

# Solenoid valves 3/2-way direct-operated Type EV310B

## Features



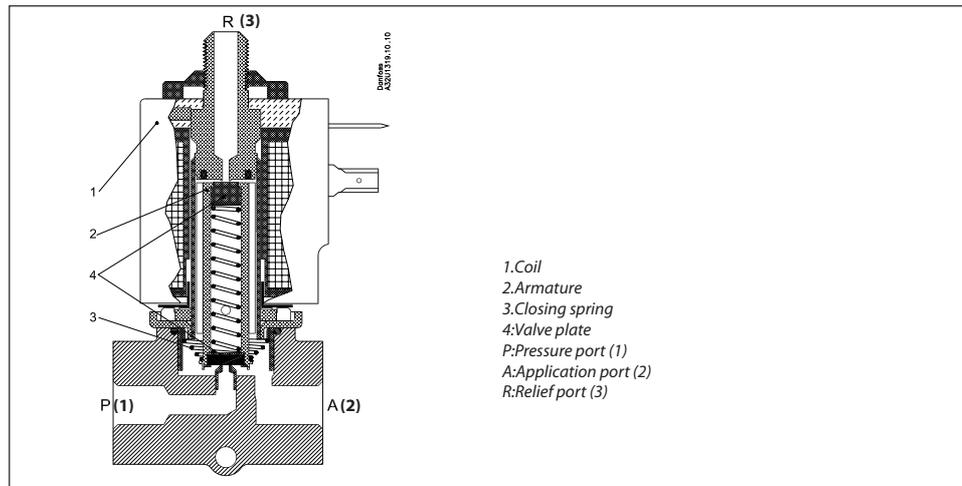
## EV310B NC

- Very robust valves for industrial application, such as control
- For water, oil, compressed air and similar neutral media
- $K_v$  value up to 0.40 m<sup>3</sup>/h
- Differential pressure: Up to 20 bar
- Viscosity: Up to 50 cSt
- Ambient temperature: Up to +40°C
- Coil enclosure: Up to IP 65
- Connections: G 1/8, G 1/4 and G 3/8

## 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	10 - 20ms (depending on the pressure)
Ambient temperature	max. +40°C
Medium temperature	-10° to +100°C
Viscosity	max. 50 cSt
Materials	Valve body: Brass, W.no. 2.0402 Armature: Stainless steel, W.no. 1.4105/ AISI 430FR Armature tube: Stainless steel, W.no. 1.4306 /AISI 304L Armature stop: Stainless steel, W.no. 1.4105 /AISI 430FR Springs: Stainless steel, W.no. 1.4310/ AISI 301 Seal material: FKM

Function NC



- 1.Coil
- 2.Armature
- 3.Closing spring
- 4.Valve plate
- P:Pressure port (1)
- A:Application port (2)
- R:Relief port (3)

*Coil voltage disconnected (closed):*

When the voltage to the coil (1) is disconnected, the armature (2) with the valve plates (4) is pressed down by the closing spring (3) 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 (4) 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 bodies

NC versions for AC ( 50/60Hz) and DC

Con- nec- tions	Seal mate- rial	k <sub>v</sub> - value [m <sup>3</sup> /h]	DN [mm]	Media temp.		Type designation		Code no. without coil	Permissible differential pressure (bar)/ coil Type		
				Min. [°C]	Max. [°C]	Main type	Specification		BA		BD
									9 W a.c.	15 W d.c.	15 W a.c.
G 1/8	FKM	0.08	1.5	-10	+100	EV310B 1,5 B	G 18 F NC 000	<b>032U4900</b>	20	20	20
	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	G 18 F NC 000	<b>032U4901</b>	16	16	16
	FKM	0.30	3.0	-10	+100	EV310B 3,0 B	G 18 F NC 000	<b>032U4902</b>	7	7	7
G 1/4	FKM	0.08	1.5	-10	+100	EV310B 1,5 B	G 14 F NC 000	<b>032U4903</b>	20	20	20
	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	G 14 F NC 000	<b>032U4904</b>	16	16	16
	FKM	0.30	3.0	-10	+100	EV310B 3,0 B	G 14 F NC 000	<b>032U4905</b>	7	7	7
	FKM	0.40	3.5	-10	+100	EV310B 3,5 B	G 14 F NC 000	<b>032U4906</b>	5	5	5
G 3/8	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	G 38 F NC 000	<b>032U4907</b>	16	16	16
	FKM	0.30	3.0	-10	+100	EV310B 3,0 B	G 38 F NC 000	<b>032U4908</b>	7	7	7
	FKM	0.40	3.5	-10	+100	EV310B 3,5 B	G 38 F NC 000	<b>032U4909</b>	5	5	5

Features



EV310B NO

- Very robust valves for industrial application, such as control
- For water, oil, compressed air and similar neutral media
- $K_v$  value up to 0.30 m<sup>3</sup>/h
- Differential pressure: Up to 20 bar
- Viscosity: Up to 50 cSt
- Ambient temperature: Up to +40°C
- Coil enclosure: Up to IP 65
- Thread connections: G 1/8, G 1/4 and G 3/8
- Also available with manual override

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	10 - 20ms (depending on the pressure)
Ambient temperature	max. +40°C
Medium temperature	-10° to +100°C
Viscosity	max. 50 cSt
Materials	Valve body: Brass, W.no. 2.0402 Armature: Stainless steel, W.no. 1.4105/ AISI 430FR Armature tube: Stainless steel, W.no. 1.4306 /AISI 304L Armature stop: Stainless steel, W.no. 1.4105 /AISI 430FR Springs: Stainless steel, W.no. 1.4310/ AISI 301 Seal material: FKM

Ordering - Valve bodies

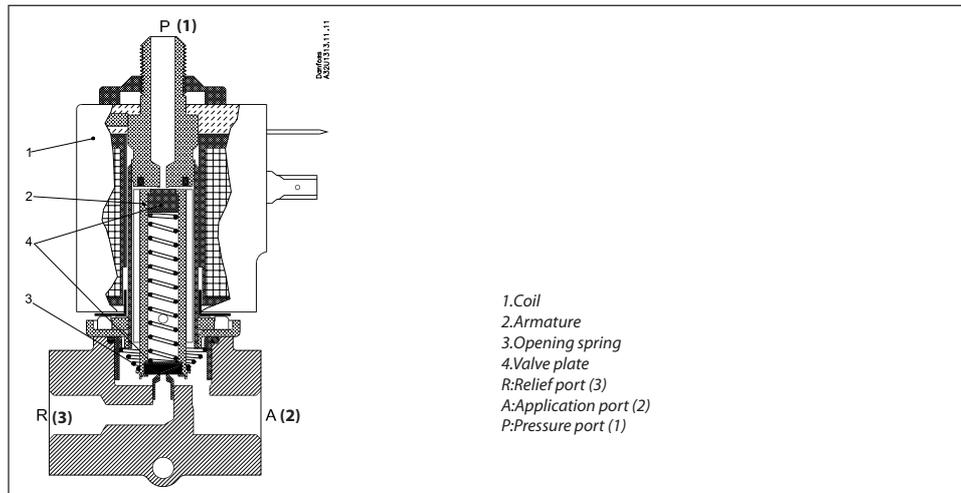
NO versions for AC ( 50/60Hz) and DC

Con- nec- tions	Seal mate- rial	$k_v$ - value [m <sup>3</sup> /h]	DN [mm]	Media temp.		Type designation		Code no. without coil	Permissible differential pressure (bar)/ coil Type		
				Min. [°C]	Max. [°C]	Main type	Specification		BA		BD
									9 W a.c.	15 W d.c.	15 W a.c.
G 1/8	FKM	0.08	1.5	-10	+100	EV310B 1,5 B	G 18 F NO 000	<b>032U4926</b>	20	20	20
	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	G 18 F NO 000	<b>032U4927</b>	16	16	16
G 1/4	FKM	0.08	1.5	-10	+100	EV310B 1,5 B	G 14 F NO 000	<b>032U4929</b>	20	20	20
	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	G 14 F NO 000	<b>032U4930</b>	16	16	16
	FKM	0.30	3.0	-10	+100	EV310B 3,0 B	G 14 F NO 000	<b>032U4931</b>	7	7	7
G 3/8	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	G 38 F NO 000	<b>032U4933</b>	16	16	16
	FKM	0.30	3.0	-10	+100	EV310B 3,0 B	G 38 F NO 000	<b>032U4934</b>	7	7	7

Including manual override

G 1/8	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	G 18 F NO 040	<b>032U4941</b>	16	16	16
G 1/4	FKM	0.08	1.5	-10	+100	EV310B 1,5 B	G 14 F NO 040	<b>032U4943</b>	20	20	20
	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	G 14 F NO 040	<b>032U4944</b>	16	16	16

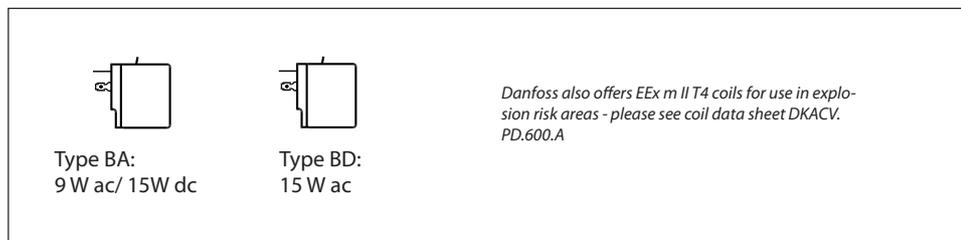
Function NO



**Coil voltage disconnected (open):**  
 When the voltage is disconnected, the armature (2) with the valve plates (4) is pressed down by the opening spring (3) and closes the connection between A and R. At the same time, the connection between ports 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. On valves with manual override the connection between P and A can be closed using a closing screw in the valve body.

**Coil voltage connected (closed):**  
 When voltage is applied to the coil (1), the armature (2) with the valve plates (4) is lifted 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 there is voltage to the coil.

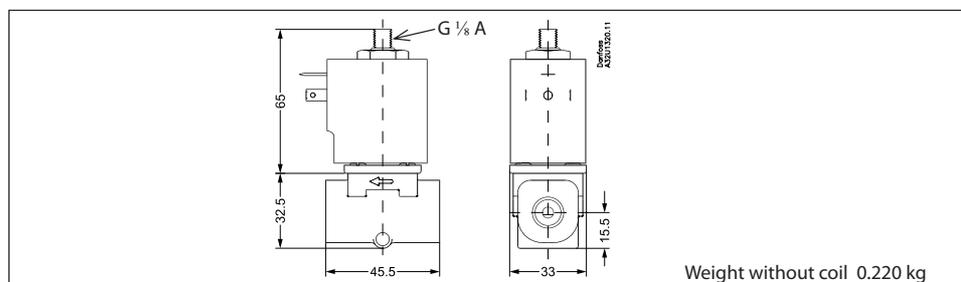
Coil options



Ordering - coils

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

Dimensions and weight



Features



**EV310B NC FL32**

- Very robust valves for industrial application, such as control
- For water, oil, compressed air and similar neutral media
- $K_v$  value up to 0.15 m<sup>3</sup>/h
- Differential pressure: Up to 20 bar
- Viscosity: Up to 50 cSt
- Ambient temperature: Up to +40°C
- Coil enclosure: Up to IP 65
- Flange connection: 32 × 32 mm
- Also available with manual override

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	10 - 20ms (depending on the pressure)
Ambient temperature	max. +40°C
Medium temperature	-10° to +100°C
Viscosity	max. 50 cSt
Materials	Valve body: Brass, W.no. 2.0402 Armature: Stainless steel, W.no. 1.4105/ AISI 430FR Armature tube: Stainless steel, W.no. 1.4306 /AISI 304L Armature stop: Stainless steel, W.no. 1.4105 /AISI 430FR Springs: Stainless steel, W.no. 1.4310/ AISI 301 Seal material: FKM

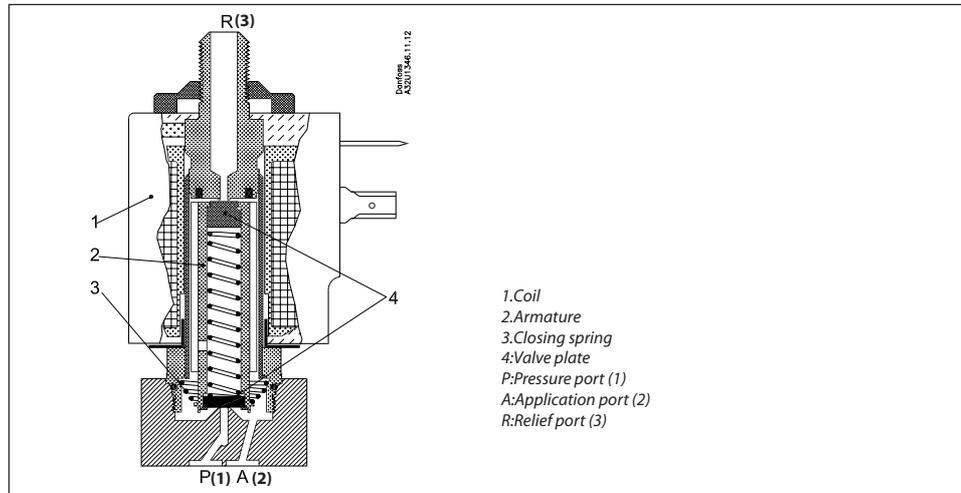
Ordering - Valve bodies

Connections	Seal material	$k_v$ -value [m <sup>3</sup> /h]	DN [mm]	Media temp.		Type designation		Code no. without coil	Permissible differential pressure (bar)/ coil Type		
				Min. [°C]	Max. [°C]	Main type	Specification		BA		BD
									9 W a.c.	15 W d.c.	
Flange 32x32	FKM	0.08	1.5	-10	+100	EV310B 1,5 B	FL32 F NC 000	<b>032U4911</b>	20	20	20
	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	FL32 F NC 000	<b>032U4912</b>	16	16	16

Including manual override

Flange 32x32	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	FL32 F NC 040	<b>032U4923</b>	16	16	16
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Function NC FL32



**Coil voltage disconnected (closed):**

When the voltage to the coil (1) is disconnected, the armature (2) with the valve plates (4) is pressed down by the closing spring (3) 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.

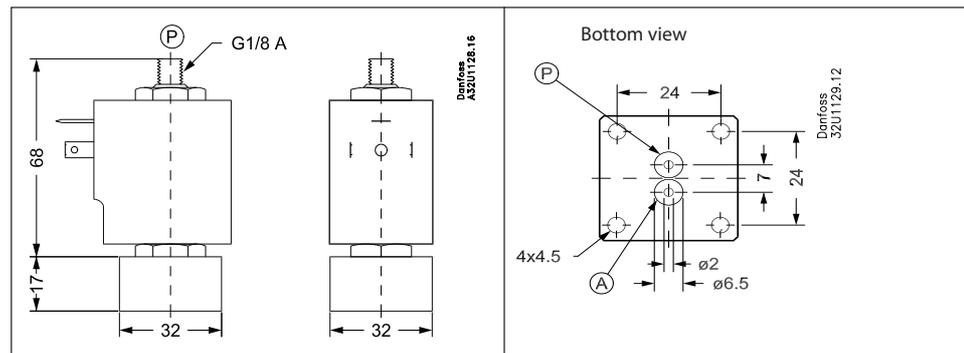
On valves with manual override the connection between P and A can be opened using an opening screw in the valve body.

**Coil voltage connected (open):**

When voltage is applied, the armature (2) with the valve plates (4) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened.

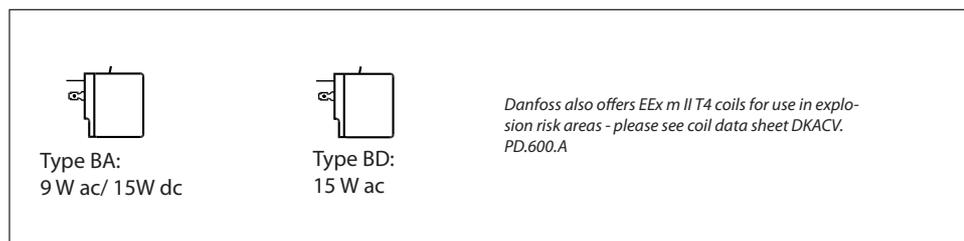
The connection between P and A will be open for as long as there is voltage to the coil.

Dimensions and weight



Weight without coil : 0.185 kg

Coil options



Ordering - coils

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

Features



**EV310B NO FL32**

- Very robust valves for industrial application, such as control
- For water, oil, compressed air and similar neutral media
- $K_v$  value up to 0.15 m<sup>3</sup>/h
- Differential pressure: Up to 10 bar
- Viscosity: Up to 50 cSt
- Ambient temperature: Up to +40°C
- Coil enclosure: Up to IP 65
- Flange connection: 32 × 32 mm
- Also available with manual override

Technical data

Installation	Optional, but vertical solenoid system is recommended
Pressure range	0 to 10 bar
Max. test pressure	50 bar
Time to open and to close	10 - 20ms (depending on the pressure)
Ambient temperature	max. +40°C
Medium temperature	-10° to +100°C
Viscosity	max. 50 cSt
Materials	Valve body: Brass, W.no. 2.0402 Armature: Stainless steel, W.no. 1.4105/ AISI 430FR Armature tube: Stainless steel, W.no. 1.4306 /AISI 304L Armature stop: Stainless steel, W.no. 1.4105 /AISI 430FR Springs: Stainless steel, W.no. 1.4310/ AISI 301 Seal material: FKM

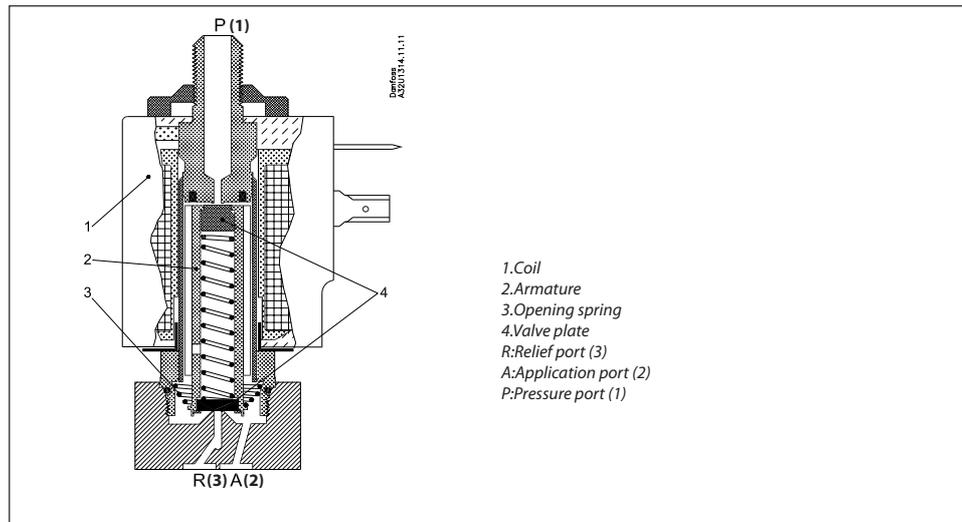
Ordering - Valve bodies

Connections	Seal material	$k_v$ -value [m <sup>3</sup> /h]	DN [mm]	Media temp.		Type designation		Code no. without coil	Permissible differential pressure (bar)/ coil Type		
				Min. [°C]	Max. [°C]	Main type	Specification		Type		
									BA	BD	
9 W a.c.	15 W d.c.	15 W a.c.									
Flange 32x32	FKM	0.08	1.5	-10	+100	EV310B 1,5 B	FL32 F NO 000	<b>032U4936</b>	20	20	20
	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	FL32 F NO 000	<b>032U4937</b>	16	16	16

Including manual override

Flange 32x32	FKM	0.15	2.0	-10	+100	EV310B 2,0 B	FL32 F NO 040	<b>032U4948</b>	16	16	16
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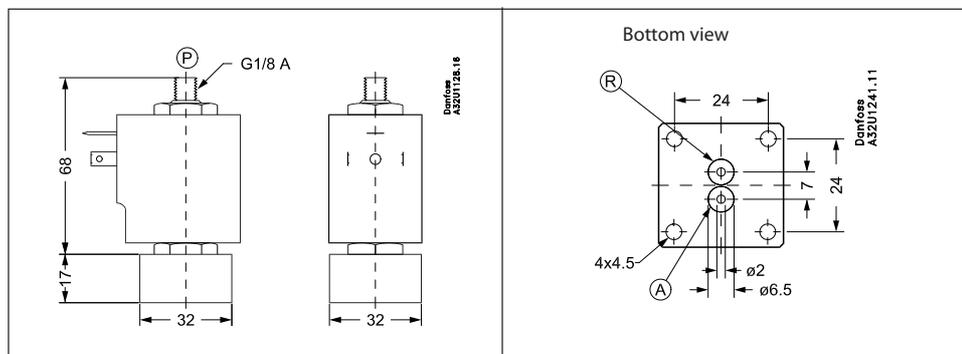
Function NO FL32



**Coil voltage disconnected (open):**  
 When the voltage is disconnected, the armature (2) with the valve plates (4) is pressed down by the opening spring (3) and closes the connection between A and R. At the same time, the connection between ports 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. On valves with manual override the connection between P and A can be closed using a closing screw in the valve body.

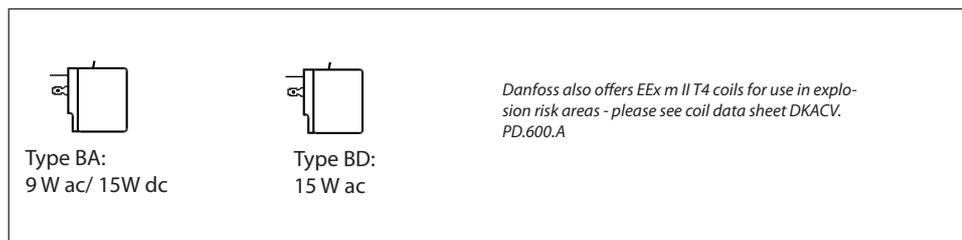
**Coil voltage connected (closed):**  
 When voltage is applied to the coil (1), the armature (2) with the valve plates (4) is lifted and closes the connection between P and A. At the same time, the connection between ports A and R is opened. The connection between P and A will be closed for as long as there is voltage to the coil.

Dimensions and weight



Weight without coil : 0.185 kg

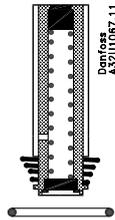
Coil options



Ordering - coils

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

Spare parts kit



The spare parts kit comprises an armature with mounted spring

Type	Seal Material	Code no.	
		Thread conn.	Fl. version
NC	FKM	<b>032U2033</b>	<b>032U2034</b>
NO	FKM	<b>032U2035</b>	<b>032U2036</b>

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