are standard
  specifications highlighted in grey are optional

type **MCF 08**

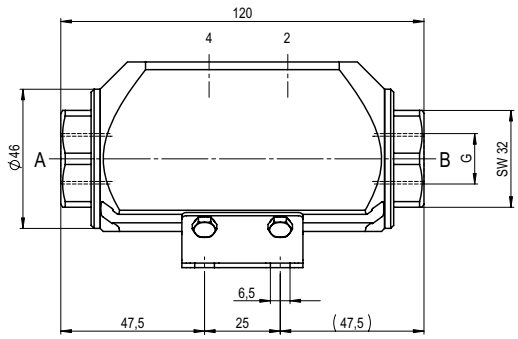
function: **NC**
closed when not energized

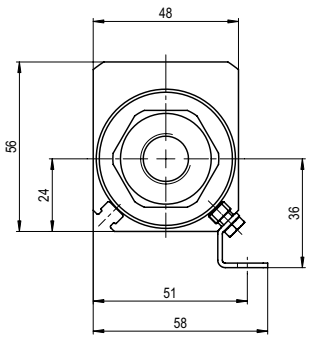




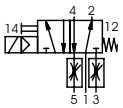
type **MCF 08**

function: **NO**
open when not energized





pneumatic actuation (separately)

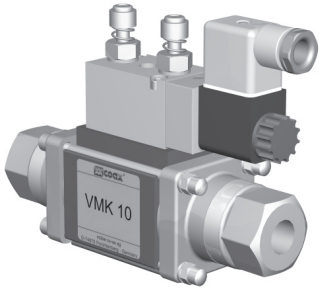


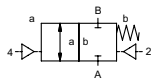
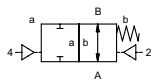
5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

coaxial valve
type VMK 10

5-VMK 10

valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-64 bar	
orifice	DN 10 mm	
connection	thread	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	① brass	②
	③ brass, nickel plated	⑤
	④	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	VMK	threads G 1/4 - G 3/4	special threads
function		NC	NO
pressure range	bar	0-16/0-40/0-64	> 64 bar upon request
Kv value	m³/h	2,5	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 64 bar vacuum side leak rate <10^{-6} mbar•l•s^{-1}
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			upon request
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	680	
switching time	ms	opening 30-3000 closing 50-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			
leak ports			
limit switches			inductive
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 1,7	
additional equipment			upon request

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

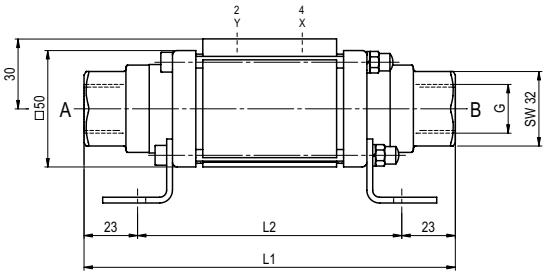
pneumatic specifications			**options**
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	7	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	standard / NAMUR		
actuator ports	2/4	G 1/8	

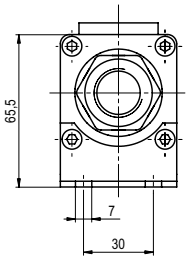
hydraulic specifications			**options**
actuation pressure range	bar	4-10	
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/8	

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VMK 10**

function: **NC**
closed when not energized

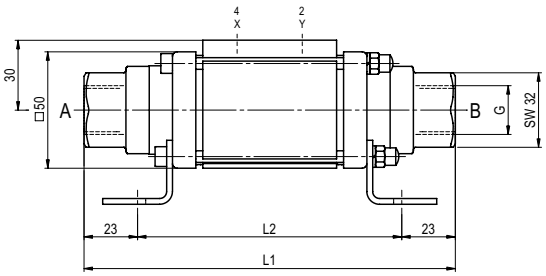


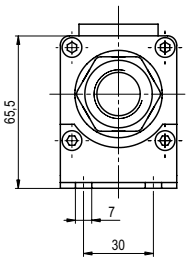


constructive length	L_1	L_2
standard	159,5	113,5
with 1/2 inductive limit switches	179,5	133,5

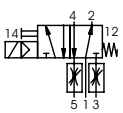
type **VMK 10**

function: **NO**
open when not energized





pneumatic actuation (separately)

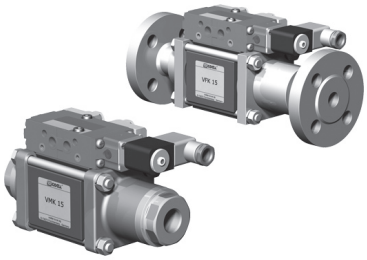


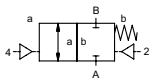
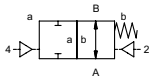
5/2-way-pilot valve
flow rate 350 l/min
pressure range 3-10 bar G 1/8

coaxial valve

5-VMK 15
5-VFK 15
valve type with pilot valve

type **VMK 15**
VFK 15



2/2 way valve	**externally controlled**	
pressure range	PN 0-100 bar	
orifice	DN 15 mm	
connection	thread/flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	① brass	② steel, galvanized
	③ brass, nickel plated	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VMK	threads G 3/8 - G 3/4	special threads
	VFK	flanges PN 16/40/100	special flanges
function		NC	NO
pressure range	bar	0-16/0-40/0-64/0-100	> 100 bar upon request
Kv value	m³/h	5,7	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 100 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	200	
switching time	ms	opening 50-3000 closing 50-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 3,4 VFK 5,0	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	11	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	co-ax / NAMUR		ISO 1
actuator ports	2/4	G 1/8	G 1/4

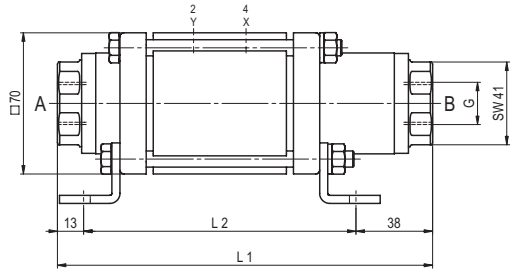
hydraulic specifications

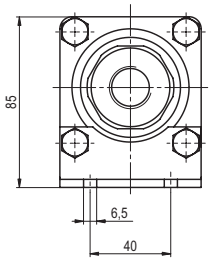
			options
actuation pressure range	bar	10-30 / 30-60	
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VMK 15**

function: **NC**
closed when not energized



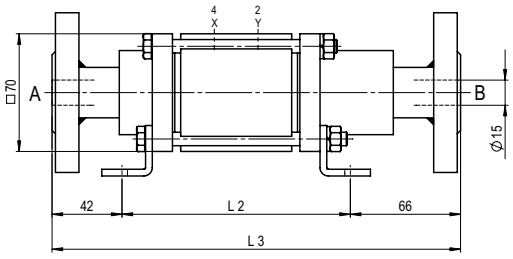


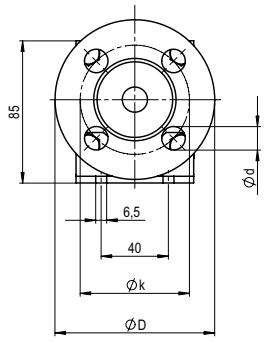
constructive length	L_1	L_2	L_3
standard	186	135	243
with 1/2 inductive limit switches	212	161	269
with force-feed lubrication nipple	219	168	276
with mechanical limit switches	212	161	269

flanges PN	DIN	øD	øk	ød
16	2633	95	65	14
40	2635	95	65	14
100	2637	105	75	14

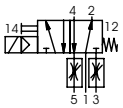
type **VFK 15**

function: **NO**
open when not energized

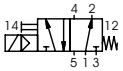




pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



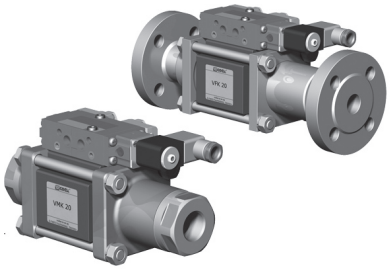
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

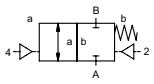
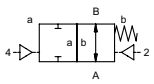
The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

coaxial valve

type VMK 20 VFK 20

5-VMK 20
5-VFK 20
valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-100 bar	
orifice	DN 20 mm	
connection	thread/flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	① brass	② steel, galvanized
	③ brass, nickel plated	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VMK	threads G 3/4 - G 1 1/4	special threads
	VFK	flanges PN 16/40/100	special flanges
function		NC	NO
pressure range	bar	0-16/0-40/0-64/0-100	> 100 bar upon request
Kv value	m³/h	8,8	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 100 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	200	
switching time	ms	opening 50-3000 closing 50-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 4,7 VFK 6,7	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	11	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	co-ax / NAMUR		ISO 1
actuator ports	2/4	G 1/8	G 1/4

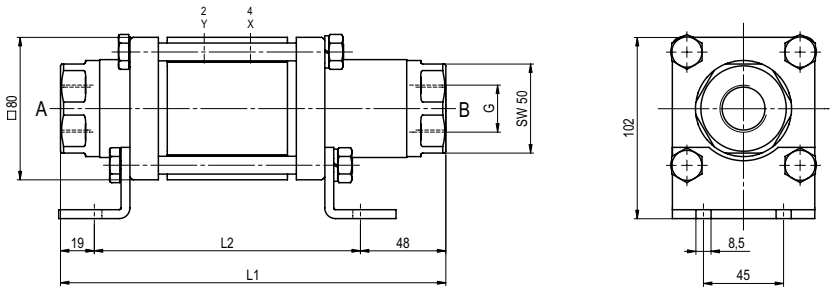
hydraulic specifications

			options
actuation pressure range	bar	10-30 / 30-60	
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VMK 20**

function: **NC**
closed when not energized

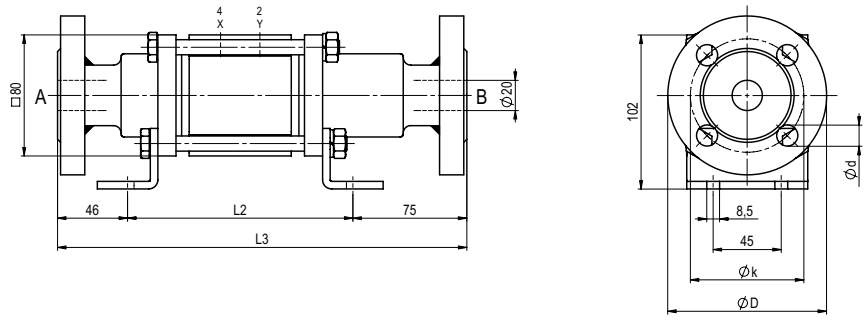


constructive length	L_1	L_2	L_3
standard	216	149	270
with 1/2 inductive limit switches	235	168	289
with force-feed lubrication nipple	254	187	308
with mechanical limit switches	237	170	291

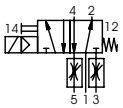
flanges PN	DIN	øD	øk	ød
16	2633	105	75	14
40	2635	105	75	14
100	2637	130	90	18

type **VFK 20**

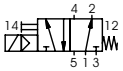
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

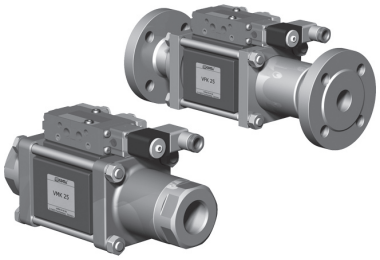


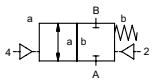
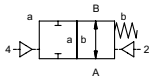
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve

type VMK 25
VFK 25

5-VMK 25
5-VFK 25
valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-100 bar	
orifice	DN 25 mm	
connection	thread/flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	① brass	② steel, galvanized
	③ brass, nickel plated	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VMK	threads G 1 - G 1 1/2	special threads
	VFK	flanges PN 16/40/100	special flanges
function		NC	NO
pressure range	bar	0-16/0-40/0-64/0-100	> 100 bar upon request
Kv value	m³/h	13,3	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 100 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	200	
switching time	ms	opening 50-3000 closing 50-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 6,7 VFK 9,0	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	18	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	co-ax / NAMUR		ISO 1
actuator ports	2/4	G 1/8	G 1/4

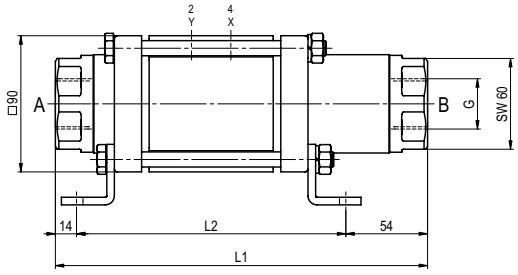
hydraulic specifications

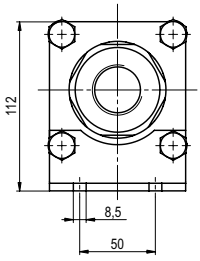
			options
actuation pressure range	bar	10-30 / 30-60	
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VMK 25**

function: **NC**
closed when not energized



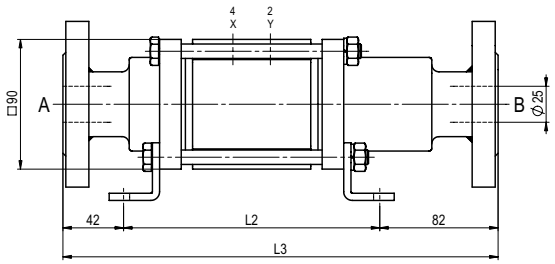


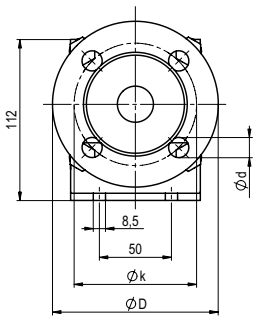
constructive length	L_1	L_2	L_3
standard	246	178	302
with 1/2 inductive limit switches	260	192	316
with force-feed lubrication nipple	276	208	332
with mechanical limit switches	270	202	326

flanges PN	DIN	øD	øk	ød
16	2633	115	85	14
40	2635	115	85	14
100	2637	140	100	18

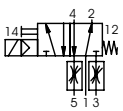
type **VFK 25**

function: **NO**
open when not energized

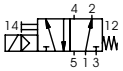




pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



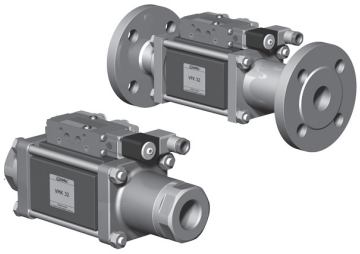
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

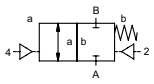
coaxial valve

type VMK 32 VFK 32

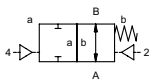
5-VMK 32
5-VFK 32
valve type with pilot valve



2/2 way valve	**externally controlled**
pressure range	PN 0-100 bar
orifice	DN 32 mm
connection	thread/flange
function	valve normally closed symbol **NC**



valve normally open symbol **NO**



design	pressure balanced, with spring return
body materials	① brass ② steel, galvanized ③ brass, nickel plated ⑤ without non-ferr. metals ④ steel, nickel plated ⑥ stainless steel
valve seat	synthetic resin on metal
seal materials	NBR PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VMK	threads G 1 1/4 - G 1 1/2	special threads
	VFK	flanges PN 16/40/100	special flanges
function		NC	NO
pressure range	bar	0-16/0-40/0-64/0-100	
Kv value	m³/h	20,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 100 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	150	
switching time	ms	opening 100-3000 closing 100-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 7,8 VFK 11,6	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	23	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
pilot valve interface		co-ax / NAMUR	ISO 1
actuator ports	2/4	G 1/8	G 1/4

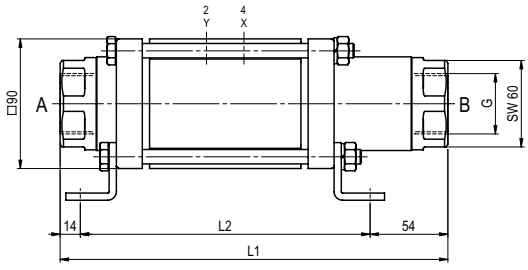
hydraulic specifications

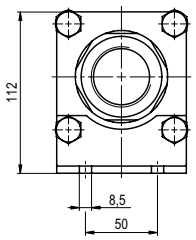
			options
actuation pressure range	bar	10-30 / 30-60	
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VMK 32**

function: **NC**
closed when not energized



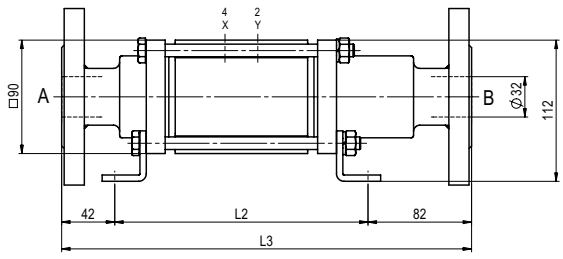


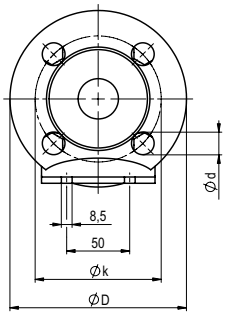
constructive length	L_1	L_2	L_3
standard	269	201	325
with 1/2 inductive limit switches	276	208	332
with force-feed lubrication nipple	306	238	362
with mechanical limit switches	304	236	360

flanges PN	DIN	øD	øk	ød
16	2633	140	100	18
40	2635	140	100	18
100	2637	155	110	22

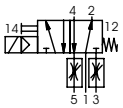
type **VFK 32**

function: **NO**
open when not energized

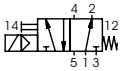




pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



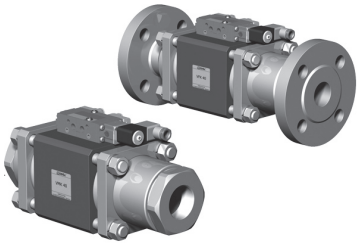
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

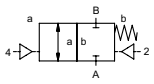
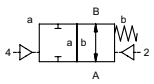
The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

coaxial valve

5-VMK 40
5-VFK 40
valve type with pilot valve

type **VMK 40**
VFK 40



2/2 way valve	**externally controlled**	
pressure range	PN 0-100 bar	
orifice	DN 40 mm	
connection	thread/flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	①	② steel, galvanized
	③	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VMK	threads G 1 1/2 - G 2	special threads
	VFK	flanges PN 100	special flanges
function		NC	NO
pressure range	bar	0-64/0-100	> 100 bar
Kv value	m³/h	31,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 100 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	150	
switching time	ms	opening 100-3000 closing 100-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 11,3 VFK 13,6	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	65	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	co-ax / NAMUR		ISO 1
actuator ports	2/4	G 1/8	G 1/4

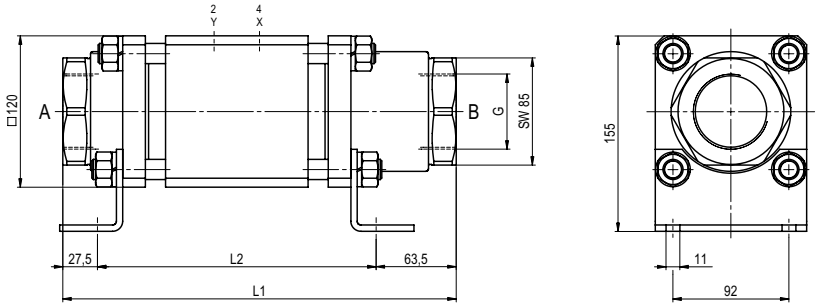
hydraulic specifications

			options
actuation pressure range	bar	10-30 / 30-60	
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VMK 40**

function: **NC**
closed when not energized

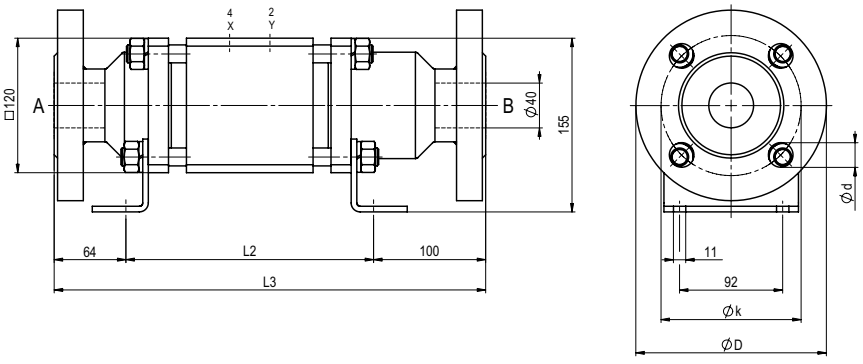


constructive length	L_1	L_2	L_3
standard	312	221	385
with 1/2 inductive limit switches	312	221	385
with force-feed lubrication nipple	312	221	385
with mechanical limit switches	-	-	-

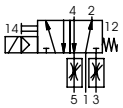
flanges PN	DIN	øD	øk	ød
100	2637	170	125	22

type **VFK 40**

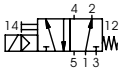
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



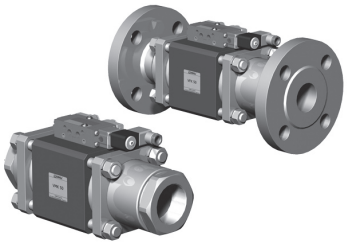
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

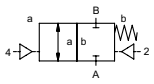
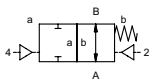
The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

coaxial valve

type VMK 50
VFK 50

5-VMK 50
5-VFK 50
valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-100 bar	
orifice	DN 50 mm	
connection	thread/flange	
function	valve normally closed	
symbol	**NC**	
	valve normally open	
symbol	**NO**	

design	pressure balanced, with spring return	
body materials	①	② steel, galvanized
	③	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VMK	threads G 2	special threads
	VFK	flanges PN 64/100	special flanges
function		NC	NO
pressure range	bar	0-64/0-100	> 100 bar
Kv value	m³/h	43,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 100 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	100	
switching time	ms	opening 150-3000 closing 150-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VMK 12,3 VFK 18,7	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	65	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	co-ax / NAMUR		ISO 1
actuator ports	2/4	G 1/8	G 1/4

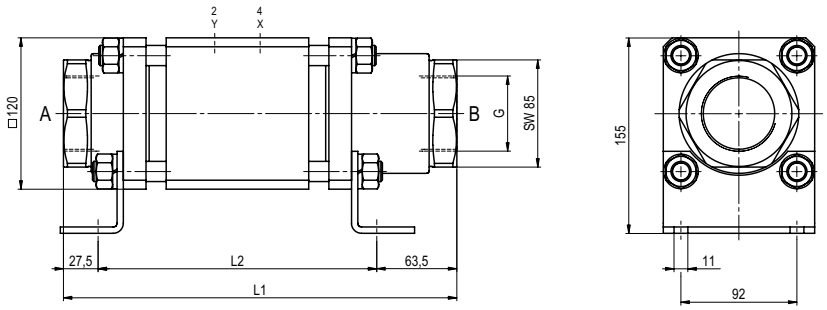
hydraulic specifications

			options
actuation pressure range	bar	10-30 / 30-60	
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VMK 50**

function: **NC**
closed when not energized

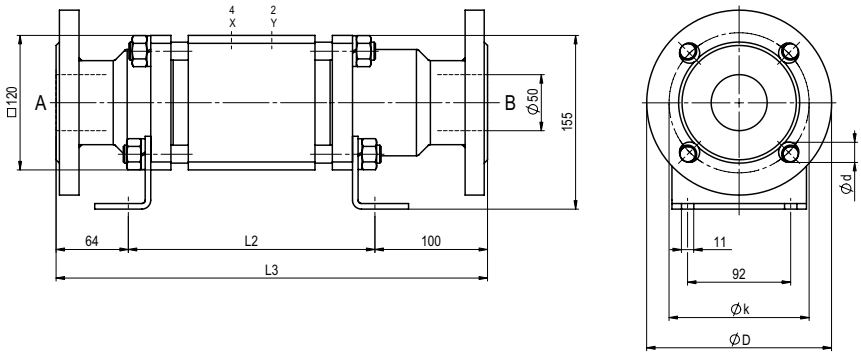


constructive length	L_1	L_2	L_3
standard	312	221	385
with 1/2 inductive limit switches	312	221	385
with force-feed lubrication nipple	312	221	385
with mechanical limit switches	-	-	-

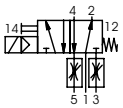
flanges PN	DIN	øD	øk	ød
64	2636	180	135	22
100	2637	195	145	26

type **VFK 50**

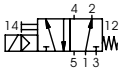
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



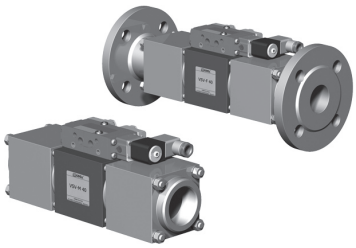
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

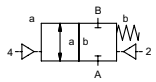
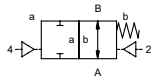
The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

coaxial valve

type VSV-M 40
VSV-F 40

5-VSV-M 40
5-VSV-F 40
valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 40 mm	
connection	thread/flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	①	② steel, galvanized
	③	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			options
ports	VSV-M	threads G 1 1/2 - G 2	special threads
	VSV-F	flanges PN 16/40	special flanges
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	31,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	150	
switching time	ms	opening 100-3000 closing 100-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VSV-M 7,2 VSV-F 11,4	
additional equipment			upon request

electrical specifications			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

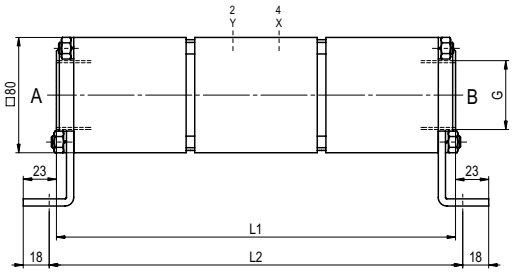
pneumatic specifications			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	44	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	co-ax / NAMUR		ISO 1
actuator ports	2/4	G 1/8	G 1/4

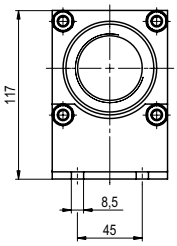
hydraulic specifications			options
actuation pressure range	bar	10-30 / 30-60	
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VSV-M 40**

function: **NC**
closed when not energized



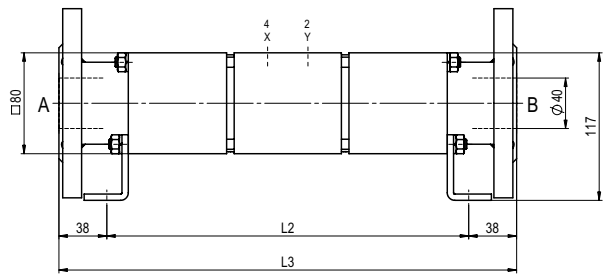


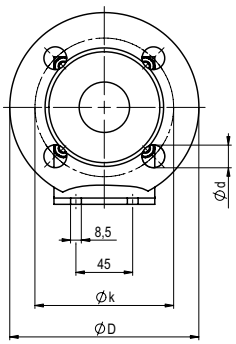
constructive length	L_1	L_2	L_3
standard	277	287	363
with 1/2 inductive limit switches	331	341	417
with force-feed lubrication nipple	297	307	383
with mechanical limit switches	304	314	390

flanges PN	DIN	øD	øk	ød
16	2633	150	110	18
40	2635	150	110	18

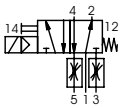
type **VSV-F 40**

function: **NO**
open when not energized

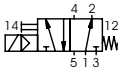




pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



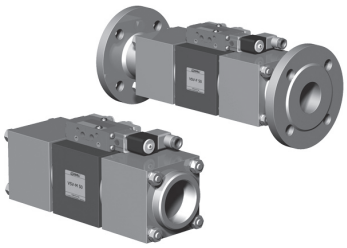
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

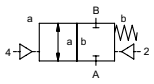
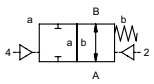
The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

coaxial valve

type VSV-M 50
VSV-F 50

5-VSV-M 50
5-VSV-F 50
valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 50 mm	
connection	thread/flange	
function	valve normally closed	
	symbol **NC**	
	valve normally open	
	symbol **NO**	

design	pressure balanced, with spring return	
body materials	①	② steel, galvanized
	③	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			options
ports	VSV-M	threads G 2	special threads
	VSV-F	flanges PN 16/40	special flanges
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	43,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	100	
switching time	ms	opening 150-3000 closing 150-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			mounting brackets
weight	kg	VSV-M 11,9 VSV-F 18,2	
additional equipment			upon request

electrical specifications			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	55	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	co-ax / NAMUR		ISO 1
actuator ports	2/4	G 1/8	G 1/4

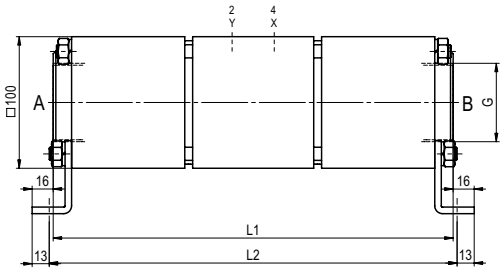
hydraulic specifications			options
actuation pressure range	bar	10-30 / 30-60	
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

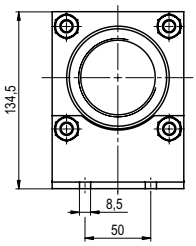
- specifications not highlighted are standard

specifications highlighted in grey are optional

type **VSV-M 50**

function: **NC**
closed when not energized



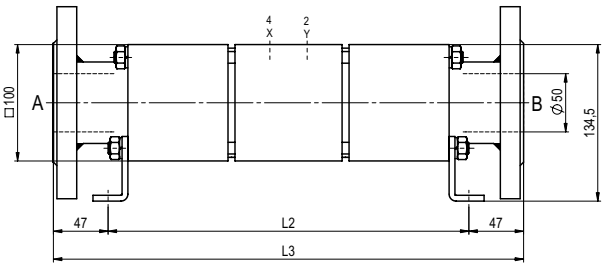


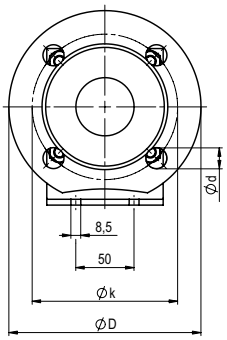
constructive length	L_1	L_2	L_3
standard	304	310	404
with 1/2 inductive limit switches	330	336	430
with force-feed lubrication nipple	322	328	422
with mechanical limit switches	344	350	444

flanges PN	DIN	øD	øk	ød
16	2633	165	125	18
40	2635	165	125	18

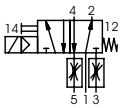
type **VSV-F 50**

function: **NO**
open when not energized

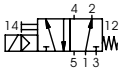




pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

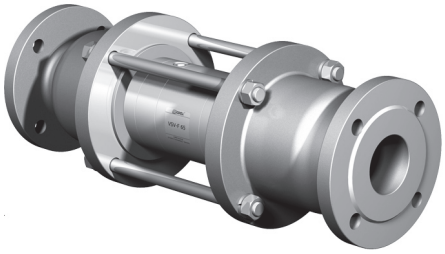


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

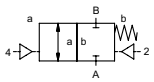
coaxial valve
type VSV-F 65

5-VSV-F 65

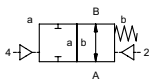
valve type with pilot valve



2/2 way valve	**externally controlled**
pressure range	PN 0-40 bar
orifice	DN 65 mm
connection	flange
function	valve normally closed symbol **NC**



valve normally open symbol **NO**



design	pressure balanced, with spring return
body materials	⓪ aluminium ② steel, galvanized ③ ⑤ without non-ferr. metals ④ steel, nickel plated ⑥ stainless steel
valve seat	synthetic resin on metal
seal materials	NBR PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VSV-F	flanges PN 16/40	
			special flanges
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	68,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	50	
switching time	ms	opening 200-3000 closing 200-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			
weight	kg	VSV-F 20,0	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	50	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
actuator ports	2/4	G 1/4	G 3/8

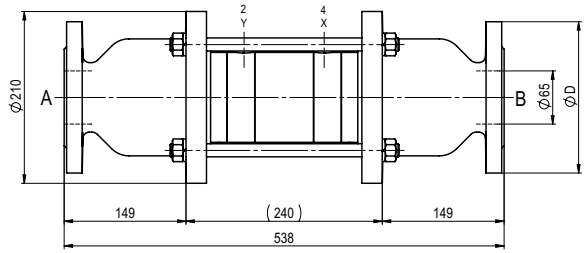
hydraulic specifications

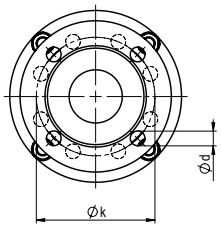
			options
actuation pressure range	bar	10-30 / 30-60	
by media			upon request
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VSV-F 65**

function: **NC**
closed when not energized



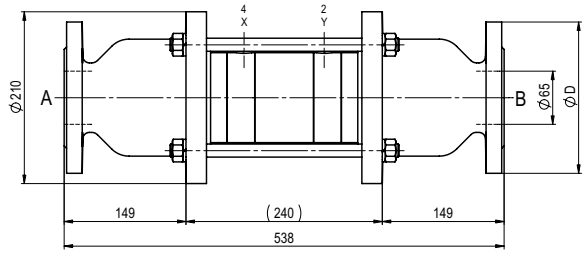


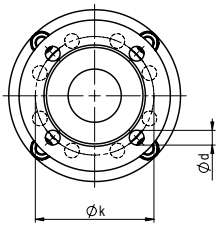
PN 16 - 4 bolt holes
PN 40 - 8 bolt holes

flanges PN	DIN	øD	øk	ød
16	2633	185	145	18
40	2635	185	145	18

type **VSV-F 65**

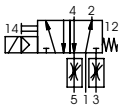
function: **NO**
open when not energized



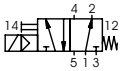


PN 16 - 4 bolt holes
PN 40 - 8 bolt holes

pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

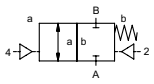
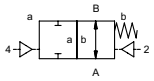


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type VSV-F 80

5-VSV-F 80

valve type with pilot valve

2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 80 mm	
connection	flange	
function	valve normally closed	
	symbol **NC**	
	valve normally open	
	symbol **NO**	

design	pressure balanced, with spring return	
body materials	⓪ aluminium	② steel, galvanized
	③	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VSV-F	flanges PN 16/40	
			special flanges
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	90,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	50	
switching time	ms	opening 200-3000 closing 200-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			
weight	kg	VSV-F 27,0	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	75	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
actuator ports	2/4	G 1/4	G 3/8

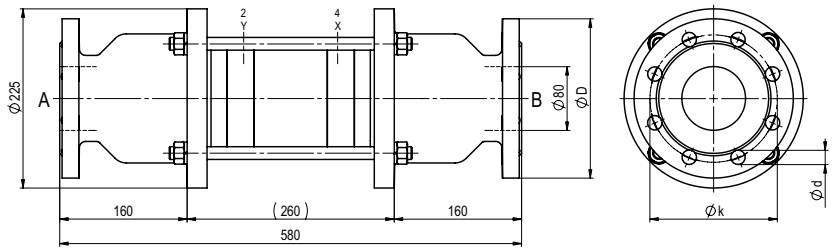
hydraulic specifications

			options
actuation pressure range	bar	10-30 / 30-60	
by media			upon request
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VSV-F 80**

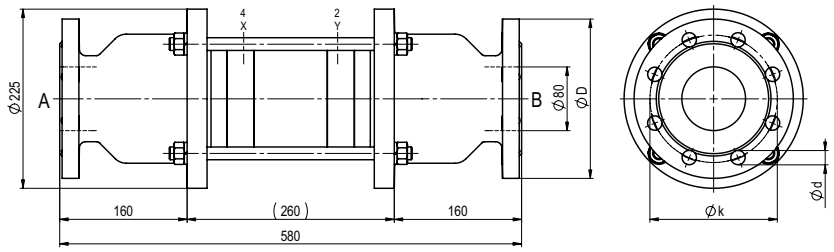
function: **NC**
closed when not energized



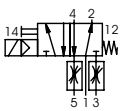
flanges PN	DIN	øD	øk	ød
16	2633	200	160	18
40	2635	200	160	18

type **VSV-F 80**

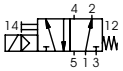
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

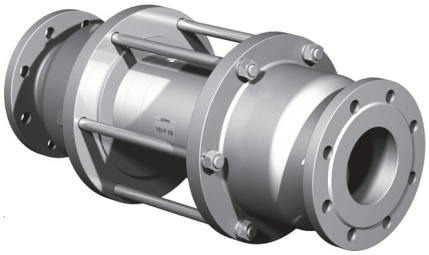


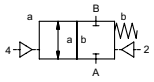
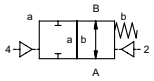
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type VSV-F 100

5-VSV-F 100

valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 100 mm	
connection	flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	⓪ aluminium	② steel, galvanized
	③	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	VSV-F	flanges PN 16/40	
			special flanges
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	140,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	40	
switching time	ms	opening 300-3000 closing 300-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			
weight	kg	VSV-F 38,0	
additional equipment			upon request

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications			**options**
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	135	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
actuator ports	2/4	G 1/4	G 3/8

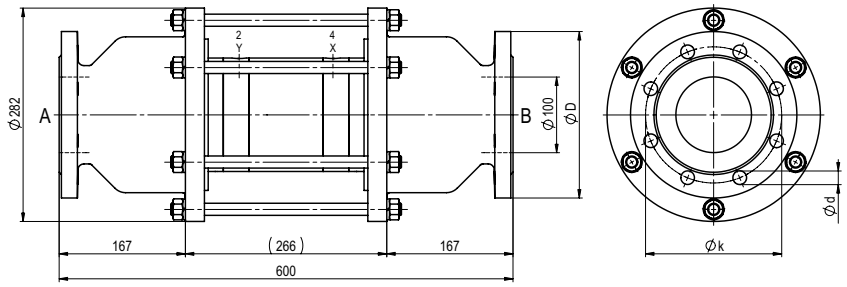
hydraulic specifications			**options**
actuation pressure range	bar	10-30 / 30-60	
by media			upon request
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard

specifications highlighted in grey are optional

type **VSV-F 100**

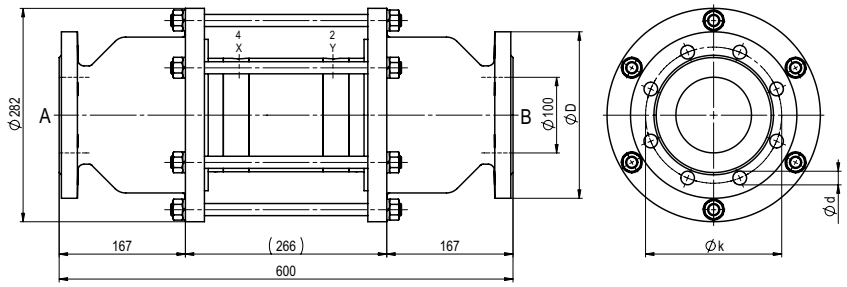
function: **NC**
closed when not energized



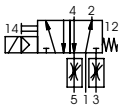
flanges PN	DIN	øD	øk	ød
16	2633	220	180	18
40	2635	235	190	22

type **VSV-F 100**

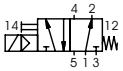
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



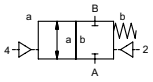
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

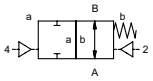
coaxial valve
type VSV-F 125

5-VSV-F 125

valve type with pilot valve

2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 125 mm	
connection	flange	
function	valve normally closed symbol	**NC**
	valve normally open symbol	**NO**





design	pressure balanced, with spring return	
body materials	⓪ aluminium	② steel, galvanized
	③	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VSV-F	flanges PN 16/40	
			special flanges
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	198,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	30	
switching time	ms	opening 400-3000 closing 400-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			
weight	kg	VSV-F 51,0	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	275	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
actuator ports	2/4	G 1/4	G 3/8

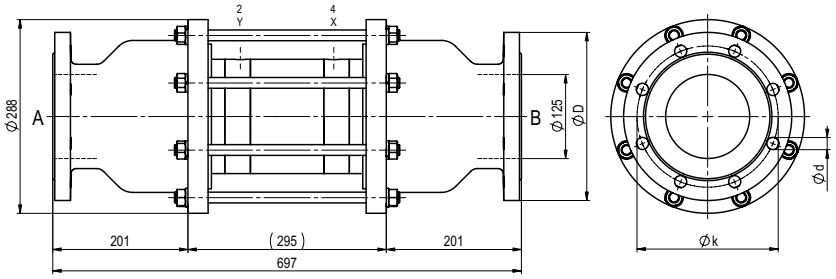
hydraulic specifications

			options
actuation pressure range	bar	10-30 / 30-60	
by media			upon request
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VSV-F 125**

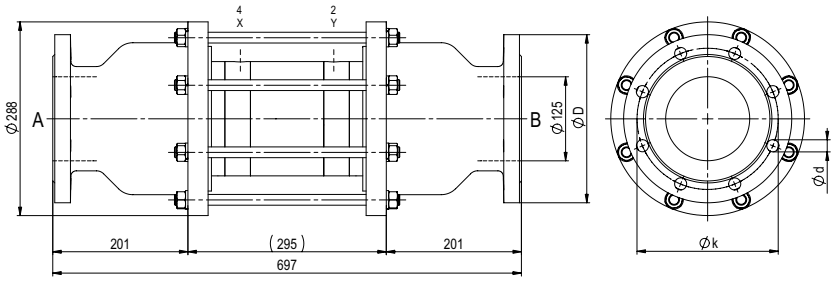
function: **NC**
closed when not energized



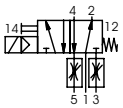
flanges PN	DIN	øD	øk	ød
16	2633	250	210	18
40	2635	270	220	26

type **VSV-F 125**

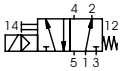
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

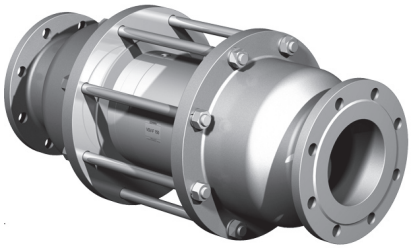


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

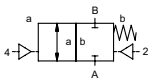
coaxial valve
type VSV-F 150

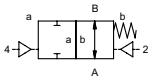
5-VSV-F 150

valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 150 mm	
connection	flange	
function	valve normally closed symbol	**NC**
	valve normally open symbol	**NO**





design	pressure balanced, with spring return	
body materials	⓪ aluminium	② steel, galvanized
	③	⑤ without non-ferr. metals
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications

			options
ports	VSV-F	flanges PN 16/40	
			special flanges
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	274,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	20	
switching time	ms	opening 600-3000 closing 600-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			
weight	kg	VSV-F 87,0	
additional equipment			upon request

electrical specifications

			options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications

			options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	550	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications

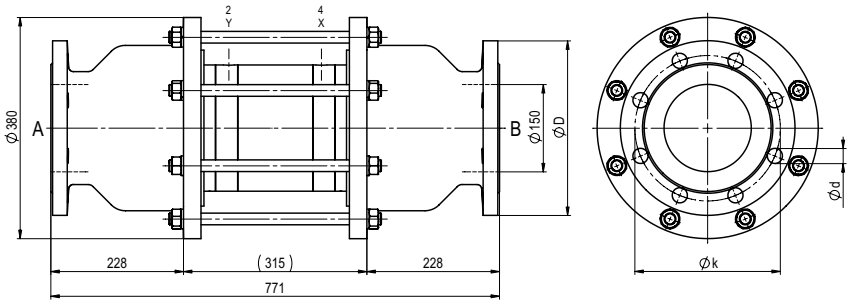
			options
actuation pressure range	bar	10-30 / 30-60	
by media			upon request
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard

specifications highlighted in grey are optional

type **VSV-F 150**

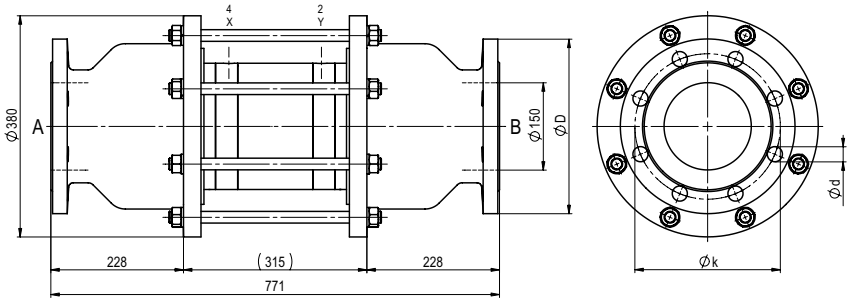
function: **NC**
closed when not energized



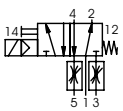
flanges PN	DIN	øD	øk	ød
16	2633	285	240	22
40	2635	300	250	26

type **VSV-F 150**

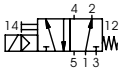
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



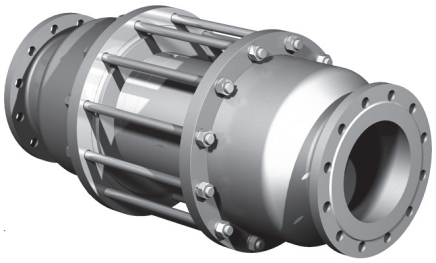
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

The application-specific layout relating to temperature, pressure conditions, switching behavior, media and its consistency may restrict the range of use or necessitate relevant modifications to materials used and seal arrangements.

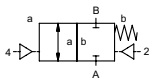
coaxial valve
type VSV-F 200

5-VSV-F 200

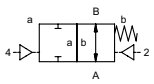
valve type with pilot valve



2/2 way valve	**externally controlled**
pressure range	PN 0-16 bar
orifice	DN 200 mm
connection	flange
function	valve normally closed symbol **NC**



valve
normally open
symbol **NO**



design	pressure balanced, with spring return	
body materials	⓪	② steel, galvanized
	③	⑤
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

	general specifications		options
ports	VSV-F	flanges PN 16	
			special flanges
function		NC	NO
pressure range	bar	0-16	
Kv value	m³/h	450,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 16 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	10	
switching time	ms	opening 800-3000 closing 800-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			
weight	kg	VSV-F 159,0	
additional equipment			upon request

	electrical specifications		options
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

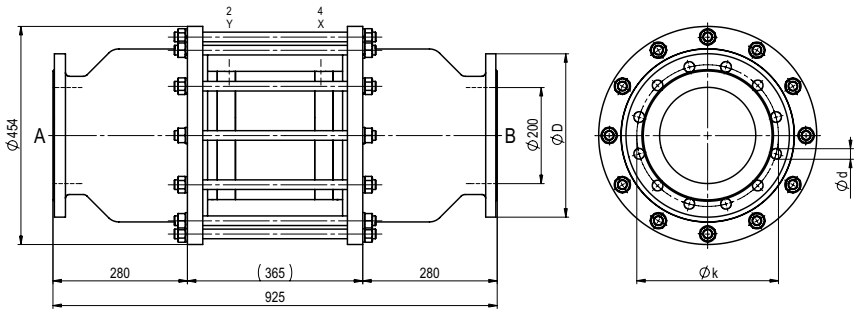
	pneumatic specifications		options
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	700	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
actuator ports	2/4	G 1/4	G 3/8

	hydraulic specifications		options
actuation pressure range	bar	10-30 / 30-60	
by media			upon request
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **VSV-F 200**

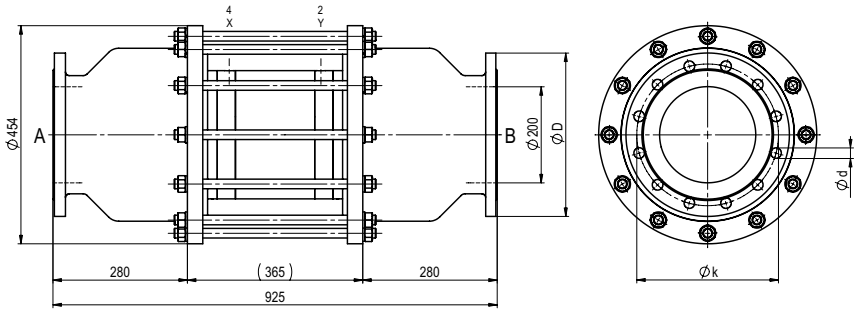
function: **NC**
closed when not energized



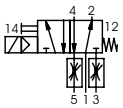
flanges PN	DIN	øD	øk	ød
16	2633	340	295	22

type **VSV-F 200**

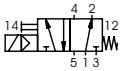
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/4

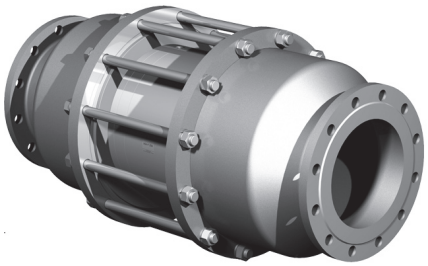


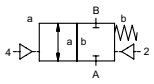
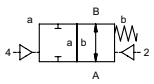
5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type VSV-F 250

5-VSV-F 250

valve type with pilot valve



2/2 way valve	**externally controlled**	
pressure range	PN 0-16 bar	
orifice	DN 250 mm	
connection	flange	
function	valve normally closed	
	symbol **NC**	
	valve normally open	
	symbol **NO**	

design	pressure balanced, with spring return	
body materials	⓪	② steel, galvanized
	③	⑤
	④ steel, nickel plated	⑥ stainless steel
valve seat	synthetic resin on metal	
seal materials	NBR	PTFE, FPM, CR, EPDM

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	VSV-F	flanges PN 16	
			special flanges
function		NC	NO
pressure range	bar	0-16	
Kv value	m³/h	650,0	
vacuum	leak rate		< 10^{-6} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 16 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		gaseous - liquid - highly viscous - gelatinous - pasty - contaminated	
abrasive media			version available
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request
switching cycles	1/min	4	
switching time	ms	opening 1500-3000 closing 1500-3000	
media temperature	°C	direct mounted pilot valve 60	remote mounted pilot valve outside tempe-
ambient temperature	°C	direct mounted pilot valve 50	rature range of media max.160°C
flush ports			available
leak ports			available
limit switches			inductive/mechanical upon request
manual override		via pilot valve	
approvals			LR/GL/WAZ
mounting			
weight	kg	VSV-F 215,0	
additional equipment			upon request

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	2,5 W
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

pneumatic specifications			**options**
actuation pressure range	bar	4-10	
air consumption	cm³/stroke	1000	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
actuator ports	2/4	G 1/4	G 3/8

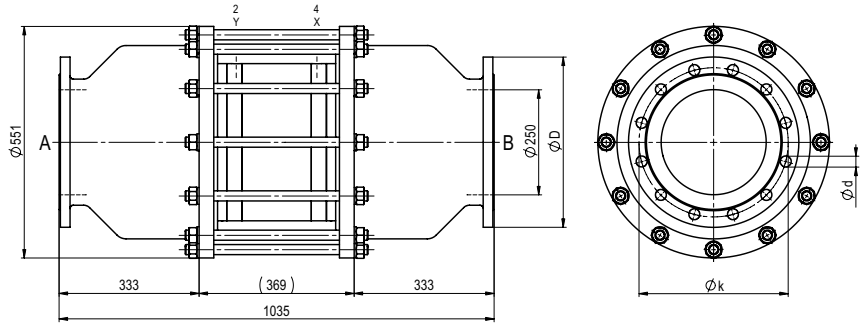
hydraulic specifications			**options**
actuation pressure range	bar	10-30 / 30-60	
by media			upon request
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard

specifications highlighted in grey are optional

type **VSV-F 250**

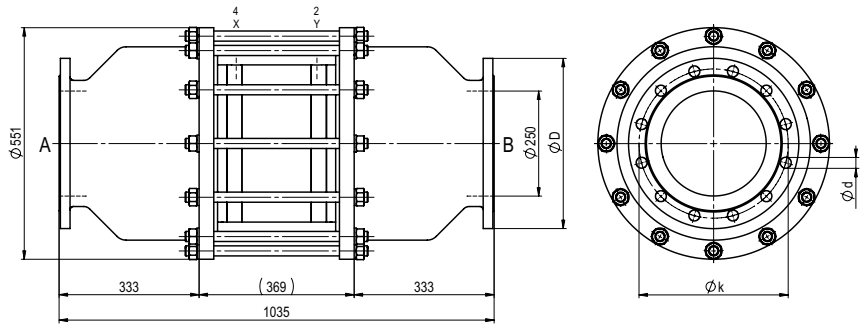
function: **NC**
closed when not energized



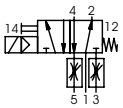
flanges PN	DIN	øD	øk	ød
16	2633	405	355	26

type **VSV-F 250**

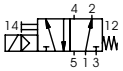
function: **NO**
open when not energized



pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/4

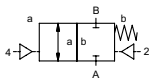
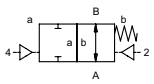


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

coaxial valve
type FCF 65

5-FCF 65

valve type with pilot valve

2/2 way valve	**externally controlled**	
pressure range	PN 0-40 bar	
orifice	DN 65 mm	
connection	flange	
function	valve normally closed symbol **NC**	
	valve normally open symbol **NO**	

design	pressure balanced, with spring return	
body materials	⓪ aluminium	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, PU	PTFE, FPM, PE

⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

details needed for main valve
- orifice
- port
- function NC/NO
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	FCF	flanges PN 16/40	
function		NC	NO
pressure range	bar	0-16/0-40	
Kv value	m³/h	107,0	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request (max. 16 bar)
switching cycles	1/min	50	
switching time	ms	opening 250-3000 closing 400-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			inductive
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF 12,5	
additional equipment		sensor / manometer connection G 1/4	

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

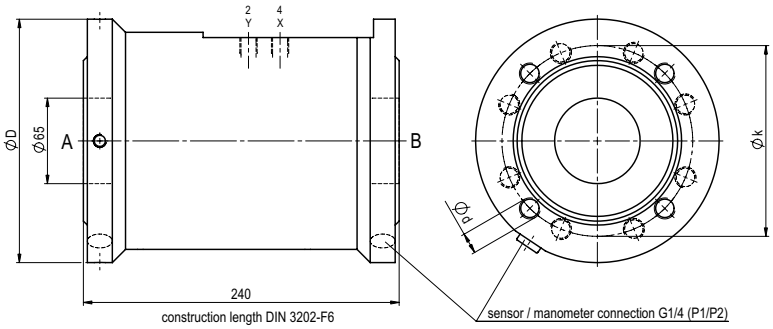
pneumatic specifications			**options**
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	77	
cycle speed	main valve speed variable by throttles on pilot valve		
control	preferably 5/2-way pilot valve		
pilot valve interface	NAMUR VDI / VDE 3845		ISO 1 DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications			**options**
actuation pressure range	bar	30-60	
by media			
control	preferably 4/2-way control valve		
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **FCF 65**

function: **NC**
closed when not energized

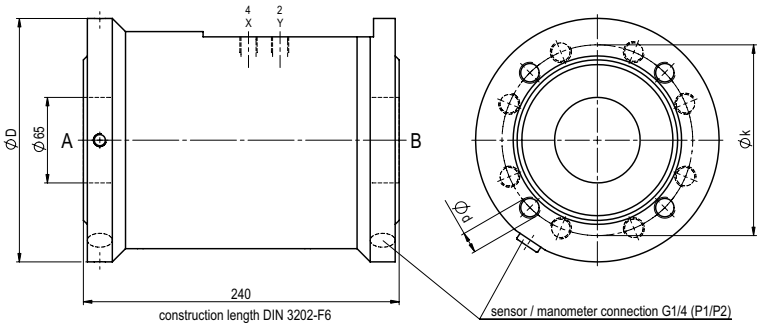


PN 16 - 4 bolt holes
PN 40 - 8 bolt holes

flanges PN	DIN	øD	øk	ød
16	2633	185	145	M16
40	2635	185	145	M16

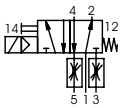
type **FCF 65**

function: **NO**
open when not energized

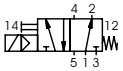


PN 16 - 4 bolt holes
PN 40 - 8 bolt holes

pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8

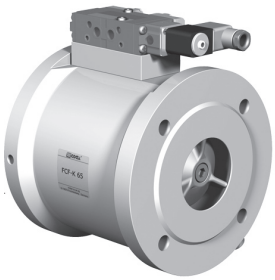


5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4

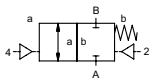
coaxial valve
type FCF-K 65

5-FCF-K 65

valve type with pilot valve



2/2 way valve	**externally controlled**
pressure range	PN 0-40 bar
orifice	DN 65 mm
connection	flange
function	valve normally closed symbol **NC**



⚠ Above stated body materials refer to the valve port connections that get in contact with the media only!

design	pressure balanced, with spring return	
body materials	⓪ aluminium	②
	③	⑤
	④	⑥
valve seat	synthetic resin on metal	
seal materials	NBR, PU	PTFE, FPM, PE

details needed for main valve
- orifice
- port
- function NC
- operating pressure
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

details needed for pneumatic actuation
- nominal voltage
- type of protection
- actuation pressure range min/max
- pilot valve type

details needed for hydraulic actuation
- actuation pressure range min/max
- hydraulic control valve function

general specifications			**options**
ports	FCF-K	flanges PN 16/40	
function		NC	
pressure range	bar	0-16/0-40	
Kv value	m³/h	98,0	
vacuum	leak rate		< 10^{-4} mbar•l•s^{-1}
pressure-vacuum	$P_1 \Leftrightarrow P_2$		pressure side max. 40 bar vacuum side leak rate upon request
back pressure	$P_2 > P_1$		available (max. 16 bar)
media		emulsions - oils - neutral gases	other medias upon request
abrasive media			
damping	opening		
	closing	by throttles on pilot valve	
flow direction	A ⇨ B	as marked	bi-directional upon request (max. 16 bar)
switching cycles	1/min	50	
switching time	ms	opening 250-3000 closing 400-3000	
media temperature	°C	direct mounted pilot valve 60	>60°C upon request
ambient temperature	°C	direct mounted pilot valve 50	>50°C upon request
flush ports			
leak ports			
limit switches			
manual override		via pilot valve	
approvals			upon request
mounting			
weight	kg	FCF-K 9,2	
additional equipment		sensor / manometer connection G 1/4	

electrical specifications			**options**
nominal voltage	U_n	DC 24V	special voltage upon request
	U_n	AC 230V 50 Hz	special voltage upon request
power consumption	DC	4,8 W	
	AC	pick up 11,0 VA holding 8,5 VA	
protection	IP 65 (P54)	acc. DIN 40 050	
energized duty rating	ED	100%	
connection		plug acc. DIN EN 175301-803 form B, 4 positions x 90° / wire diameter 6-8 mm	
additional equipment		illuminated plug with varistor	
optional	M12x1	connector acc. DESINA	connector acc. VDMA
max. temperature	media	60°C	
	ambient	50°C	
explosion proof	EEx m II T5	nominal voltage U_n	direct current 24 V 3,25 W
		power consumption	alternating current 230 V 50 Hz 2,90 W

⚠ The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

⚠ If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

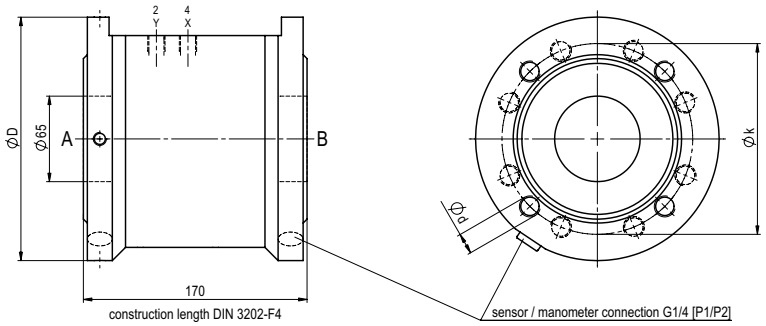
pneumatic specifications			**options**
actuation pressure range	bar	4-10	3-10 upon request
air consumption	cm³/stroke	77	
cycle speed		main valve speed variable by throttles on pilot valve	
control		preferably 5/2-way pilot valve	
pilot valve interface	NAMUR VDI / VDE 3845		ISO 1 DIN 5599/1
actuator ports	2/4	G 1/4	G 3/8

hydraulic specifications			**options**
actuation pressure range	bar	30-60	
by media			
control		preferably 4/2-way control valve	
actuator ports	X/Y	G 1/4	NPT 1/4

- specifications not highlighted are standard
- specifications highlighted in grey are optional

type **FCF-K 65**

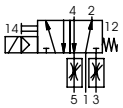
function: **NC**
closed when not energized



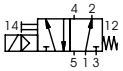
PN 16 - 4 bolt holes
PN 40 - 8 bolt holes

flanges PN	DIN	øD	øk	ød
16	2633	185	145	M16
40	2635	185	145	M16

pneumatic actuation (separately)



5/2-way-pilot valve
flow rate 700 l/min
pressure range 3-10 bar G 1/8



5/2-way-pilot valve ISO 1
flow rate 700 l/min
pressure range 3-10 bar G 1/4