

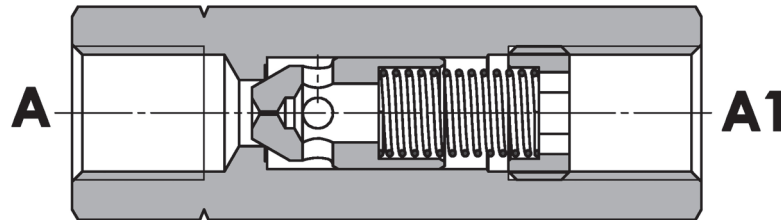
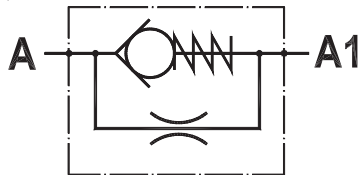
Smoor terugslagkleppen





Valvola di strozzamento unidirezionale fissa
Fixed setting throttle check valve

Rev.01-2010/02



SPECIFICHE TECNICHE

Materiali: corpo in acciaio. L'otturatore conico guidato è in acciaio trattato termicamente. La superficie esterna è protetta mediante zincatura.

Portata: fino a 310 l/min

Pressione max.: 350 bar, vedasi tabella a parte

Pressione di apertura: standard 0,5 bar, a richiesta 2.5-5-10 bar

TECHNICAL SPECIFICATIONS

Materials: body is steel made. Guided poppet is in hardened steel. External surface is zinc plated.

Rated flow: up to 310 l/min

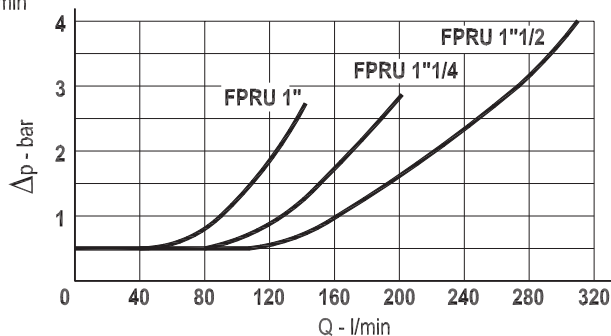
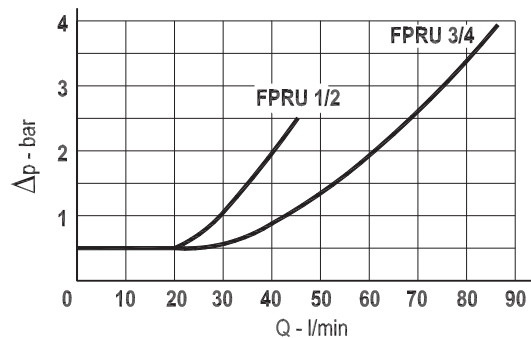
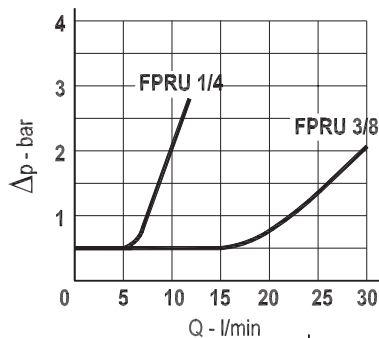
Max. pressure: 350 bar, see data sheet

Cracking pressure: 0,5 bar standard, on request: 2.5-5-10 bar

DIAGRAMMA PERDITE DI CARICO - PRESSURE DROP CURVES

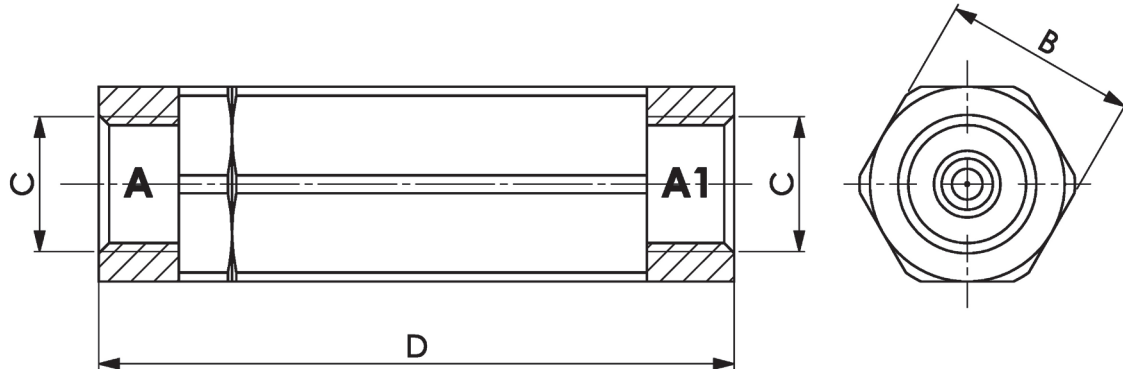
Viscosità olio 24 mm²/sec. (3,5 °E)
 Temperatura 50 °C

Oil viscosity 24 mm²/sec. (3,5 °E)
 Temperature 50 °C



Valvola di strozzamento unidirezionale fissa
Fixed setting throttle check valve

Rev.01-2010/02



| TIPO TYPE | PORTATA MAX. MAX FLOW | PRESSIONE MAX. MAX PRESSURE | D | B | C | PESO WEIGHT |
|--------------|--------------------------|--------------------------------|-----|----|--------|----------------|
| | L/MIN | BAR | mm | mm | BSPP | Kg |
| FPRU 1/4" | 12 | 350 | 62 | 19 | 1/4" | 0,10 |
| FPRU 3/8" | 30 | 350 | 68 | 24 | 3/8" | 0,17 |
| FPRU 1/2" | 45 | 320 | 78 | 27 | 1/2" | 0,22 |
| FPRU 3/4" | 85 | 300 | 88 | 36 | 3/4" | 0,45 |
| FPRU 1" | 140 | 250 | 112 | 46 | 1" | 0,97 |
| FPRU 1 1/4" | 200 | 250 | 145 | 55 | 1 1/4" | 1,68 |
| FPRU 1 1/2" | 310 | 210 | 155 | 60 | 1 1/2" | 2,10 |

ESEMPIO DI ORDINAZIONE - ORDERING CODE EXAMPLE

F P R U **3 / 8** **2 , 5** **F 0 , 6**

* 1/4 - 1/4" BSPP
 * 3/8 - 3/8" BSPP
 * 1/2 - 1/2" BSPP
 * 3/4 - 3/4" BSPP
 * 1 - 1" BSPP
 * 1 1/4 - 1 1/4" BSPP
 * 1 1/2 - 1 1/2" BSPP
 Connessioni - Port sizes

* 0.5 bar (std) - 2.5 bar - 5 bar - 10 bar
 * Pressione apertura ritegno, omettere se std
 Cracking pressure, omit if standard

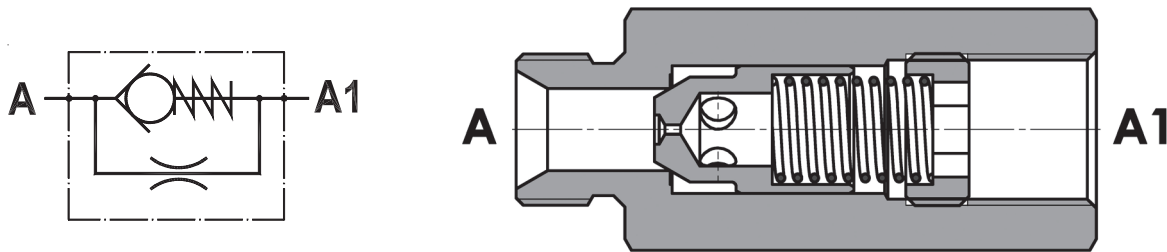
F - Foro di strozzamento - throttling hole *
 Omettere se non richiesto - omit if not requested

| TIPO - TYPE | Ø MIN (mm) | Ø MAX (mm) |
|-------------|---------------------------|------------|
| FPRU 1/4 | 0.6 | 2.0 |
| FPRU 3/8 | 0.6 | 3.5 |
| FPRU 1/2 | 0.6 | 4.0 |
| FPRU 3/4 | 0.6 | 4.0 |
| FPRU 1 | Su richiesta - on request | |
| FPRU 1 1/4 | | |
| FPRU 1 1/2 | | |



Valvola di strozzamento unidirezionale fissa, versione maschio-femmina
Fixed setting throttle check valve, male-female version

Rev.01-2010/02



SPECIFICHE TECNICHE

Materiali: corpo in acciaio. L'otturatore conico guidato è in acciaio trattato termicamente. La superficie esterna è protetta mediante zincatura.

Portata max.: fino a 310 l/min

Pressione max.: 350 bar, vedasi tabella a parte

Pressione di apertura: standard 0,5 bar, a richiesta 2.5-5-10 bar

TECHNICAL SPECIFICATIONS

Materials: body is steel made. Guided poppet is in hardened steel. External surface is zinc plated.

Rated flow: up to 310 l/min

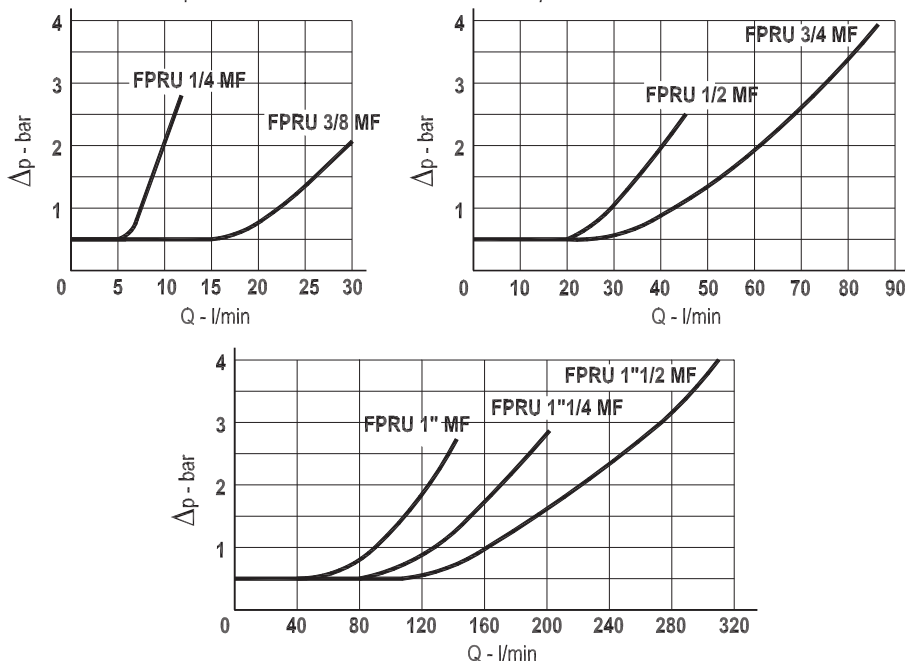
Max. pressure: 350 bar, see data sheet

Cracking pressure: 0,5 bar standard, on request: 2.5-5-10 bar

DIAGRAMMA PERDITE DI CARICO - PRESSURE DROP CURVES

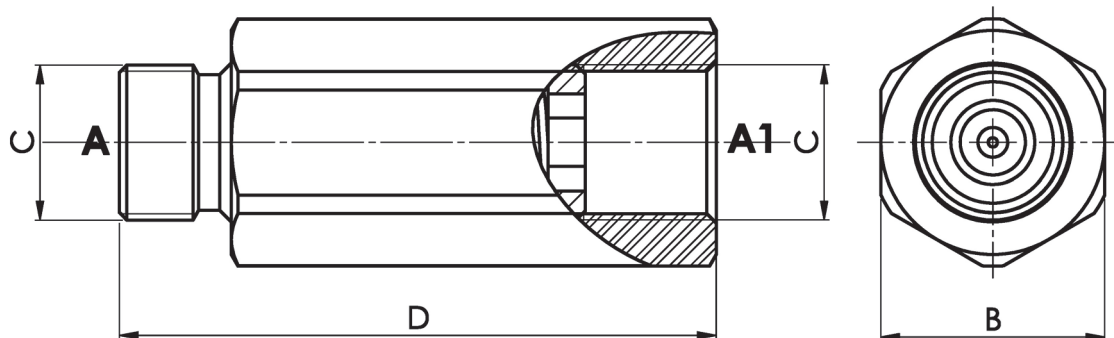
Viscosità olio 24 mm²/sec. (3,5 °E)
 Temperatura 50 °C

Oil viscosity 24 mm²/sec. (3,5 °E)
 Temperature 50 °C



Valvola di strozzamento unidirezionale fissa, versione maschio-femmina
Fixed setting throttle check valve, male-female version

Rev.01-2010/02



| TIPO TYPE | PORTATA MAX. MAX FLOW | PRESSIONE MAX. MAX PRESSURE | D | B | C | PESO WEIGHT |
|----------------|--------------------------|--------------------------------|-----|----|--------|----------------|
| | L/MIN | BAR | mm | mm | BSPP | Kg |
| FPRU 1/4" MF | 12 | 350 | 58 | 19 | 1/4" | 0,10 |
| FPRU 3/8" MF | 30 | 350 | 64 | 24 | 3/8" | 0,17 |
| FPRU 1/2" MF | 45 | 320 | 72 | 27 | 1/2" | 0,22 |
| FPRU 3/4" MF | 85 | 300 | 84 | 36 | 3/4" | 0,45 |
| FPRU 1" MF | 140 | 250 | 105 | 46 | 1" | 0,97 |
| FPRU 1 1/4" MF | 200 | 250 | 125 | 55 | 1 1/4" | 1,68 |
| FPRU 1 1/2" MF | 310 | 210 | 138 | 60 | 1 1/2" | 2,10 |

ESEMPIO DI ORDINAZIONE - ORDERING CODE EXAMPLE

F P R U **3 / 8** **M F** **2 , 5** **F 0 , 6**

1/4 - 1/4" BSPP
 3/8 - 3/8" BSPP
 * 1/2 - 1/2" BSPP
 3/4 - 3/4" BSPP
 1 - 1" BSPP
 1 1/4 - 1 1/4" BSPP
 1 1/2 - 1 1/2" BSPP
 Connessioni - Port sizes

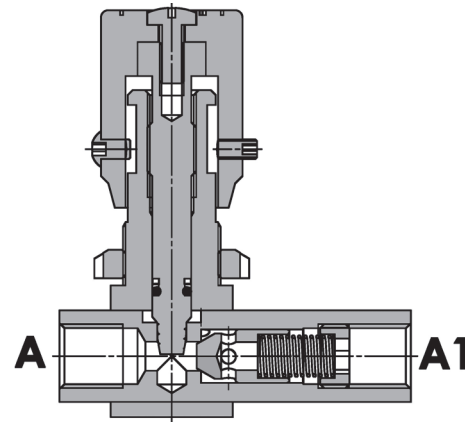
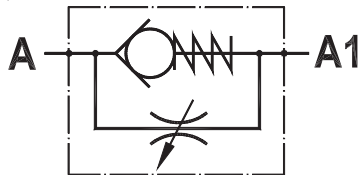
0.5 bar (std) - 2.5 bar - 5 bar - 10 bar
 * Pressione apertura ritegno, omettere se std
 Cracking pressure, omit if standard

F - Foro di strozzamento - throttling hole *
 Omettere se non richiesto - omit if not requested

| TIPO - TYPE | Ø MIN (mm) | Ø MAX (mm) |
|-------------|---------------------------|------------|
| FPRU 1/4 | 0.6 | 2.0 |
| FPRU 3/8 | 0.6 | 3.5 |
| FPRU 1/2 | 0.6 | 4.0 |
| FPRU 3/4 | 0.6 | 4.0 |
| FPRU 1 | Su richiesta - on request | |
| FPRU 1 1/4 | | |
| FPRU 1 1/2 | | |

Valvola regolatrice di flusso unidirezionale
Restrictor valve

Rev.02-2010/08



SPECIFICHE TECNICHE

Materiali: corpo e parti interne in acciaio. La superficie esterna è protetta mediante zincatura.

Portata max.: fino a 85 l/min

Pressione max.: 300 bar, vedasi tabella a parte

Pressione di apertura: standard 0,5 bar, a richiesta 2.5-5-10 bar

TECHNICAL SPECIFICATIONS

Materials: body and internal parts are steel made. External surface zinc plated.

Rated flow: up to 85 l/min

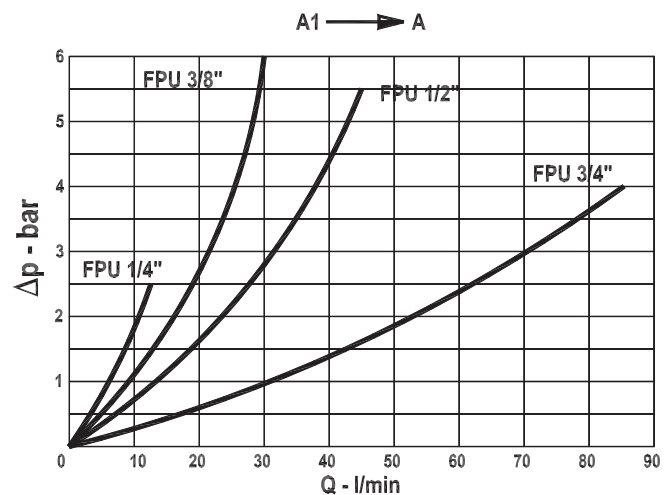
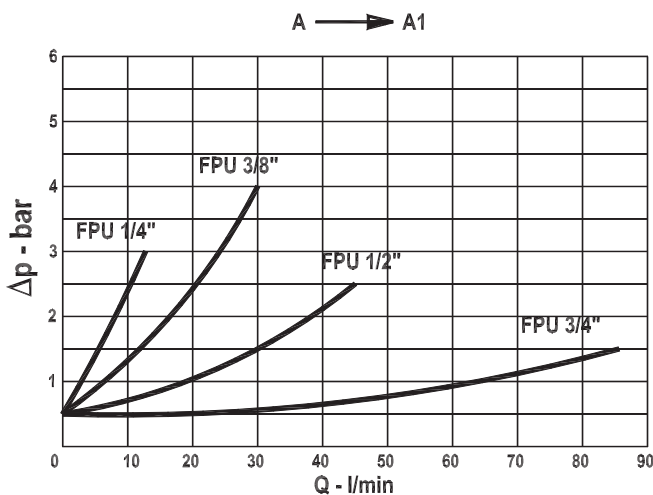
Max. pressure: 300 bar, see data sheet

Cracking pressure: 0.5 bar standard, 2.5-5-10 bar on request

DIAGRAMMA PERDITE DI CARICO - PRESSURE DROP CURVES

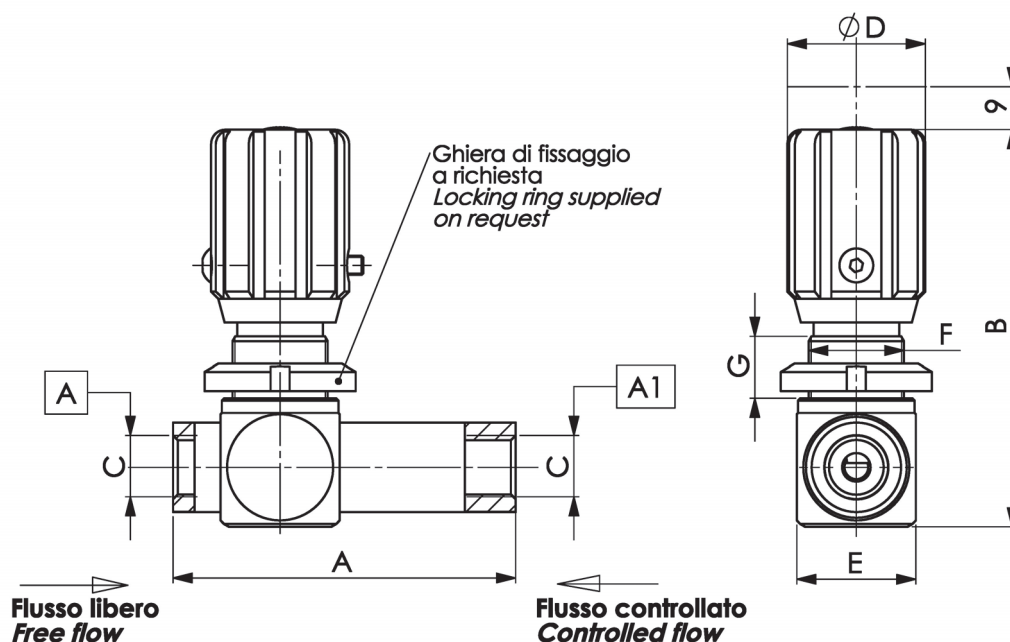
Viscosità olio 24 mm²/sec. (3,5 °E)
 Temperature 50 °C

Oil viscosity 24 mm²/sec. (3,5 °E)
 Temperature 50 °C



Valvola regolatrice di flusso unidirezionale
Restrictor valve

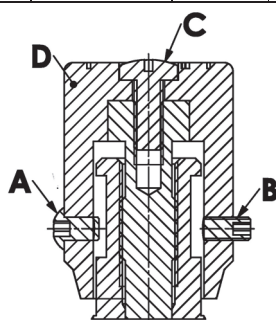
Rev.02-2010/08



| TIPO TYPE | PORTATA MAX. MAX FLOW | PRESSIONE MAX. MAX PRESSURE | A | B | C | D | E | F | G | PESO WEIGHT |
|--------------|--------------------------|--------------------------------|-----|-----|------|----|----|---------|------|----------------|
| | L/MIN | BAR | mm | mm | BSPP | mm | mm | mm | mm | Kg |
| FPU 1/4" | 12 | 300 | 72 | 80 | 1/4" | 28 | 25 | M21X1 | 13 | 0,250 |
| FPU 3/8" | 30 | 300 | 78 | 85 | 3/8" | 28 | 30 | M25X1.5 | 13 | 0,420 |
| FPU 1/2" | 45 | 280 | 92 | 92 | 1/2" | 38 | 35 | M30X1.5 | 13 | 0,600 |
| FPU 3/4" | 85 | 250 | 106 | 105 | 3/4" | 38 | 45 | M35X1.5 | 12.5 | 1,100 |

ISTRUZIONI PER IL MONTAGGIO A PANNELLO

INSTRUCTIONS FOR PANEL MOUNTING



Togliere le viti "A" di fine corsa, "B" di bloccaggio regolazione e "C" di fissaggio pomolo; sfilare il pomolo "D" ed installare la valvola a pannello fissandola con relativa ghiera.

Rimontare nell'ordine inverso i particolari precedentemente smontati.
 Remove the screw "A" of limit stop, "B" for blocking and regulation, "C" of handwheel fixing; withdraw the handwheel "D" and install the panel-valve by fixing it with the relative metal ring.
 Re-assemble in reversed order the parts previously disassembled.

ESEMPIO DI ORDINAZIONE - ORDERING CODE EXAMPLE

F P U **1 / 2** **2 , 5** **F** *****

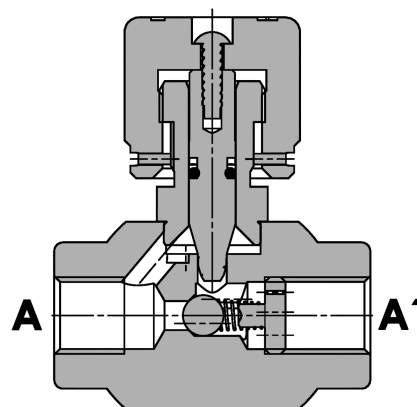
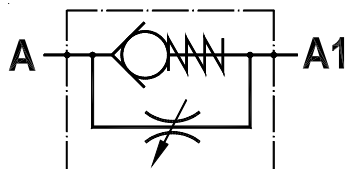
1/4 - 1/4" BSPP
 3/8 - 3/8" BSPP
 * 1/2 - 1/2" BSPP
 3/4 - 3/4" BSPP
 Connessioni - Port sizes

0.5 bar (std) - 2.5 bar - 5 bar - 10 bar
 * Pressione apertura ritegno, omettere se std
 Cracking pressure, omit if std

Guarnizioni - Seals:
 V=Viton *
 Omettere se BUNA-N - Omit if BUNA-N
 F - ghiera di fissaggio - locking ring *
 Omettere se non richiesta - omit if not requested

Valvola regolatrice di flusso unidirezionale
Restrictor valve

Rev.02-2014/01



SPECIFICHE TECNICHE

Materiali: corpo e parti interne in acciaio. La superficie esterna è protetta mediante zincatura.

Portata max.: 40 l/min

Pressione max.: 300 bar, vedasi tabella a parte

Pressione di apertura: standard 0,5 bar.

TECHNICAL SPECIFICATIONS

Materials: body and internal parts are steel made. External surface zinc plated.

Rated flow: 40 l/min

Max. pressure: 300 bar, see data sheet

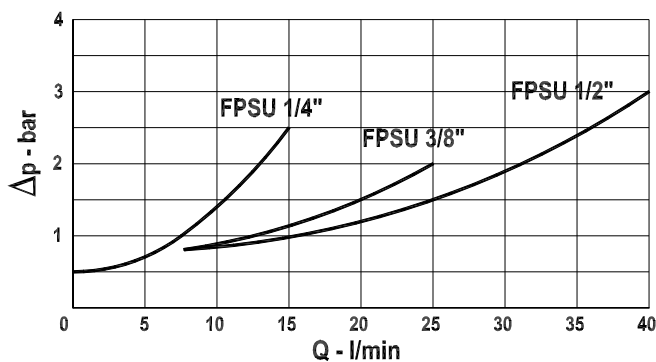
Cracking pressure: 0.5 bar standard.

DIAGRAMMA PERDITE DI CARICO - PRESSURE DROP CURVES

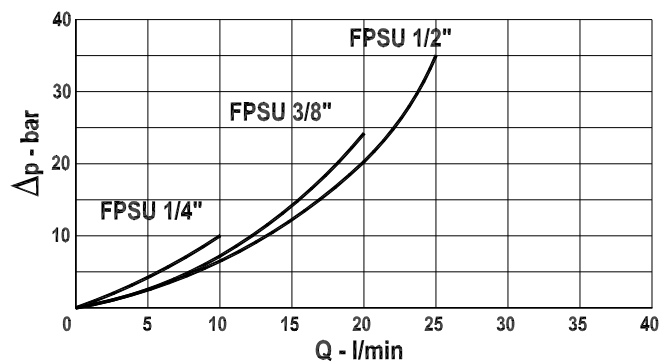
Viscosità olio 24 mm²/sec. (3,5 °E)
 Temperatura 50 °C

Oil viscosity 24 mm²/sec. (3,5 °E)
 Temperature 50 °C

STROZZATORE TUTTO APERTO - FULLY OPEN THROTTLE
 A → A1



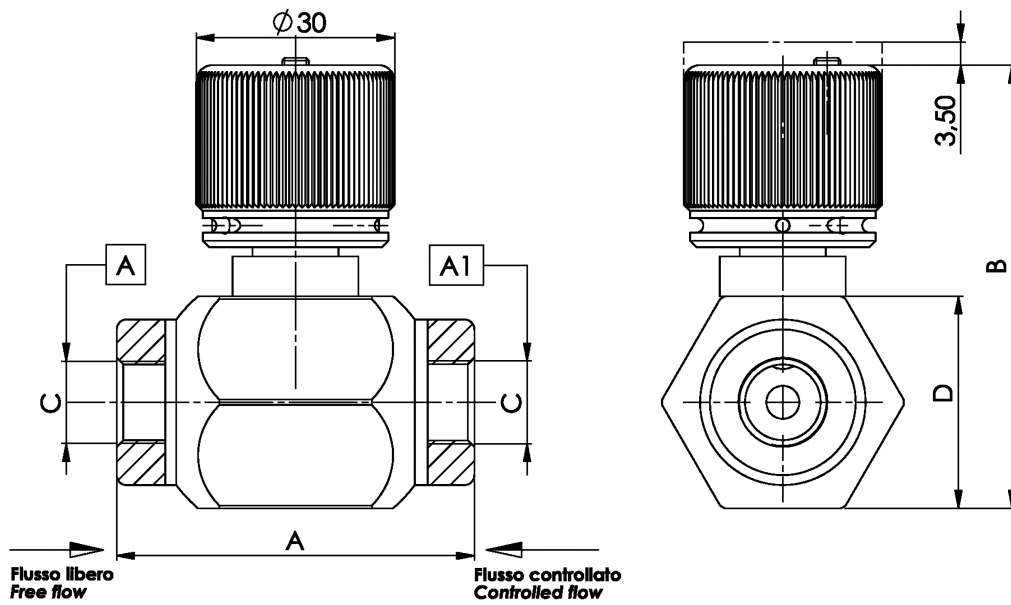
STROZZATORE TUTTO APERTO - FULLY OPEN THROTTLE
 A1 → A





Valvola regolatrice di flusso unidirezionale
Restrictor valve

Rev.02-2014/01



| TIPO TYPE | PORTATA MAX. MAX FLOW | PRESSIONE MAX. MAX PRESSURE | A | B | C | D | PESO WEIGHT |
|--------------|--------------------------|--------------------------------|----|----|------|----|----------------|
| | L/MIN | BAR | mm | mm | BSPP | mm | Kg |
| FPSU 1/4" | 12 | 300 | 54 | 64 | 1/4" | 32 | 0,310 |
| FPSU 3/8" | 25 | 300 | 62 | 64 | 3/8" | 32 | 0,325 |
| FPSU 1/2" | 40 | 280 | 62 | 64 | 1/2" | 32 | 0,320 |

ESEMPIO DI ORDINAZIONE - ORDERING CODE EXAMPLE

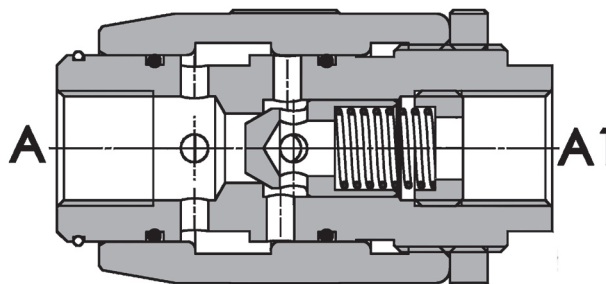
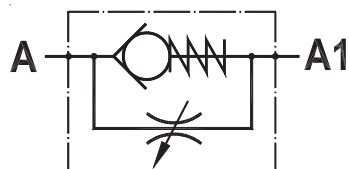
F P S U 1 / 2 *

1/4 - 1/4" BSPP
3/8 - 3/8" BSPP
1/2 - 1/2" BSPP
Conessioni - Port sizes

Guarnizioni - Seals:
V=Viton *
Omettere se BUNA-N - Omit if BUNA-N

Valvola regolatrice di flusso unidirezionale, tipo a manicotto
Restrictor valve, barrel type

Rev.01-2010/02



SPECIFICHE TECNICHE

Materiali: corpo e parti interne in acciaio. La superficie esterna è protetta mediante zincatura.

Portata max.: 150 l/min

Pressione max.: 350 bar, vedasi tabella a parte

Pressione di apertura: standard 0,5 bar, a richiesta 2.5-5-10 bar

TECHNICAL SPECIFICATIONS

Materials: body and internal parts are steel made. External surface zinc plated.

Rated flow: 150 l/min

Max. pressure: 350 bar, see data sheet

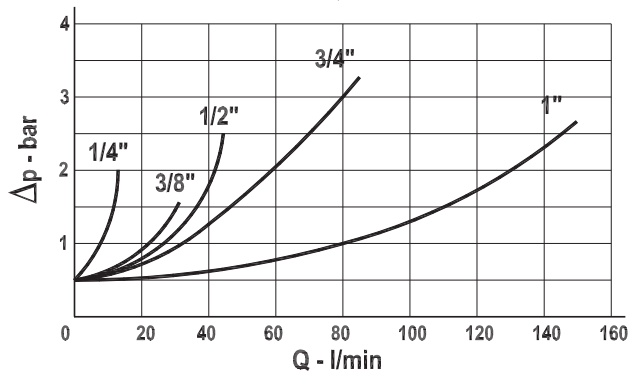
Cracking pressure: 0.5 bar standard, 2.5-5-10 bar on request

DIAGRAMMA PERDITE DI CARICO - PRESSURE DROP CURVES

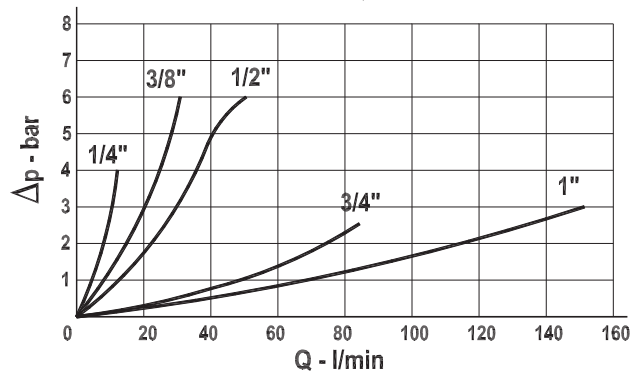
Viscosità olio 24 mm²/sec. (3,5 °E)
 Temperatura 50 °C

Oil viscosity 24 mm²/sec. (3,5 °E)
 Temperature 50 °C

STROZZATORE TUTTO APERTO - FULLY OPEN THROTTLE
 A → A1

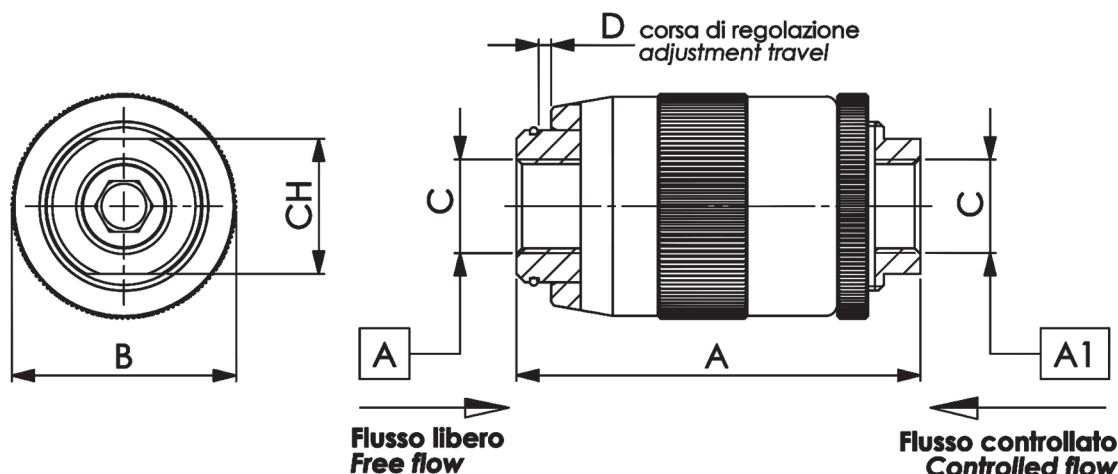


STROZZATORE TUTTO APERTO - FULLY OPEN THROTTLE
 A1 → A



Valvola regolatrice di flusso unidirezionale, tipo a manicotto
Restrictor valve, barrel type

Rev.01-2010/02



| TIPO TYPE | PORTATA MAX. MAX FLOW | PRESSIONE MAX. MAX PRESSURE | A | B | C | D | CH | PESO WEIGHT |
|--------------|--------------------------|--------------------------------|-----|----|------|-----|----|----------------|
| | L/MIN | BAR | mm | mm | BSPP | mm | mm | Kg |
| FPMU 1/4 | 12 | 350 | 62 | 34 | 1/4" | 4.5 | 19 | 0.275 |
| FPMU 3/8 | 30 | 350 | 72 | 40 | 3/8" | 5.5 | 24 | 0.430 |
| FPMU 1/2 | 45 | 310 | 80 | 46 | 1/2" | 7 | 30 | 0.630 |
| FPMU 3/4 | 85 | 280 | 100 | 54 | 3/4" | 10 | 36 | 1.050 |
| FPMU 1 | 150 | 250 | 125 | 65 | 1" | 12 | 41 | 1.960 |

ESEMPIO DI ORDINAZIONE - ORDERING CODE EXAMPLE

F P M U **1 / 2** **2 , 5** *****

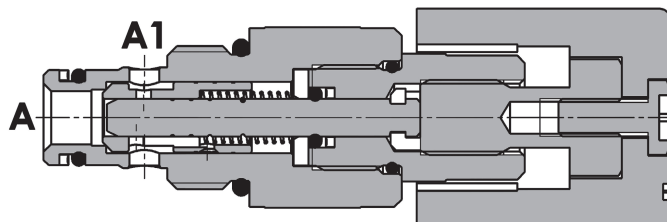
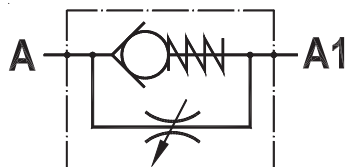
1/4 - 1/4" BSPP
 3/8 - 3/8" BSPP
 * 1/2 - 1/2" BSPP
 3/4 - 3/4" BSPP
 Connessioni - Port sizes

0.5 bar (std) - 2.5 bar - 5 bar - 10 bar
 * Pressione apertura ritegno, omettere se std
 Cracking pressure, omit if std

Guarnizioni - Seals:
 V=Viton *
 Omettere se BUNA-N - Omit if BUNA-N

Valvola regolatrice di flusso unidirezionale, versione a cartuccia, cavità SAE
Restrictor valve, cartridge version, SAE cavity

Rev.01-2010/02



SPECIFICHE TECNICHE

Materiali: corpo in acciaio. L'otturatore conico guidato è in acciaio trattato termicamente. La superficie esterna è protetta mediante zincatura.

Portata max.: fino a 140 l/min

Pressione max.: 350 bar, vedasi tabella a parte

Pressione di apertura: 1 bar

TECHNICAL SPECIFICATIONS

Materials: body is steel made. Guided poppet is in hardened steel. External surface is yellow zinc plated.

Rated flow: up to 140 l/min

Max. pressure: 350 bar, see data sheet

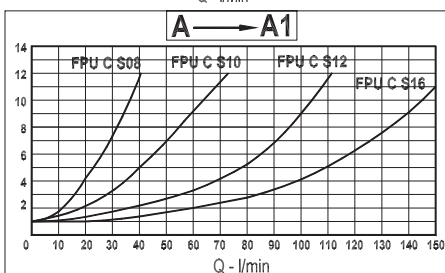
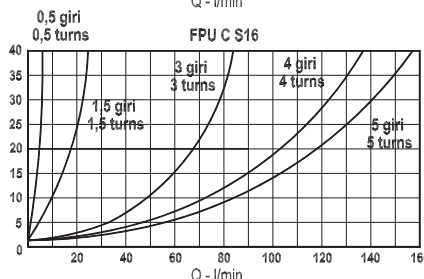
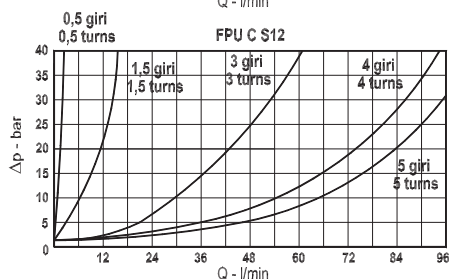
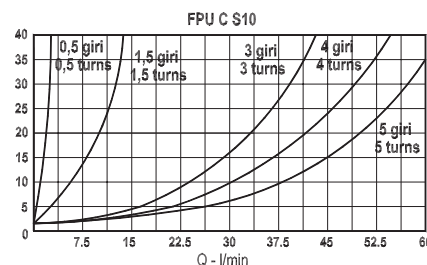
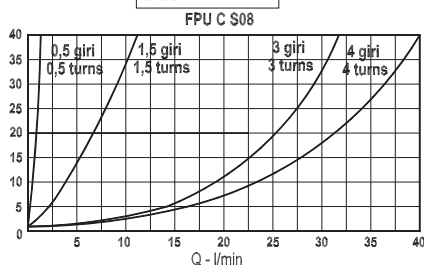
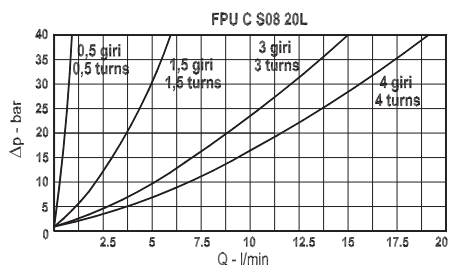
Cracking pressure: 1 bar

DIAGRAMMA PERDITE DI CARICO - PRESSURE DROP CURVES

Viscosità olio 24 mm²/sec. (3,5 °E)
 Temperatura 50 °C

Oil viscosity 24 mm²/sec. (3,5 °E)
 Temperature 50 °C

A1 → A



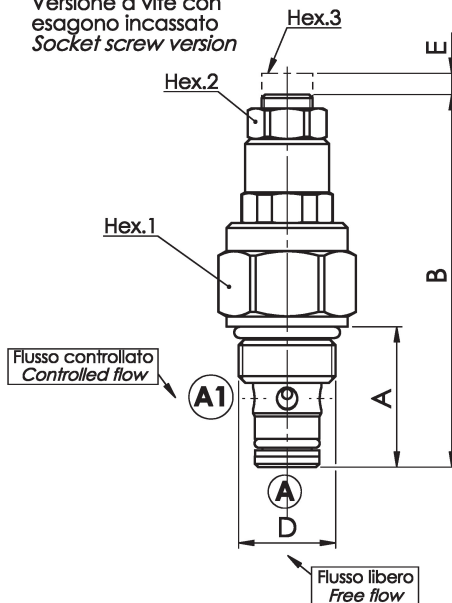


Valvola regolatrice di flusso unidirezionale, versione a cartuccia, cavità SAE
Restrictor valve, cartridge version, SAE cavity

Rev.01-2010/02

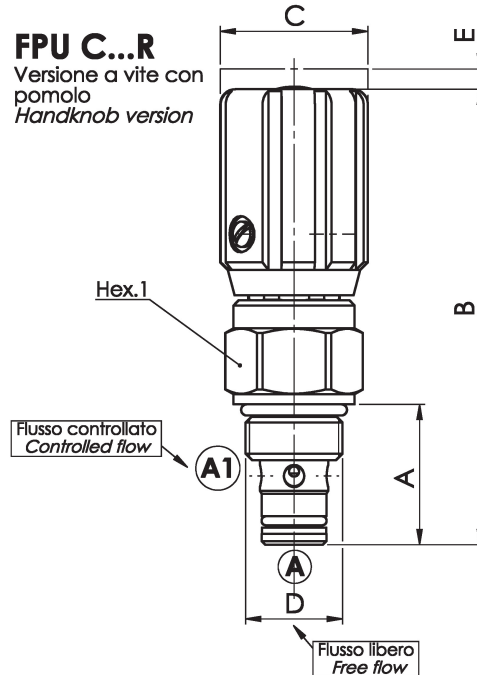
FPU C...P

Versione a vite con esagono incassato
 Socket screw version



FPU C...R

Versione a vite con pomolo
 Handknob version



| TIPO TYPE | PORTATA MAX. MAX. FLOW | PRESSIONE MAX. MAX. PRESSURE | A | B | C | D | E | HEX.1 | HEX.2 | HEX.3 | CAVITA' CAVITY | COPPIA DI SERRAGGIO INSTALLATION TORQUE | PESO WEIGHT |
|-----------------|------------------------------|------------------------------------|------|------|----|------------|-----|-------|-------|-------|-------------------|--|----------------|
| | L/MIN | BAR | mm | mm | mm | UNF-2A | mm | mm | mm | mm | | Nm | Kg |
| FPU C S08 20L P | 20 | 350 | 27.6 | 72.1 | - | 3/4"-16 | 5 | 24 | 17 | 5 | 23081 | 40-45 | 0.136 |
| FPU C S08 P | 40 | 350 | 27.6 | 72.1 | - | 3/4"-16 | 5 | 24 | 17 | 5 | 23081 | 40-45 | 0.136 |
| FPU C S10 P | 60 | 350 | 32.8 | 76.5 | - | 7/8"-14 | 6 | 27 | 17 | 5 | 23101 | 60-70 | 0.174 |
| FPU C S12 P | 80 | 350 | 46 | 86.5 | - | 1 1/16"-12 | 7 | 32 | 17 | 6 | 23121 | 90-100 | 0.252 |
| FPU C S16 P | 140 | 350 | 46.5 | 88.5 | - | 1 5/16"-12 | 6.6 | 40 | 17 | 6 | 23161 | 110-120 | 0.382 |
| FPU C S08 20L R | 20 | 350 | 27.6 | 84.6 | 28 | 3/4"-16 | 5 | 24 | - | - | 23081 | 40-45 | 0.160 |
| FPU C S08 R | 40 | 350 | 27.6 | 84.6 | 28 | 3/4"-16 | 5 | 24 | - | - | 23081 | 40-45 | 0.160 |
| FPU C S10 R | 60 | 350 | 32.8 | 89 | 28 | 7/8"-14 | 6 | 27 | - | - | 23101 | 60-70 | 0.198 |
| FPU C S12 R | 80 | 350 | 46 | 95 | 38 | 1 1/16"-12 | 7 | 32 | - | - | 23121 | 90-100 | 0.286 |
| FPU C S16 R | 140 | 350 | 46.5 | 97 | 38 | 1 5/16"-12 | 6.6 | 40 | - | - | 23161 | 110-120 | 0.418 |

ESEMPIO DI ORDINAZIONE - ORDERING CODE EXAMPLE

F P U C S 0 8 P *

- S08 20L - 3/4"-16 UNF-2B
- S08 - 3/4"-16 UNF-2B
- * S10 - 7/8"-14 UNF-2B
- S12 - 1 1/16"-12 UNF-2B
- S16 - 1 5/16"-12 UNF-2B
- Connessioni - Port sizes

- * P/R
- Regolazioni - Adjustments

Guarnizioni - Seals:
 V=Viton *
 Omettere se BUNA-N - Omit if BUNA-N