

# DOUBLE EFFECT PNEUMATIC VALVES WAFER AND LUG BUTTERFLY BODY

BWLPDE/E

03 | 2014

TWO WAY – ON-OFF AND MODULATING **CE**



TYPE **BWP DE**

WAFER – cast iron body PN 10 / 16

TYPE **BLP DE**

LUG – cast iron body PN 16

Double effect – air opens and closes

## DESCRIPTION

BWP DE – BLP DE pneumatic valves are with wafer and lug butterfly body.

The AISI 316 disc guarantees a perfect tightness in class VI° EPDM (BUNA or PTFE on request) seal.

Compact construction assembled with a pneumatic piston actuator double effect rotation 90°

The pneumatic actuator is powered by the following signals:

- 4 ... 10 bar for ON – OFF valves.
- 3-15 psi with pneumatic pilot positioner on modulating valves
- 4-20 mA with electropneumaticpneumatic pilot positioner on modulating valves

**NOMINAL DIAMETERS** : from DN 40 to DN 300

**BODY CONNECTIONS** : Flanged PN 10 / 16 WAFER  
Flanged PN 16 LUG

### LIMIT WORKING CONDITIONS :

- Max inlet pressure and temperature : 16 bar 130 °C

### BODY MATERIALS :

- Cast Iron EN GJL-250 PN 10 / 16
- SG Iron EN-JIS400-15 (on request)
- Carbon steel ASTM A316 WCB (on request)
- Stainless steel 1.4408 (on request)

Disc AISI 316  
Stem AISI 416  
Elastomer EPDM (on request BUNA o PTFE)

**BODY TYPE** : Full bore

**PLUG** : disc

### STEM PACKING :

- EPDM ≤ 130 °C

### PNEUMATIC ACTUATOR CHARACTERISTICS:

- Actuator : double effect piston rotation 90°  
ISO 5211 – DIN 3337  
NAMUR VDI / VDE 3845
- Input signal : from 4 to 10 bar depending on model
- Max air applicable : 10 bar
- Ambient temperature : -20 ... +70 °C
- Actuator box : Aluminium ASTM B210
- Right and left piston : die cast aluminium UNI 5076
- Yoke : galvanized carbon steel
- Pneumatic connections : ISO 7 Rp – 1/4"

### ON REQUEST :

- Pneumatic Pilot Positioner 3-15 psi ... 3-9 psi ... 9-15 psi
- Electro-pneumatic pilot positioner 4-20mA...4-12 mA...12-20 mA
- Proximity limit switches
- Feedback signal on positioners 4-20 mA
- Rotary switches with position monitoring by "Dome"
- Solenoid valve
- Air filter regulator

**Maximum permissible pressure drops in Kg/cm2 – signals in bar – pistons type**

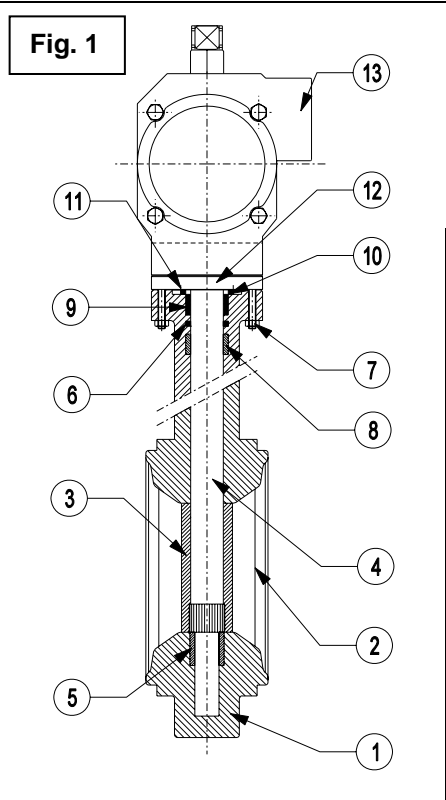
		DN												
		40	50	65	80	100	125		150	200	250		300	
$\Delta P$ Kg/cm2		16	16	16	16	16	10	16	16	16	10	16	10	16
AIR bar	> 5	UT 15	UT 15	UT 15	UT 17	UT 25	UT 25	UT 30	UT 30	UT 40	UT 45	UT50	UT 50	UT 55

**CONFLOW** s.p.a.

COMPANY  
WITH QUALITY SYSTEM  
CERTIFIED BY DNV  
== ISO 9001 ==

Via Lecco, 69/71  
20864 AGRATE BRIANZA (MB)  
Tel. 039/651.705 - 650.397  
Fax 039/654.018  
e-mail : sales@conflow.it  
www.conflow.it

**Components and materials list**



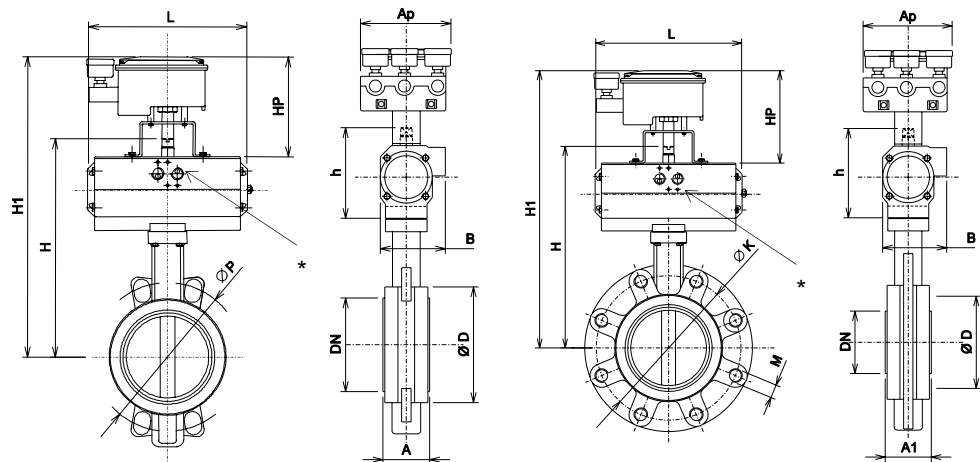
**COMPONENTS LIST (fig. 1)**

- 1. Body
- 2. Disc / Butterfly gasket
- 3. Disc / Gasket
- 4. Stem
- 5. Lower stem bush
- 6. Stem gasket
- 7. Locking screws
- 8. Middle stem bush
- 9. Upper stem bush
- 10. Washer
- 11. Sieger
- 12. Connection flange
- 13. Piston

**MATERIALS (fig. 1)**

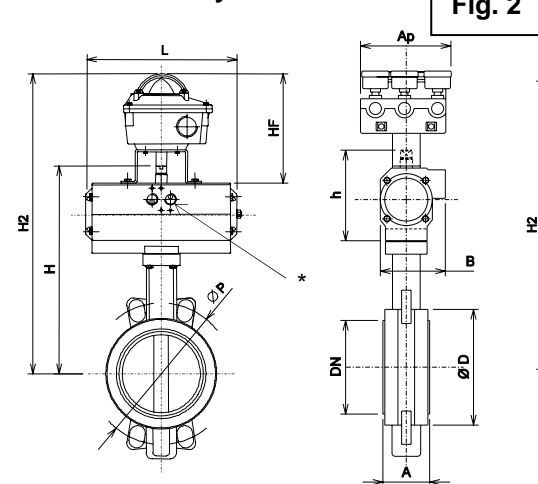
- 1. EN-GJL-250
- 2. EPDM
- 3. CF8M 1.4408
- 4. AISI 416
- 5. PTFE
- 6. EPDM
- 7. Steel DIN993
- 8. PTFE
- 9. PTFE
- 10. Steel
- 11. Steel
- 12. C40 nichel pl.
- 13. Alluminium

**Model with pneumatic or electro-pneumatic positioner**

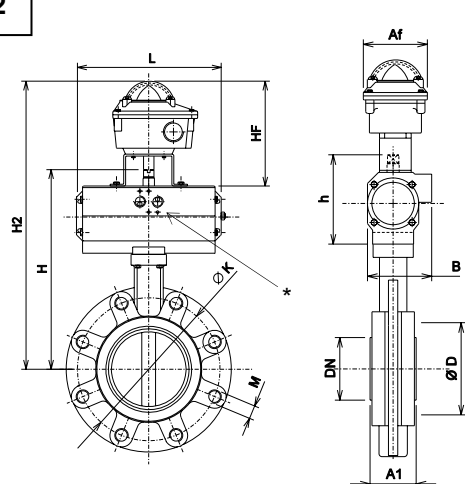


DN	DIN STD			
	PN 10		PN 16	
	ØP / ØK	M	ØP / ØK	M
40	110	N° 4 M16	110	N° 4 M16
50	125	N° 4 M16	125	N° 4 M16
65	145	N° 8 M16	145	N° 8 M16
80	160	N° 8 M16	160	N° 8 M16
100	180	N° 8 M16	180	N° 8 M16
125	210	N° 8 M16	210	N° 8 M16
150	240	N° 8 M20	240	N° 8 M20
200	295	N° 8 M20	295	N° 12 M20
250	350	N° 12 M20	350	N° 12 M24
300	400	N° 12 M20	410	N° 12 M24

**Wafer Body Model with rotary switches**



**Lug Body**



**Wafer Body**

**Lug Body**

\* n° 2 air connections Ø 1/4" gas

**Dimensions in mm (fig. 2)**

DN	40	50	65	80	100	125	125	150	200	250	250	300	300
<b>Pistone</b>	UT 15	UT 15	UT 15	UT 17	UT 25	UT 25	UT 30	UT 30	UT 40	UT 45	UT 50	UT 50	UT 55
<b>H - versione base</b>	251	258	263	279	323	335	354	377	438	488	528	558	558
<b>H1 - versione componizzatore</b>	416	423	428	444	488	500	519	542	603	653	693	723	723
<b>H2 - versione con box fine corsa</b>	386	393	398	414	458	470	489	512	573	623	663	693	693
<b>HP</b>	165												
<b>HF</b>	135												
<b>h</b>	121	121	121	121	143	143	162	162	196	208	248	248	248
<b>L</b>	165	165	165	197	239	239	230	230	290	351	361	361	418
<b>A - A1</b>	33	43	46	46	52	56	56	56	60	68	68	78	78
<b>B</b>	85	85	85	85	96	96	113	113	138	151	185	185	185
<b>Ø D</b>	82	95	109	127	150	180	180	207	260	315	315	370	370
<b>Ap</b>	168												
<b>Af</b>	86												

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**TWO WAY – ON-OFF AND MODULATING** 



**TYPE BWP SE (nc-na)**

**WAFER – cast iron body PN 10 / 16**

**TYPE BLP SE (nc-na)**

**LUG – cast iron body PN 16**

**Simple effect – air opens (Norm. closed)**

**Simple effect – air closes (Norm. open)**

**DESCRIPTION**

BWP SE – BLP SE pneumatic valves are with wafer and lug butterfly body.

The AISI 316 disc guarantees a perfect tightness in class VI° EPDM (BUNA or PTFE on request) packing ring.

Compact construction assembled with a pneumatic piston actuator simple effect rotation 90° normally open or closed without air.

The pneumatic actuator is powered by the following signals:

- 4 ... 10 bar for ON – OFF valves
- 3-15 psi with pneumatic pilot positioner on modulating valves
- 4-20 mA with electropneumaticpneumatic pilot positioner on modulating valves

**NOMINAL DIAMETERS :** from DN 40 to DN 300

**BODY CONNECTIONS :** Flanged PN 10 / 16 WAFER  
Flanged PN 16 LUG

**LIMIT WORKING CONDITIONS :**

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**BODY TYPE :** Full bore

**PLUG :** disc

**STEM PACKING :**

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**PNEUMATIC ACTUATOR CHARACTERISTICS:**

- Actuator : simple effect piston rotation 90°  
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NAMUR VDI / VDE 3845
- Input signal : from 4 to 10 bar depending on model
- Max air applicable : 10 bar
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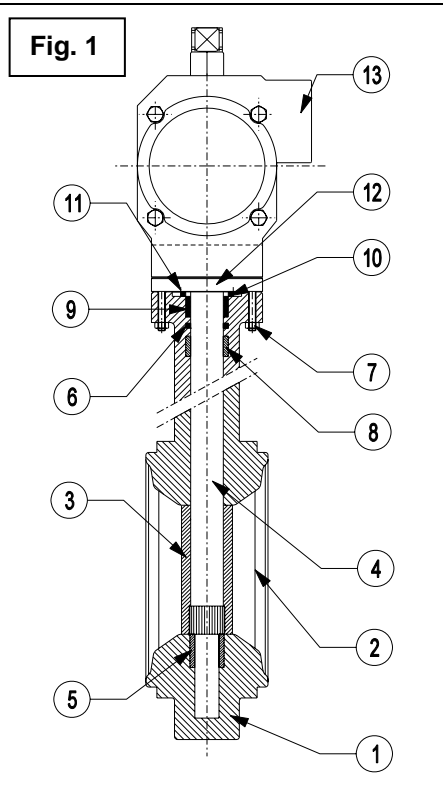
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- Electro-pneumatic pilot positioner 4-20mA...4-12 mA...12-20 mA
- Proximity limit switches
- Feedback signal on positioners 4-20 mA
- Rotary switches with position monitoring by "Dome"
- Solenoid valve
- Air filter regulator

**Maximum permissible pressure drops in Kg/cm<sup>2</sup> – signals in bar – pistons type**

	DN															
	40	50	65	80	100	125	150	200	250	300						
$\Delta P$ Kg/cm <sup>2</sup>	16	16	10	16	16	10	16	10	16	10	16	10	16	10	16	10
AIR bar >5	UT 15 S5	UT 15 S5	UT 17 S5	UT 20 S4	UT 30 S5	UT 30 S4	UT 30 S6	UT 35 S4	UT 40 S3	UT 45 S3	UT 45 S6	UT 50 S4	UT 55 S4	UT 55 S4	UT 55 S6	UT 55 S6

**Components and materials list**



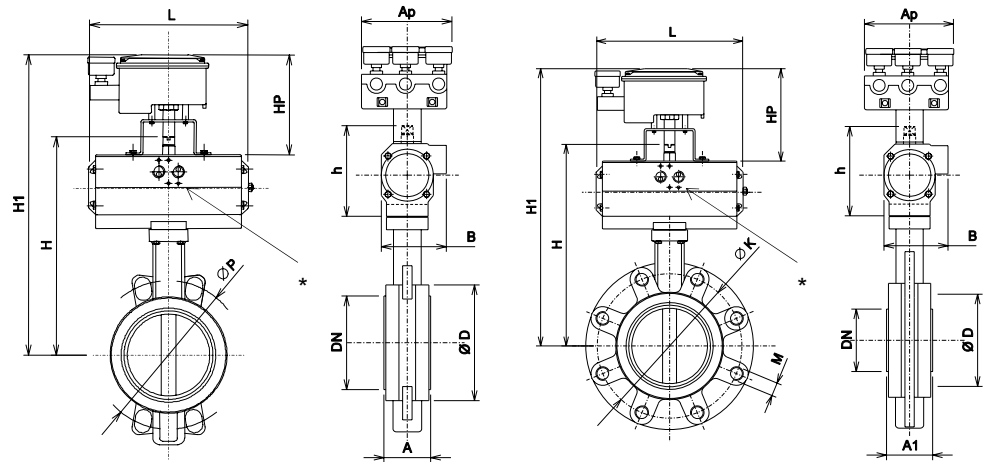
**COMPONENTS LIST (fig. 1)**

- 1. Body
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- 3. Disc / Gasket
- 4. Stem
- 5. Lower stem bush
- 6. Stem gasket
- 7. Locking screws
- 8. Middle stem bush
- 9. Upper stem bush
- 10. Washer
- 11. Sieger
- 12. Connection flange
- 13. Piston

**MATERIALS (fig. 1)**

- 1. EN-GJL-250
- 2. EPDM
- 3. CF8M 1.4408
- 4. AISI 416
- 5. PTFE
- 6. EPDM
- 7. Steel DIN993
- 8. PTFE
- 9. PTFE
- 10. Steel
- 11. Steel
- 12. C40 nichel pl.
- 13. Alluminium

**Model with pneumatic or electro-pneumatic positioner**

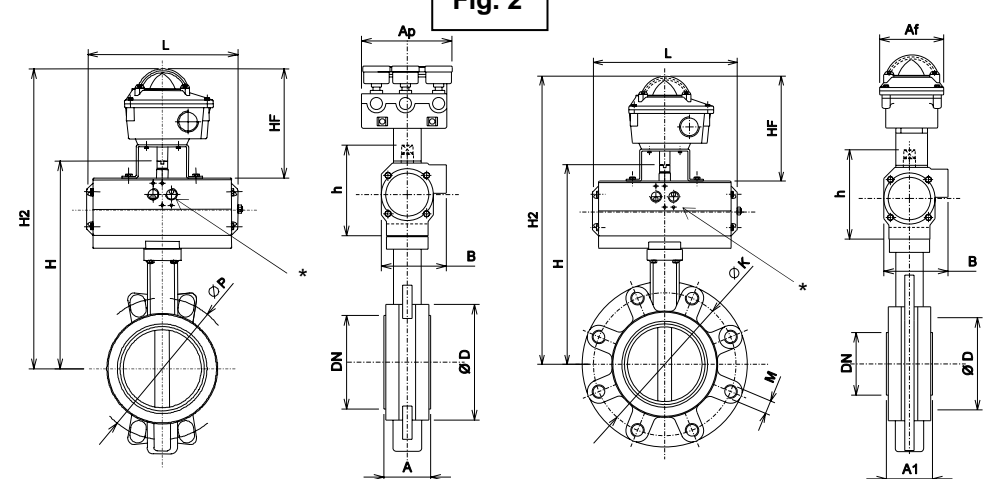


**Wafer Body**

**Lug Body**

DN	DIN STD			
	PN 10		PN 16	
	ØP / ØK	M	ØP / ØK	M
40	110	N° 4 M16	110	N° 4 M16
50	125	N° 4 M16	125	N° 4 M16
65	145	N° 4 M16	145	N° 4 M16
80	160	N° 8 M16	160	N° 8 M16
100	180	N° 8 M16	180	N° 8 M16
125	210	N° 8 M16	210	N° 8 M16
150	240	N° 8 M20	240	N° 8 M20
200	295	N° 8 M20	295	N° 12 M20
250	350	N° 12 M20	355	N° 12 M24
300	400	N° 12 M20	410	N° 12 M24

**Model with rotary switches**



**Wafer Body**

**Lug Body**

\* n° 2 air connections Ø ¼" gas

**Dimensions in mm (fig. 2)**

DN	40	50	65	65	80	100	100	125	125	150	150	200	200	250	250	300
<b>Pistone UT</b>	15 S5	15 S5	17 S5	20 S4	30 S5	30 S4	30 S6	35 S4	40 S3	45 S3	45 S6	50 S4	55 S4	55 S4	55 S6	55 S6
<b>H - versione base</b>	251	258	263	285	320	342	342	388	388	441	423	490	490	528	528	558
<b>H1 - versione con posizionatore</b>	416	423	428	450	485	507	507	553	553	576	588	655	655	693	693	723
<b>H2 - versione con box fine corsa</b>	386	393	398	420	455	477	477	523	523	546	558	625	625	663	663	693
<b>HP</b>	165															
<b>HF</b>	135															
<b>h</b>	121	121	121	143	162	162	162	196	196	208	208	248	248	248	248	248
<b>L</b>	165	165	197	177	230	230	230	246	290	351	351	361	418	418	418	418
<b>A - A1</b>	33	43	46	46	46	52	52	56	56	56	56	60	60	68	68	78
<b>B</b>	85	85	85	96	113	113	113	138	138	151	151	185	185	185	185	185
<b>Ø D</b>	82	95	109	109	127	157	157	180	180	207	207	260	260	315	315	370
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