



# Solenoid valve 2/2 way N.C. With pilot control Explosion proof - Atex Ex d

21WA3KIB130

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21WA4KIB130

## PRESENTATION:

S.V. with pilot control for interception of fluids compatible with the construction materials. Aluminium coil housing, explosion proof "Ex d". Electrical and electromechanical components according to Atex Directive 94/9/CE

A minimum operational pressure of 0,2 bar is required. The materials used and the tests carried out ensure maximum reliability and duration.

**USE:** Potentially explosive atmospheres  
Zone 1, 2, 21, 22

**PIPES:** G 3/8 - G 1/2

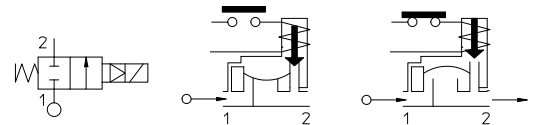
**COIL:** 8W - Ø 13  
BDA 155°C (class F)

PresMax. allowable pressure (PS) 20 bar  
Housing ambient temperature - 40°C + 60°C



Gaskets	Temperature		Medium
	-	+	
<b>B</b> =NBR (nitrile rubber)	- 10°C	+ 80°C	Air, inert gas, water
<b>E</b> =EPDM (ethylene-propylene)	- 10°C	+ 80°C	Water, low pressure steam
<b>V</b> =FKM (fluoroelastomer)	- 10°C	+ 80°C	Mineral oils (2°E), gasoline gas oil
<b>F</b> =H-NBR (hydrogenated nitrile)	- 30°C	+ 80°C	Air, inert gas, water R 134a, R 404a

For seals other than NBR replace the letter "B" with the ones corresponding to the other seals. E.I. 21WA3KIV130.



Pipe ISO 228/1	Code	Max viscosity		Ø mm	Kv l/mn	Power watt	Pressure		
		cSt					min	M.O.P.D.	
							bar	AC bar	DC bar
G 3/8	21WA3KIB130	12	~ 2	13	60	8	0,2	16	16
G 1/2	21WA4KIB130								



(According to Directive 94/9/CE ATEX )  
II 2G Ex d IIC T6 o T5 Gb  
II 2D Ex tb IIIC T80°C o T95°C Db IP67  
(T<sub>amb</sub>: - 40°C ≤ +60°C)

## Note

Available on request and with minimum quantities.

The "ODE" reserves the right to carry out technical and aesthetic modifications without prior notification.

### MATERIALS:

<b>Body</b>	Brass - UNI EN 12165 CW617N
<b>Armature tube</b>	Stainless steel AISI series 300
<b>Fixed core</b>	Stainless steel AISI series 400
<b>Plunger</b>	Stainless steel AISI series 400
<b>Phase displacement ring</b>	Copper - Cu 99,9%
<b>Spring</b>	Stainless steel AISI series 300
<b>Seal</b>	Standard: B=NBR On request: V=FKM; E=EPDM; F=H-NBR
<b>Orifice</b>	Brass - UNI EN 12165 CW617N
<b>Housing</b>	Aluminium die cast

**Connector conformity** ISO 4400

### FEATURES:

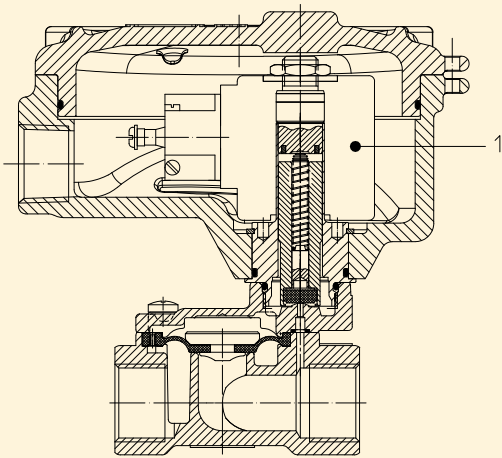
<b>Electrical conformity</b>	IEC 335
<b>Protection degree</b>	IP 65 EN 60529 (DIN 40050) with housing fitted by cable gland Atex Ex d.

### SPARE PARTS:

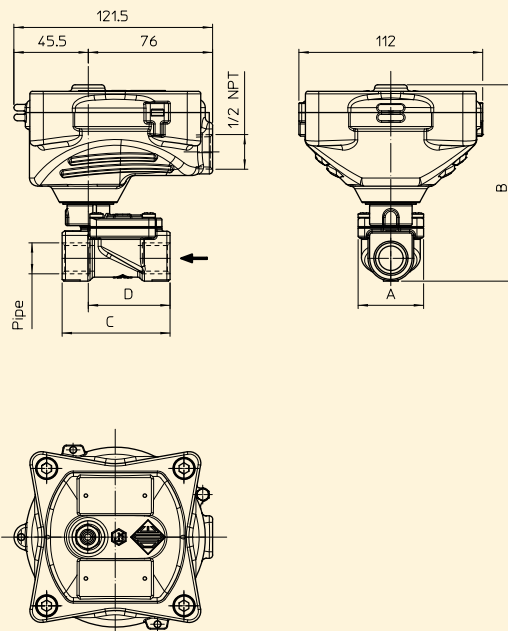
- 1. Coil:**  
 BDA08012CS  
 BDA08024CS  
 BDA08024DS  
 BDA08048AS  
 BDA08048CS  
 BDA08110CS  
 BDA08110DS  
 BDA08223DS

### ACCESSORIES:

Code P992219 Cable Gland  
(to be ordered separately)



### DIMENSIONS:



Type	Pipe ISO 228/1	A mm	B mm	C mm	D mm
21WA3KIB130	G 3/8	40	120	60	47
21WA4KIB130	G 1/2			66	50

COIL TYPE	POWER ABSORPTION		
	W ==	Hold VA ~	Inrush VA ~
B	8	14,5	25



# Solenoid valve 2/2 way N.O. With pilot control Explosion proof - Atex Ex d

21WA3ZIB130

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21WA4ZIB130

## PRESENTATION:

S.V. with pilot control for interception of fluids compatible with the construction materials. Aluminium coil housing, explosion proof "Ex d" . Electrical and electromechanical components according to Atex Directive 94/9/CE

A minimum operational pressure of 0,2 bar is required.  
The materials used and the tests carried out ensure maximum reliability and duration.

**USE:** Potentially explosive atmospheres  
Zone 1, 2, 21, 22

**PIPES:** G 3/8 - G 1/2

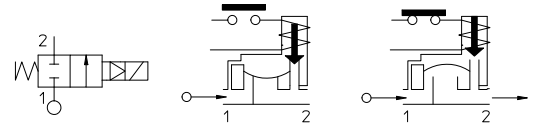
**COIL:** 8W - Ø 13  
BDA 155°C (class F)

PresMax. allowable pressure (PS) 20 bar  
Housing ambient temperature - 40°C + 60°C



Gaskets	Temperature		Medium
	-	+	
<b>B</b> =NBR (nitrile rubber)	- 10°C	+ 80°C	Air, inert gas, water
<b>E</b> =EPDM (ethylene-propylene)	- 10°C	+ 80°C	Water, low pressure steam
<b>V</b> =FKM (fluoroelastomer)	- 10°C	+ 80°C	Mineral oils (2°E), gasoline gas oil
<b>F</b> =H-NBR (hydrogenated nitrile)	- 30°C	+ 80°C	Air, inert gas, water R 134a, R 404a

For seals other than NBR replace the letter "B" with the ones corresponding to the other seals. E.I. 21WA3ZIV130.



Pipe ISO 228/1	Code	Max viscosity		Ø mm	Kv l/mn	Power watt	Pressure		
		cSt					min	M.O.P.D.	
							bar	AC bar	DC bar
G 3/8	21WA3ZIB130	12	~ 2	13	60	8	0,2	16	16
G 1/2	21WA4ZIB130								

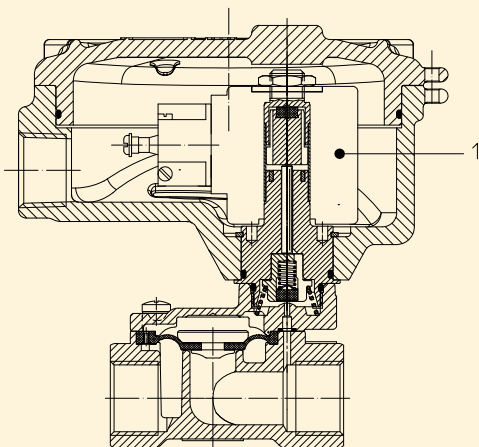


(According to Directive 94/9/CE ATEX )  
II 2G Ex d IIC T6 o T5 Gb  
II 2D Ex tb IIIC T80°C o T95°C Db IP67  
(T<sub>amb</sub>:- 40°C ≤ +60°C

## Note

Available on request and with minimum quantities.

The "ODE" reserves the right to carry out technical and aesthetic modifications without prior notification.



**MATERIALS:**

**Body** Brass - UNI EN 12165 CW617N  
**Armature tube** Stainless steel AISI series 300  
**Fixed core** Stainless steel AISI series 400  
**Plunger** Stainless steel AISI series 400  
**Phase displacement ring** Copper - Cu 99,9%  
**Spring** Stainless steel AISI series 300  
**Seal** Standard: B=NBR  
 On request :V=FKM; E=EPDM ;F=H-NBR  
**Orifice** Brass - UNI EN 12165 CW617N  
**Housing** Aluminium die cast

**Connector conformity** ISO 4400

**FEATURES:**

**Electrical conformity** IEC 335  
**Protection degree** IP 65 EN 60529 (DIN 40050)  
 with housing fitted by cable gland  
 Atex Ex d.

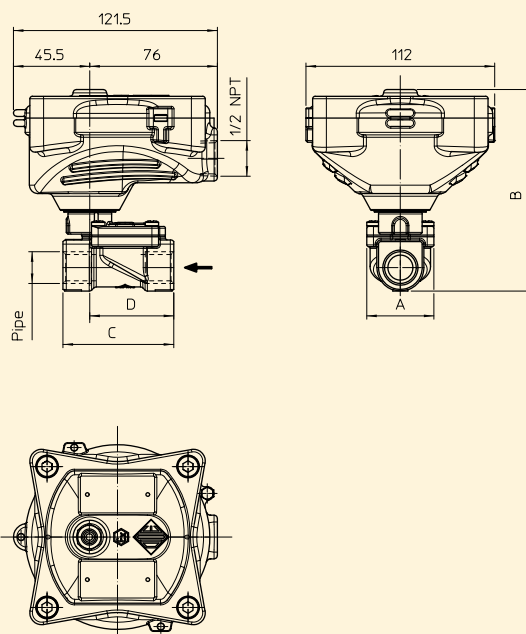
**SPARE PARTS:**

- 1. Coil:**  
 BDA08012CS  
 BDA08024CS  
 BDA08024DS  
 BDA08048AS  
 BDA08048CS  
 BDA08110CS  
 BDA08110DS  
 BDA08223DS

**ACCESSORIES:**

Code P992219 Cable Gland  
 (to be ordered separately)

**DIMENSIONS:**



Type	Pipe ISO 228/1	A mm	B mm	C mm	D mm
21WA3ZIB130	G 3/8	40	120	60	47
21WA4ZIB130	G 1/2			66	50

COIL TYPE	POWER ABSORPTION		
	W ==	Hold VA ~	Inrush VA ~
B	8	14,5	25



# Solenoid valve 2/2 way N.C. With pilot control Explosion proof - Atex Ex d

21W3KIB190

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21W7KIB500

## PRESENTATION:

S.V. with pilot control for interception of fluids compatible with the construction materials. Aluminium coil housing, explosion proof "Ex d". Electrical and electromechanical components according to Atex Directive 94/9/CE

A minimum operational pressure of 0,2 bar is required. The materials used and the tests carried out ensure maximum reliability and duration.

**USE:** Potentially explosive atmospheres  
Zone 1, 2, 21, 22

**PIPES:** G 3/4 - G 2

**COIL:** 8W - Ø 13  
BDA 155°C (class F)

Max. allowable pressure (PS)

G 3/4 - G 1 25 bar

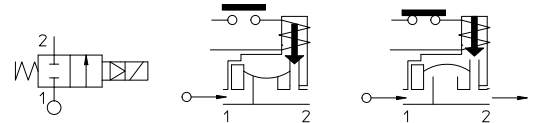
G 1 1/4 - G 2 16 bar

Housing ambient temperature - 40°C + 60°C



Gaskets	Temperature		Medium
	-	+	
<b>B</b> =NBR (nitrile rubber)	- 10°C	+ 80°C	Air, inert gas, water
<b>E</b> =EPDM (ethylene-propylene)	- 10°C	+ 80°C	Water, low pressure steam
<b>V</b> =FKM (fluoroelastomer)	- 10°C	+ 80°C	Mineral oils (2°E), gasoline gas oil
<b>F</b> =H-NBR (hydrogenated nitrile)	- 30°C	+ 80°C	Air, inert gas, water R 134a, R 404a

For seals other than NBR replace the letter "B" with the ones corresponding to the other seals. E.I. 21W3KIV190.



Pipe ISO 228/1	Code	Max viscosity		Ø mm	Kv l/mn	Power watt	Pressure		
		cSt	°E				min bar	M.O.P.D.	
								AC bar	DC bar
G 3/4	21W3KIB190	12	~ 2	19	140	8	0,2	16	16
G 1	21W4KIB250			25	190				
G 1 1/4	21W5KIB350			35	400			10	10
G 1 1/2	21W6KIB400			40	520				
G 2	21W7KIB500			50	750				



(According to Directive 94/9/CE ATEX )  
II 2G Ex d IIC T6 o T5 Gb  
II 2D Ex tb IIIC T80°C o T95°C Db IP67  
(Tamb:- 40°C ≤ +60°C)



**CE Approval**  
(Pressure Equipment Directive 97/23/CE  
for EV 21W5÷21W7)

## Note

Available on request and with minimum quantities.

The "ODE" reserves the right to carry out technical and aesthetic modifications without prior notification.

### MATERIALS:

<b>Body</b>	Brass - UNI EN 12165 CW617N
<b>Armature tube</b>	Stainless steel AISI series 300
<b>Fixed core</b>	Stainless steel AISI series 400
<b>Plunger</b>	Stainless steel AISI series 400
<b>Phase displacement ring</b>	Copper - Cu 99,9%
<b>Spring</b>	Stainless steel AISI series 300
<b>Seal</b>	Standard: B=NBR On request: V=FKM; E=EPDM; F=H-NBR
<b>Orifice Housing</b>	Brass - UNI EN 12165 CW617N Aluminium die cast

**Connector conformity** ISO 4400

### FEATURES:

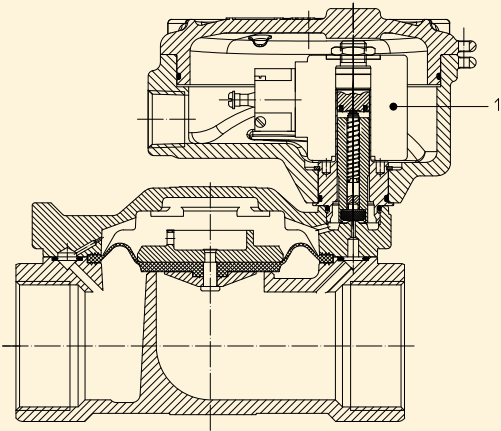
<b>Electrical conformity</b>	IEC 335
<b>Protection degree</b>	IP 65 EN 60529 (DIN 40050) with housing fitted by cable gland Atex Ex d.

### SPARE PARTS:

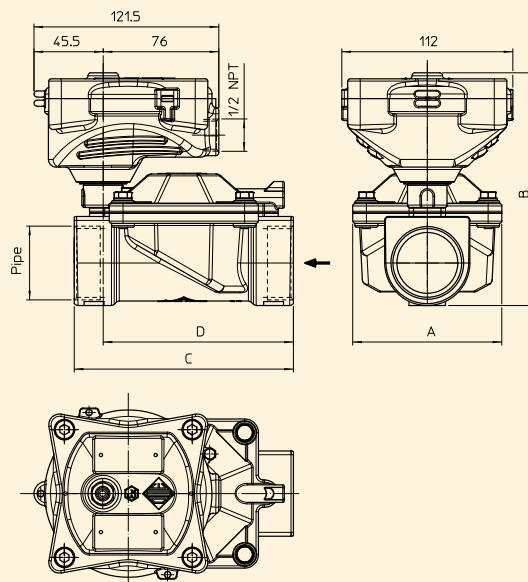
- 1. Coil:**  
 BDA08012CS  
 BDA08024CS  
 BDA08024DS  
 BDA08048AS  
 BDA08048CS  
 BDA08110CS  
 BDA08110DS  
 BDA08223DS

### ACCESSORIES:

Code P992219 Cable Gland  
(to be ordered separately)



### DIMENSIONS:



Type	Pipe ISO 228/1	A mm	B mm	C mm	D mm
21W3KIB190	G 3/4	65	128	104	89
21W4KIB250	G 1		136		
21W5KIB350	G 1 1/4	98	153	144	125
21W6KIB400	G 1 1/2				
21W7KIB500	G 2	118	144	172	150

COIL TYPE	POWER ABSORPTION		
	W ---	Hold VA ~	Inrush VA ~
B	8	14,5	25



# Solenoid valve 2/2 way N.O. With pilot control Explosion proof - Atex Ex d

21W3ZIB190

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21W7ZIB500

## PRESENTATION:

S.V. with pilot control for interception of fluids compatible with the construction materials. Aluminium coil housing, explosion proof "Ex d". Electrical and electromechanical components according to Atex Directive 94/9/CE

A minimum operational pressure of 0,2 bar is required. The materials used and the tests carried out ensure maximum reliability and duration.

**USE:** Potentially explosive atmospheres  
Zone 1, 2, 21, 22

**PIPES:** G 3/4 - G 2

**COIL:** 8W - Ø 13  
BDA 155°C (class F)

Max. allowable pressure (PS)

G 3/4 - G 1 25 bar

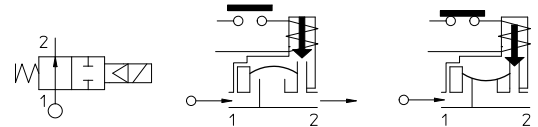
G 1 1/4 - G 2 16 bar

Housing ambient temperature - 40°C + 60°C



Gaskets	Temperature		Medium
	-	+	
<b>B</b> =NBR (nitrile rubber)	- 10°C	+ 80°C	Air, inert gas, water
<b>E</b> =EPDM (ethylene-propylene)	- 10°C	+ 80°C	Water, low pressure steam
<b>V</b> =FKM (fluoroelastomer)	- 10°C	+ 80°C	Mineral oils (2°E), gasoline gas oil
<b>F</b> =H-NBR (hydrogenated nitrile)	- 30°C	+ 80°C	Air, inert gas, water R 134a, R 404a

For seals other than NBR replace the letter "B" with the ones corresponding to the other seals. E.I. 21W3ZIV190.



Pipe ISO 228/1	Code	Max viscosity		Ø mm	Kv l/mn	Power watt	Pressure		
		cSt	°E				min bar	M.O.P.D.	
								AC bar	DC bar
G 3/4	21W3ZIB190	12	~ 2	19	140	0,2	16	16	
G 1	21W4ZIB250			25	190				
G 1 1/4	21W5ZIB350			35	400				
G 1 1/2	21W6ZIB400			40	520				
G 2	21W7ZIB500			50	750				



(According to Directive 94/9/CE ATEX )  
II 2G Ex d IIC T6 o T5 Gb  
II 2D Ex tb IIIC T80°C o T95°C Db IP67  
(Tamb:- 40°C ≤ +60°C)

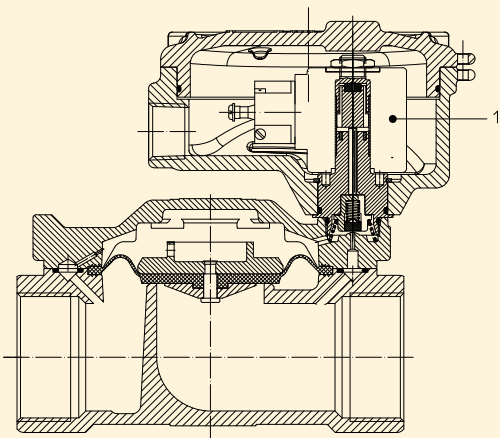


**CE Approval**  
(Pressure Equipment Directive 97/23/CE  
for EV 21W5÷21W7)

## Note

Available on request and with minimum quantities.

The "ODE" reserves the right to carry out technical and aesthetic modifications without prior notification.



**MATERIALS:**

**Body** Brass - UNI EN 12165 CW617N  
**Armature tube** Stainless steel AISI series 300  
**Fixed core** Stainless steel AISI series 400  
**Plunger** Stainless steel AISI series 400  
**Phase displacement ring** Copper - Cu 99,9%  
**Spring** Stainless steel AISI series 300  
**Seal** Standard: B=NBR  
 On request :V=FKM; E=EPDM ;F=H-NBR  
**Orifice** Brass - UNI EN 12165 CW617N  
**Housing** Aluminium die cast

**Connector conformity** ISO 4400

**FEATURES:**

**Electrical conformity** IEC 335  
**Protection degree** IP 65 EN 60529 (DIN 40050)  
 with housing fitted by cable gland  
 Atex Ex d.

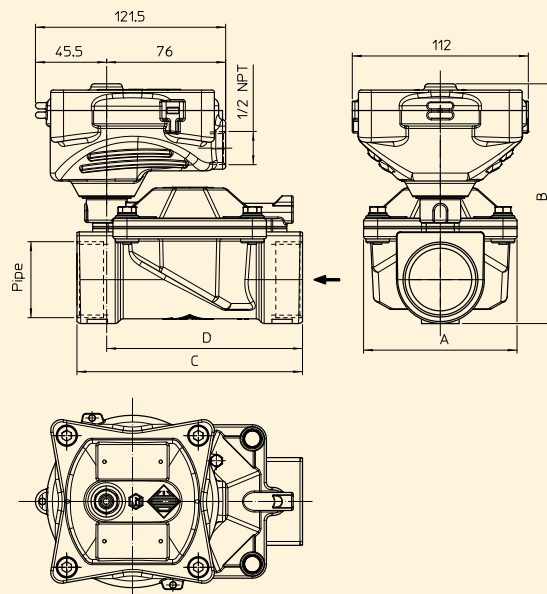
**SPARE PARTS:**

- 1. Coil:**  
 BDA08012CS  
 BDA08024CS  
 BDA08024DS  
 BDA08048AS  
 BDA08048CS  
 BDA08110CS  
 BDA08110DS  
 BDA08223DS

**ACCESSORIES:**

Code P992219 Cable Gland  
 (to be ordered separately)

**DIMENSIONS:**



Type	Pipe ISO 228/1	A mm	B mm	C mm	D mm
21W3ZIB190	G 3/4	65	128	104	89
21W4ZIB250	G 1		136		
21W5ZIB350	G 1 1/4	98	153	144	125
21W6ZIB400	G 1 1/2				
21W7ZIB500	G 2	118	144	172	150

COIL W ==	POWER ABSORPTION		TYPE
	Inrush VA ~	Hold VA ~	
8 W	25	14,5	B





# Solenoid valve 2/2 way N.C. With pilot control Explosion proof - Atex Ex d

21WN3KIB130

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21WN9KIB500

## PRESENTATION:

S.V. with pilot control for interception of fluids compatible with the construction materials. Aluminium coil housing, explosion proof "Ex d". Electrical and electromechanical components according to Atex Directive 94/9/CE

A minimum operational pressure of 0,2 bar is required. The materials used and the tests carried out ensure maximum reliability and duration.

**USE:** Potentially explosive atmospheres  
Zone 1, 2, 21, 22

**PIPES:** 3/8 NPT - 2 NPT

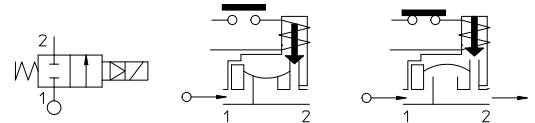
**COIL:** 8W - Ø 13  
BDA 155°C (class F)

Max. allowable pressure (PS)  
3/8 NPT - 1 NPT 25 bar  
1 1/4 NPT - 2 NPT 16 bar  
Housing ambient temperature - 40°C + 60°C



Gaskets	Temperature		Medium
B=NBR (nitrile rubber)	- 10°C	+ 80°C	Air, inert gas, water
E=EPDM (ethylene-propylene)	- 10°C	+ 80°C	Water, low pressure steam
V=FKM (fluoroelastomer)	- 10°C	+ 80°C	Mineral oils (2°E), gasoline gas oil
F=H-NBR (hydrogenated nitrile)	- 30°C	+ 80°C	Air, inert gas, water R 134a, R 404a

For seals other than NBR replace the letter "B" with the ones corresponding to the other seals. E.I. Es.21WN5KIV190.



Pipe ANSI/ASME Bl.20.1	Code	Max viscosity		Ø mm	Kv l/mn	Power watt	Pressure		
		cSt					min bar	M.O.P.D. AC bar DC bar	
3/8 NPT	21WN3KIB130	12	~ 2	13	60	8	0,2	16	16
1/2 NPT	21WN4KIB130				70				
3/4 NPT	21WN5KIB190				140				
1 NPT	21WN6KIB250			25	190			10	10
1 1/4 NPT	21WN7KIB350			35	400				
1 1/2 NPT	21WN8KIB400			40	520				
2 NPT	21WN9KIB500			50	750				



(According to Directive 94/9/CE ATEX )  
II 2G Ex d IIC T6 o T5 Gb  
II 2D Ex tb IIIC T80°C o T95°C Db IP67  
(T<sub>amb</sub>: - 40°C ≤ +60°C)



**CE Approval**  
(Pressure Equipment Directive 97/23/CE  
for S.V. 21WN7÷21WN9)

## Note

Available on request and with minimum quantities.

The "ODE" reserves the right to carry out technical and aesthetic modifications without prior notification.

### MATERIALS:

<b>Body</b>	Brass - UNI EN 12165 CW617N
<b>Armature tube</b>	Stainless steel AISI series 300
<b>Fixed core</b>	Stainless steel AISI series 400
<b>Plunger</b>	Stainless steel AISI series 400
<b>Phase displacement ring</b>	Copper - Cu 99,9%
<b>Spring</b>	Stainless steel AISI series 300
<b>Seal</b>	Standard: B=NBR On request: V=FKM; E=EPDM; F=H-NBR
<b>Orifice</b>	Brass - UNI EN 12165 CW617N
<b>Housing</b>	Aluminium die cast

**Connector conformity** ISO 4400

### FEATURES:

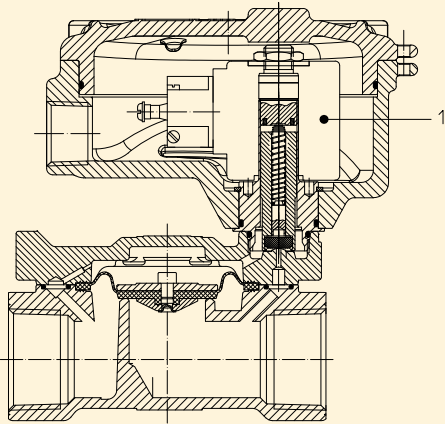
<b>Electrical conformity</b>	IEC 335
<b>Protection degree</b>	IP 65 EN 60529 (DIN 40050) with housing fitted by cable gland Atex Ex d.

### SPARE PARTS:

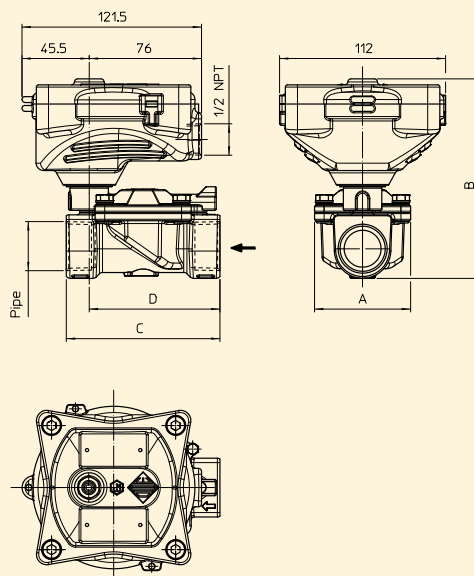
- 1. Coil:**  
 BDA08012CS  
 BDA08024CS  
 BDA08024DS  
 BDA08048AS  
 BDA08048CS  
 BDA08110CS  
 BDA08110DS  
 BDA08223DS

### ACCESSORIES:

Code P992219 Cable Gland  
(to be ordered separately)



### DIMENSIONS:



Type	Pipe	A mm	B mm	C mm	D mm
21WN3KIB130	3/8 NPT	40	120	60	47
21WN4KIB130	1/2 NPT			66	50
21WN5KIB190	3/4 NPT	65	128	104	89
21WN6KIB250	1 NPT				
21WN7KIB350	1 1/4 NPT	98	153	144	125
21WN8KIB400	1 1/2 NPT				
21WN9KIB500	2 NPT	118	166	171	150

COIL TYPE	POWER ABSORPTION		
	W ---	Hold VA ~	Inrush VA ~
B	8	14,5	25



# Solenoid valve 2/2 way N.O. With pilot control Explosion proof - Atex Ex d

21WN3ZIB130

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21WN9ZIB500

## PRESENTATION:

S.V. with pilot control for interception of fluids compatible with the construction materials. Aluminium coil housing, explosion proof "Ex d". Electrical and electromechanical components according to Atex Directive 94/9/CE

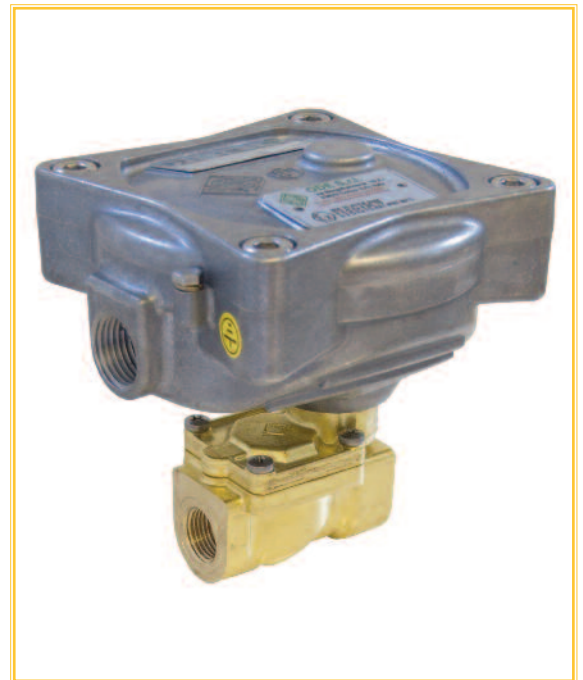
A minimum operational pressure of 0,2 bar is required. The materials used and the tests carried out ensure maximum reliability and duration.

**USE:** Potentially explosive atmospheres  
Zone 1, 2, 21, 22

**PIPES:** 3/8 NPT - 2 NPT

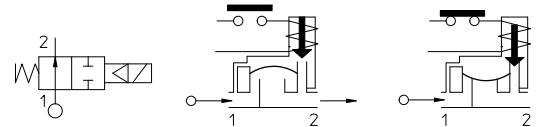
**COIL:** 8W - Ø 13  
BDA 155°C (class F)

Max. allowable pressure (PS)  
3/8 NPT - 1 NPT 25 bar  
1 1/4 NPT - 2 NPT 16 bar  
Housing ambient temperature - 40°C + 60°C



Gaskets	Temperature		Medium
<b>B</b> =NBR (nitrile rubber)	- 10°C	+ 80°C	Air, inert gas, water
<b>E</b> =EPDM (ethylene-propylene)	- 10°C	+ 80°C	Water, low pressure steam
<b>V</b> =FKM (fluoroelastomer)	- 10°C	+ 80°C	Mineral oils (2°E), gasoline gas oil
<b>F</b> =H-NBR (hydrogenated nitrile)	- 30°C	+ 80°C	Air, inert gas, water R 134a, R 404a

For seals other than NBR replace the letter "B" with the ones corresponding to the other seals. E.I. Es.21WN5KIV190.



Pipe ANSI/ASME Bl.20.1	Code	Max viscosity		Ø mm	Kv l/mn	Power watt	Pressure		
		cSt					min bar	M.O.P.D. AC bar DC bar	
3/8 NPT	21WN3ZIB130	12	~ 2	13	60	8	0,2	16	16
1/2 NPT	21WN4ZIB130				70				
3/4 NPT	21WN5ZIB190				140				
1 NPT	21WN6ZIB250			25	190			10	10
1 1/4 NPT	21WN7ZIB350			35	400				
1 1/2 NPT	21WN8ZIB400			40	520				
2 NPT	21WN9ZIB500			50	750				



(According to Directive 94/9/CE ATEX )  
II 2G Ex d IIC T6 o T5 Gb  
II 2D Ex tb IIIC T80°C o T95°C Db IP67  
(T<sub>amb</sub>:- 40°C ≤ +60°C



**CE Approval**  
(Pressure Equipment Directive 97/23/CE  
for S.V. 21WN7+21WN9

## Note

Available on request and with minimum quantities.

The "ODE" reserves the right to carry out technical and aesthetic modifications without prior notification.

### MATERIALS:

<b>Body</b>	Brass - UNI EN 12165 CW617N
<b>Armature tube</b>	Stainless steel AISI series 300
<b>Fixed core</b>	Stainless steel AISI series 400
<b>Plunger</b>	Stainless steel AISI series 400
<b>Phase displacement ring</b>	Copper - Cu 99,9%
<b>Spring</b>	Stainless steel AISI series 300
<b>Seal</b>	Standard: B=NBR On request: V=FKM; E=EPDM; F=H-NBR
<b>Orifice</b>	Brass - UNI EN 12165 CW617N

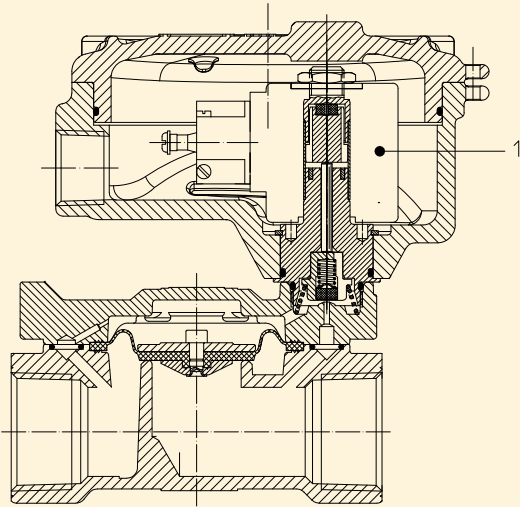
**Connector conformity** ISO 4400

### FEATURES:

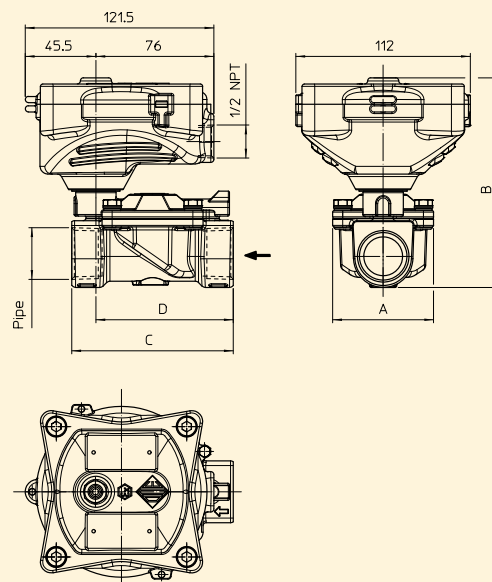
<b>Electrical conformity</b>	IEC 335
<b>Protection degree</b>	IP 65 EN 60529 (DIN 40050) with housing fitted by cable gland Atex Ex d.

### SPARE PARTS:

- 1. Coil:**  
 BDA08012CS  
 BDA08024CS  
 BDA08024DS  
 BDA08048AS  
 BDA08048CS  
 BDA08110CS  
 BDA08110DS  
 BDA08223DS



### DIMENSIONS:



Type	Pipe	A mm	B mm	C mm	D mm
21WN3ZIB130	3/8 NPT	40	120	60	47
21WN4ZIB130	1/2 NPT		66	50	
21WN5ZIB190	3/4 NPT	65	128	104	89
21WN6ZIB250	1 NPT		136		
21WN7ZIB350	1 1/4 NPT	98	153	144	125
21WN8ZIB400	1 1/2 NPT				
21WN9ZIB500	2 NPT	118	166	171	150

COIL	POWER ABSORPTION		TYPE
	Inrush VA ~	Hold VA ~	
W ==	25	14,5	B