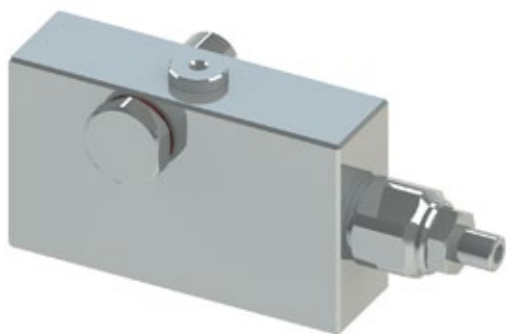


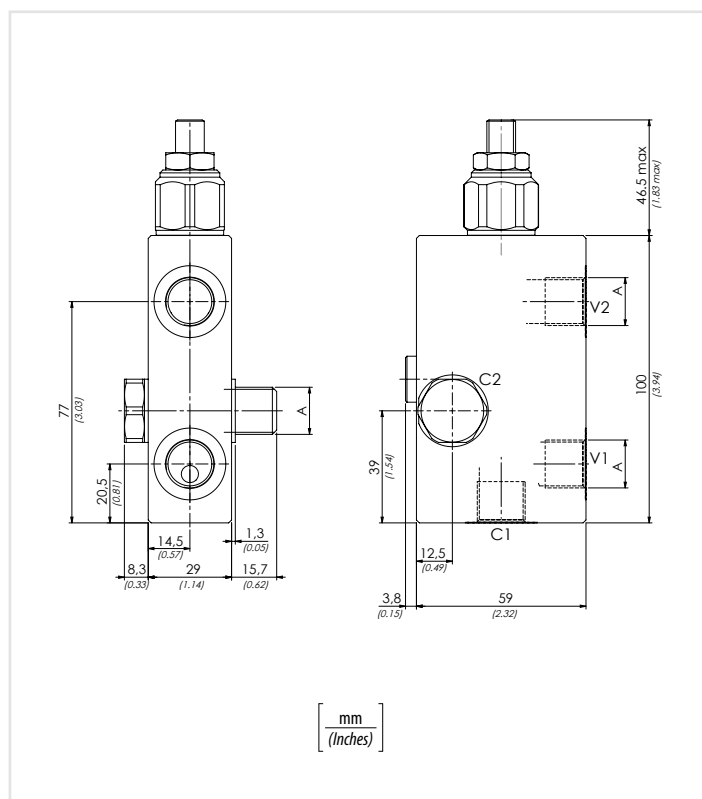
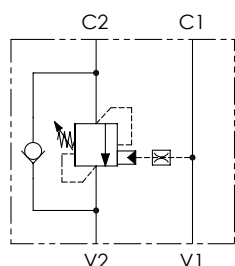


## COUNTERBALANCE VALVES

VALVOLE DI BILANCIAMENTO

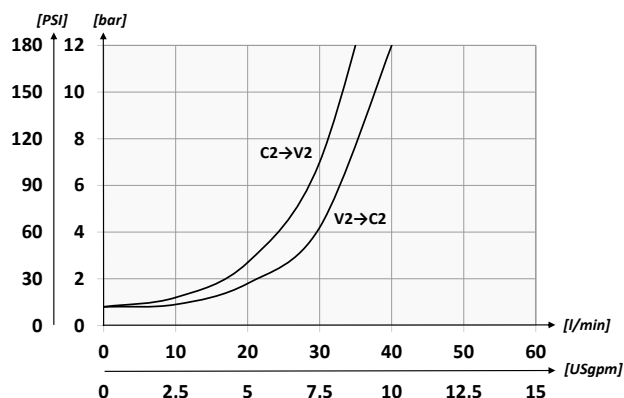


Schema idraulico - Hydraulic circuit



|                                     | 01                                                                                                                          | 02                                                         | 03                                                                                      | 04                                                                     | 05   |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|
| Codice ordinazione<br>Ordering code | VBCB                                                                                                                        |                                                            | 380                                                                                     |                                                                        |      |
| 01                                  | Valvole di bilanciamento singola a bullone per centro aperto<br>(Bolt-fitting single counterbalance valves for open center) |                                                            |                                                                                         |                                                                        | VBCB |
| 02                                  | Dimensione<br>(Size)                                                                                                        | BSPP 3/8                                                   |                                                                                         |                                                                        | 380  |
| 03                                  | Molla<br>(Spring)<br>30/210 bar<br>(435/3045 PSI)                                                                           | Rp 1:4.25                                                  | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|                                     |                                                                                                                             | Rp 1:8.75                                                  | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
|                                     | Molla<br>(Spring)<br>60/350 bar<br>(870/5075 PSI)                                                                           | Rp 1:4.25                                                  | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro (1958 PSI/turn)    | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|                                     |                                                                                                                             | Rp 1:8.75                                                  | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
| 04                                  | Materiale<br>(Material)                                                                                                     | Corpo in acciaio + zincatura (Steel body + zinc-plated)    |                                                                                         |                                                                        | S    |
|                                     |                                                                                                                             | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel) |                                                                                         |                                                                        | K    |
| 05                                  | Rapporto di pilotaggio<br>(Pilot ratio)                                                                                     | 1:4.25 Standard                                            |                                                                                         |                                                                        | /    |
|                                     |                                                                                                                             | 1:8.75                                                     |                                                                                         |                                                                        | 8    |

## Performances

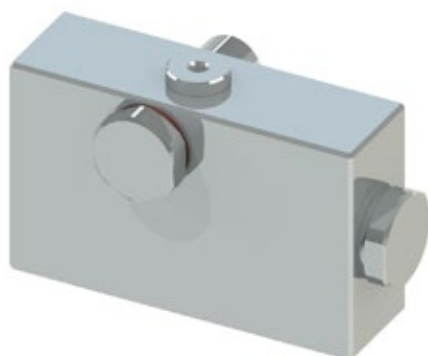


## Dati tecnici - Technical data

|                                                                                                                                                                                           |                                                |                     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------|--|
| <b>Olio idraulico/Mineral oil</b>                                                                                                                                                         | <b>ISO 6743/4 (DIN 51524)</b>                  |                     |  |
| <b>Viscosità olio/Oil viscosity</b>                                                                                                                                                       | <b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b> |                     |  |
| <b>Classe di contaminazione max con filtro</b><br>Max contamination index with filter                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>           |                     |  |
| <b>Temperatura dell'olio/Oil temperature</b>                                                                                                                                              | <b>-20°C +80°C</b>                             | <b>-4°F + 176°F</b> |  |
| <b>Temperatura ambiente/Ambient temperature</b>                                                                                                                                           | <b>-20°C +50°C</b>                             | <b>-4°F + 122°F</b> |  |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                |                     |  |

## Caratteristiche tecniche - Technical characteristics

| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | Peso approssimativo<br>Approx weight<br>kg/lb |
|----------------|-----------------|----------------------------------------|------------------------------------------|-----------------------------------------------|
| <b>VBCB380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                       | <b>350 (5075)</b>                        | <b>1,24 (2.73)</b>                            |

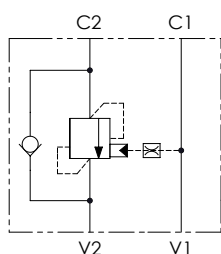


#### Codice ordinazione Ordering code

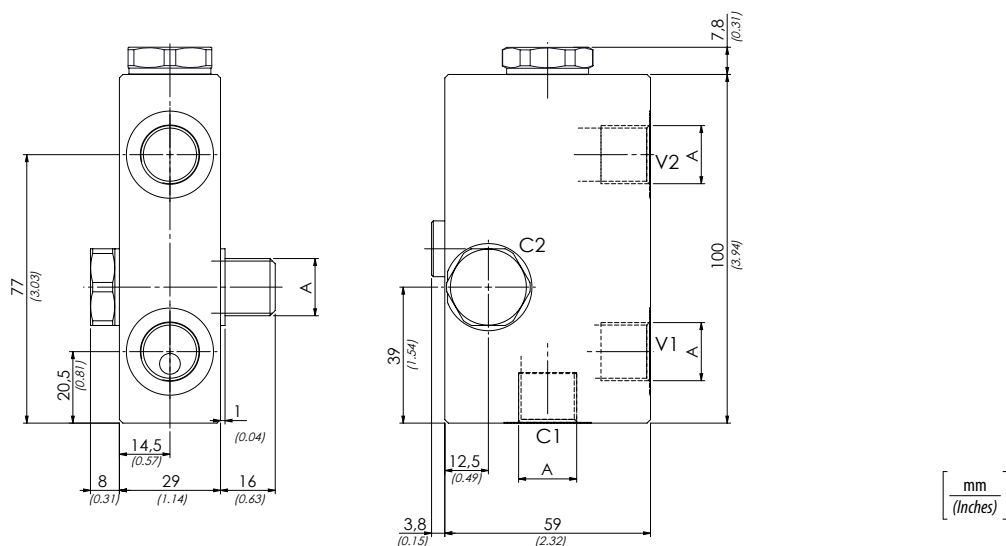
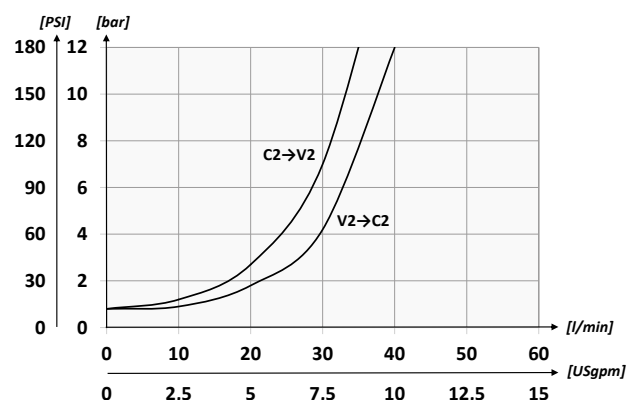
| 01          | 02         | 03       | 04 |
|-------------|------------|----------|----|
| <b>VBZB</b> | <b>380</b> | <b>2</b> |    |

|                                             |                                                                                                                                                            |                                                            |  |     |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--|-----|
| 01                                          | Valvole di bilanciamento a bullone singola per centro aperto a taratura fissa<br>(Bolt-fitting single counterbalance valves fixed setting for open center) |                                                            |  | VBZ |
| 02                                          | Dimensione (Size)                                                                                                                                          | BSPP 3/8                                                   |  | 380 |
| 03                                          | Taratura (Setting) Q=5 l/min 350 bar (5075 PSI)                                                                                                            |                                                            |  | 2   |
| 04                                          | Materiale (Material)                                                                                                                                       | Corpo in acciaio + zincatura (Steel body + zinc-plated)    |  | S   |
|                                             |                                                                                                                                                            | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel) |  | K   |
| Rapporto di pilotaggio (Pilot ratio) 1:4.25 |                                                                                                                                                            |                                                            |  |     |

#### Schema idraulico - Hydraulic circuit



#### Performances

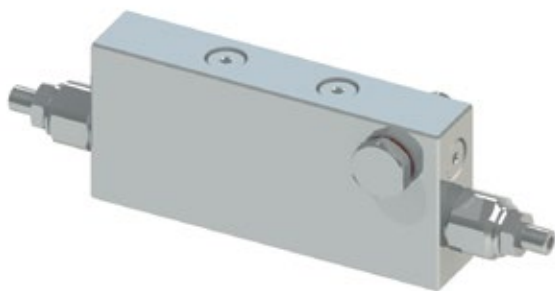


#### Dati tecnici - Technical data

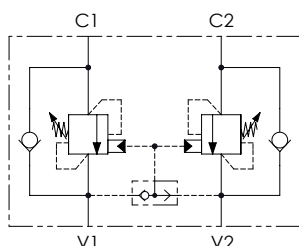
|                                                                                                                                                                                    |                                           |              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------|--|
| olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |              |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |              |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |              |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F + 176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F + 122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |              |  |

#### Caratteristiche tecniche - Technical characteristics

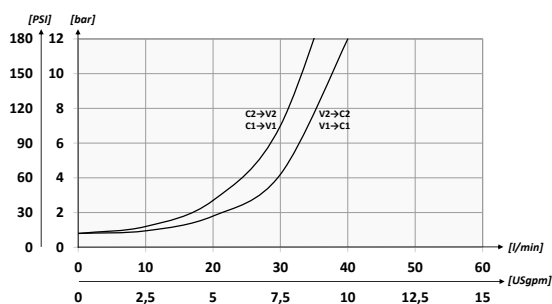
| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | Peso approssimativo<br>Approx weight<br>kg/lb |
|----------------|-----------------|----------------------------------------|------------------------------------------|-----------------------------------------------|
| <b>VBZB380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                       | <b>350 (5075)</b>                        | <b>1,24 (2,73)</b>                            |



Schema idraulico - Hydraulic circuit



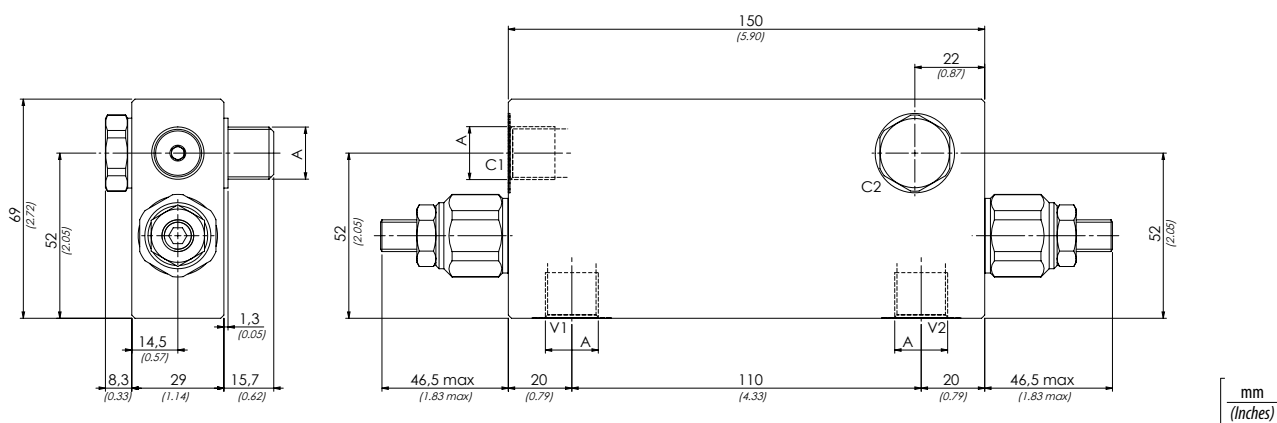
## Performances



## Codice ordinazione Ordering code

| 01          | 02         | 03 | 04 | 05 |
|-------------|------------|----|----|----|
| <b>VBCA</b> | <b>380</b> |    |    |    |

|    |                                                                                                                             |                                                            |                                                                                         |                                                                        |      |
|----|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|
| 01 | Valvole di bilanciamento singola a bullone per centro aperto<br>(Bolt-fitting single counterbalance valves for open center) |                                                            |                                                                                         |                                                                        | VBCA |
| 02 | Dimensione<br>(Size)                                                                                                        | BSPP 3/8                                                   |                                                                                         |                                                                        | 380  |
| 03 | Molla<br>(Spring)<br>30/210 bar<br>(435/3045 PSI)                                                                           | Rp 1:4.25                                                  | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                                             | Rp 1:8.75                                                  | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
|    | Molla<br>(Spring)<br>60/350 bar<br>(870/5075 PSI)                                                                           | Rp 1:4.25                                                  | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro (1958 PSI/turn)    | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                                             | Rp 1:8.75                                                  | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
| 04 | Materiale<br>(Material)                                                                                                     | Corpo in acciaio + zincatura (Steel body + zinc-plated)    |                                                                                         |                                                                        | S    |
|    |                                                                                                                             | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel) |                                                                                         |                                                                        | K    |
| 05 | Rapporto di pilotaggio<br>(Pilot ratio)                                                                                     | 1:4.25 Standard                                            |                                                                                         |                                                                        | /    |
|    |                                                                                                                             | 1:8.75                                                     |                                                                                         |                                                                        | 8    |

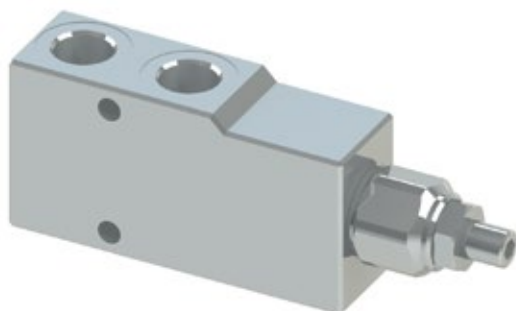


## Dati tecnici - Technical data

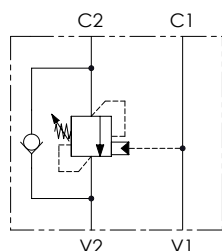
|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |             |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |

## Caratteristiche tecniche - Technical characteristics

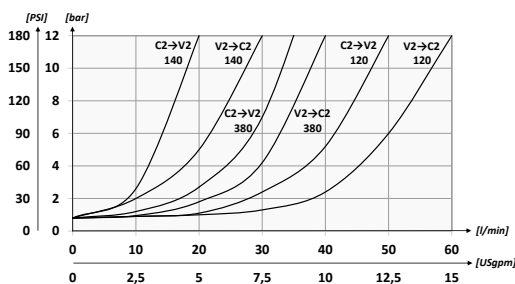
| Codice<br>Code | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | Peso approssimativo<br>Approx weight<br>kg/lb |
|----------------|-----------------|----------------------------------------|------------------------------------------|-----------------------------------------------|
| <b>VBCA380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                       | <b>350 (5075)</b>                        | <b>2,32 (5.11)</b>                            |



## Schema idraulico - Hydraulic circuit



## Performances



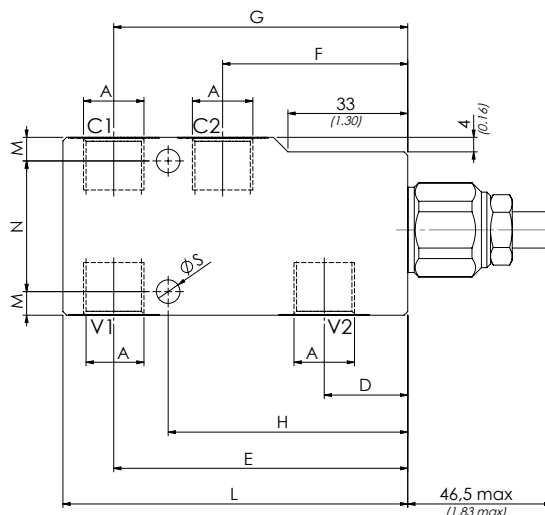
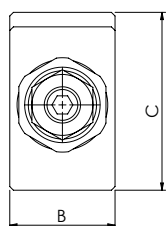
## Codice ordinazione Ordering code

| 01          | 02 | 03 | 04 | 05 |
|-------------|----|----|----|----|
| <b>VBCL</b> |    |    |    |    |

|    |                                                                                                            |                                                                     |                                                                                      |                                                                        |     |
|----|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----|
| 01 | Valvole di bilanciamento singole per centro aperto ( <i>Single counterbalance valves for open center</i> ) |                                                                     |                                                                                      |                                                                        | VBC |
| 02 | Dimensione<br>(Size)                                                                                       | BSPP 1/4                                                            |                                                                                      |                                                                        | 140 |
|    |                                                                                                            | BSPP 3/8                                                            |                                                                                      |                                                                        | 380 |
|    |                                                                                                            | BSPP 1/2                                                            |                                                                                      |                                                                        | 120 |
| 03 | Molla<br>(Spring)<br>30/210 bar<br>(435/3045 PSI)                                                          | Rp 1:4.25                                                           | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro (1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1   |
|    |                                                                                                            | Rp 1:8.75                                                           | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro (2320 PSI/turn) |                                                                        |     |
|    | Molla<br>(Spring)<br>60/350 bar<br>(870/5075 PSI)                                                          | Rp 1:4.25                                                           | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro (1958 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2   |
|    |                                                                                                            | Rp 1:8.75                                                           | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro (2320 PSI/turn) |                                                                        |     |
| 04 | Materiale<br>(Material)                                                                                    | Corpo in acciaio + zincatura ( <i>Steel body + zinc-plated</i> )    |                                                                                      |                                                                        | S   |
|    |                                                                                                            | Corpo in acciaio + zinco-nichel ( <i>Steel body + zinc-nickel</i> ) |                                                                                      |                                                                        | K   |
| 05 | Rapporto di pilotaggio<br>(Pilot ratio)                                                                    | 1:4.25 Standard                                                     |                                                                                      |                                                                        | /   |
|    |                                                                                                            | 1:8.75                                                              |                                                                                      |                                                                        | 8   |

## Dati tecnici - Technical data

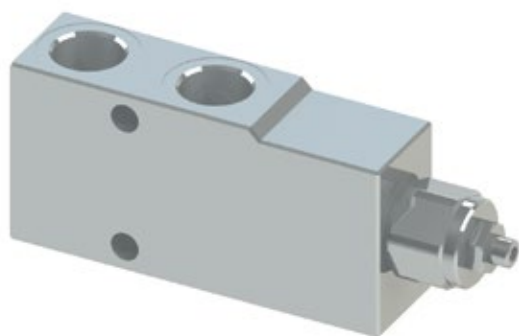
|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |             |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |



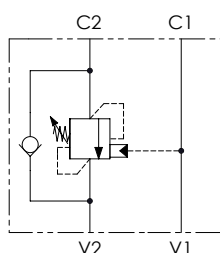
mm  
(Inches)

## Caratteristiche tecniche - Technical characteristics

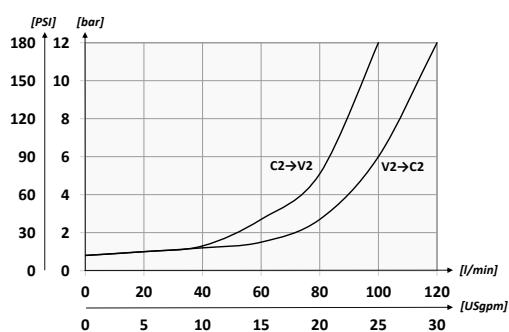
| Tipo<br>Type | A        | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | B         | C         | D         | E         | F         | G         | H           | L          | M          | N         | S          | Peso approssimativo<br>Approx weight<br>kg/lb |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|------------|------------|-----------|------------|-----------------------------------------------|
| VBCL140      | BSPP 1/4 | 30 (7.9)                               | 350 (5075)                               | 29 (1.14) | 49 (1.93) | 23 (0.91) | 58 (2.28) | 51 (2.01) | 81 (3.19) | 66 (2.60)   | 95 (3.74)  | 6,5 (0.26) | 36 (1.42) | 6,5 (0.26) | 0,98 (2.16)                                   |
| VBCL380      | BSPP 3/8 | 40 (10.6)                              |                                          |           |           |           |           |           |           |             |            |            |           |            | 0,92 (2.02)                                   |
| VBCL120      | BSPP 1/2 | 60 (15.9)                              |                                          |           | 59 (2.32) | 21 (0.83) | 63 (2.48) |           | 84 (3.31) | 67,5 (2.66) | 100 (3.94) | 9,5 (0.37) | 40 (1.57) |            | 1,09 (2.40)                                   |



Schema idraulico - Hydraulic circuit



## Performances



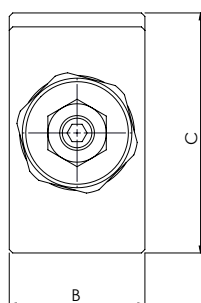
## Codice ordinazione Ordering code

| 01          | 02         | 03       | 04       | 05 |
|-------------|------------|----------|----------|----|
| <b>VBCL</b> | <b>340</b> | <b>2</b> | <b>S</b> |    |

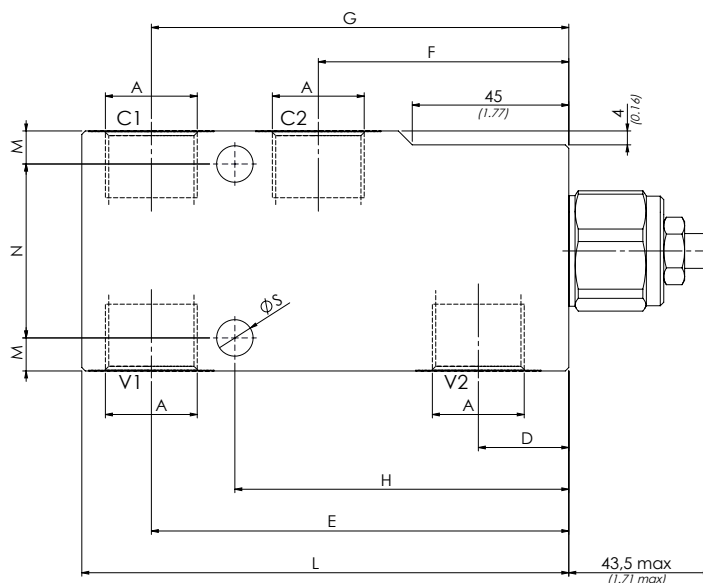
|    |                                                                                                      |           |                                                                                         |                                                                        |      |
|----|------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|
| 01 | Valvole di bilanciamento singole per centro aperto<br>(Single counterbalance valves for open center) |           |                                                                                         |                                                                        | VBCL |
| 02 | Dimensione (Size)                                                                                    |           | BSPP 3/4                                                                                |                                                                        | 340  |
| 03 | Molla (Spring)<br>60/350 bar<br>(870/5075 PSI)                                                       | Rp 1:6.2  | Incremento pressione al giro<br>(Press. increase)<br>143 bar/al giro<br>(2074 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                      | Rp 1:10.6 | Incremento pressione al giro<br>(Press. increase)<br>242bar/al giro<br>(3509 PSI/turn)  |                                                                        |      |
| 04 | Materiale (Material)                                                                                 |           | Corpo in acciaio + zincatura (Steel body + zinc-plated)                                 |                                                                        | S    |
| 05 | Rapporto di pilotaggio<br>(Pilot ratio)                                                              | 1:6.2     |                                                                                         |                                                                        | /    |
|    |                                                                                                      | 1:10,6    |                                                                                         |                                                                        | 11   |

## Dati tecnici - Technical data

|                                                                                                                                                                                           |                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Olio idraulico/Mineral oil</b>                                                                                                                                                         | <b>ISO 6743/4 (DIN 51524)</b>                  |
| <b>Viscosità olio/Oil viscosity</b>                                                                                                                                                       | <b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b> |
| <b>Classe di contaminazione max con filtro</b><br>Max contamination index with filter                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>           |
| <b>Temperatura dell'olio/Oil temperature</b>                                                                                                                                              | <b>-20°C +80°C</b> <b>-4°F +176°F</b>          |
| <b>Temperatura ambiente/Ambient temperature</b>                                                                                                                                           | <b>-20°C +50°C</b> <b>-4°F +122°F</b>          |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                |

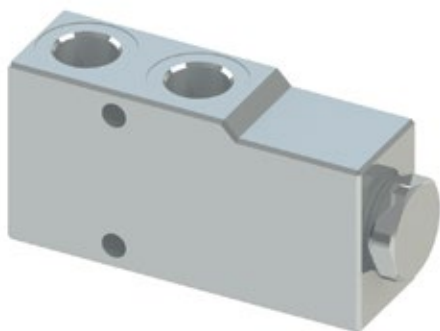


mm  
(Inches)

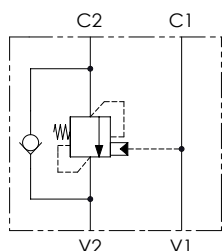


## Caratteristiche tecniche - Technical characteristics

| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | B                | C                | D                | E               | F                | G                 | H                | L                 | M                 | N                | S                  | Peso approssimativo<br>Approx weight<br>kg/lb |
|----------------|-----------------|----------------------------------------|------------------------------------------|------------------|------------------|------------------|-----------------|------------------|-------------------|------------------|-------------------|-------------------|------------------|--------------------|-----------------------------------------------|
| <b>VBCL340</b> | <b>BSPP 3/4</b> | <b>120 (31.7)</b>                      | <b>350 (5075)</b>                        | <b>39 (1.54)</b> | <b>69 (2.72)</b> | <b>20 (0.79)</b> | <b>94 (3.7)</b> | <b>72 (2.83)</b> | <b>120 (4.72)</b> | <b>96 (3.78)</b> | <b>140 (5.51)</b> | <b>9,5 (0.37)</b> | <b>50 (1.97)</b> | <b>10,5 (0.41)</b> | <b>2,54 (5.59)</b>                            |



#### Schema idraulico - Hydraulic circuit



#### Dati tecnici - Technical data

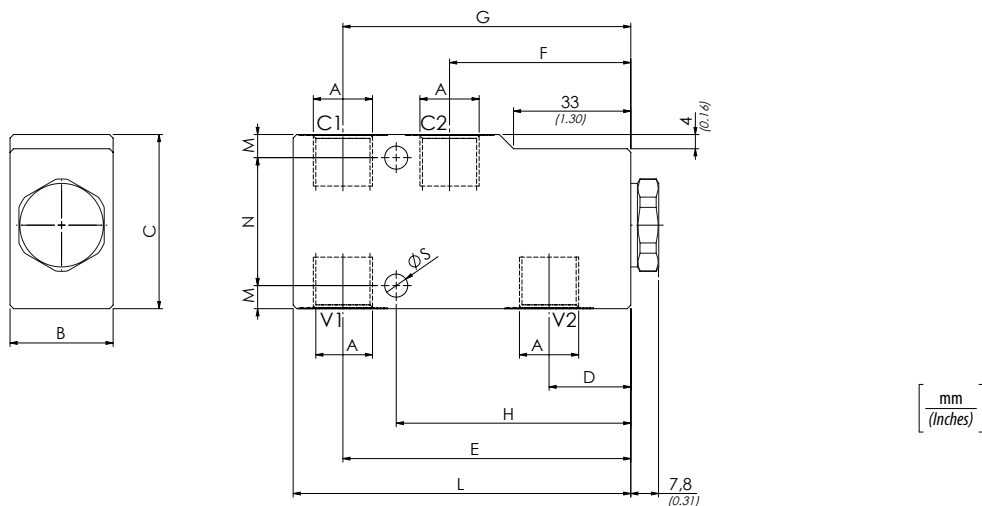
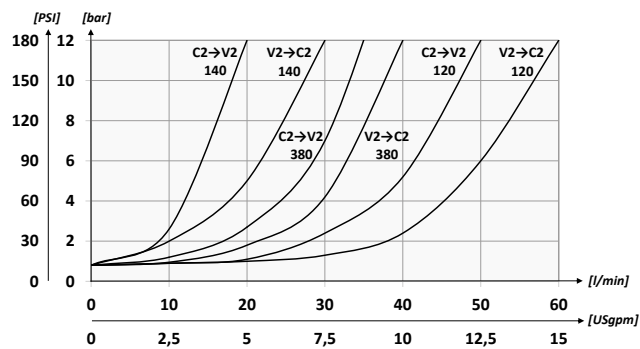
|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |             |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |

#### Codice ordinazione Ordering code

|             |    |          |    |
|-------------|----|----------|----|
| 01          | 02 | 03       | 04 |
| <b>VBZL</b> |    | <b>2</b> |    |

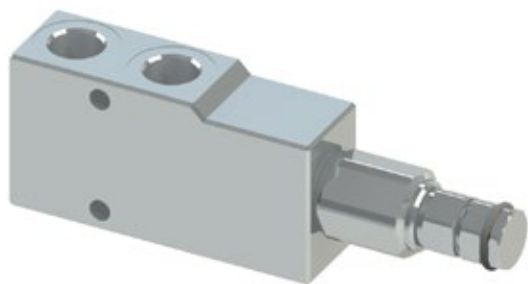
|                                             |                                                                                                                                     |                                                            |     |     |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----|-----|
| 01                                          | Valvole di bilanciamento singole per centro aperto a taratura fissa<br>(Single counterbalance valves fixed setting for open center) |                                                            |     | VBZ |
| 02                                          | Dimensione (Size)                                                                                                                   | BSPP 1/4                                                   | 140 |     |
|                                             |                                                                                                                                     | BSPP 3/8                                                   | 380 |     |
|                                             |                                                                                                                                     | BSPP 1/2                                                   | 120 |     |
| 05                                          | Taratura (Setting) Q=5 l/min 350 bar (5075 PSI)                                                                                     |                                                            |     | 2   |
| 04                                          | Materiale (Material)                                                                                                                | Corpo in acciaio + zincatura (Steel body + zinc-plated)    | S   |     |
|                                             |                                                                                                                                     | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel) | K   |     |
| Rapporto di pilotaggio (Pilot ratio) 1:4.25 |                                                                                                                                     |                                                            |     |     |

#### Performances

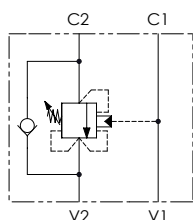


#### Caratteristiche tecniche - Technical characteristics

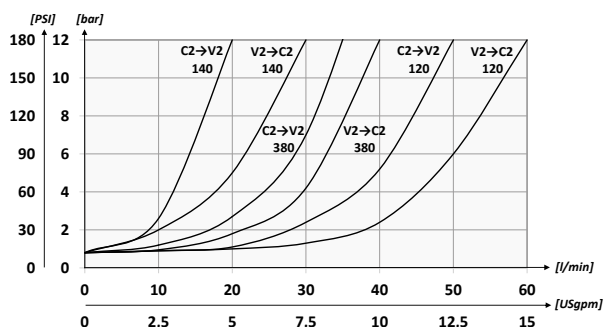
| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | B                | C                | D                | E                | F                | G                | H                  | L                 | M                 | N                | S                 | Peso approssimativo<br>Approx weight<br>kg/lb |
|----------------|-----------------|----------------------------------------|------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|-------------------|-------------------|------------------|-------------------|-----------------------------------------------|
| <b>VBZL140</b> | <b>BSPP 1/4</b> | <b>30 (7.9)</b>                        | <b>350 (5075)</b>                        | <b>29 (1.14)</b> | <b>49 (1.93)</b> | <b>23 (0.91)</b> | <b>58 (2.28)</b> | <b>51 (2.01)</b> | <b>81 (3.19)</b> | <b>66 (2.60)</b>   | <b>95 (3.74)</b>  | <b>6,5 (0.26)</b> | <b>36 (1.42)</b> | <b>6,5 (0.26)</b> | <b>0,91 (2.00)</b>                            |
| <b>VBZL380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                       |                                          |                  | <b>59 (2.32)</b> | <b>21 (0.83)</b> | <b>63 (2.48)</b> |                  | <b>84 (3.31)</b> | <b>67,5 (2.66)</b> | <b>100 (3.94)</b> | <b>9,5 (0.37)</b> | <b>40 (1.57)</b> |                   | <b>0,85 (1.87)</b>                            |
| <b>VBZL120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                       |                                          |                  |                  |                  |                  |                  |                  |                    |                   |                   |                  |                   | <b>1,02 (2.24)</b>                            |



## Schema idraulico - Hydraulic circuit



## Performances



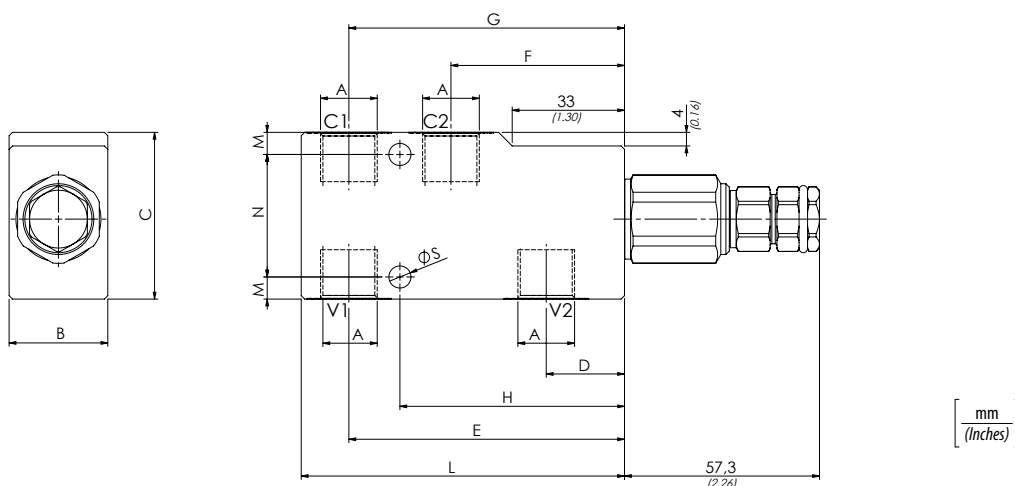
## Codice ordinazione Ordering code

| 01          | 02 | 03 | 04       | 05 |
|-------------|----|----|----------|----|
| <b>VCCL</b> |    |    | <b>S</b> |    |

|    |                                                                                                     |           |                                                                                         |                                                                        |     |
|----|-----------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----|
| 01 | Valvole di bilanciamento singole per centro chiuso (Single counterbalance valves for closed center) |           |                                                                                         |                                                                        | VCC |
| 02 | Dimensione (Size)                                                                                   |           | BSPP 1/4                                                                                |                                                                        | 140 |
|    |                                                                                                     |           | BSPP 3/8                                                                                |                                                                        | 380 |
|    |                                                                                                     |           | BSPP 1/2                                                                                |                                                                        | 120 |
| 03 | Molla (Spring)<br>30/210 bar<br>(435/3045 PSI)                                                      | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1   |
|    |                                                                                                     | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |     |
|    | Molla (Spring)<br>60/350 bar<br>(870/5075 PSI)                                                      | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2   |
|    |                                                                                                     | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |     |
| 04 | Materiale (Material)                                                                                |           | Corpo in acciaio + zincatura (Steel body + zinc-plated)                                 |                                                                        | S   |
| 05 | Rapporto di pilotaggio (Pilot ratio)                                                                |           | 1:4.25 Standard                                                                         |                                                                        | /   |
|    |                                                                                                     |           | 1:8.75                                                                                  |                                                                        | 8   |

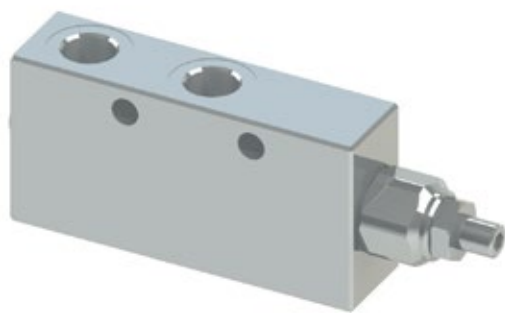
## Dati tecnici - Technical data

|                                                                                                                                                                                    |                                           |              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------|--|
| Olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |              |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |              |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |              |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F + 176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F + 122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |              |  |

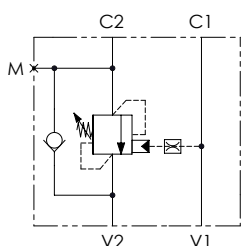


## Caratteristiche tecniche - Technical characteristics

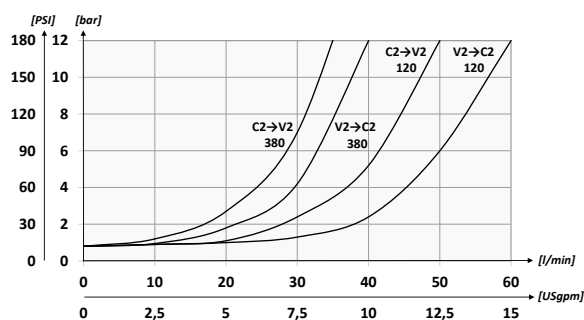
| Tipo<br>Type | A        | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | B         | C         | D         | E         | F         | G         | H           | L          | M          | N         | S          | Peso approssimativo<br>Approx weight<br>kg/lb |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|------------|------------|-----------|------------|-----------------------------------------------|
| VCCL140      | BSPP 1/4 | 30 (7.9)                               | 350 (5075)                               | 29 (1.14) | 49 (1.93) | 23 (0.91) | 58 (2.28) | 51 (2.01) | 81 (3.19) | 66 (2.60)   | 95 (3.74)  | 6,5 (0.26) | 36 (1.42) | 6,5 (0.26) | 1,02 (2.24)                                   |
| VCCL380      | BSPP 3/8 | 40 (10.6)                              |                                          |           | 59 (2.32) | 21 (0.83) | 63 (2.48) |           | 84 (3.31) | 67,5 (2.66) | 100 (3.94) | 9,5 (0.37) | 40 (1.57) |            | 0,98 (2.16)                                   |
| VCCL120      | BSPP 1/2 | 60 (15.9)                              |                                          |           |           |           |           |           |           |             |            |            |           |            | 1,15 (2.53)                                   |



Schema idraulico - Hydraulic circuit



## Performances



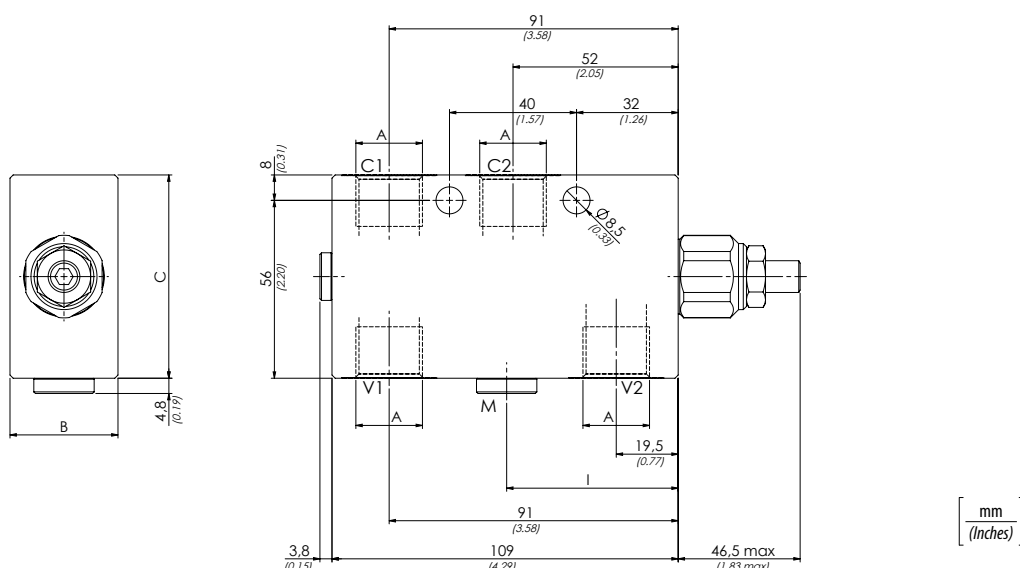
## Codice ordinazione Ordering code

|             |    |    |    |    |
|-------------|----|----|----|----|
| 01          | 02 | 03 | 04 | 05 |
| <b>VBLP</b> |    |    |    |    |

|    |                                                                                                      |           |                                                                                         |                                                                        |      |
|----|------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|
| 01 | Valvole di bilanciamento singole per centro aperto<br>(Single counterbalance valves for open center) |           |                                                                                         |                                                                        | VBLP |
| 02 | Dimensione (Size)                                                                                    |           | BSPP 3/8                                                                                |                                                                        | 380  |
|    |                                                                                                      |           | BSPP 1/2                                                                                |                                                                        | 120  |
| 03 | Molla (Spring)<br>30/210 bar<br>(435/3045 PSI)                                                       | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                      | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
|    | Molla (Spring)<br>60/350 bar<br>(870/5075 PSI)                                                       | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                      | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
| 04 | Materiale (Material)                                                                                 |           | Corpo in acciaio + zincatura (Steel body + zinc-plated)                                 |                                                                        | S    |
|    |                                                                                                      |           | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel)                              |                                                                        | K    |
| 05 | Rapporto di pilotaggio<br>(Pilot ratio)                                                              |           | 1:4.25 Standard                                                                         |                                                                        | /    |
|    |                                                                                                      |           | 1:8.75                                                                                  |                                                                        | 8    |

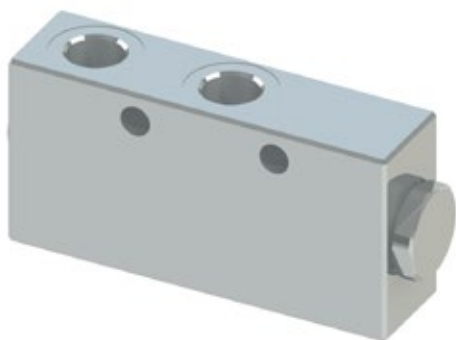
## Dati tecnici - Technical data

|                                                                                                                                                                                    |                                           |              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------|--|
| Olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |              |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |              |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |              |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F + 176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F + 122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |              |  |

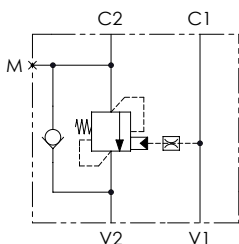


## Caratteristiche tecniche - Technical characteristics

| Tipo<br>Type   | A               | Portata max (l/min)<br>Max flow (USgpm) | Pressione max (bar)<br>Max pressure (PSI) | B                | C                | I                | M               | Peso approssimativo (kg)<br>Approx weight (lb) |
|----------------|-----------------|-----------------------------------------|-------------------------------------------|------------------|------------------|------------------|-----------------|------------------------------------------------|
| <b>VBLP380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                        | <b>350 (5075)</b>                         | <b>29 (1.14)</b> | <b>54 (2.13)</b> | <b>/</b>         | <b>/</b>        | <b>1,21 (2.63)</b>                             |
| <b>VBLP120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                        |                                           | <b>34 (1.34)</b> | <b>64 (2.52)</b> | <b>54 (2.13)</b> | <b>BSPP 1/4</b> | <b>1,59 (3.46)</b>                             |



## Schema idraulico - Hydraulic circuit



## Dati tecnici - Technical data

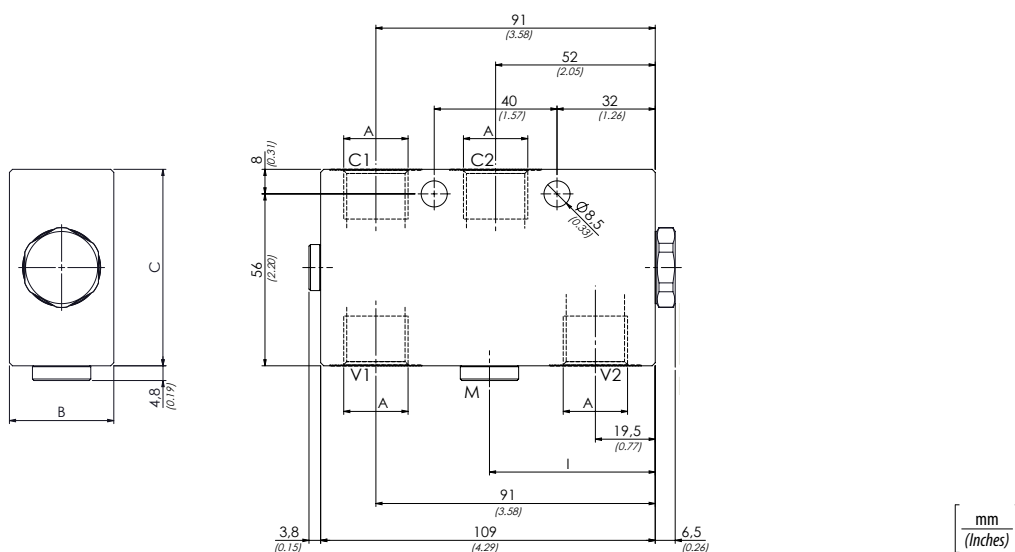
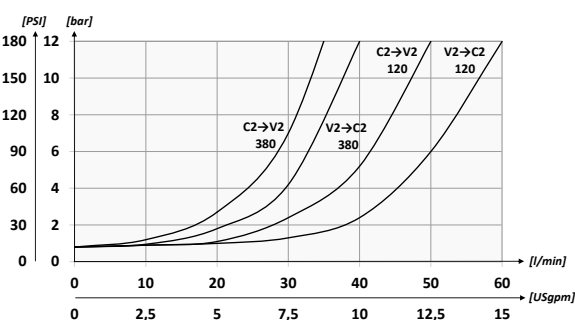
|                                                                                                                                                                                                  |                                      |                     |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------|--|
| <b>Olio idraulico/Mineral oil</b>                                                                                                                                                                | <b>ISO 6743/4 (DIN 51524)</b>        |                     |  |
| <b>Viscosità olio/Oil viscosity</b>                                                                                                                                                              | <b>15-250 mm²/s (15 to 250 cSt)</b>  |                     |  |
| <b>Classe di contaminazione max con filtro</b><br><i>Max contamination index with filter</i>                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b> |                     |  |
| <b>Temperatura dell'olio/Oil temperature</b>                                                                                                                                                     | <b>-20°C +80°C</b>                   | <b>-4°F + 176°F</b> |  |
| <b>Temperatura ambiente/Ambient temperature</b>                                                                                                                                                  | <b>-20°C +50°C</b>                   | <b>-4°F + 122°F</b> |  |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br><i>It is necessary a filter use to protect the valve (advised filtration 15 µm)</i> |                                      |                     |  |

## Codice ordinazione Ordering code

|             |    |          |    |
|-------------|----|----------|----|
| 01          | 02 | 03       | 04 |
| <b>VBZP</b> |    | <b>2</b> |    |

|                                             |                                                                                                                                     |                                                            |     |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----|
| 01                                          | Valvole di bilanciamento singole per centro aperto a taratura fissa<br>(Single counterbalance valves fixed setting for open center) |                                                            | VBZ |
| 02                                          | Dimensione (Size)                                                                                                                   | BSPP 1/4                                                   | 140 |
|                                             |                                                                                                                                     | BSPP 3/8                                                   | 380 |
|                                             |                                                                                                                                     | BSPP 1/2                                                   | 120 |
| 05                                          | Taratura (Setting) Q=5 l/min 350 bar (5075 PSI)                                                                                     |                                                            | 2   |
| 04                                          | Materiale (Material)                                                                                                                | Corpo in acciaio + zincatura (Steel body + zinc-plated)    | S   |
|                                             |                                                                                                                                     | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel) | K   |
| Rapporto di pilotaggio (Pilot ratio) 1:4.25 |                                                                                                                                     |                                                            |     |

## Performances

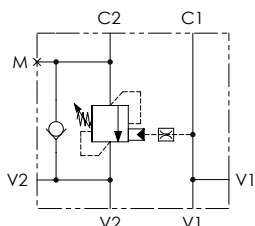


## Caratteristiche tecniche - Technical characteristics

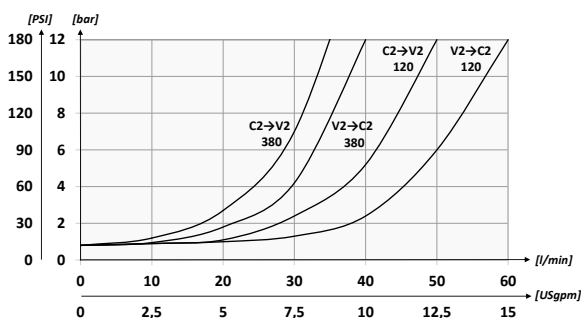
| Tipo<br>Type   | A               | Portata max (l/min)<br>Max flow (USgpm) | Pressione max (bar)<br>Max pressure (PSI) | B                | C                | I                | M               | Peso approssimativo (kg)<br>Approx weight (lb) |
|----------------|-----------------|-----------------------------------------|-------------------------------------------|------------------|------------------|------------------|-----------------|------------------------------------------------|
| <b>VBZP380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                        | <b>350 (5075)</b>                         | <b>29 (1.14)</b> | <b>54 (2.13)</b> | <b>/</b>         | <b>/</b>        | <b>1,14 (2.50)</b>                             |
| <b>VBZP120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                        |                                           | <b>34 (1.34)</b> | <b>64 (2.52)</b> | <b>54 (2.13)</b> | <b>BSPP 1/4</b> | <b>1,52 (3.34)</b>                             |



## Schema idraulico - Hydraulic circuit



## Performances



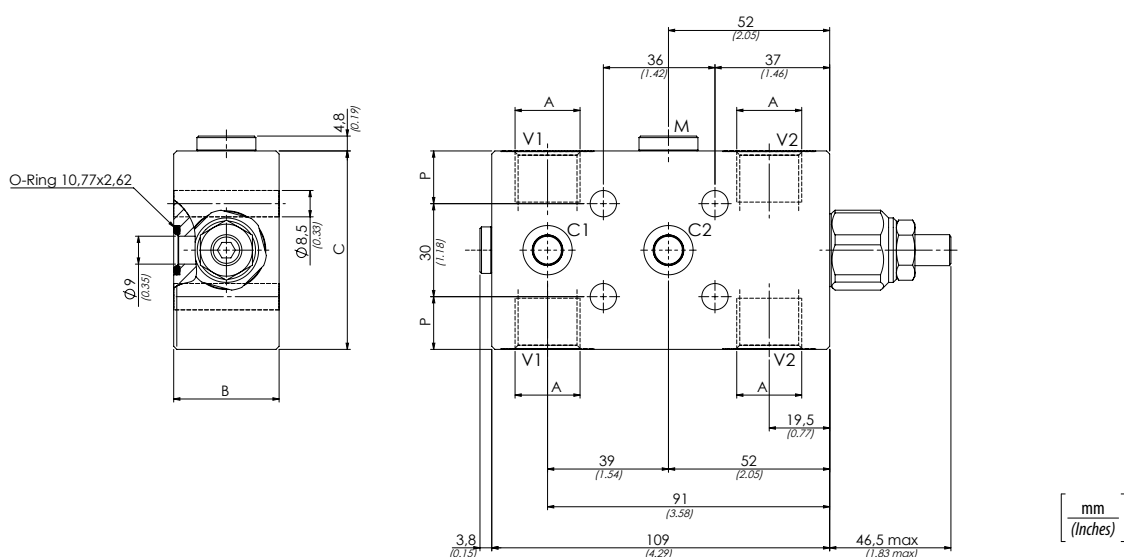
## Codice ordinazione Ordering code

|             |    |    |    |    |
|-------------|----|----|----|----|
| 01          | 02 | 03 | 04 | 05 |
| <b>VBLF</b> |    |    |    |    |

|    |                                                                                                                                    |           |                                                                                         |                                                                        |      |
|----|------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|
| 01 | Valvole di bilanciamento singole per centro aperto - flangiate<br>(Single counterbalance valves for open center - flanged version) |           |                                                                                         |                                                                        | VBLF |
| 02 | Dimensione (Size)                                                                                                                  |           | BSPP 3/8                                                                                | 380                                                                    |      |
|    |                                                                                                                                    |           | BSPP 1/2                                                                                | 120                                                                    |      |
| 03 | Molla<br>(Spring)<br>30/210 bar<br>(435/3045 PSI)                                                                                  | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                                                    | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
|    | Molla<br>(Spring)<br>60/350 bar<br>(870/5075 PSI)                                                                                  | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                                                    | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
| 04 | Materiale (Material)                                                                                                               |           | Corpo in acciaio + zincatura (Steel body + zinc-plated)                                 | S                                                                      |      |
|    |                                                                                                                                    |           | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel)                              | K                                                                      |      |
| 05 | Rapporto di pilotaggio<br>(Pilot ratio)                                                                                            |           | 1:4.25 Standard                                                                         | /                                                                      |      |
|    |                                                                                                                                    |           | 1:8.75                                                                                  | 8                                                                      |      |

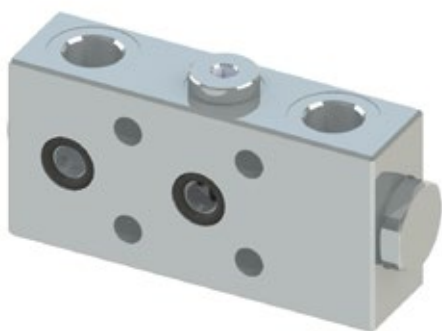
## Dati tecnici - Technical data

|                                                                                                                                                                                           |                                      |                     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------|--|
| <b>Olio idraulico/Mineral oil</b>                                                                                                                                                         | <b>ISO 6743/4 (DIN 51524)</b>        |                     |  |
| <b>Viscosità olio/Oil viscosity</b>                                                                                                                                                       | <b>15-250 mm²/s (15 to 250 cSt)</b>  |                     |  |
| <b>Classe di contaminazione max con filtro</b><br>Max contamination index with filter                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b> |                     |  |
| <b>Temperatura dell'olio/Oil temperature</b>                                                                                                                                              | <b>-20°C +80°C</b>                   | <b>-4°F + 176°F</b> |  |
| <b>Temperatura ambiente/Ambient temperature</b>                                                                                                                                           | <b>-20°C +50°C</b>                   | <b>-4°F + 122°F</b> |  |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |                     |  |

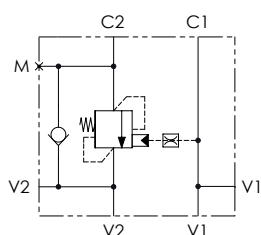


## Caratteristiche tecniche - Technical characteristics

| Tipo<br>Type   | A               | Portata max (l/min)<br>Max flow (USgpm) | Pressione max (bar)<br>Max pressure (PSI) | B                | C                | M               | P                | Peso approssimativo (kg)<br>Approx weight (lb) |
|----------------|-----------------|-----------------------------------------|-------------------------------------------|------------------|------------------|-----------------|------------------|------------------------------------------------|
| <b>VBLF380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                        | <b>350 (5075)</b>                         | <b>29 (1.14)</b> | <b>54 (2.13)</b> | <b>BSPP 1/4</b> | <b>12 (0.47)</b> | <b>1,17 (2.55)</b>                             |
| <b>VBLF120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                        |                                           | <b>34 (1.34)</b> | <b>64 (2.52)</b> |                 | <b>17 (0.67)</b> | <b>1,55 (3.37)</b>                             |



## Schema idraulico - Hydraulic circuit



## Dati tecnici - Technical data

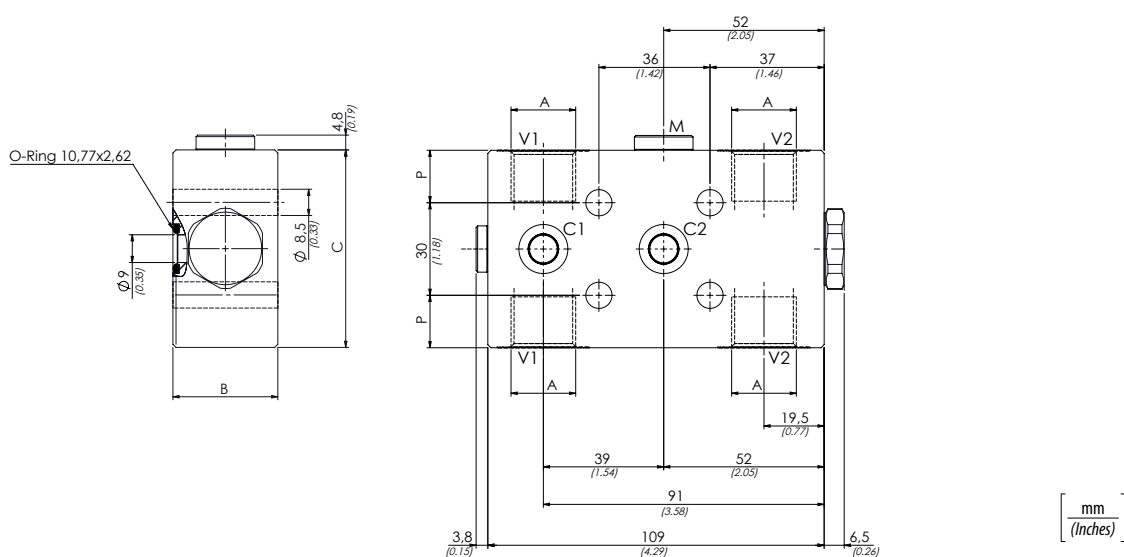
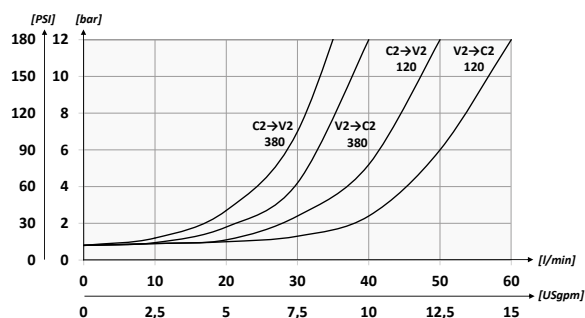
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C      -4°F +176°F              |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C      -4°F +122°F              |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## Codice ordinazione Ordering code

|             |    |          |    |
|-------------|----|----------|----|
| 01          | 02 | 03       | 04 |
| <b>VBZF</b> |    | <b>2</b> |    |

|                                             |                                                                                                                                                                   |                                                                     |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>01</b>                                   | Valvole di bilanciamento singole per centro aperto - flangiate a taratura fissa<br>(Single counterbalance valves fixed setting for open center - flanged version) | <b>VBZF</b>                                                         |
| <b>02</b>                                   | Dimensione (Size)                                                                                                                                                 | BSPP 3/8 <b>380</b>                                                 |
|                                             |                                                                                                                                                                   | BSPP 1/2 <b>120</b>                                                 |
| <b>03</b>                                   | Taratura (Setting) Q=5 l/min 350 bar (5075 PSI)                                                                                                                   | <b>2</b>                                                            |
| <b>04</b>                                   | Materiale (Material)                                                                                                                                              | Corpo in acciaio + zincatura (Steel body + zinc-plated) <b>S</b>    |
|                                             |                                                                                                                                                                   | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel) <b>K</b> |
| Rapporto di pilotaggio (Pilot ratio) 1:4.25 |                                                                                                                                                                   |                                                                     |

## Performances

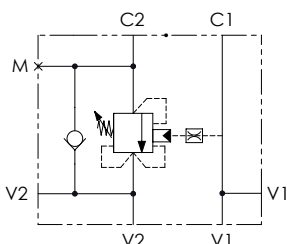


## Caratteristiche tecniche - Technical characteristics

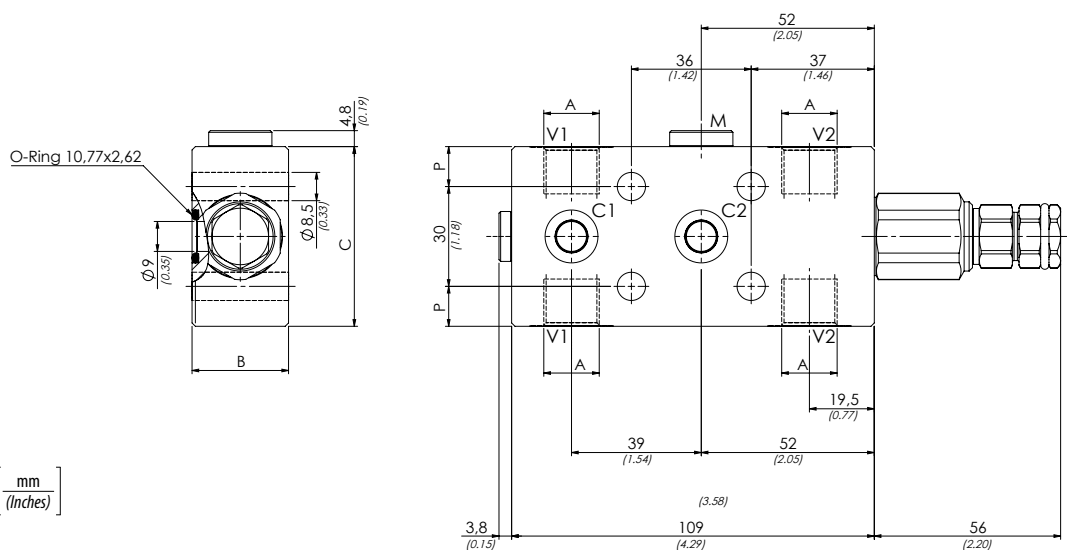
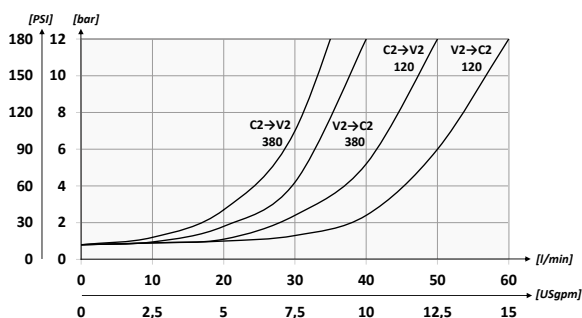
| Tipo<br>Type   | A               | Portata max (l/min)<br>Max flow (USgpm) | Pressione max (bar)<br>Max pressure (PSI) | B                | C                | M               | P                | Peso approssimativo (kg)<br>Approx weight (lb) |
|----------------|-----------------|-----------------------------------------|-------------------------------------------|------------------|------------------|-----------------|------------------|------------------------------------------------|
| <b>VBZF380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                        | <b>350 (5075)</b>                         | <b>29 (1.14)</b> | <b>54 (2.13)</b> | <b>BSPP 1/4</b> | <b>12 (0.47)</b> | <b>1,10 (2.42)</b>                             |
| <b>VBZF120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                        |                                           | <b>34 (1.34)</b> | <b>64 (2.52)</b> |                 | <b>17 (0.67)</b> | <b>1,48 (3.25)</b>                             |



### Schema idraulico - Hydraulic circuit



## Performances

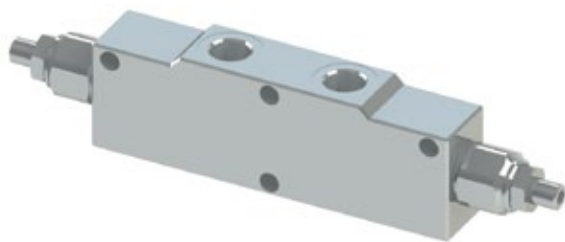


### Caratteristiche tecniche - Technical characteristics

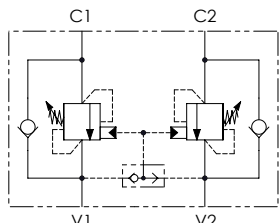
| Tipo<br>Type | A        | Portata max (l/min)<br>Max flow (USgpm) | Pressione max (bar)<br>Max pressure (PSI) | B         | C         | M        | P         | Peso approssimativo (kg)<br>Approx weight (lb) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|----------|-----------|------------------------------------------------|
| VCLF380      | BSPP 3/8 | 40 (10.6)                               | 350 (5075)                                | 29 (1.14) | 54 (2.13) | BSPP 1/4 | 12 (0.47) | 1,22 (2.69)                                    |
| VCLF120      | BSPP 1/2 | 60 (15.9)                               |                                           | 34 (1.34) | 64 (2.52) |          | 17 (0.67) | 1,60 (3.52)                                    |

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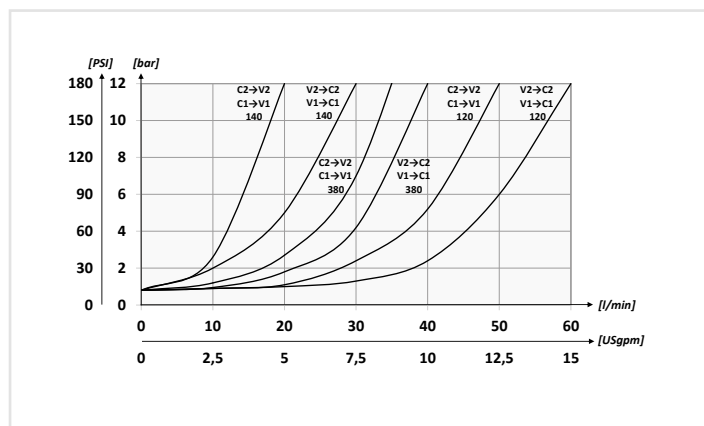
sales@oleoweb.com • Aggiornamento/Update 18R-2018



Schema idraulico - Hydraulic circuit



## Performances



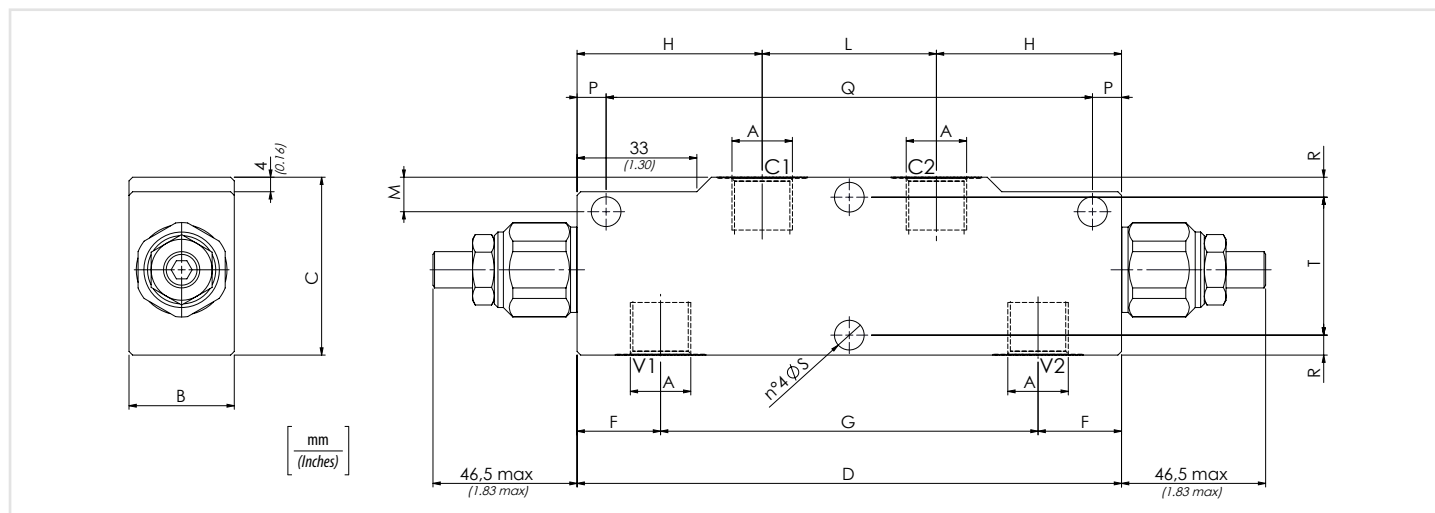
## Codice ordinazione Ordering code

| 01          | 02 | 03 | 04 | 05 |
|-------------|----|----|----|----|
| <b>VBCD</b> |    |    |    |    |

|    |                                                                                                |           |                                                                                         |                                                                        |      |
|----|------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|
| 01 | Valvole di bilanciamento doppie per centro aperto (Dual counterbalance valves for open center) |           |                                                                                         |                                                                        | VBCD |
| 02 | Dimensione (Size)                                                                              |           | BSPP 1/4                                                                                |                                                                        | 140  |
|    |                                                                                                |           | BSPP 3/8                                                                                |                                                                        | 380  |
|    |                                                                                                |           | BSPP 1/2                                                                                |                                                                        | 120  |
| 03 | Molla (Spring)<br>30/210 bar<br>(435/3045 PSI)                                                 | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
|    | Molla (Spring)<br>60/350 bar<br>(870/5075 PSI)                                                 | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
| 04 | Materiale (Material)                                                                           |           | Corpo in acciaio + zincatura (Steel body + zinc-plated)                                 |                                                                        | S    |
|    |                                                                                                |           | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel)                              |                                                                        | K    |
| 05 | Rapporto di pilotaggio (Pilot ratio)                                                           |           | 1:4.25 Standard                                                                         |                                                                        | /    |
|    |                                                                                                |           | 1:8.75                                                                                  |                                                                        | 8    |

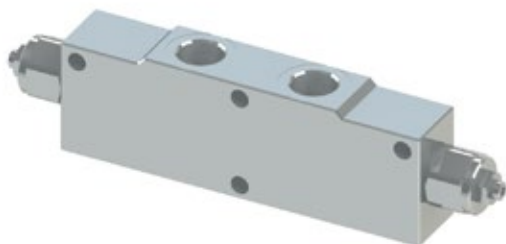
## Dati tecnici - Technical data

|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |             |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |

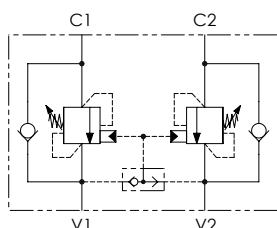


## Caratteristiche tecniche - Technical characteristics

| Tipo<br>Type | A        | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | B         | C         | D          | F         | G          | H         | L         | M         | P        | Q          | R          | S          | T         | Peso approssimativo<br>Approx weight<br>kg/lb |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|----------|------------|------------|------------|-----------|-----------------------------------------------|
| VBCD140      | BSPP 1/4 | 30 (7.9)                               | 350 (5075)                               | 29 (1.14) | 49 (1.93) | 150 (5.91) | 23 (0.91) | 104 (4.09) | 51 (2.01) | 48 (1.89) | 10 (0.39) | 8 (0.31) | 134 (5.28) | 5.5 (0.22) | 8.2 (0.32) | 38 (1.50) | 1,57 (3,46)                                   |
| VBCD380      | BSPP 3/8 | 40 (10.6)                              |                                          |           |           |            |           |            |           |           |           |          |            |            |            |           | 1,55 (3,41)                                   |
| VBCD120      | BSPP 1/2 | 60 (15.9)                              |                                          |           |           |            |           |            |           |           |           |          |            |            |            |           | 1,78 (3.92)                                   |

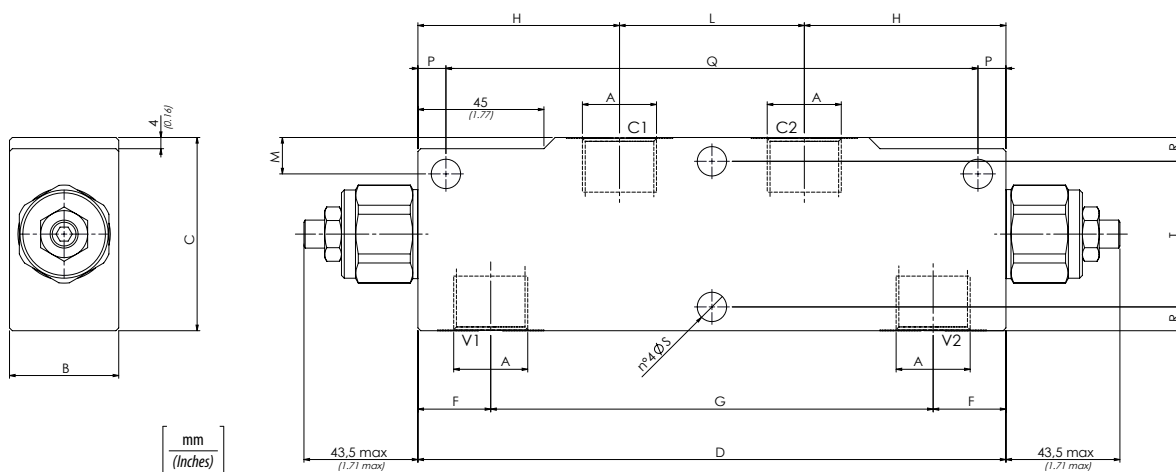
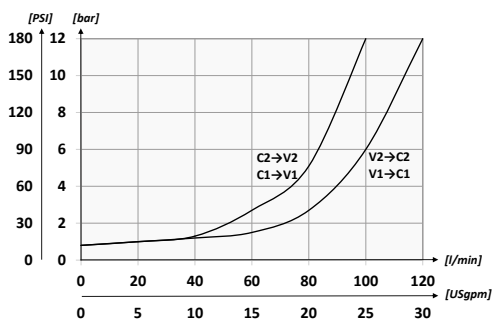


### Schema idraulico - Hydraulic circuit

**Dati tecnici - Technical data**

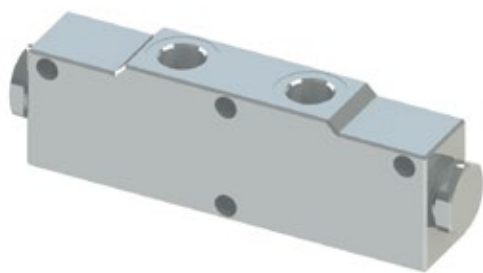
|                                                                                                                                                                                                  |                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Olio idraulico/Mineral oil</b>                                                                                                                                                                | <b>ISO 6743/4 (DIN 51524)</b>          |
| <b>Viscosità olio/Oil viscosity</b>                                                                                                                                                              | <b>15-250 mm²/s (15 to 250 cSt)</b>    |
| <b>Classe di contaminazione max con filtro</b><br><i>Max contamination index with filter</i>                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>   |
| <b>Temperatura dell'olio/Oil temperature</b>                                                                                                                                                     | <b>-20°C +80°C</b> <b>-4°F + 176°F</b> |
| <b>Temperatura ambiente/Ambient temperature</b>                                                                                                                                                  | <b>-20°C +50°C</b> <b>-4°F + 122°F</b> |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br><i>It is necessary a filter use to protect the valve (advised filtration 15 µm)</i> |                                        |

## Performances

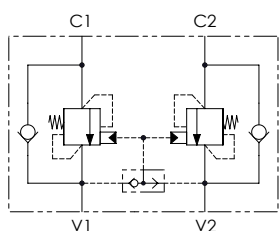


### Caratteristiche tecniche - Technical characteristics

| Typo<br>Type | A        | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | B         | C         | D          | F         | G          | H         | L        | M         | P         | Q          | R        | S           | T         | Peso approssimativo<br>Approx weight<br>kg/lb |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|------------|-----------|------------|-----------|----------|-----------|-----------|------------|----------|-------------|-----------|-----------------------------------------------|
| VBCD340      | BSPP 3/4 | 120 (31.7)                             | 350 (5075)                               | 39 (1.54) | 69 (2.72) | 210 (8.27) | 26 (1.02) | 158 (6.22) | 72 (2.83) | 66 (2.6) | 13 (0.51) | 10 (0.39) | 190 (7.48) | 9 (0.35) | 10,5 (0.41) | 52 (2.05) | 4,5 (8,81)                                    |



#### Schema idraulico - Hydraulic circuit



#### Dati tecnici - Technical data

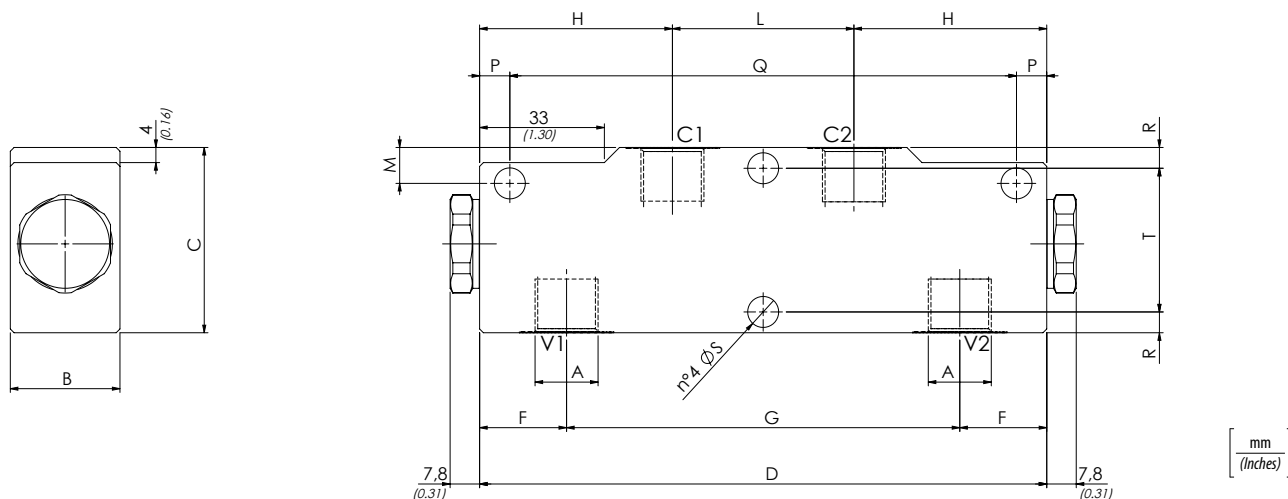
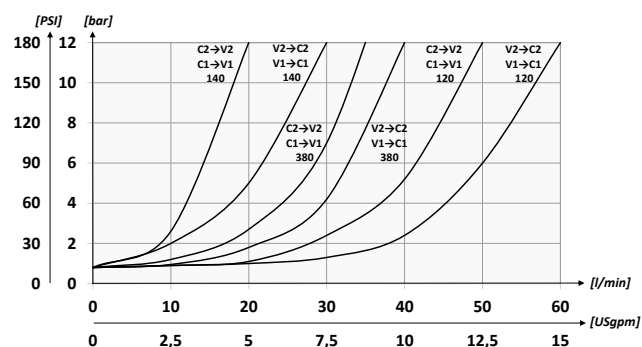
|                                                                                                                                                                                                  |                                                |                     |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------|--|
| <b>Olio idraulico/Mineral oil</b>                                                                                                                                                                | <b>ISO 6743/4 (DIN 51524)</b>                  |                     |  |
| <b>Viscosità olio/Oil viscosity</b>                                                                                                                                                              | <b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b> |                     |  |
| <b>Classe di contaminazione max con filtro</b><br><i>Max contamination index with filter</i>                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>           |                     |  |
| <b>Temperatura dell'olio/Oil temperature</b>                                                                                                                                                     | <b>-20°C +80°C</b>                             | <b>-4°F + 176°F</b> |  |
| <b>Temperatura ambiente/Ambient temperature</b>                                                                                                                                                  | <b>-20°C +50°C</b>                             | <b>-4°F + 122°F</b> |  |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br><i>It is necessary a filter use to protect the valve (advised filtration 15 µm)</i> |                                                |                     |  |

#### Codice ordinazione Ordering code

|             |    |          |    |
|-------------|----|----------|----|
| 01          | 02 | 03       | 04 |
| <b>VBZD</b> |    | <b>2</b> |    |

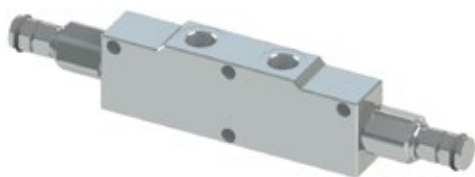
|                                             |                                                                                                                                  |                                                            |      |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------|
| 01                                          | Valvole di bilanciamento doppie per centro aperto a taratura fissa<br>(Dual counterbalance valves fixed setting for open center) |                                                            | VBZD |
| 02                                          | Dimensione (Size)                                                                                                                | BSPP 1/4                                                   | 140  |
|                                             |                                                                                                                                  | BSPP 3/8                                                   | 380  |
|                                             |                                                                                                                                  | BSPP 1/2                                                   | 120  |
| 03                                          | Taratura (Setting) Q=5 l/min 350 bar (5075 PSI)                                                                                  |                                                            | 2    |
| 04                                          | Materiale (Material)                                                                                                             | Corpo in acciaio + zincatura (Steel body + zinc-plated)    | S    |
|                                             |                                                                                                                                  | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel) | K    |
| Rapporto di pilotaggio (Pilot ratio) 1:4.25 |                                                                                                                                  |                                                            |      |

#### Performances

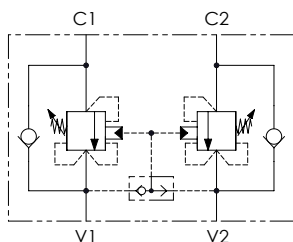


#### Caratteristiche tecniche - Technical characteristics

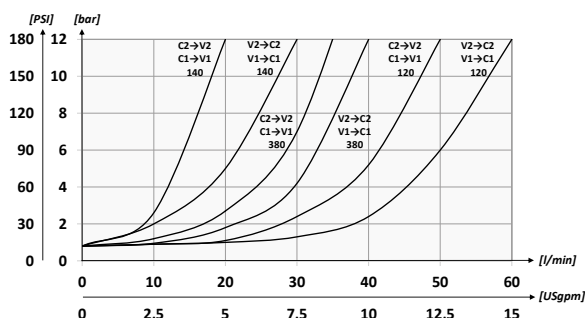
| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | B                | C                | D                 | F                | G                 | H                | L                | M                | P               | Q                 | R                 | S                 | T                | Peso<br>approssimativo<br>Approx weight<br>kg/lb |
|----------------|-----------------|----------------------------------------|------------------------------------------|------------------|------------------|-------------------|------------------|-------------------|------------------|------------------|------------------|-----------------|-------------------|-------------------|-------------------|------------------|--------------------------------------------------|
| <b>VBZD140</b> | <b>BSPP 1/4</b> | <b>30 (7.9)</b>                        | <b>350 (5075)</b>                        | <b>29 (1.14)</b> | <b>49 (1.93)</b> | <b>150 (5.91)</b> | <b>23 (0.91)</b> | <b>104 (4.09)</b> | <b>51 (2.01)</b> | <b>48 (1.89)</b> | <b>10 (0.39)</b> | <b>8 (0.31)</b> | <b>134 (5.28)</b> | <b>5,5 (0.22)</b> | <b>8,2 (0.32)</b> | <b>38 (1.50)</b> | <b>1,50 (3,30)</b>                               |
| <b>VBZD380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                       |                                          |                  | <b>59 (2.32)</b> |                   | <b>21 (0.83)</b> | <b>108 (4.25)</b> |                  |                  |                  |                 |                   |                   |                   | <b>43 (1.69)</b> | <b>1,48 (3,25)</b>                               |
| <b>VBZD120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                       |                                          |                  |                  |                   |                  |                   |                  |                  |                  |                 |                   |                   |                   |                  | <b>1,71 (3.76)</b>                               |



## Schema idraulico - Hydraulic circuit



## Performances



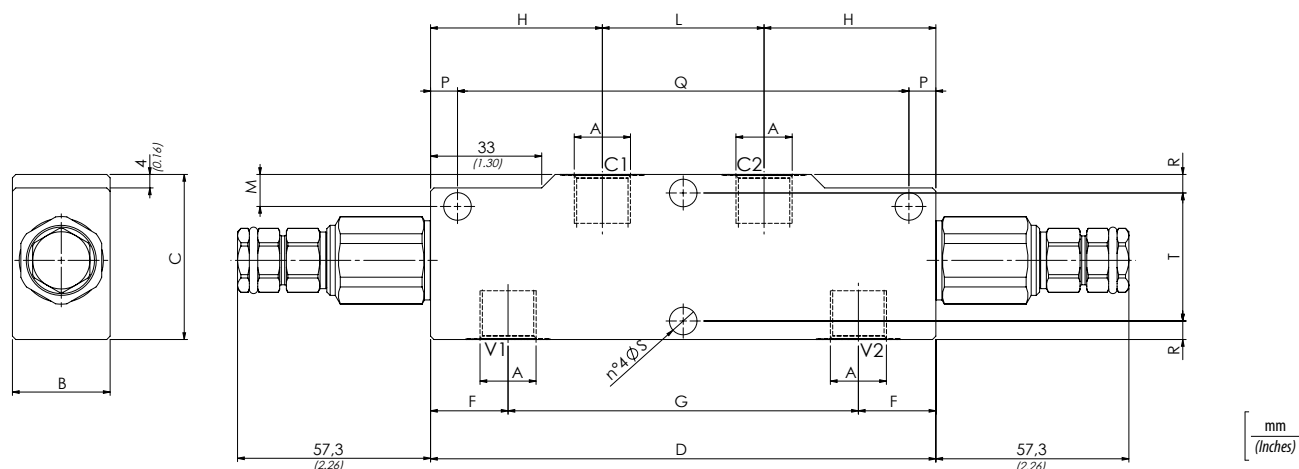
## Codice ordinazione Ordering code

| 01          | 02 | 03 | 04       | 05 |
|-------------|----|----|----------|----|
| <b>VBCC</b> |    |    | <b>S</b> |    |

|        |                                                                                                     |                                         |                                                                                         |                                                                        |     |   |
|--------|-----------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----|---|
| 01     | Valvole di bilanciamento doppie per centro chiuso<br>(Dual counterbalance valves for closed center) |                                         |                                                                                         |                                                                        | VBC |   |
| 02     | Dimensione (Size)                                                                                   |                                         | BSPP 1/4                                                                                | 140                                                                    |     |   |
|        |                                                                                                     |                                         | BSPP 3/8                                                                                | 380                                                                    |     |   |
|        |                                                                                                     |                                         | BSPP 1/2                                                                                | 120                                                                    |     |   |
| 03     | Molla<br>(Spring)<br>30/210 bar<br>(435/3045 PSI)                                                   | Rp 1:4.25                               | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1   |   |
|        |                                                                                                     | Rp 1:8.75                               | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |     |   |
|        | Molla<br>(Spring)<br>60/350 bar<br>(870/5075 PSI)                                                   | Rp 1:4.25                               | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2   |   |
|        |                                                                                                     | Rp 1:8.75                               | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |     |   |
|        | 04                                                                                                  | Materiale (Material)                    |                                                                                         | Corpo in acciaio + zincatura (Steel body + zinc-plated)                |     | S |
|        | 05                                                                                                  | Rapporto di pilotaggio<br>(Pilot ratio) |                                                                                         | 1:4.25 Standard                                                        |     | / |
| 1:8.75 |                                                                                                     |                                         |                                                                                         | 8                                                                      |     |   |

## Dati tecnici - Technical data

|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| Olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |             |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |

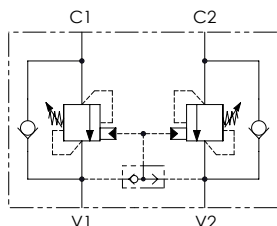


## Caratteristiche tecniche - Technical characteristics

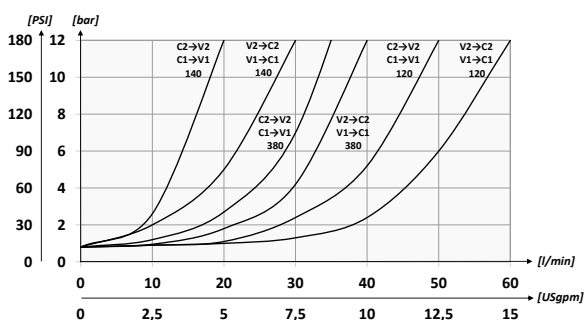
| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | B                | C                | D                 | F                | G                 | H                | L                | M                | P               | Q                 | R                 | S                 | T                | Peso approssimativo (kg)<br>Approx weight (lb) |
|----------------|-----------------|----------------------------------------|------------------------------------------|------------------|------------------|-------------------|------------------|-------------------|------------------|------------------|------------------|-----------------|-------------------|-------------------|-------------------|------------------|------------------------------------------------|
| <b>VBCC140</b> | <b>BSPP 1/4</b> | <b>30 (8)</b>                          | <b>350 (5075)</b>                        | <b>29 (1.14)</b> | <b>49 (1.93)</b> | <b>150 (5.91)</b> | <b>23 (0.91)</b> | <b>104 (4.09)</b> | <b>51 (2.01)</b> | <b>48 (1.89)</b> | <b>10 (0.39)</b> | <b>8 (0.31)</b> | <b>134 (5.28)</b> | <b>5.5 (0.22)</b> | <b>8.2 (0.32)</b> | <b>38 (1.50)</b> | <b>1.68 (3.70)</b>                             |
| <b>VBCC380</b> | <b>BSPP 3/8</b> | <b>40 (10.5)</b>                       |                                          |                  | <b>59 (2.32)</b> |                   | <b>21 (0.83)</b> | <b>108 (4.25)</b> |                  |                  | <b>12 (0.47)</b> |                 |                   |                   |                   | <b>43 (1.69)</b> | <b>1.66 (3.66)</b>                             |
| <b>VBCC120</b> | <b>BSPP 1/2</b> | <b>60 (16)</b>                         |                                          |                  |                  |                   |                  |                   |                  |                  |                  |                 |                   |                   |                   |                  | <b>1.89 (4.16)</b>                             |



Schema idraulico - Hydraulic circuit



## Performances



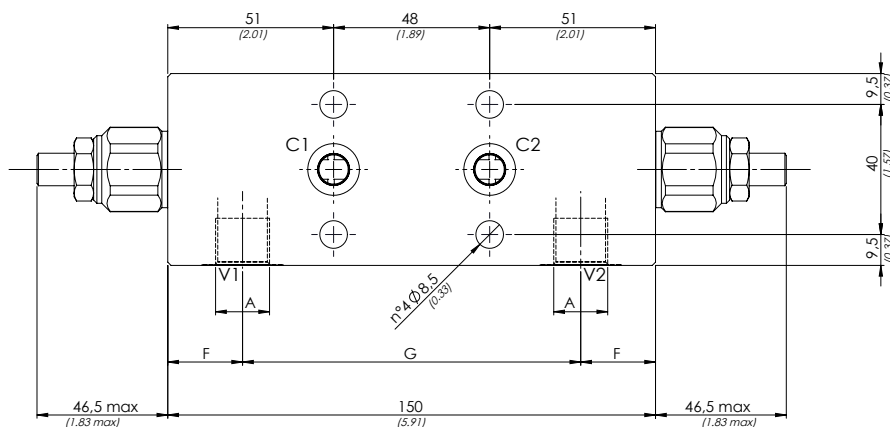
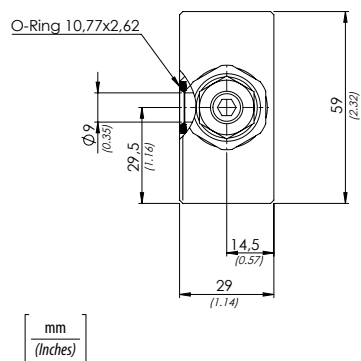
## Codice ordinazione Ordering code

| 01          | 02 | 03 | 04 | 05 |
|-------------|----|----|----|----|
| <b>VBCF</b> |    |    |    |    |

|    |                                                                                                                                 |           |                                                                                         |                                                                        |      |
|----|---------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|------|
| 01 | Valvole di bilanciamento doppie per centro aperto - flangiate<br>(Dual counterbalance valves for open center - flanged version) |           |                                                                                         |                                                                        | VBCF |
| 02 | Dimensione (Size)                                                                                                               |           | BSPP 1/4                                                                                | 140                                                                    |      |
|    |                                                                                                                                 |           | BSPP 3/8                                                                                | 380                                                                    |      |
|    |                                                                                                                                 |           | BSPP 1/2                                                                                | 120                                                                    |      |
| 03 | Molla<br>(Spring)<br>30/210 bar<br>(435/3045 PSI)                                                                               | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                                                 | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
|    | Molla<br>(Spring)<br>60/350 bar<br>(870/5075 PSI)                                                                               | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                                                 | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |      |
| 04 | Materiale (Material)                                                                                                            |           | Corpo in acciaio + zincatura (Steel body + zinc-plated)                                 | S                                                                      |      |
|    |                                                                                                                                 |           | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel)                              | K                                                                      |      |
| 05 | Rapporto di pilotaggio (Pilot ratio)                                                                                            |           | 1:4.25 Standard                                                                         | /                                                                      |      |
|    |                                                                                                                                 |           | 1:8.75                                                                                  | 8                                                                      |      |

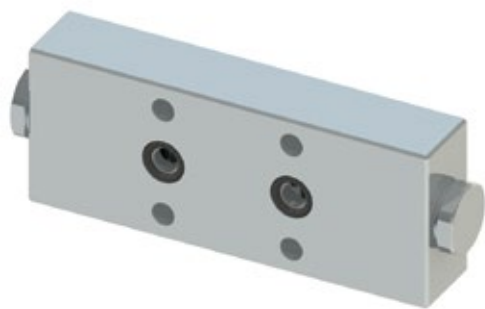
## Dati tecnici - Technical data

|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |             |  |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |

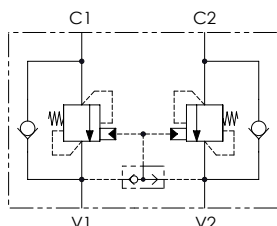


## Caratteristiche tecniche - Technical characteristics

| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max (bar)<br>Max pressure (PSI) | G                 | F                | Peso approssimativo (kg)<br>Approx weight (lb) |
|----------------|-----------------|----------------------------------------|-------------------------------------------|-------------------|------------------|------------------------------------------------|
| <b>VBCF140</b> | <b>BSPP 1/4</b> | <b>40 (10.6)</b>                       | <b>350 (5075)</b>                         | <b>104 (4.09)</b> | <b>23 (0.91)</b> | <b>2,02 (4.45)</b>                             |
| <b>VBCF380</b> | <b>BSPP 3/8</b> |                                        |                                           |                   |                  | <b>1,95 (4.30)</b>                             |
| <b>VBCF120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                       |                                           | <b>108 (4.25)</b> | <b>21 (0.83)</b> | <b>1,92 (4.23)</b>                             |



## Schema idraulico - Hydraulic circuit



## Dati tecnici - Technical data

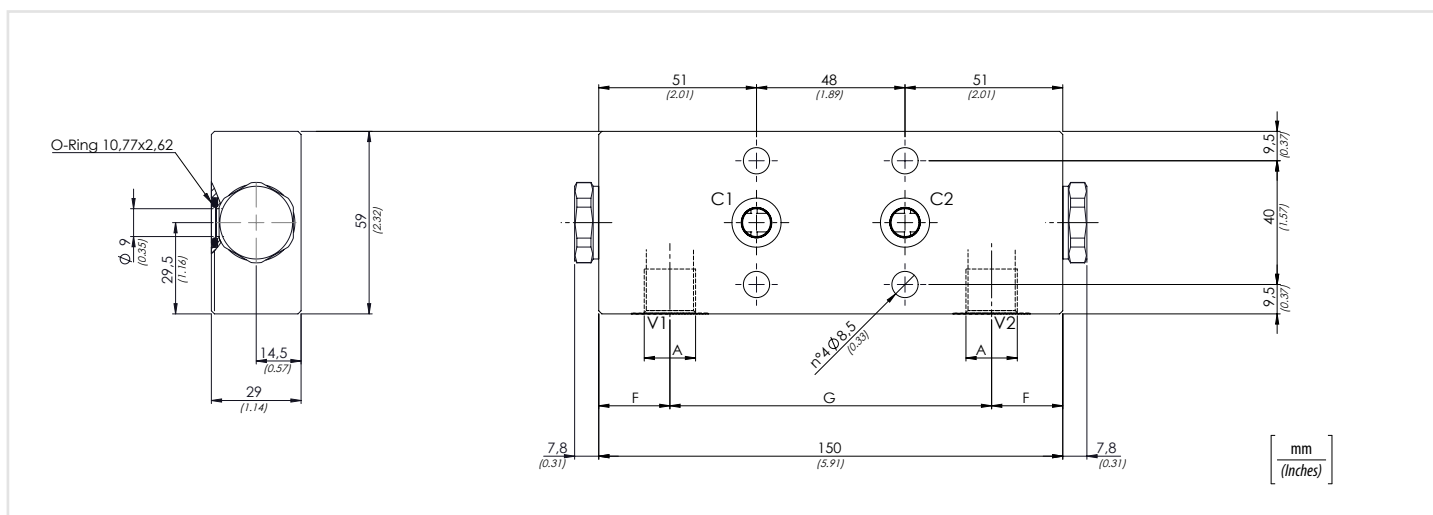
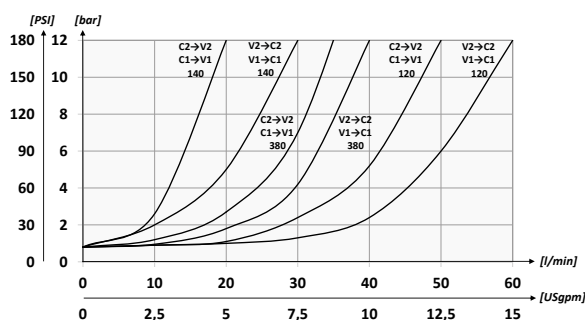
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C      -4°F + 176°F             |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C      -4°F + 122°F             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## Codice ordinazione Ordering code

|             |    |          |    |
|-------------|----|----------|----|
| 01          | 02 | 03       | 04 |
| <b>VBZG</b> |    | <b>2</b> |    |

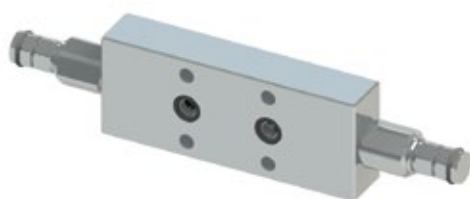
|                                             |                                                                                                                                                                |             |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 01                                          | Valvole di bilanciamento doppie per centro aperto - flangiate a taratura fissa<br>(Dual counterbalance valves fixed setting for open center - flanged version) | <b>VBZG</b> |
| 02                                          | Dimensione (Size)                                                                                                                                              |             |
|                                             | BSPP 1/4                                                                                                                                                       | <b>140</b>  |
|                                             | BSPP 3/8                                                                                                                                                       | <b>380</b>  |
|                                             | BSPP 1/2                                                                                                                                                       | <b>120</b>  |
| 03                                          | Taratura (Setting) Q=5 l/min 350 bar (5075 PSI)                                                                                                                | <b>2</b>    |
| 04                                          | Materiale (Material)                                                                                                                                           |             |
|                                             | Corpo in acciaio + zincatura (Steel body + zinc-plated)                                                                                                        | <b>S</b>    |
|                                             | Corpo in acciaio + zinco-nichel (Steel body + zinc-nickel)                                                                                                     | <b>K</b>    |
| Rapporto di pilotaggio (Pilot ratio) 1:4.25 |                                                                                                                                                                |             |

## Performances

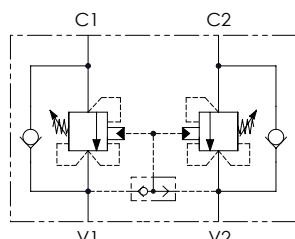


## Caratteristiche tecniche - Technical characteristics

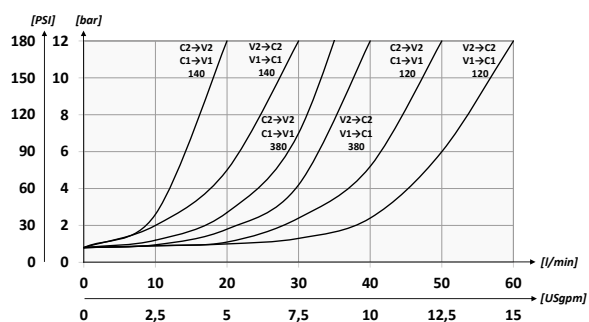
| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max (bar)<br>Max pressure (PSI) | G                 | F                | Peso approssimativo (kg)<br>Approx weight (lb) |
|----------------|-----------------|----------------------------------------|-------------------------------------------|-------------------|------------------|------------------------------------------------|
| <b>VBZG140</b> | <b>BSPP 1/4</b> | <b>40 (10.6)</b>                       | <b>350 (5075)</b>                         | <b>104 (4.09)</b> | <b>23 (0.91)</b> | <b>1,98 (4.24)</b>                             |
| <b>VBZG380</b> | <b>BSPP 3/8</b> |                                        |                                           |                   |                  | <b>1,90 (4.07)</b>                             |
| <b>VBZG120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                       |                                           | <b>108 (4.25)</b> | <b>21 (0.83)</b> | <b>1,88 (4.03)</b>                             |



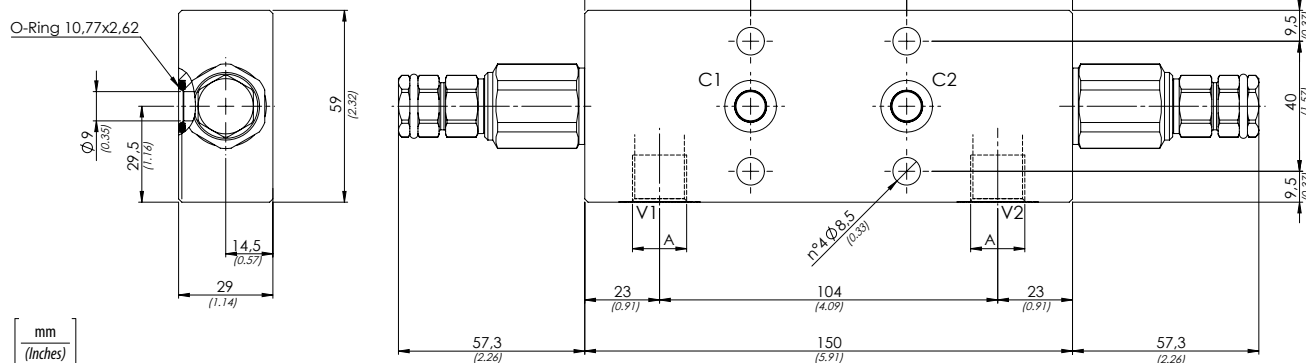
Schema idraulico - Hydraulic circuit



## Performances



| Codice ordinazione<br>Ordering code |                                                                                                                                   | 01        | 02                                                                                      | 03 | 04                                                                     | 05   |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|----|------------------------------------------------------------------------|------|
|                                     |                                                                                                                                   | VBCM      |                                                                                         |    | S                                                                      |      |
| 01                                  | Valvole di bilanciamento doppie per centro chiuso - flangiate<br>(Dual counterbalance valves for closed center - flanged version) |           |                                                                                         |    |                                                                        | VBCM |
| 02                                  | Dimensione (Size)                                                                                                                 |           | BSPP 1/4                                                                                |    |                                                                        | 140  |
|                                     |                                                                                                                                   |           | BSPP 3/8                                                                                |    |                                                                        | 380  |
|                                     |                                                                                                                                   |           | BSPP 1/2                                                                                |    |                                                                        | 120  |
| 03                                  | Molla<br>(Spring)<br>30/210 bar<br>(435/3045 PSI)                                                                                 | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  |    | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|                                     |                                                                                                                                   | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |    |                                                                        |      |
|                                     | Molla<br>(Spring)<br>60/350 bar<br>(870/5075 PSI)                                                                                 | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro<br>(1958 PSI/turn) |    | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|                                     |                                                                                                                                   | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |    |                                                                        |      |
| 04                                  | Materiale (Material)                                                                                                              |           | Corpo in acciaio + zincatura<br>(Steel body + zinc-plated)                              |    |                                                                        | S    |
| 05                                  | Rapporto di pilotaggio<br>(Pilot ratio)                                                                                           |           | 1:4.25 Standard                                                                         |    |                                                                        | /    |
|                                     |                                                                                                                                   |           | 1:8.75                                                                                  |    |                                                                        | 8    |

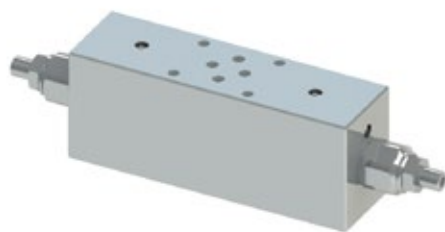


## Dati tecnici - Technical data

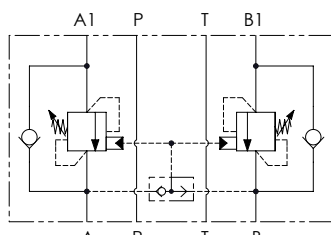
|                                                                                                                                                                                    |                               |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------|
| Olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)        |             |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm²/s (15 to 250 cSt)  |             |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14 |             |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C                   | -4°F +176°F |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C                   | -4°F +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |             |

## Caratteristiche tecniche - Technical characteristics

| Tipo<br>Type   | A               | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar-PSI | Peso approssimativo<br>Approx weight<br>kg-lb |
|----------------|-----------------|----------------------------------------|------------------------------------------|-----------------------------------------------|
| <b>VBCM140</b> | <b>BSPP 1/4</b> | <b>40 (10.6)</b>                       | <b>350 (5075)</b>                        | <b>2,13 (4.69)</b>                            |
| <b>VBCM380</b> | <b>BSPP 3/8</b> |                                        |                                          | <b>2,09 (4.60)</b>                            |
| <b>VBCM120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                       |                                          | <b>2,06 (4.54)</b>                            |



Schema idraulico - Hydraulic circuit



## Dati tecnici - Technical data

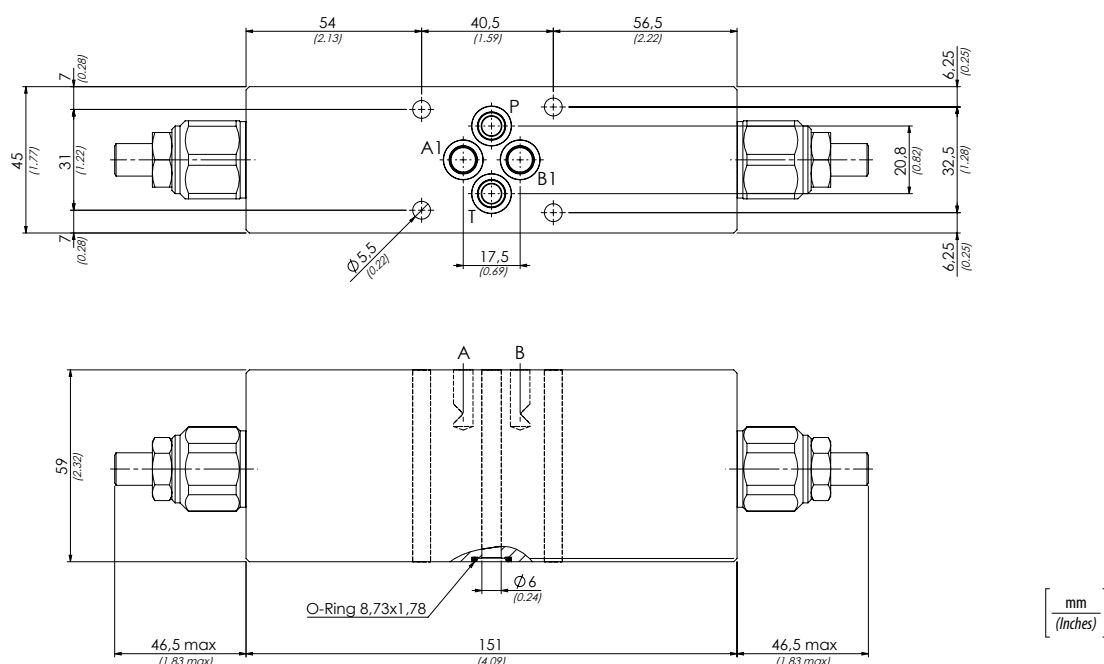
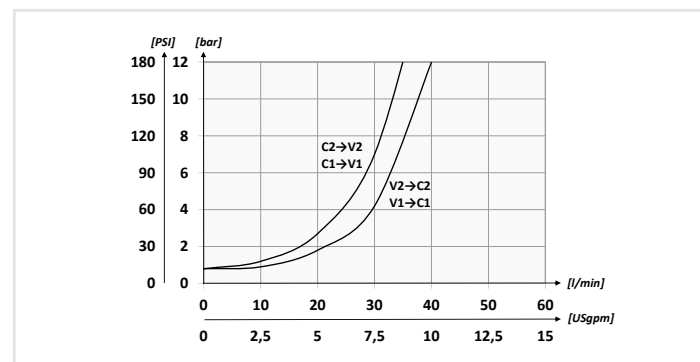
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| olio idraulico/Mineral oil                                                                                                                                                         | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio/Oil viscosity                                                                                                                                                       | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio/Oil temperature                                                                                                                                              | -20°C +80°C      -4°F +176°F              |
| Temperatura ambiente/Ambient temperature                                                                                                                                           | -20°C +50°C      -4°F +122°F              |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

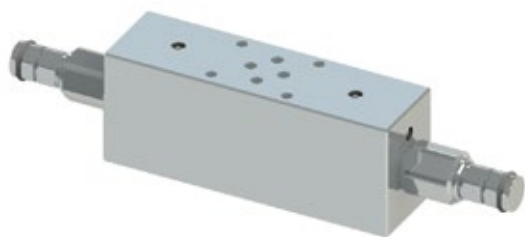
## Caratteristiche tecniche - Technical characteristics

| Tipo<br>Type | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | Peso approssimativo<br>Approx weight<br>kg/lb |
|--------------|----------------------------------------|------------------------------------------|-----------------------------------------------|
| VBCS06       | 40 (10.6)                              | 350 (5075)                               | 3,10 (6.80)                                   |

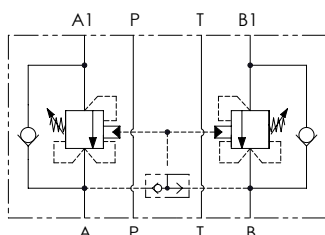
|                                     | 01                                                                                                                               | 02        | 03                                                                                      | 04                                                                     | 05     |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------|
| Codice ordinazione<br>Ordering code | VBCS06                                                                                                                           |           | S                                                                                       |                                                                        |        |
| 01                                  | Valvole di bilanciamento modulari CETOP3 doppie per centro aperto<br>(Dual CETOP3 modular counterbalance valves for open center) |           |                                                                                         |                                                                        | VBCS06 |
| 02                                  | Molla<br>(Spring)<br>30/210 bar<br>(435/3045 PSI)                                                                                | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br>Q=5 l/min 200 bar<br>(2900 PSI) | 1      |
|                                     |                                                                                                                                  | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |        |
|                                     | Molla<br>(Spring)<br>60/350 bar<br>(870/5075 PSI)                                                                                | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br>135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br>Q=5 l/min 350 bar<br>(5075 PSI) | 2      |
|                                     |                                                                                                                                  | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br>160 bar/al giro<br>(2320 PSI/turn) |                                                                        |        |
| 03                                  | Materiale (Material)                                                                                                             |           | Corpo in acciaio + zincatura<br>(Steel body + zinc-plated)                              |                                                                        | S      |
| 04                                  | Rapporto di pilotaggio<br>(Pilot ratio)                                                                                          |           | 1:4.25 Standard                                                                         |                                                                        | /      |
|                                     |                                                                                                                                  |           | 1:8.75                                                                                  |                                                                        | 8      |

## Performances





## Schema idraulico - Hydraulic circuit



## Dati tecnici - Technical data

|                                                                                                                                                                                                  |                                      |                     |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------|--|
| <b>Olio idraulico/Mineral oil</b>                                                                                                                                                                | <b>ISO 6743/4 (DIN 51524)</b>        |                     |  |
| <b>Viscosità olio/Oil viscosity</b>                                                                                                                                                              | <b>15-250 mm²/s (15 to 250 cSt)</b>  |                     |  |
| <b>Classe di contaminazione max con filtro</b><br><i>Max contamination index with filter</i>                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b> |                     |  |
| <b>Temperatura dell'olio/Oil temperature</b>                                                                                                                                                     | <b>-20°C +80°C</b>                   | <b>-4°F + 176°F</b> |  |
| <b>Temperatura ambiente/Ambient temperature</b>                                                                                                                                                  | <b>-20°C +50°C</b>                   | <b>-4°F + 122°F</b> |  |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br><i>It is necessary a filter use to protect the valve (advised filtration 15 µm)</i> |                                      |                     |  |

## Caratteristiche tecniche - Technical characteristics

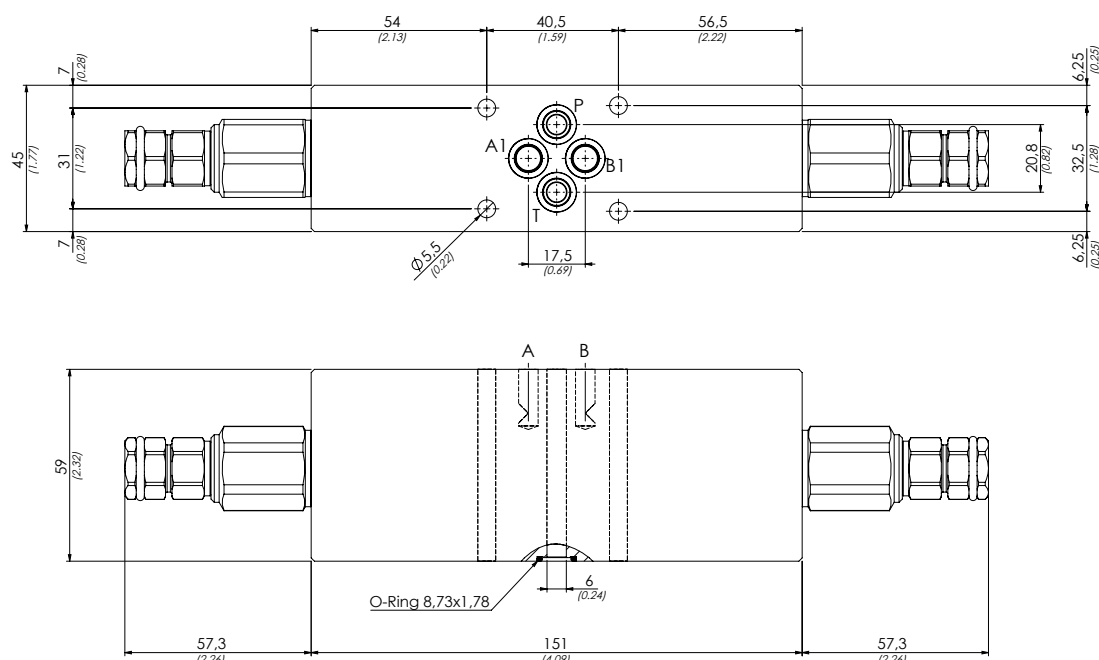
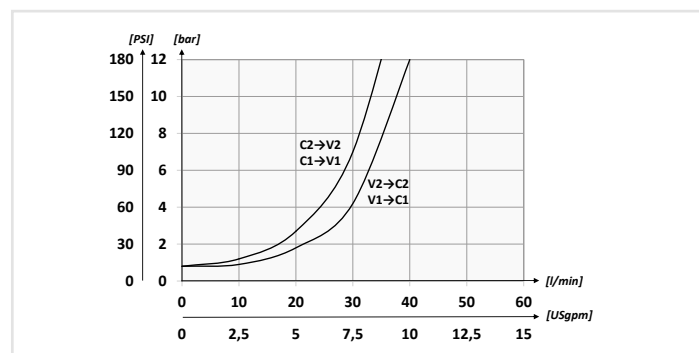
| Tipo<br>Type  | Portata max<br>Max flow<br>l/min-USgpm | Pressione max<br>Max pressure<br>bar/PSI | Peso approssimativo<br>Approx weight<br>kg/lb |
|---------------|----------------------------------------|------------------------------------------|-----------------------------------------------|
| <b>VBCT06</b> | <b>40 (10.6)</b>                       | <b>350 (5075)</b>                        | <b>3,10 (6.9)</b>                             |

## Codice ordinazione Ordering code

|               |    |          |    |    |
|---------------|----|----------|----|----|
| 01            | 02 | 03       | 04 | 05 |
| <b>VBCT06</b> |    | <b>S</b> |    |    |

|    |                                                                                                                                    |           |                                                                                                |                                                                               |        |
|----|------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------|
| 01 | Valvole di bilanciamento modulari CETOP3 doppie per centro chiuso<br>(Dual CETOP3 modular counterbalance valves for closed center) |           |                                                                                                |                                                                               | VBCT06 |
| 03 | Materiale (Material)                                                                                                               |           | Corpo in acciaio + zincatura (Steel body + zinc-plated)                                        |                                                                               | 5      |
| 02 | Molla<br>(Spring)<br><b>30/210 bar</b><br>(435/3045 PSI)                                                                           | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br><b>78 bar/al giro</b><br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br><b>Q=5 l/min 200 bar</b><br>(2900 PSI) | 1      |
|    |                                                                                                                                    | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br><b>160 bar/al giro</b><br>(2320 PSI/turn) |                                                                               |        |
|    | Molla<br>(Spring)<br><b>60/350 bar</b><br>(870/5075 PSI)                                                                           | Rp 1:4.25 | Incremento pressione al giro<br>(Press. increase)<br><b>135 bar/al giro</b><br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br><b>Q=5 l/min 350 bar</b><br>(5075 PSI) | 2      |
|    |                                                                                                                                    | Rp 1:8.75 | Incremento pressione al giro<br>(Press. increase)<br><b>160 bar/al giro</b><br>(2320 PSI/turn) |                                                                               |        |
| 04 | Rapporto di pilotaggio<br>(Pilot ratio)                                                                                            |           | 1:4.25 Standard                                                                                |                                                                               | /      |
|    |                                                                                                                                    |           | 1:8.75                                                                                         |                                                                               | 8      |

## Performances





Codice ordinazione  
Ordering code

01

|    |          |     |
|----|----------|-----|
| 01 | 81300119 | M6  |
|    | 81300037 | M8  |
|    | 81300095 | M10 |
|    | 81300120 | M12 |
|    | 81300121 | M16 |