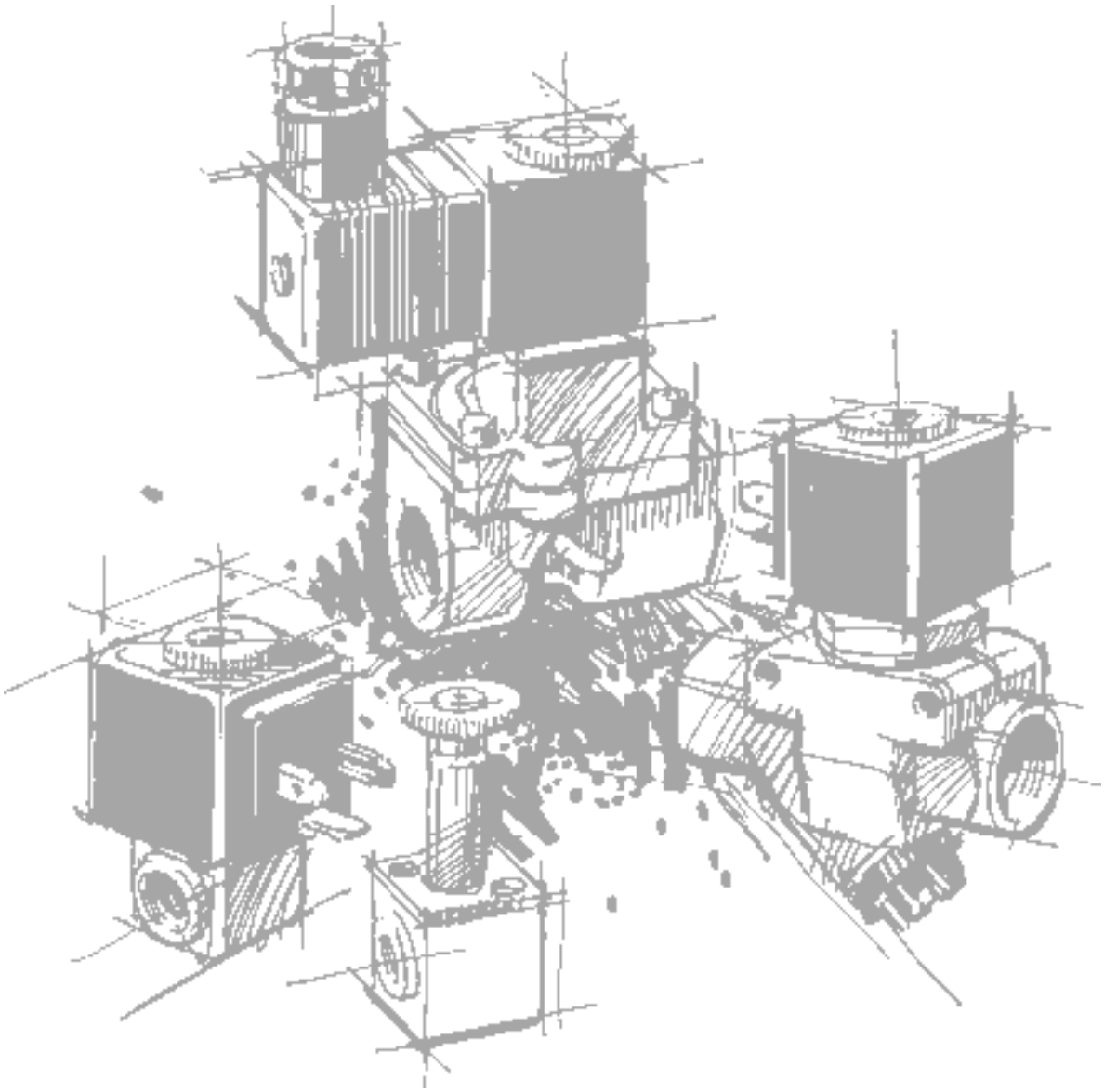
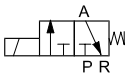
Data sheet



Solenoid valves
3/2-way direct-operated
Type EV310A

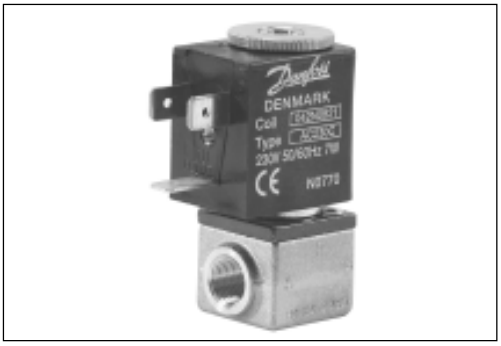


De-energized
closed

Type EV310A NC
for neutral liquids and gases
DN 1.2 - 2.0 B

$G\ ^1/_8$ - $G\ ^1/_4$

Features



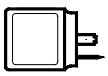
- Very compact valves for industrial application, such as control
- For water, oil, compressed air and similar neutral media
- K_v value up to 0.08 m^3/h
- Differential pressure: Up to 20 bar
- Viscosity: Up to 20 cSt
- Ambient temperature: Up to +50°C
- Coil enclosure: Up to IP 65
- Thread connections: $G\ ^1/_8$ and $G\ ^1/_4$

Technical data

Installation	Optional, but vertical solenoid system is recommended		
Pressure range	0 to 20 bar		
Max. test pressure	50 bar		
Time to open and to close	7 - 10 ms (depending on the pressure)		
Ambient temperature	max. +50°C		
Medium temperature	FKM: -10° to +100° C		
Viscosity	max. 20 cSt		
Materials	Valve body:	Brass,	W.no. 2.0401
	Valve orifice:	Stainless steel,	W.no. 1.4305 / AISI 303
	Armature:	Stainless steel,	W.no. 1.4016 / AISI 430
	Armature tube:	Stainless steel,	W.no. 1.4303 / AISI 305
	Armature stop:	Stainless steel,	W.no. 1.4016 / AISI 430
	Spring:	Stainless steel,	W.no. 1.4310 / AISI 301
	O-rings/valve plate:	EPDM or FKM	

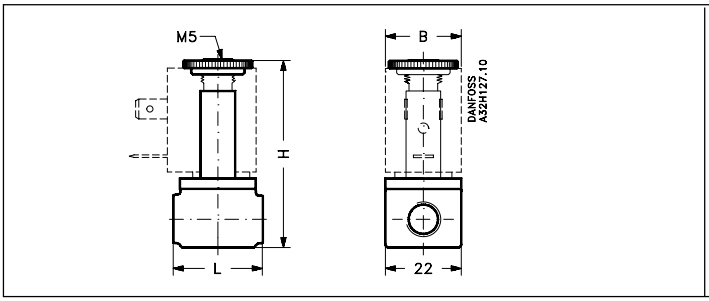
Coil options

Type AC:
7.0 W ac / 10 W dc
See DKACV.PD.600.A

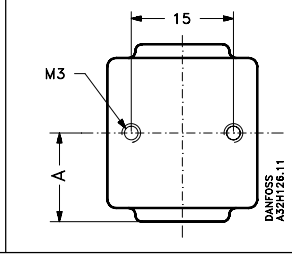


Type AM:
7.5 W ac / 9.5 W dc
See DKACV.PD.600.A

Dimensions and weight



Bottom view

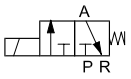


Thread ISO 228/1	L [mm]	B [mm] Coil type AC	B [mm] Coil type AM	H [mm]	A [mm]	Weight without coil [kg]
$G\ ^1/_8$	26	22	32	54	13	0.085
$G\ ^1/_4$	35	22	32	59	17.5	0.110

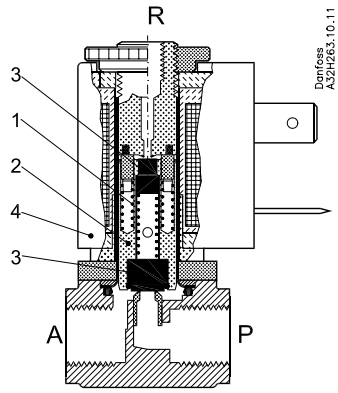
$G\ ^1/_8$ - $G\ ^1/_4$

Type EV310A NC
for neutral liquids and gases
DN 1.2 - 2.0 B

De-energized
closed



Function



1. Closing spring
2. Armature
3. Valve plate
4. Coil
P: Pressure gate
A: Working gate
R: Relief gate

Coil voltage disconnected (closed):
When the voltage to the coil (4) is disconnected, the armature (2) with the valve plates (3) is pressed down by the closing spring (1) and closes the connection between P and A. At the same time, the connection between gates A and R is opened. The connection between P and A will be closed for as long as the voltage to the coil is disconnected.

Coil voltage connected (open):
When voltage is applied, the armature (2) with the valve plates (3) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened.
The connection between P and A will be open for as long as there is voltage to the coil.

Ordering - valve body

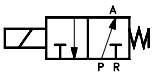
Conn. ISO 228/1	Seal material *	Kv value	DN	Media temp		Type designation		Code no. without coil	Permissible differential pressure (bar) **							Suitable coil types
				Min.	Max.	Main type	Specification		Min	Max.						
										Water		Oil		Air		
		m^3/h	mm	°C	°C					a.c.	d.c.	a.c.	d.c.	a.c.	d.c.	
$G\ ^1/_8$	FKM	0.04	1.2	-10	+100	EV310A 1.2 B	G 18F NC000	**032H8085**	0	18	18	9	9	20	20	AC, AM
$G\ ^1/_8$	FKM	0.07	1.5	-10	+100	EV310A 1.5 B	G 18F NC000	**032H8087**	0	10	10	5	5	12	12	AC, AM
$G\ ^1/_8$	FKM	0.08	2.0	-10	+100	EV310A 2.0 B	G 18F NC000	**032H8089**	0	6.5	6.5	4	4	8	8	AC, AM
$G\ ^1/_4$	FKM	0.04	1.2	-10	+100	EV310A 1.2 B	G 14F NC000	**032H8095**	0	18	18	9	9	20	20	AC, AM
$G\ ^1/_4$	FKM	0.07	1.5	-10	+100	EV310A 1.5 B	G 14F NC000	**032H8097**	0	10	10	5	5	12	12	AC, AM
$G\ ^1/_4$	FKM	0.08	2.0	-10	+100	EV310A 2.0 B	G 14F NC000	**032H8099**	0	6.5	6.5	4	4	8	8	AC, AM

* For WRAS approved seal material in EPDM, please contact Danfoss.

** The EV310A valve in de-energized closed version, is also available for higher differential pressure up to 28 bar. Please contact Danfoss.

Ordering - coils

See separate data sheet for coils DKACV.PD.600.A

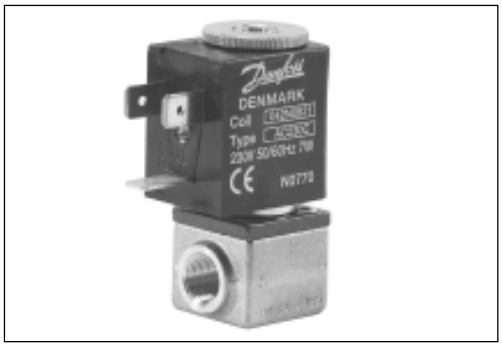


De-energized
open

Type EV310A NO
for neutral liquids and gases
DN 1.2 - 1.5 B

$G\ ^1/_8$ - $G\ ^1/_4$

Features



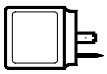
- Very compact valves for industrial application, such as control
- For water, oil, compressed air and similar neutral media
- K_v values up to 0.07 m^3/h
- Differential pressure: Up to 13 bar
- Viscosity: Up to 20 cSt
- Ambient temperature: Up to +50°C
- Coil enclosure: Up to IP 65
- Thread connections: $G\ ^1/_8$ and $G\ ^1/_4$

Technical data

Installation	Optional, but vertical solenoid system is recommended		
Pressure range	0 to 13 bar		
Max. test pressure	50 bar		
Time to open and to close	7 - 10 ms (depending on the pressure)		
Ambient temperature	max. +50°C		
Medium temperature	FKM: -10° to +100° C		
Viscosity	max. 20 cSt		
Materials	Valve body:	Brass,	W.no. 2.0401
	Valve orifice:	Stainless steel,	W.no. 1.4305 / AISI 303
	Armature:	Stainless steel,	W.no. 1.4016 / AISI 430
	Armature tube:	Stainless steel,	W.no. 1.4303 / AISI 305
	Armature stop:	Stainless steel,	W.no. 1.4016 / AISI 430
	Spring:	Stainless steel,	W.no. 1.4310 / AISI 301
	Other parts:	Stainless steel,	W.no. 1.4104 / AISI 430F
	O-rings/valve plate:	EPDM or FKM	

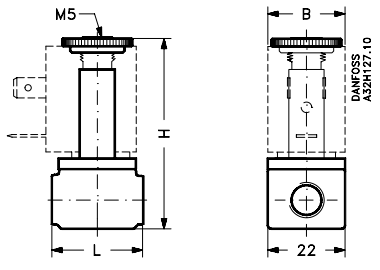
Coil options

Type AB: 4.5 W ac / 5 W dc
Type AC: 7.0 W ac / 10 W dc
See DKACV.PD.600.A

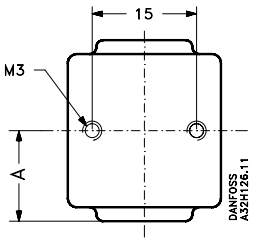


Type AK: 3 W dc
Type AM: 7.5 W ac / 9.5 W dc
See DKACV.PD.600.A

Dimensions and weight



Bottom view

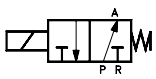


Thread ISO 228/1	L [mm]	B [mm] Coil types: AB + AC	B [mm] Coil types: AM + AK	H [mm]	A [mm]	Weight without coil [kg]
$G\ ^1/_8$	26	22	32	54	13	0.085
$G\ ^1/_4$	35	22	32	59	17.5	0.110

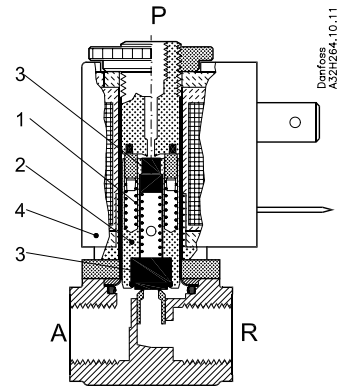
$G\ ^1/_8$ - $G\ ^1/_4$

Type EV310A NO
for neutral liquids and gases
DN 1.2 - 1.5 B

De-energized
open



Function



1. Opening spring
2. Armature
3. Valve plate
4. Coil
P: Pressure gate
A: Working gate
R: Relief gate

Coil voltage disconnected (open):
When the voltage is disconnected, the armature (2) with the valve plates (3) is pressed down by the opening spring (1) and closes the connection between A and R. At the same time, the connection between P and A is open. The connection between P and A will be open for as long as the voltage to the coil is disconnected.

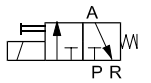
Coil voltage connected (closed):
When voltage is applied to the coil (4), the armature (2) with the valve plates (3) is lifted and closes the connection between P and A. At the same time, the connection between gates A and R is opened. The connection between P and A will be closed for as long as there is voltage to the coil.

Ordering - valve body

Conn. ISO 228/1	Seal material *	Kv-value	DN	Media temp Min.	Media temp Max.	Type designation Main type	Type designation Specification	Code no. without coil	Permissible differential pressure (bar) Min.	Max. Water a.c.	Max. Water d.c.	Max. Oil a.c.	Max. Oil d.c.	Max. Air a.c.	Max. Air d.c.	Suitable coil type
		m^3/h	mm	°C	°C											
$G\ ^1/_8$	FKM	0.04	1.2	-10	+100	EV310A 1.2 B	G 18F NO000	**032H8125**	0	6 9 13	4 7 9 4	6 9 13	4 7 9 4	6 9 13	4 7 9 4	AB AC AM AK
$G\ ^1/_8$	FKM	0.07	1.5	-10	+100	EV310A 1.5 B	G 18F NO000	**032H8127**	0	3 5 7	2 3.5 5 2	3 5 7	2 3.5 5 2	3 5 7	2 3.5 5 2	AB AC AM AK
$G\ ^1/_4$	FKM	0.04	1.2	-10	+100	EV310A 1.2 B	G 14F NO000	**032H8133**	0	6 9 13	4 7 9 4	6 9 13	4 7 9 4	6 9 13	4 7 9 4	AB AC AM AK
$G\ ^1/_4$	FKM	0.07	1.5	-10	+100	EV310A 1.5 B	G 14F NO000	**032H8135**	0	3 5 7	2 3.5 5 2	3 5 7	2 3.5 5 2	3 5 7	2 3.5 5 2	AB AC AM AK

Ordering - coils

See separate data sheet for coils DKACV.PD.600.A



with manual override

De-energized
closed

Type EV310A NC Man
for neutral liquids and gases
DN 1.2 - 2.0 B

$G\ ^1/_8$ - $G\ ^1/_4$

Features

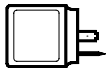
- Very compact valves for industrial application, such as control
- With manual override
- For water, oil, compressed air and similar neutral media
- K_V value up to 0.08 m^3/h
- Differential pressure: Up to 20 bar
- Viscosity: Up to 20 cSt
- Ambient temperature: Up to +50°C
- Coil enclosure: Up to IP 65
- Thread connections: $G\ ^1/_8$ and $G\ ^1/_4$

Technical data

Installation	Optional, but vertical solenoid system is recommended		
Pressure range	0 to 20 bar		
Max. test pressure	50 bar		
Time to open and to close	7 - 10 ms (depending on the pressure)		
Ambient temperature	max. +50°C		
Medium temperature	FKM: -10° to +100 °C		
Viscosity	max. 20 cSt		
Materials	Valve body:	Brass,	W.no. 2.0401
	Valve orifice:	Stainless steel,	W.no. 1.4305 / AISI 303
	Armature:	Stainless steel,	W.no. 1.4016 / AISI 430
	Armature tube:	Stainless steel,	W.no. 1.4303 / AISI 305
	Armature stop:	Stainless steel,	W.no. 1.4016 / AISI 430
	Spring:	Stainless steel,	W.no. 1.4310 / AISI 301
	Other parts:	Stainless steel,	W.no. 1.4104 / AISI 430F
	O-rings/valve plate:	EPDM or FKM	

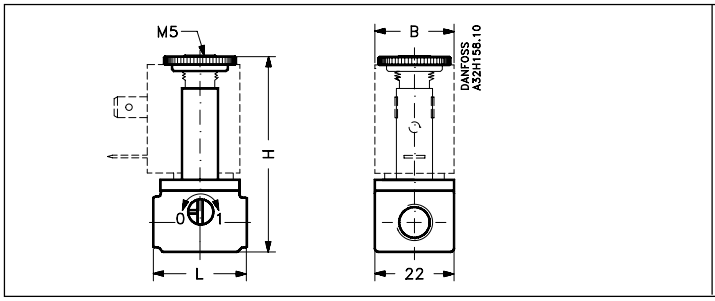
Coil options

Type AC:
7.0 W ac / 10 W dc
See DKACV.PD.600.A



Type AM:
7.5 W ac / 9.5 W dc
See DKACV.PD.600.A

Dimensions and weight

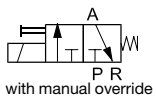


Thread ISO 228/1	L [mm]	B [mm] Coil types AC	B [mm] Coil type AM	H [mm]	A [mm]	Weight without coil [kg]
$G\ ^1/_8$	26	22	32	54	13	0.085
$G\ ^1/_4$	35	22	32	59	17.5	0.110

$G\ ^1/_8$ - $G\ ^1/_4$

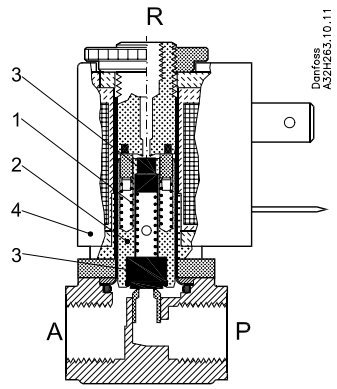
Type EV310A Man
for neutral liquids and gases
DN 1.2 - 2.0 B

De-energized
closed



with manual override

Function



1. Closing spring
2. Armature
3. Valve plate
4. Coil
P: Pressure gate
A: Working gate
R: Relief gate

Coil voltage disconnected (closed):
When the voltage to the coil (4) is disconnected, the armature (2) with the valve plates (3) is pressed down by the closing spring (1) and closes the connection between P and A. At the same time, the connection between gates A and R is opened. The connection between P and A will be closed for as long as the voltage to the coil is disconnected.
The valve can be opened using an opening screw in the valve body.

Coil voltage connected (open):
When voltage is applied, the armature (2) with the valve plates (3) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened.
The connection between P and A will be open for as long as there is voltage to the coil.

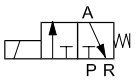
Ordering - valve body

Conn. ISO 228/1	Seal material	Kv-value	DN	Media temp		Type designation *		Code no. without coil	Permissible differential pressure (bar)							Suitable coil types
				Min.	Max.	Main type	Specification		Min.	Max.						
										Water		Oil		Air		
		m^3/h	mm	°C	°C					a.c.	d.c.	a.c.	d.c.	a.c.	d.c.	
$G\ ^1/_8$	FKM	0.04	1.2	-10	+100	EV310A 1.2 B	G 18F NC040	**032H8141**	0	18	18	9	9	20	20	AC, AM
$G\ ^1/_8$	FKM	0.07	1.5	-10	+100	EV310A 1.5 B	G 18F NC040	**032H8143**	0	10	10	5	5	12	12	AC, AM
$G\ ^1/_8$	FKM	0.08	2.0	-10	+100	EV310A 2.0 B	G 18F NC040	**032H8145**	0	6.5	6.5	4	4	8	8	AC, AM
$G\ ^1/_4$	FKM	0.04	1.2	-10	+100	EV310A 1.2 B	G 14F NC040	**032H8151**	0	18	18	9	9	20	20	AC, AM
$G\ ^1/_4$	FKM	0.07	1.5	-10	+100	EV310A 1.5 B	G 14F NC040	**032H8153**	0	10	10	5	5	12	12	AC, AM
$G\ ^1/_4$	FKM	0.08	2.0	-10	+100	EV310A 2.0 B	G 14F NC040	**032H8155**	0	6.5	6.5	4	4	8	8	AC, AM

* The EV310A with manual override, is also available in de-energized open version, please contact Danfoss for details.

Ordering - coils

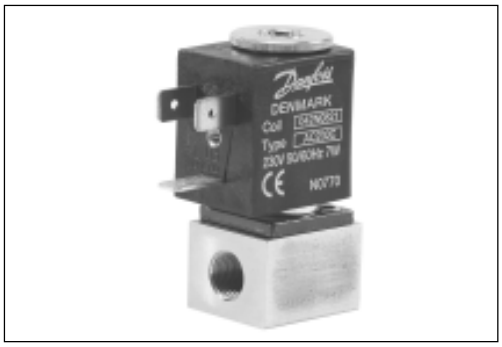
See separate data sheet for coils DKACV.PD.600.A



De-energized
closed

Type EV310A NC SS
for neutral and aggressive liquids and gases
DN 1.2 - 2.0 SS (stainless steel body)

G 1/8
G 1/4



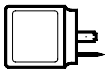
- Very compact valves for industrial application, such as control.
- For neutral and aggressive liquids and gases. Contact Danfoss if you are in doubt about the valve's suitability for the medium in question.
- Differential pressure: Up to 20 bar
- Viscosity: Up to 20 cSt
- Ambient temperature: Up to +50°C
- Coil enclosure: Up to IP 65
- Thread connections: G 1/8 and G 1/4

Technical data

Installation	Optional, but vertical solenoid system is recommended
Pressure range	0 to 20 bar
Max. test pressure	50 bar
Time to open and to close	7 - 10 ms (depending on the pressure)
Ambient temperature	max. +50°C
Medium temperature Viscosity	FKM: -10 to + 100° C max. 20 cSt
Materials	Valve body: Stainless steel, W.no. 1.4305 / AISI 303 Valve orifice: Stainless steel, W.no. 1.4305 / AISI 303 Armature: Stainless steel, W.no. 1.4016 / AISI 430 Armature tube: Stainless steel, W.no. 1.4303 / AISI 305 Armature tube stop : Stainless steel, W.no. 1.4016 / AISI 430 Spring: Stainless steel, W.no. 1.4310 / AISI 301 Other parts: Stainless steel, W.no. 1.4104 / AISI 430F O-rings/valve plate: EPDM or FKM

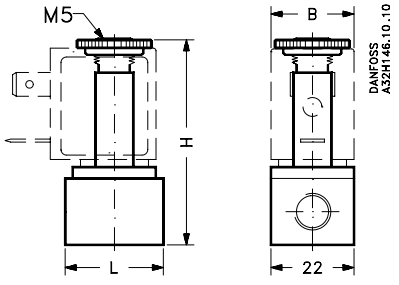
Coil options

Type AC:
7.0 W ac / 10 W dc
See DKACV.PD.600.A

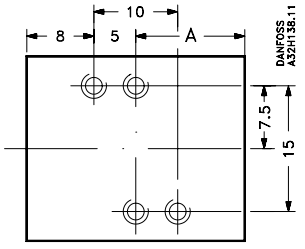


Type AM:
7.5 W ac / 9.5 W dc
See DKACV.PD.600.A

Dimensions and weight



Bottom view

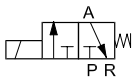


Thread ISO 228/1	L [mm]	B [mm] Coil type AC	B [mm] Coil type AM	H [mm]	A [mm]	Weight without coil [kg]
G 1/8	26	22	32	54	13	0.085
G 1/4	35	22	32	59	17.5	0.110

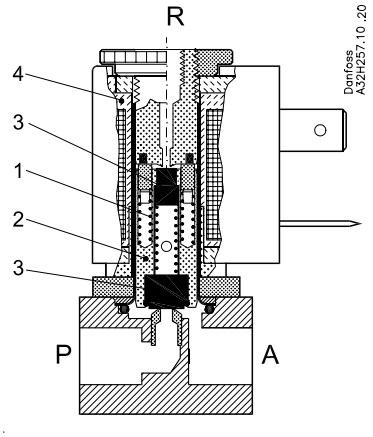
G 1/8
G 1/4

Type EV310A NC SS
for neutral and aggressive liquids and gases
DN 1.2 - 2.0 SS (stainless steel body)

De-energized
closed



Function



1. Closing spring
2. Armature
3. Valve plate
4. Coil
P: Pressure port
A: Working port
R: Relief port

Coil voltage disconnected (closed):
When the voltage to the coil (4) is disconnected, the armature (2) with the valve plates (3) is pressed down by the closing spring (1) and closes the connection between P and A. At the same time, the connection between ports A and R is opened. The connection between P and A will be closed for as long as the voltage to the coil is disconnected.

Coil voltage connected (open):
When voltage is applied, the armature (2) with the valve plates (3) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened.
The connection between P and A will be open for as long as there is voltage to the coil.

Ordering - valve body

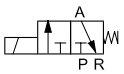
valves for low differential pressure

Conn. ISO 228/1	Seal material *	Kv	DN	Media temp		Type designation		Code no. without coil	Permissible differential pressure (bar)							Suitable coil types
				Min.	Max.	Main type	Specification		Min.	Max.						
										Water		Oil		Air		
		m³/h	mm	°C	°C					a.c.	d.c.	a.c.	d.c.	a.c.	d.c.	
G 1/8	FKM	0.04	7.2	-10	+100	EV310A 1.2 SS	G 18F NC000	**032H8105**	0	18	18	9	9	20	20	AC, AM
G 1/8	FKM	0.07	7.5	-10	+100	EV310A 1.5 SS	G 18F NC000	**032H8107**	0	10	10	5	5	12	12	AC, AM
G 1/8	FKM	0.08	2.0	-10	+100	EV310A 2.0 SS	G 18F NC000	**032H8109**	0	6.5	6.5	4	4	8	8	AC, AM
G 1/4	FKM	0.04	7.2	-10	+100	EV310A 1.2 SS	G 14F NC000	**032H8115**	0	18	18	9	9	20	20	AC, AM
G 1/4	FKM	0.07	7.5	-10	+100	EV310A 1.5 SS	G 14F NC000	**032H8117**	0	10	10	5	5	12	12	AC, AM
G 1/4	FKM	0.08	2.0	-10	+100	EV310A 2.0 SS	G 14F NC000	**032H8119**	0	6.5	6.5	4	4	8	8	AC, AM

* For WRAS approved seal material in EPDM, please contact Danfoss.

Ordering - coils

See separate data sheet for coils DKACV.PD.600.A



De-energized
closed

Type EV310A NC FL
for neutral liquids and gases
DN 1.2 - 1.5 B

Flange
22 × 22 mm

Features

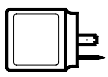
- Very compact valves for industrial application, such as control
- For water, oil, compressed air and similar neutral media
- Flow range for water: Up to 0.25 m³/h
- Differential pressure: Up to 20 bar
- Viscosity: Up to 20 cSt
- Ambient temperature: Up to +50°C
- Coil enclosure: Up to IP 65
- Flange connection: 22 × 22 mm

Technical data

Installation	Optional, but vertical solenoid system is recommended
Pressure range	0 to 20 bar
Max. test pressure	50 bar
Time to open and to close	7 - 10 ms (depending on the pressure)
Ambient temperature	Max. +50°C
Medium temperature	FKM: - 10° to + 100°C
Viscosity	max. 20 cSt
Materials	Valve body: Brass, W.no. 2.0401 Armature: Stainless steel, W.no. 1.4016 / AISI 430 Armature tube: Stainless steel, W.no. 1.4303 / AISI 305 Armature tube stop: Stainless steel, W.no. 1.4016 / AISI 430 Spring extensions: Stainless steel, W.no. 1.4104 / AISI 430F Spring: Stainless steel, W.no. 1.4310 / AISI 301 O-rings/valve plate: FKM

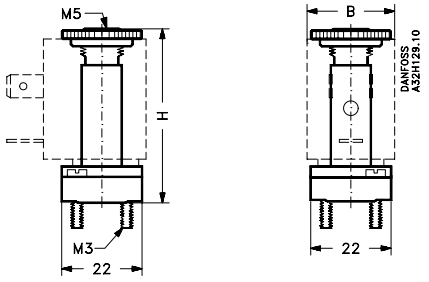
Coil options

Type AC:
7.0 W ac / 10 W dc
See DKACV.PD.600.A

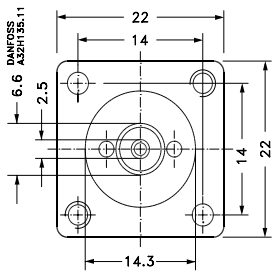


Type AM:
7.5 W ac / 9.5 W dc
See DKACV.PD.600.A

Dimensions and weight



Bottom view



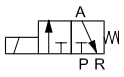
Flange [mm]	B [mm]		H [mm]	Weight without coil [kg]
	Coil type AC	Coil type AM		
22 × 22	22	32	44.5	0.050

 /AC-VM/hat

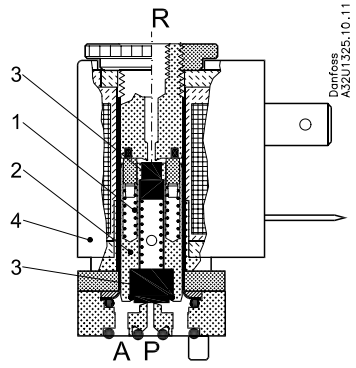
Flange
22 × 22 mm

Type EV310A NC FL
for neutral liquids and gases
DN 1.2 - 1.5 B

De-energized
closed



Function



1. Closing spring
2. Armature
3. Valve plate
4. Coil
P: Pressure gate
A: Working gate
R: Relief gate

Coil voltage disconnected (closed):
When the voltage to the coil (4) is disconnected, the armature (2) with the valve plates (3) is pressed down by the closing spring (1) and closes the connection between P and A. At the same time, the connection between gates A and R is opened. The connection between P and A will be closed for as long as the voltage to the coil is disconnected.

Coil voltage connected (open):
When voltage is applied, the armature (2) with the valve plates (3) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened.
The connection between P and A will be open for as long as there is voltage to the coil.

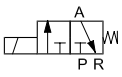
Ordering - valve body

Conn. ISO 228/1	Seal material	K_v-value	DN	Media temp.		Type designation		**Code no. without coil**	Permissible diff. pressure (bar)							Suitable coil types
									Min.	Max.						
										Water		Oil		Air		
		[m³/h]	mm	Min. [°C]	Max. [°C]	Main type	Specification			ac	dc	ac	dc	ac	dc	
22 x 22	FKM	0.05	1.2	-10	+100	EV310A 1.2 B	FL 22F NC000	**032H8173**	0	18	18	9	9	20	20	AC, AM
22 x 22	FKM[1]	0.08	1.5	-10	+100	EV310A 1.5 B	FL 22F NC000	**032H8175**	0	10	10	5	5	12	12	AC, AM

Ordering - coils

See separate data sheet for coils DKACV.PD.600.A

Base plate See page 16 and 17

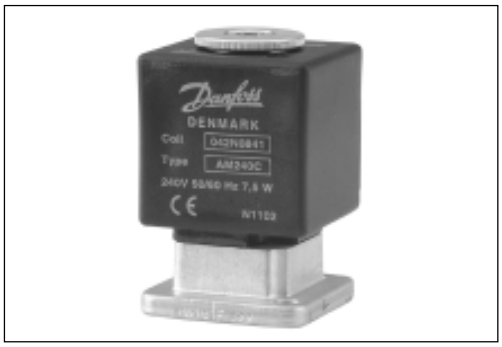


De-energized
closed

Type EV310A NC FL
for neutral liquids and gases
DN 1.2 - 1.5 B

Flange
32 × 32 mm

Features



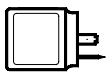
- Very compact valves for industrial application, such as control
- For water, oil, compressed air and similar neutral media
- Flow range for water: Up to 0.22 m³/h
- Differential pressure: Up to 20 bar
- Viscosity: Up to 20 cSt
- Ambient temperature: Up to +50°C
- Coil enclosure: Up to IP 65
- Flange connection: 32 × 32 mm

Technical data

Installation	Optional, but vertical solenoid system is recommended		
Pressure range	0 to 20 bar		
Max. test pressure	50 bar		
Time to open and to close	7 - 10 ms (depending on the pressure)		
Ambient temperature	max. +50°C		
Medum temperature	FKM: -10° to +100°C		
Viscosity	max. 20 cSt		
Materials	Valve body:	Brass,	W.no. 2.0401
	Valve orifice:	Stainless steel,	W.no. 1.4305 / AISI 303
	Armature:	Stainless steel,	W.no. 1.4016 / AISI 430
	Armature tube:	Stainless steel,	W.no. 1.4303 / AISI 305
	Armature stop:	Stainless steel,	W.no. 1.4016 / AISI 430
	Spring:	Stainless steel,	W.no. 1.4310 / AISI 301
	Spring extension:	Stainless steel,	W.no. 1.4104 / AISI 430F
	O-rings/valve plate:	FKM	

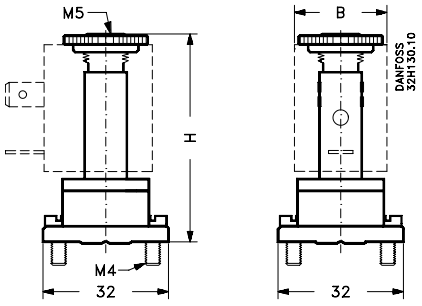
Coil options

Type AC:
7.0 W ac / 10 W dc
See DKACV.PD.600.A

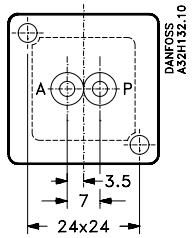


Type AM:
7.5 W ac / 9.5 W dc
See DKACV.PD.600.A

Dimensions and weight



Bottom view

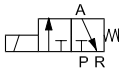


Flange	B [mm]		H	Weight without coil
[mm]	Coil type AC	Coil type AM	[mm]	[kg]
32 × 32	22	32	50.5	0.085

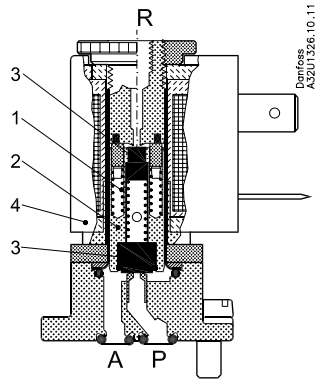
Flange
32 × 32 mm

Type EV310A NC FL
for neutral liquids and gases
DN 1.2 - 1.5 B

De-energized
closed



Function



1. Closing spring
2. Armature
3. Valve plate
4. Coil
P: Pressure gate
A: Working gate
R: Relief gate

Coil voltage disconnected (closed):
When the voltage to the coil (4) is disconnected, the armature (2) with the valve plates (3) is pressed down by the closing spring (1) and closes the connection between P and A. At the same time, the connection between gates A and R is opened. The connection between P and A will be closed for as long as the voltage to the coil is disconnected.

Coil voltage connected (open):
When voltage is applied, the armature (2) with the valve plates (3) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened.
The connection between P and A will be open for as long as there is voltage to the coil.

Ordering - valve body

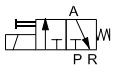
Conn. ISO 228/1	Seal material	K_v-value	DN	Media temp.		Type designation		**Code no. without coil**	Permissible diff. pressure (bar)							Suitable coil types
									Min.	Max.						
										Water		Oil		Air		
				Min.	Max.	Main type	Specification			ac	dc	ac	dc	ac	dc	
		m^3/h	mm	°C	°C											
32 x 32	FKM	0.05	1.2	-10	+100	EV310A 1.2 B	FL 32F NC000	**032H8181**	0	18	18	9	9	20	20	AC, AM
32 x 32	FKM	0.07	1.5	-10	+100	EV310A 1.5 B	FL 32F NC000	**032H8183**	0	10	10	5	5	12	12	AC, AM

Ordering - coils

See separate data sheet for coils DKACV.PD.600.A

Base plate

See page 16 and 17



with manual override

De-energized
closed

Type EV310A FL NC Man
for neutral liquids and gases
DN 1.2 - 1.5 B

Flange
32 × 32

Features

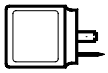
- Very compact valves for industrial application, such as control
- With manual override
- For water, oil, compressed air and similar neutral media
- Flow range for water: Up to 0.25 m³/h
- Differential pressure: Up to 20 bar
- Viscosity: Up to 20 cSt
- Ambient temperature: Up to +50°C
- Coil enclosure: Up to IP 65
- Flange connection: 32 × 32 mm

Technical data

Installation	Optional, but vertical solenoid system is recommended
Pressure range	0 to 20 bar
Max. test pressure	50 bar
Time to open and to close	7 - 10 ms (depending on the pressure)
Ambient temperature	max. +50°C
Medium temperature	FKM: -10° to +100°C
Viscosity	max. 20 cSt
Materials	Valve body: Brass, W.no. 2.0401 Valve orifice: Stainless steel, W.no. 1.4305 / AISI 303 Armature: Stainless steel, W.no. 1.4016 / AISI 430 Armature tube: Stainless steel, W.no. 1.4303 / AISI 305 Armature stop: Stainless steel, W.no. 1.4016 / AISI 430 Spring: Stainless steel, W.no. 1.4310 / AISI 301 Spring extension: Stainless steel, W.no. 1.4104 / AISI 430F O-rings/valve plate: FKM

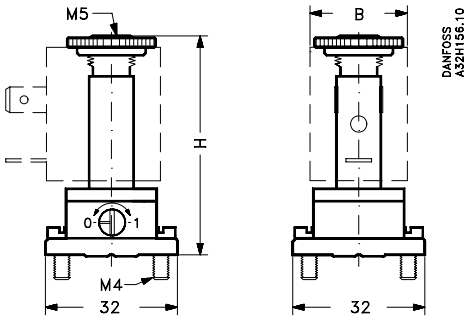
Coil options

Type AC:
7.0 W ac / 10 W dc
See DKACV.PD.600.A

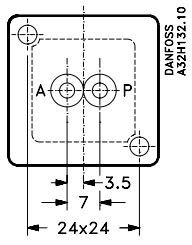


Type AM:
7.5 W ac / 9.5 W dc
See DKACV.PD.600.A

Dimensions and weight



Bottom view

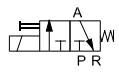


Flange	L	B mm		H	Weight without coil
		Coil type AC	Coil type AM		
mm 32 x 32	mm] 32	22	32	mm 69	kg 0.085

Flange
32 × 32

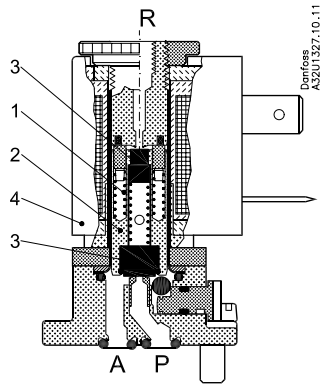
Type EV310A FL NC Man
for neutral liquids and gases
DN 1.2 - 1.5 B

De-energized
closed



with manual override

Function



1. Closing spring
2. Armature
3. Valve plate
4. Coil
P: Pressure gate
A: Working gate
R: Relief gate

Coil voltage disconnected (closed):
When the voltage to the coil (4) is disconnected, the armature (2) with the valve plates (3) is pressed down by the closing spring (1) and closes the connection between P and A. At the same time, the connection between gates A and R is opened. The connection between P and A will be closed for as long as the voltage to the coil is disconnected.
The valve can be opened using an opening screw in the valve body.

Coil voltage connected (open):
When voltage is applied, the armature (2) with the valve plates (3) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened.
The connection between P and A will be open for as long as there is voltage to the coil.

Ordering - valve body

Conn. ISO 228/1	Seal material	K_v-value	DN	Media temp.		Type designation		**Code no. without coil**	Permissible diff. pressure (bar)							Suitable coil types
				Min.	Max.				Min.	Max.						
										Water		Oil		Air		
		m^3/h	mm	°C	°C	Main type	Specification			ac	dc	ac	dc	ac	dc	
32 x 32	FKM	0.05	1.2	-10	+100	EV310A 1.2 B	FL 32F NC040	**032H8189**	0	18	18	9	9	20	20	AC, AM
32 x 32	FKM	0.08	1.5	-10	+100	EV310A 1.5 B	FL 32F NC040	**032H8191**	0	10	10	5	5	12	12	AC, AM

Ordering - coils

See separate data sheet for coils DKACV.PD.600.A

Base plate

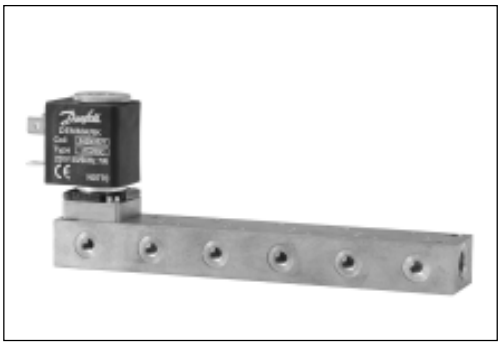
See page 16 and 17

Single base or manifold

with 22 × 22 mm flange
for neutral liquids and gases

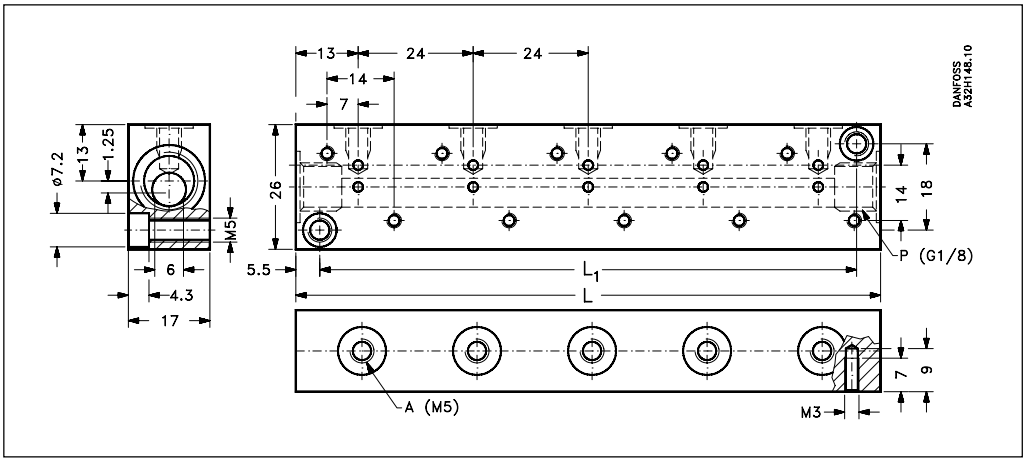
A gates: M5
P gate: G 1/8

Features



The base plates are an ideal solution to build up compact EV310A valve groups with a common supply.
The brass base plates have a full-length P-drilling to supply up to 6 EV310A valves. Likewise, the base plates have up to 6 A gates. The connection from the common P-drilling to each A gate is controlled by a EV310A valve mounted on the base plate's 22 × 22 mm flange counterpart above the A gate.
The common P gate has a G 1/8 thread. The A gates have M5 threads.

Dimensions



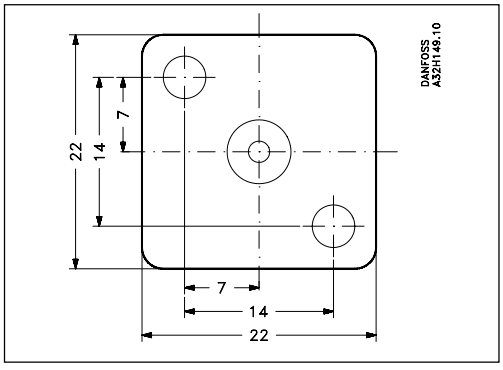
Possible no. of EV310A FL valves	P gate: ISO 228/1	A gates: Thread	L [mm]	L1 [mm]
1	G 1/8	M 5	26	15
2	G 1/8	M 5	50	39
3	G 1/8	M 5	74	63
4	G 1/8	M 5	98	87
5	G 1/8	M 5	122	111
6	G 1/8	M 5	146	135

Ordering, base plate

Please contact Danfoss

Cover plate

Dimensions



Ordering

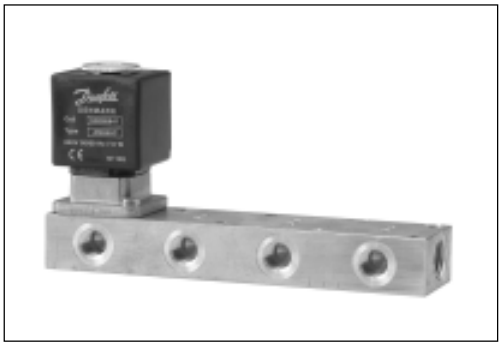
Description	**Code no.**
Cover plate to 22 × 22 flange connection including O-rings and mounting screws	**032H8250**

A gates: G 1/8
P gate: G 1/4

with 32 × 32 mm flange
for neutral liquids and gases

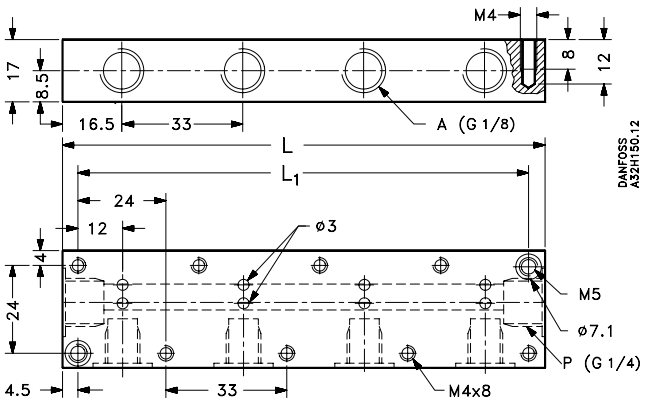
Single base
or manifold

Features



The base plates are an ideal solution to build up compact EV310A FL valve groups with a common supply.
The brass base plates have a full-length P-drilling to supply up to 6 valves. Likewise, the base plates have up to 6 A gates. The connection from the common P-drilling to each A gate is controlled by an EV310A valve mounted on the base plate's 32 × 32 mm flange counterpart above the A gate.
The common P gate has a G 1/4 thread. The A gates have G 1/8 threads.

Dimensions



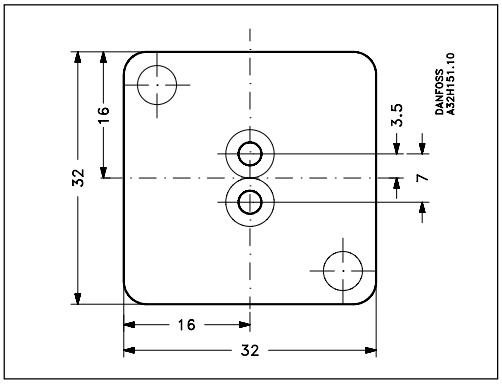
Possible no. of valves	P gate: ISO 228/1	A gates: ISO 228/1	L [mm]	L1 [mm]
1	G 1/4	G 1/8	35	24
2	G 1/4	G 1/8	68	57
3	G 1/4	G 1/8	101	90
4	G 1/4	G 1/8	134	123
5	G 1/4	G 1/8	167	156
6	G 1/4	G 1/8	200	189

Ordering, base plate

Please contact Danfoss

Cover plate

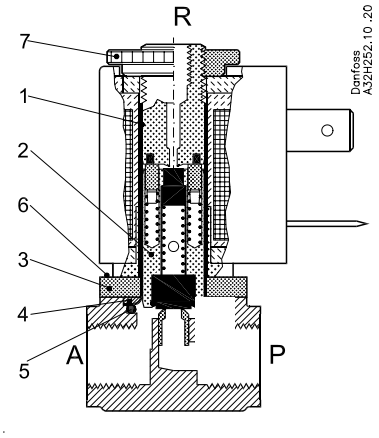
Dimensions



Ordering

Description	**Code no.**
Cover plate to 32 × 32 flange connection including O-rings and mounting screws	**032H8251**

NC - NC/FL



1. Armature tube
2. Armature with valve plate and springs
3. Flange
4. Disk
5. O-ring
6. 2 screws for connecting tube to valve body
7. Nut

P: Pressure port
A: Application port
R: Relief port

EV310A NC-NC/FL	Seal material	**Code no.**
1.2	FKM	**042U1470**
	EPDM	**042U1471**
1.5	FKM	**042U1474**
	EPDM	**042U1475**
2.0	FKM	**042U1476**
	EPDM	**042U1477**

EV310A NO	Seal material	**Code no.**
1.2	FKM	**042U1472**
	EPDM	**042U1473**
1.5	FKM	**042U1478**
	EPDM	**042U1479**

DK-6000 Kolding
Denmark