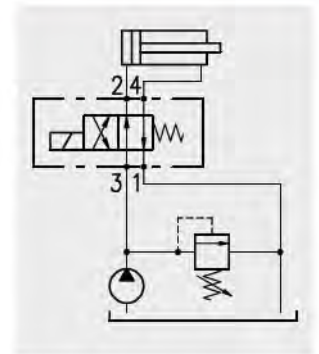


Operation

When the solenoid is deenergized the valve allows free oil flow from 3 to 2 and from 4 to 1.

When the solenoid is energized the valve allows free oil flow from 3 to 4 and from 2 to 1.



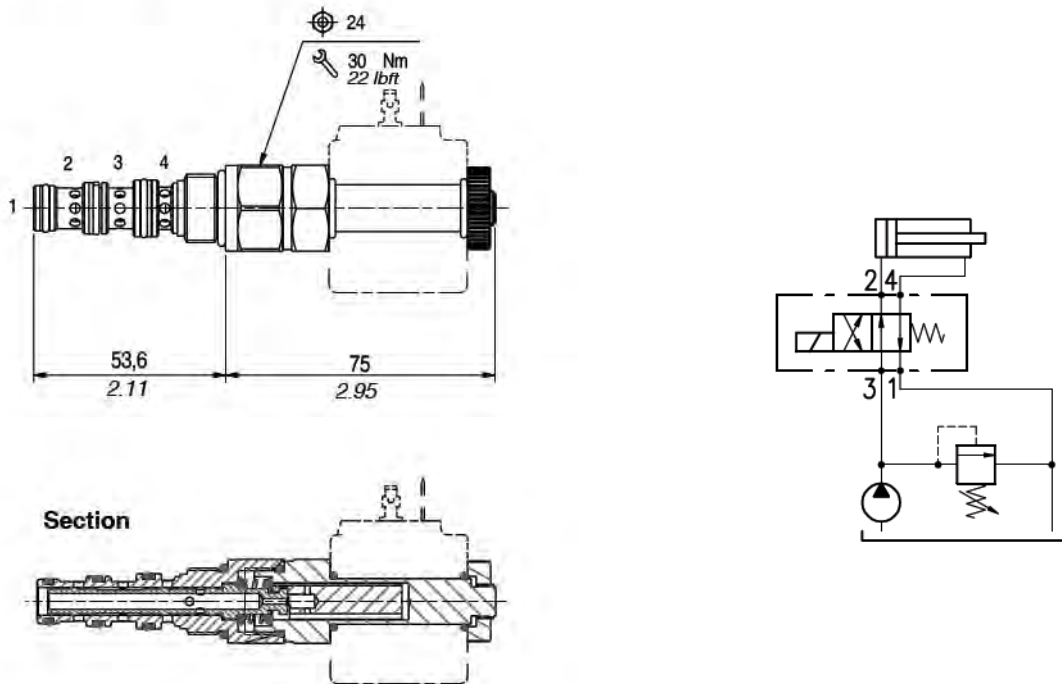
Performance

Cartridges

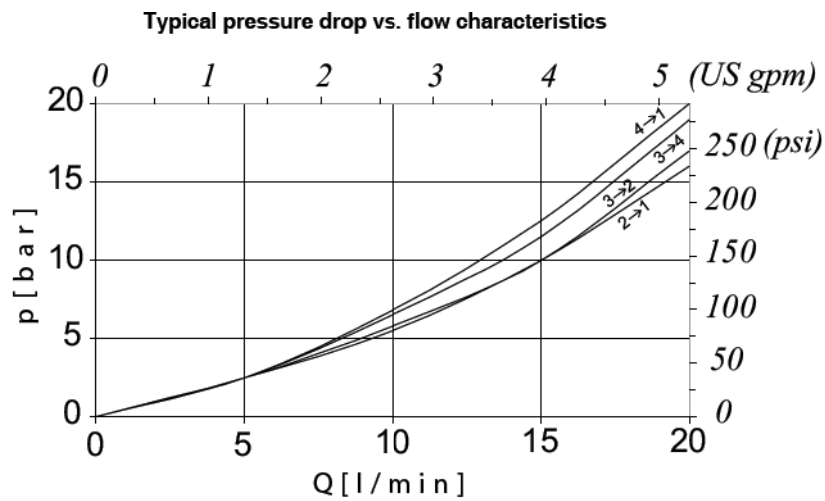
Type	Maximum flow		Maximum pressure		Solenoids	*Oil leaks from 1 to 2	Weight		Cavities and tools
	l/min	US gpm	bar	psi			kg	lb	
ER08M/1	18	4.7	210	3050	BE/EC 36 see page 157	40 cm ³ /min. - 2.44 in ³ /mm at 210 bar - 3050 psi	0,200	0.44	see cavity SAE 8-4 page 173
ER10A/1	30	8			BIN 19 see page 158	100 cm ³ /min. - 6.10 in ³ /mm at 210 bar - 3050 psi	0,380	0.84	see cavity SAE 10-4 page 173
ER10B/1	20	5.3			BC 16 see page 160	30 cm ³ /min. - 1.83 in ³ /mm at 210 bar - 3050 psi	0,310	0.68	
ER10M/1	40	10.5			BC 16 see page 160	80 cm ³ /min. - 4.88 in ³ /mm at 210 bar - 3050 psi	0,45	0.99	
ER12A/1					BIN 22 see page 159	200 cm ³ /min. - 12.20 in ³ /mm at 210 bar - 3050 psi	0,49	1.08	

*with oil viscosity of 46 cst

Dimensions and hydraulic circuit



Rating diagrams



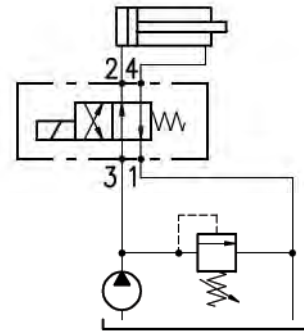
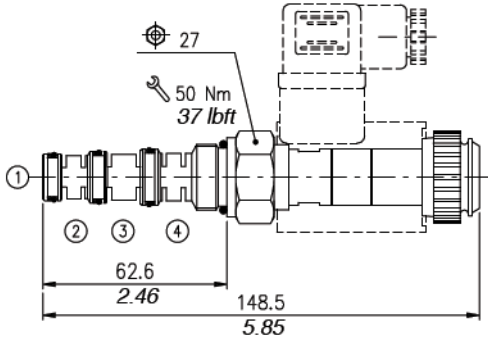
Order code

ER 08M / 10 N □

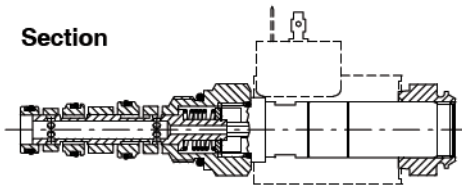
Seals

B) Buna
V) Viton

Dimensions and hydraulic circuit

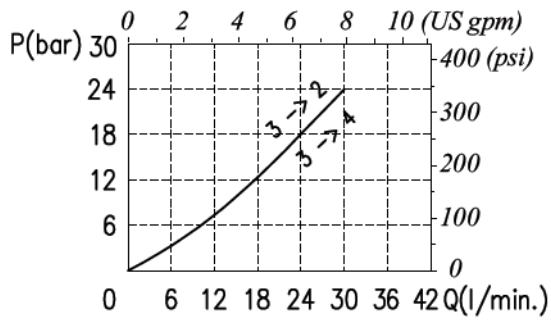


Section

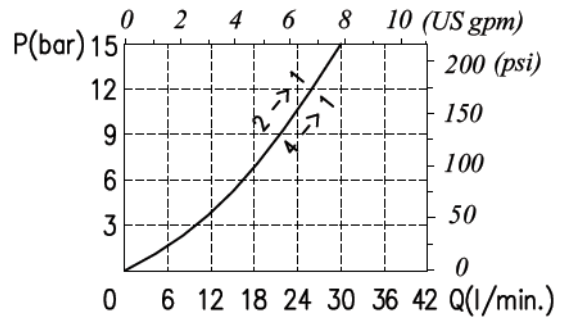


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



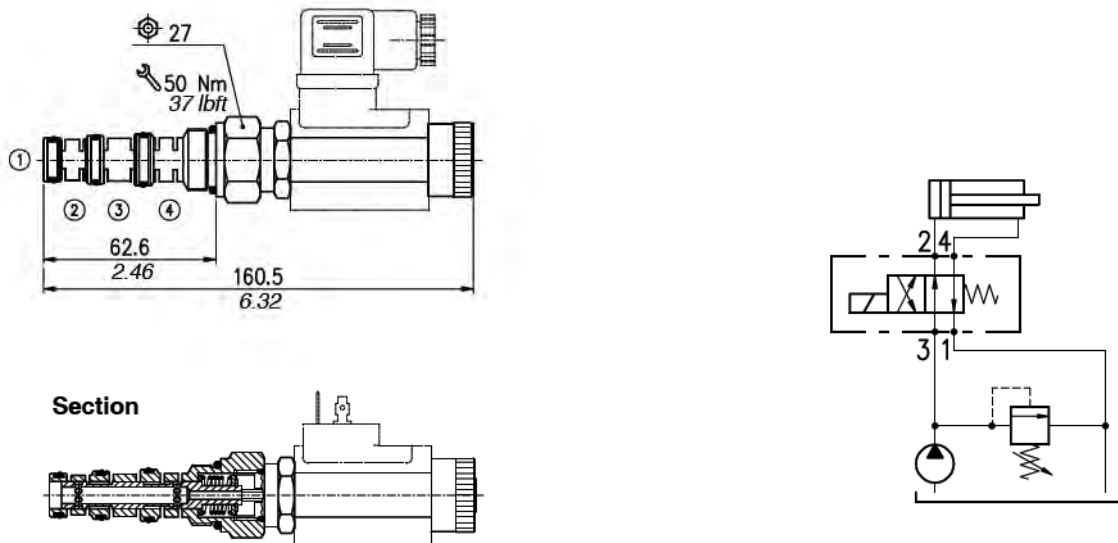
Order code

ER 10A / 10 P □

Seals

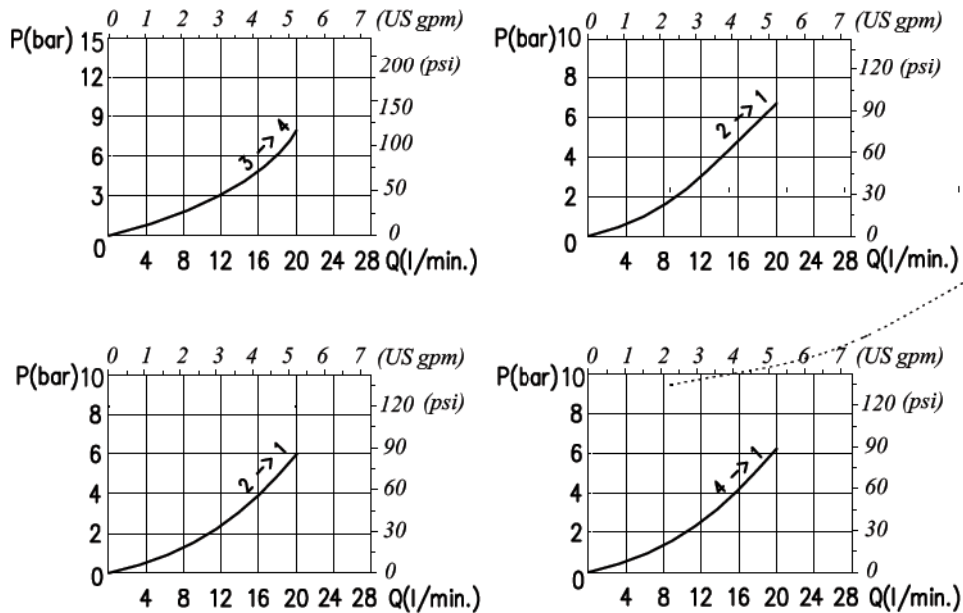
- B) Buna
- V) Viton

Dimensions and hydraulic circuit



Rating diagrams

Typical pressure drop vs. flow characteristics



Order code

ER 10B / 10 □ - □

Manual override option

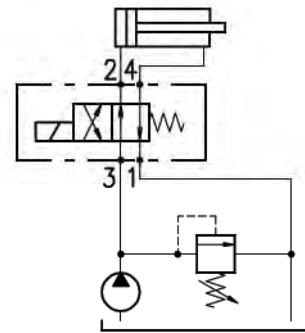
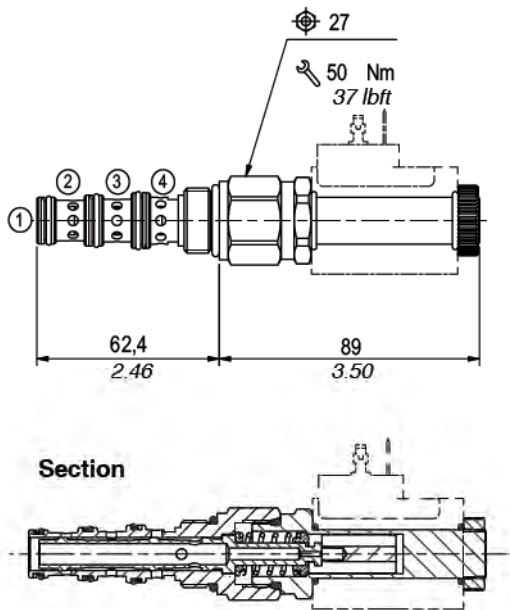
(see page 163)

N) No emergency (standard)
P) Button

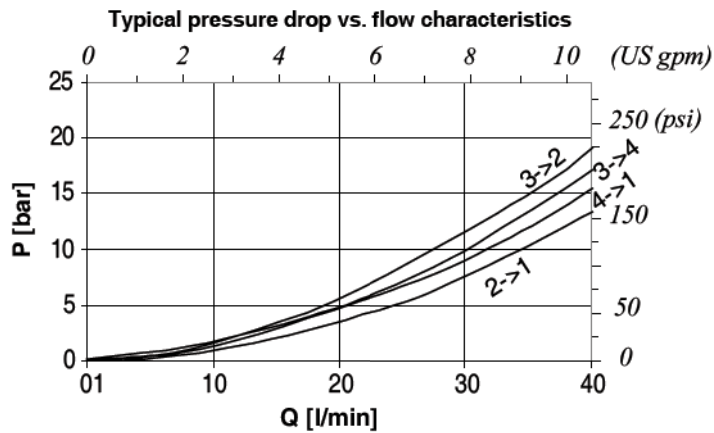
Seals

B) Buna
V) Viton

Dimensions and hydraulic circuit



Rating diagrams



Order code

ER 10M / 10 □ □

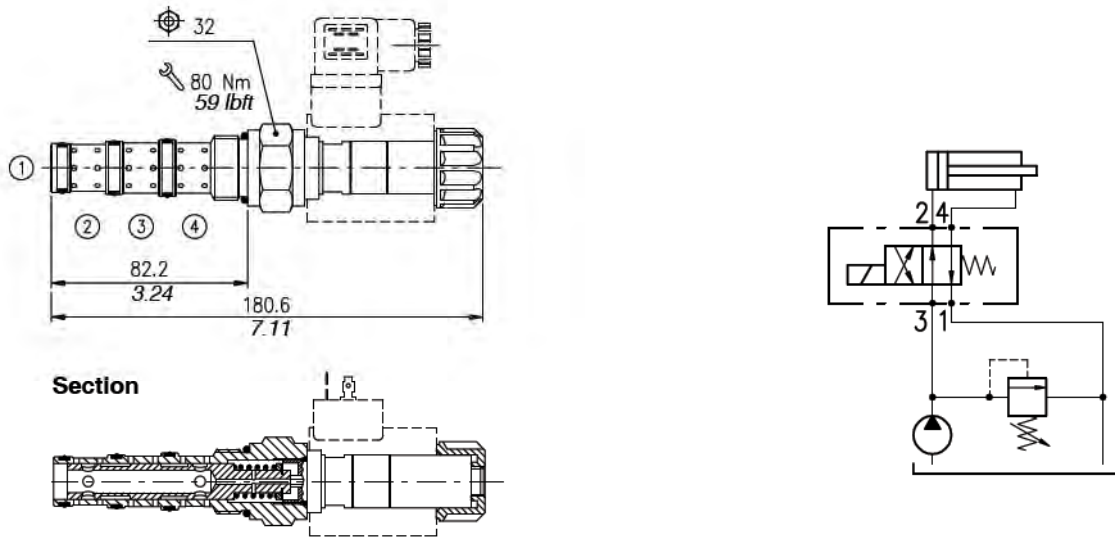
Manual override option
(see page 163)

- N) No emergency (standard)
- T) Screw
- F) Pull button

Seals

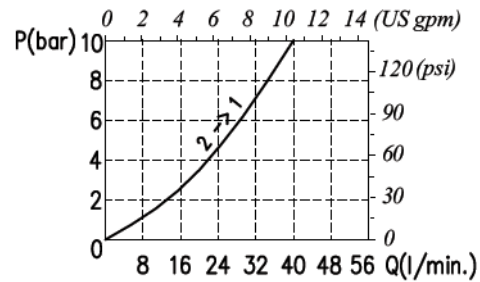
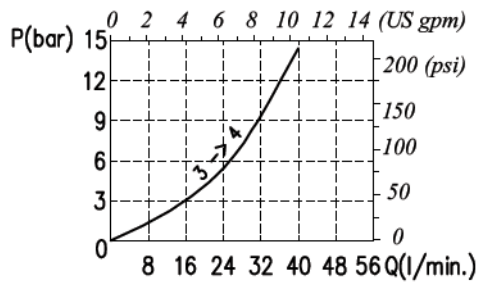
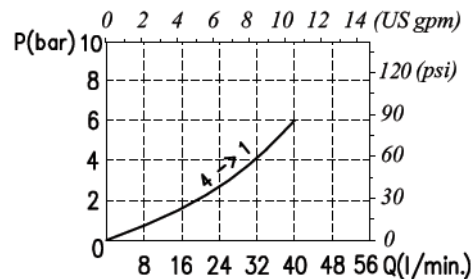
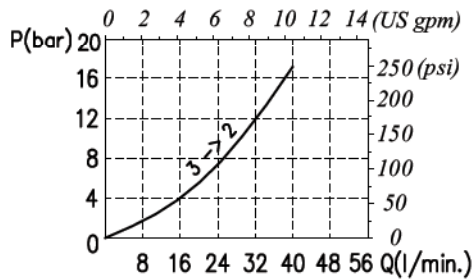
- B) Buna
- V) Viton

Dimensions and hydraulic circuit



Rating diagrams

Typical pressure drop vs. flow characteristics



Order code

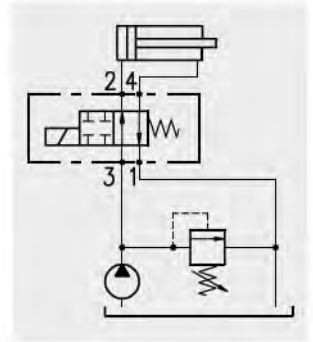
ER 12A / 10 P □

Seals

B) Buna
V) Viton

Operation

When the spool is deenergized the valve allows free oil flow from 3 to 2 and from 4 to 1.
When the solenoid is energized all ways are sealed.



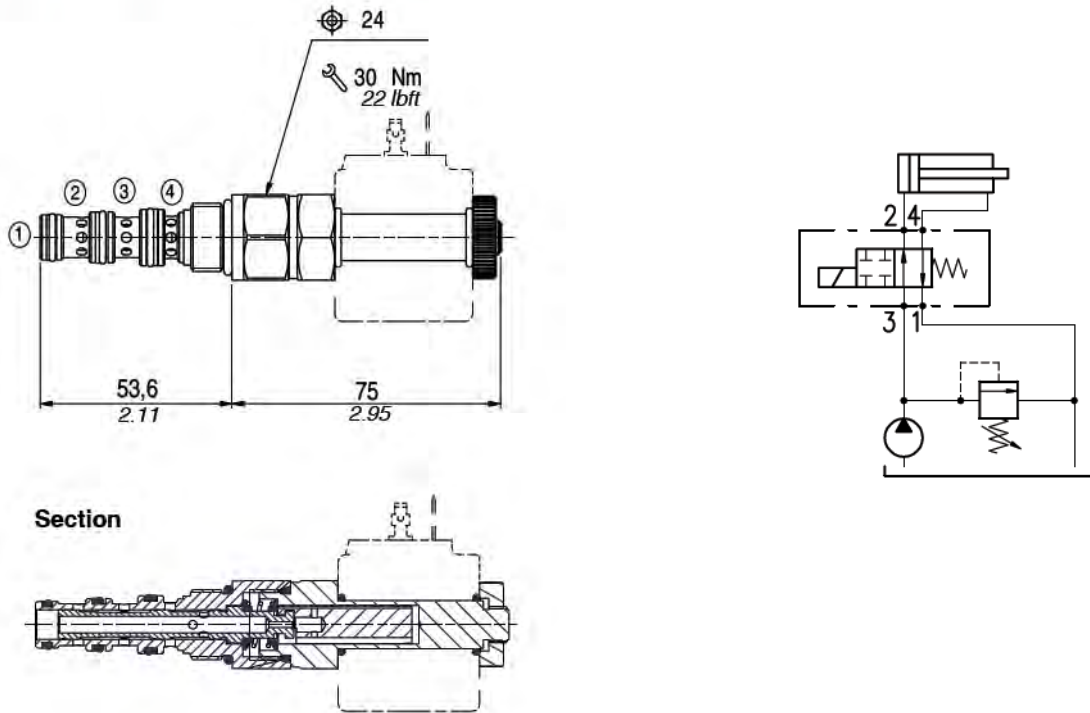
Performance

Cartridges

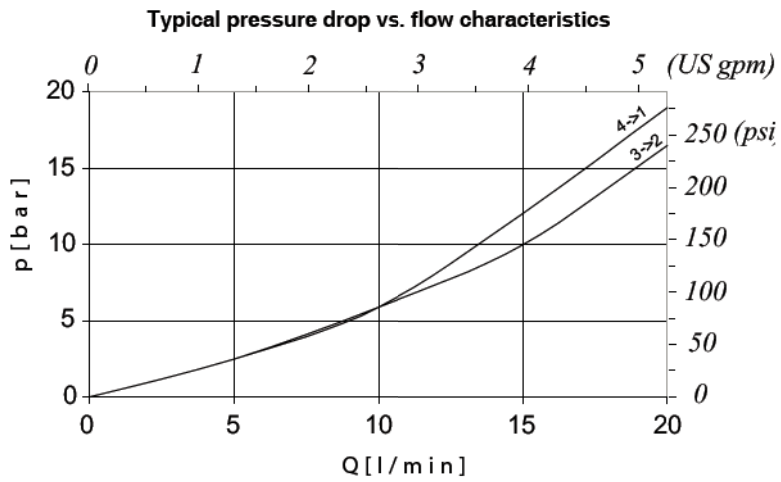
Type	Maximum flow		Maximum pressure		Solenoids	*Oil leaks from 1 to 2	weight		Cavities and tools
	l/min	US gpm	bar	psi			kg	lb	
ER08M/2	20	5.3	210	3050	BE/EC 36 see page 157	40 cm ³ /min. - 2.44 in ³ /min at 210 bar - 3050 psi	0,200	0.44	see cavity SAE 8-4 page 173
ER10M/2	45	12			BC 16 see page 160	80 cm ³ /min. - 4.88 in ³ /min at 210 bar - 3050 psi	0,45	0.99	see cavity SAE 10-4 page 173
ER12A/2	40	10.5			BIN 22 see page 159	200 cm ³ /min. - 12.2 in ³ /min at 210 bar - 3050 psi	0,490	1.08	see cavity SAE 12-4 page 173
ER10B/2	20	5.3			BC 16 see page 160	30 cm ³ /min. - 1.83 in ³ /min at 210 bar - 3050 psi	0,310	0.68	see cavity SAE 10-4 page 173

*with oil viscosity of 46 cst

Dimensions and hydraulic circuit



Rating diagrams



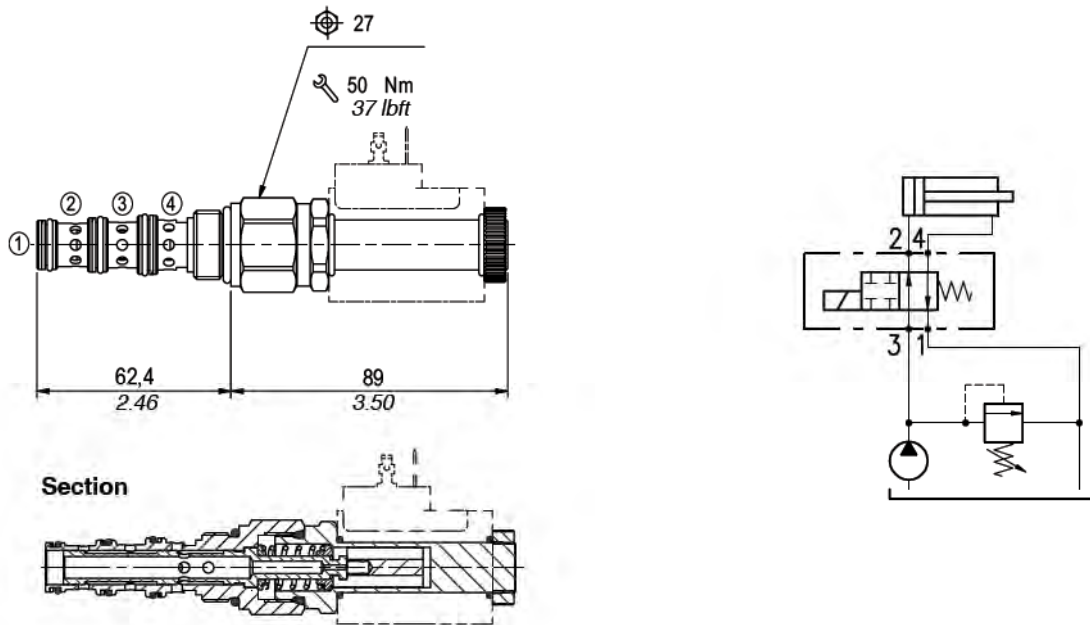
Order code

ER 08M / 20 N □

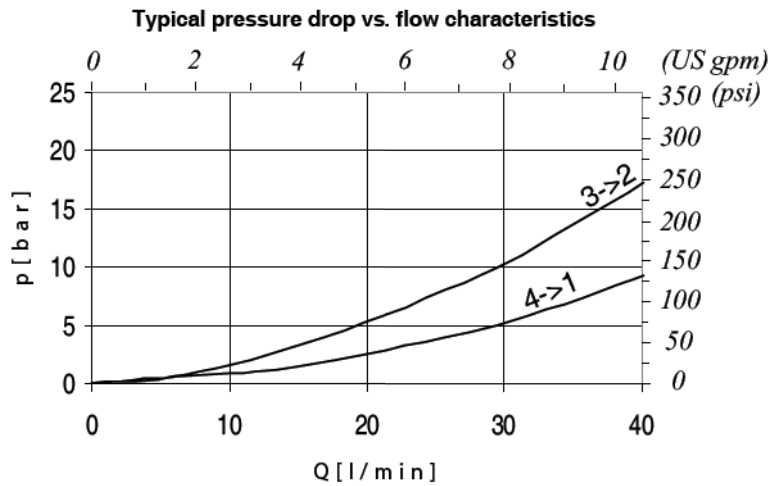
Seals

B) Buna
V) Viton

Dimensions and hydraulic circuit



Rating diagrams

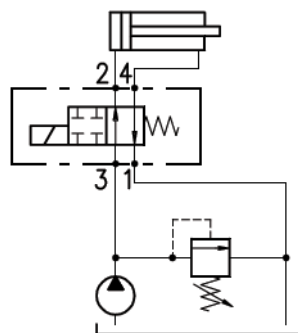
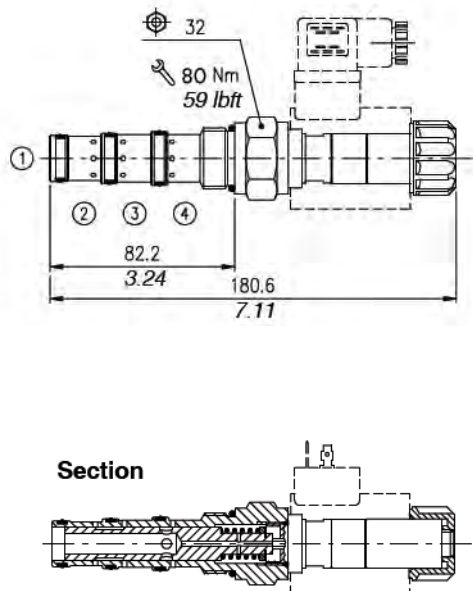


Order code

ER 10M / 20 □ □

<p>Manual override option (see page 163)</p> <p>N) No emergency (standard) T) Screw F) Pull button</p>	<p>Seals</p> <p>B) Buna V) Viton</p>
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Dimensions and hydraulic circuit



Rating diagrams

For rating diagrams please ask
our technical office

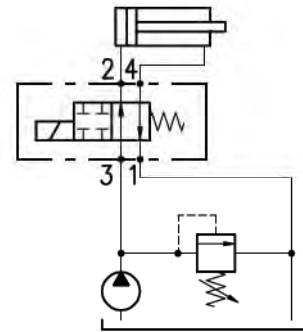
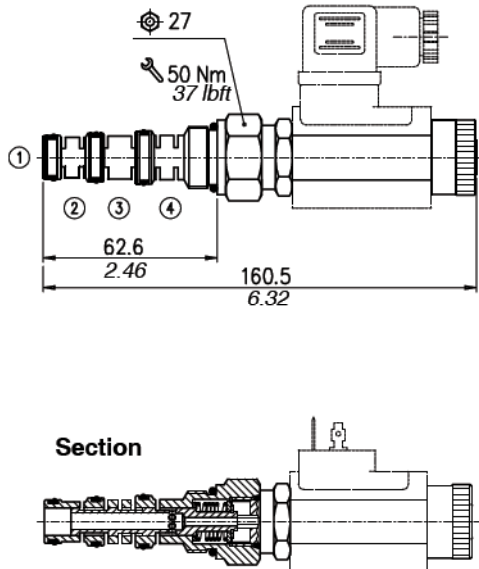
Order code

ER 12A / 20 P □

Seals

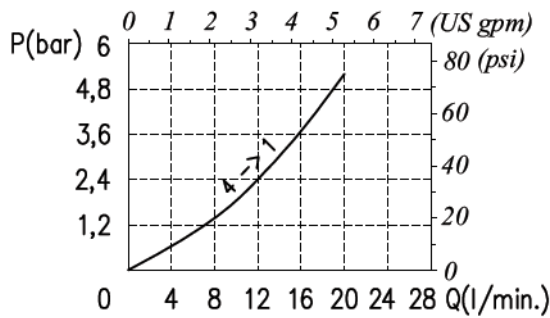
B) Buna
V) Viton

Dimensions and hydraulic circuit

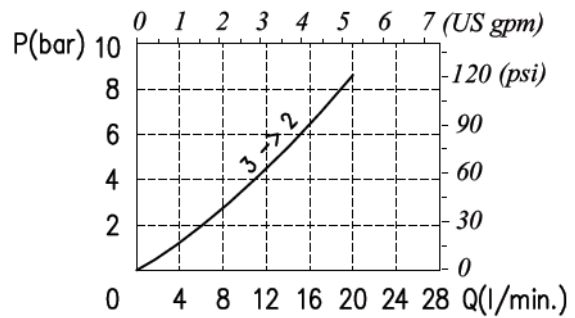


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



Order code

ER 10B / 20 □ - □

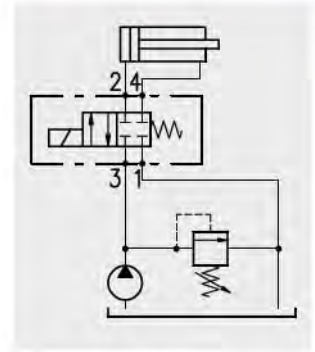
Manual override option
(see page 163)
N) No emergency (standard)
P) Button

Seals
B) Buna
V) Viton



Operation

When the spool is deenergized the valve keeps all ways shut.
When the solenoid is energized the valve allows free oil flow from 3 to 2 and from 4 to 1.



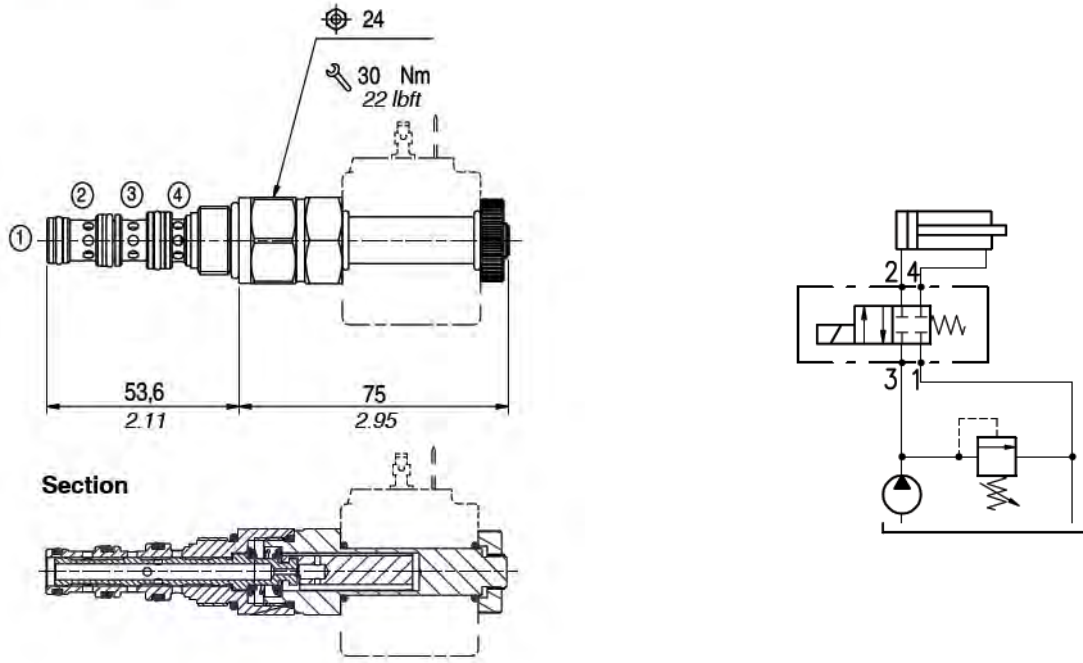
Performance

Cartidges

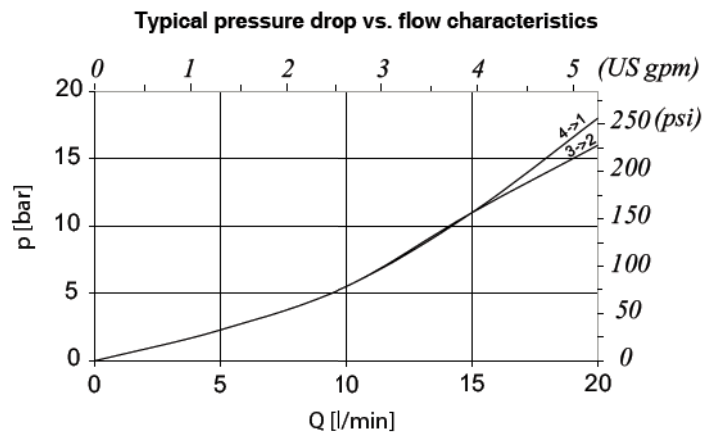
Type	Maximum flow		Maximum pressure		Solenoids	*Oil leaks from 1 to 2	Weight		Cavities and tools
	l/min	US gpm	bar	psi			kg	lb	
ER08M/3	18	4.7	210	3050	BE/EC 36 see page 157	40 cm ³ /min. - 2.44 in ³ /min at 210 bar - 3050 psi	0,200	0.44	see cavity SAE 8-4 page 173
ER10M/3	40	10.5			BC 16 see page 160	80 cm ³ /min. - 4.88 in ³ /min at 210 bar - 3050 psi	0,45	0.99	see cavity SAE 10-4 page 173
ER12A/3	40	10.5			BIN 22 see page 159	200 cm ³ /min. - 12.2 in ³ /min at 210 bar - 3050 psi	0,490	1.08	see cavity SAE 12-4 page 173
ER10B/3	20	5.3			BC 16 see page 160	20 cm ³ /min. - 1.22 in ³ /min at 210 bar - 3050 psi	0,310	0.68	see cavity SAE 10-4 page 173

*with oil viscosity of 46 cst

Dimensions and hydraulic circuit



Rating diagrams



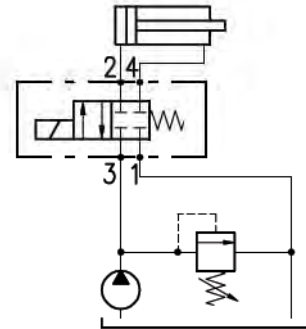
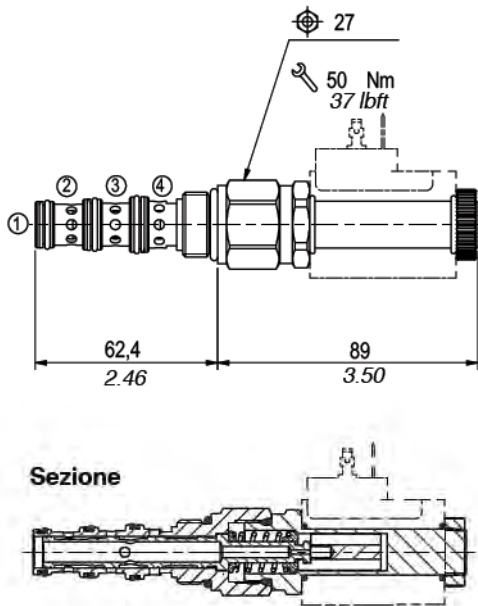
Order code

ER 08M / 30 N □

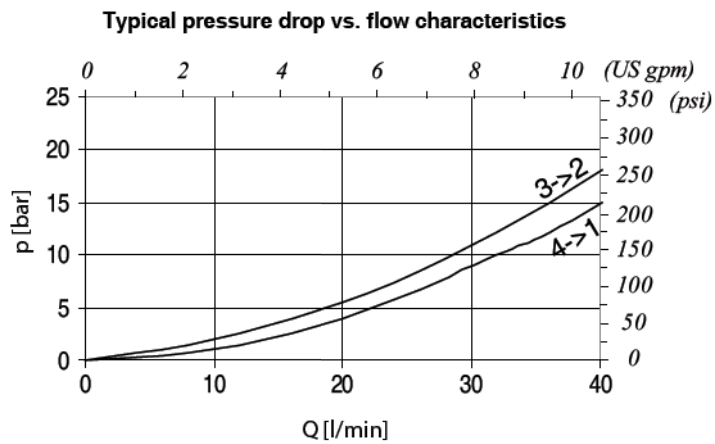
Seals

B) Buna
V) Viton

Dimensions and hydraulic circuit



Rating diagrams



Order code

ER 10M / 30 □ □

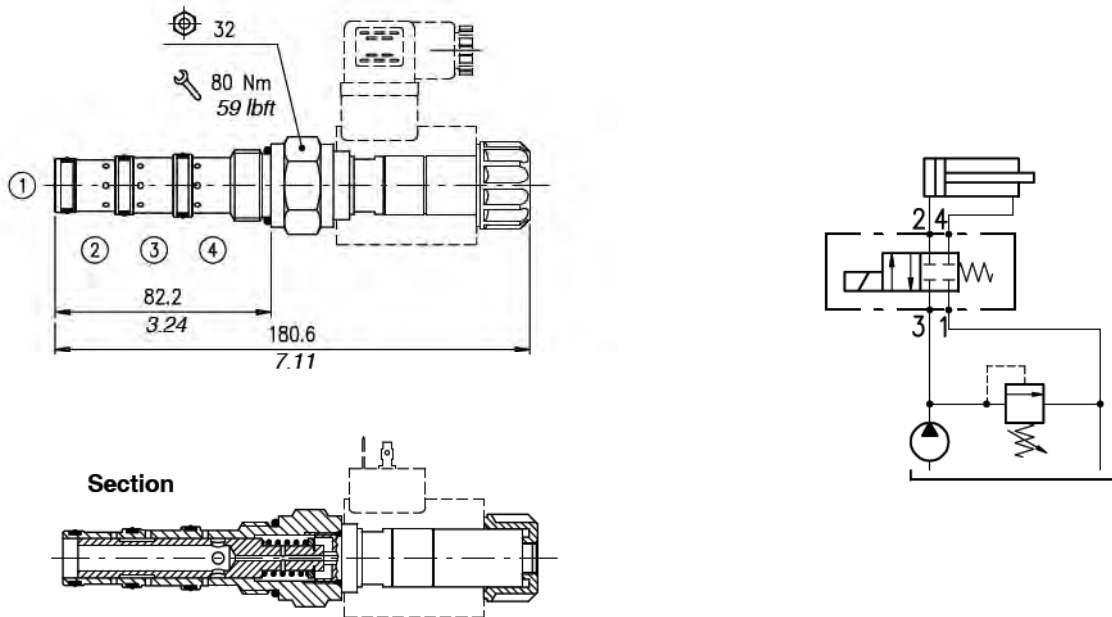
Manual override option
(see page 163)

- N) No emergency (standard)
- T) Button
- F) Screw

Seals

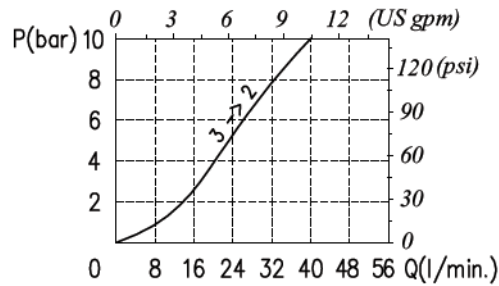
- B) Buna
- V) Viton

Dimensions and hydraulic circuit

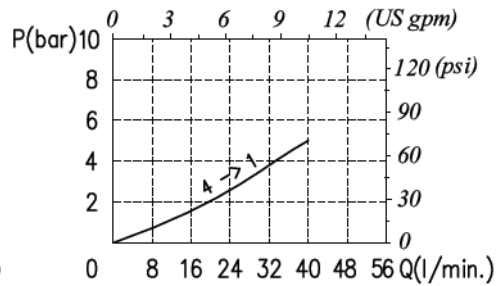


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



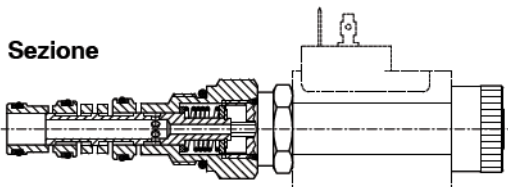
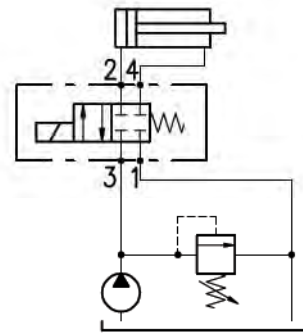
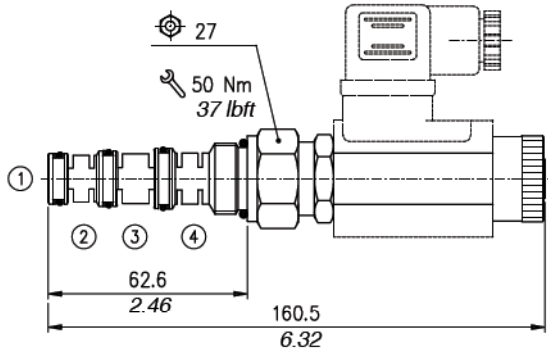
Order code

ER 12A / 30 P □

Seals

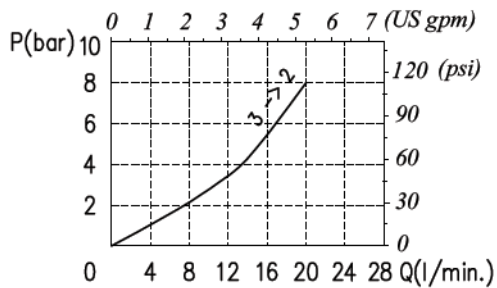
B) Buna
V) Viton

Dimensions and hydraulic circuit

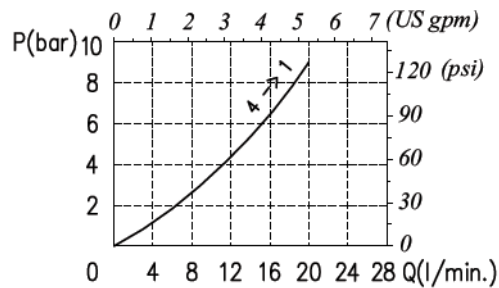


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



Order code

ER 10B / 30 □ - □

Manual override option
(see page 163)

N) No emergency (standard)
P) Button

Seals

B) Buna
V) Viton

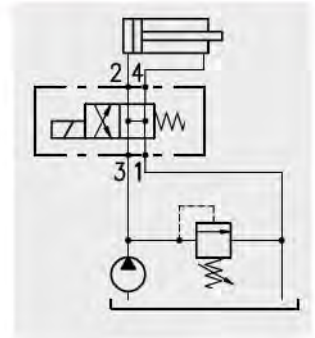


Operation

Electric valve 4 ways, 2 positions, spool type.

When the spool is deenergized the valve provides for concurrent connection of all ways with each other.

When the solenoid is energized the valve allows free oil flow from 3 to 4 and from 2 to 1.



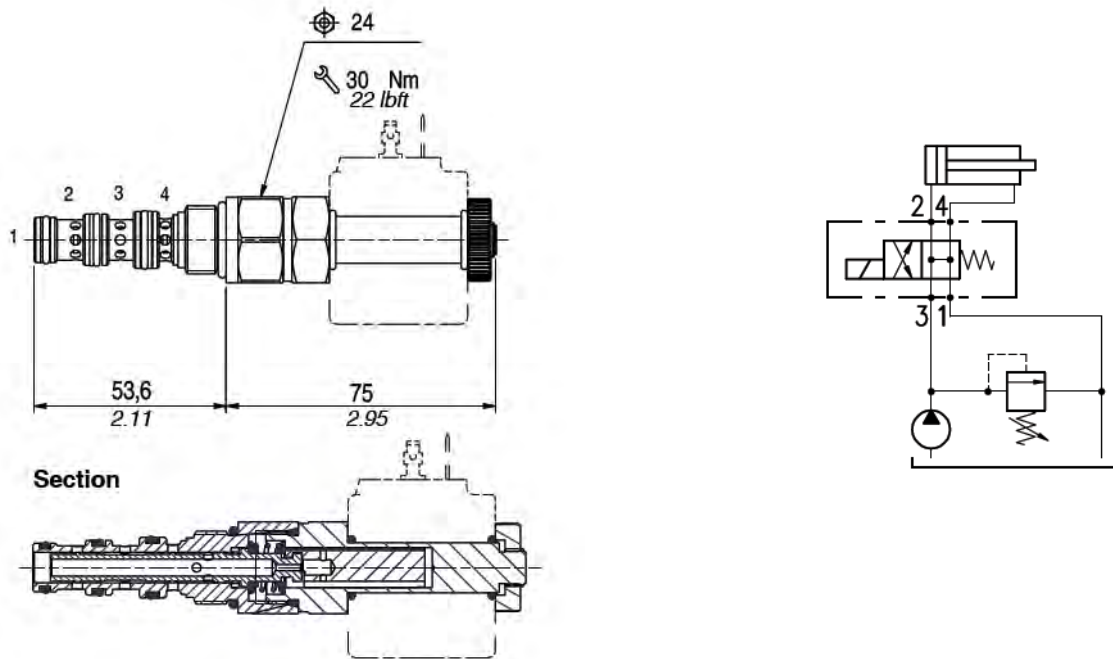
Performance

Cartridges

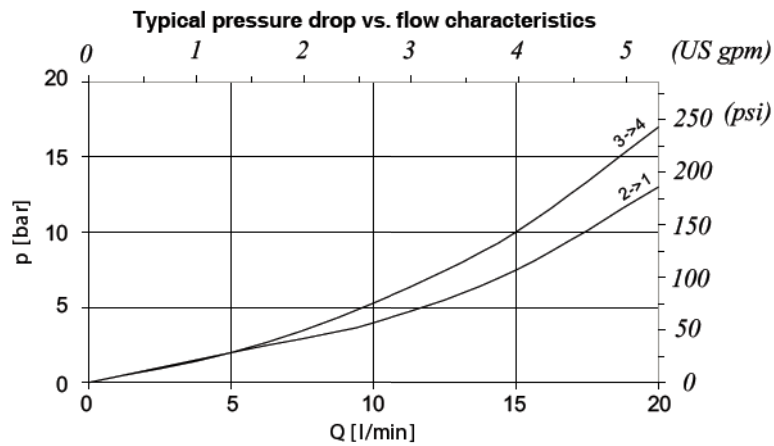
Type	Maximum flow		Maximum pressure		Solenoids	*Oil leaks from 1 to 2	Weight		Cavities and tools
	l/min	US gpm	bar	psi			kg	lb	
ER08M/4	18	4.7	210	3050	BE/EC 36 see page 157	40 cm ³ /min. - 2.44 in ³ /min at 210 bar - 3050 psi	0,200	0.44	see cavity SAE 8-4 page 173
ER10M/4	40	10.5			BC 16 see page 160	80 cm ³ /min. - 4.88 in ³ /min at 210 bar - 3050 psi	0,45	0.99	see cavity SAE 10-4 page 173
ER10B/4	20	5.3			BC 16 see page 160	30 cm ³ /min. - 1.92 in ³ /min at 210 bar - 3050 psi	0,310	0.68	see cavity SAE 10-4 page 173
ER12A/4	40	10.5			BIN 22 see page 159	200 cm ³ /min. - 12.2 in ³ /min at 210 bar - 3050 psi	0,490	1.08	see cavity SAE 12-4 page 173

*with oil viscosity of 46 cst

Dimensions and hydraulic circuit



Rating diagrams



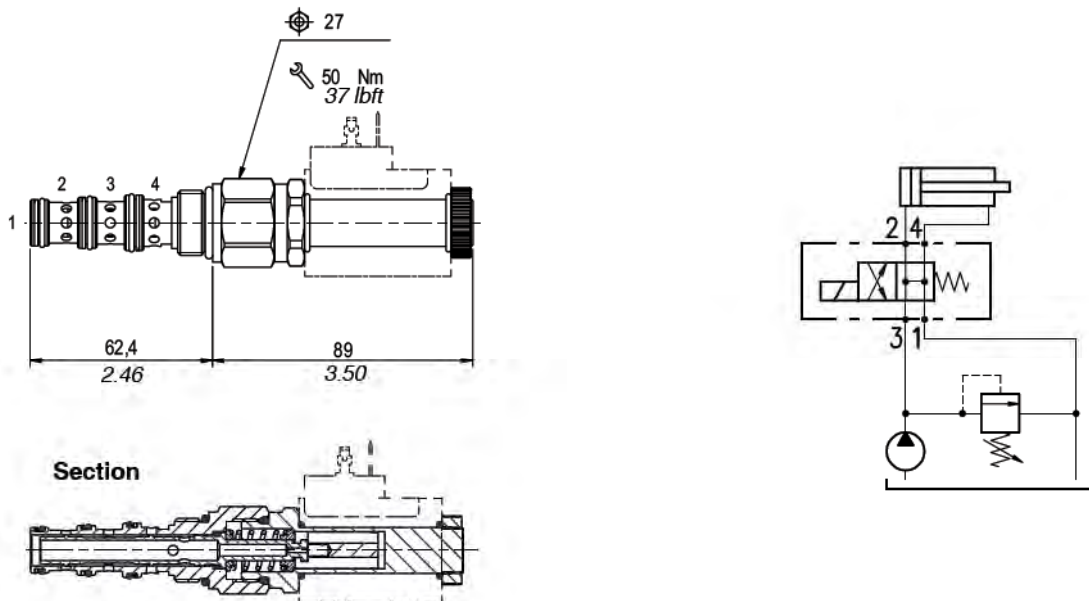
Order code

ER 08M / 40 N □

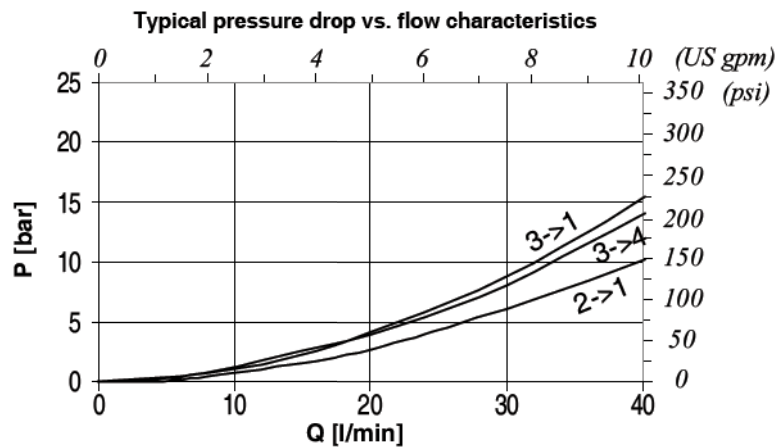
Seals

B) Buna
V) Viton

Dimensions and hydraulic circuit



Rating diagrams

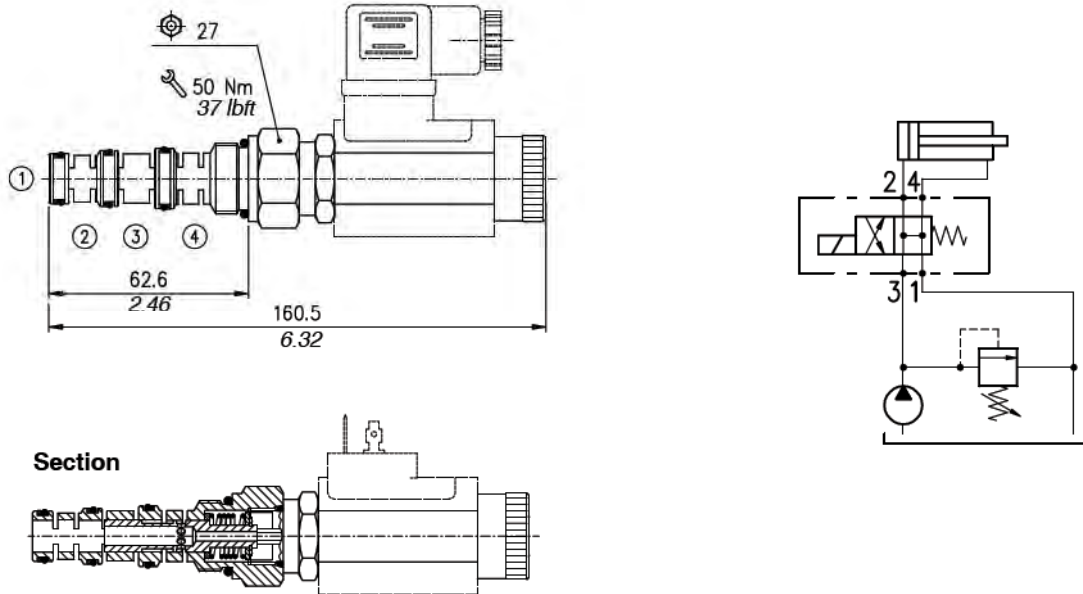


Order code

ER 10M / 40 □ □

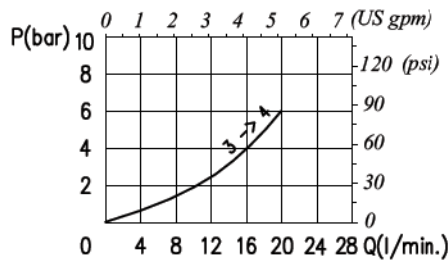
<p>Manual override option (see page 163)</p> <p>N) No emergency (standard) T) Screw F) Pull button</p>	<p>Seals</p> <p>B) Buna V) Viton</p>
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Dimensions and hydraulic circuit

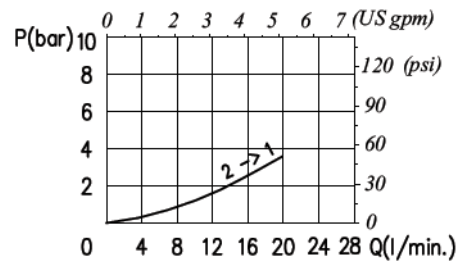


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



Order code

ER 10B / 40 □ - □

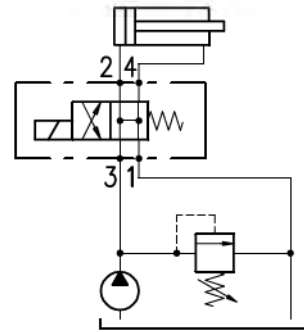
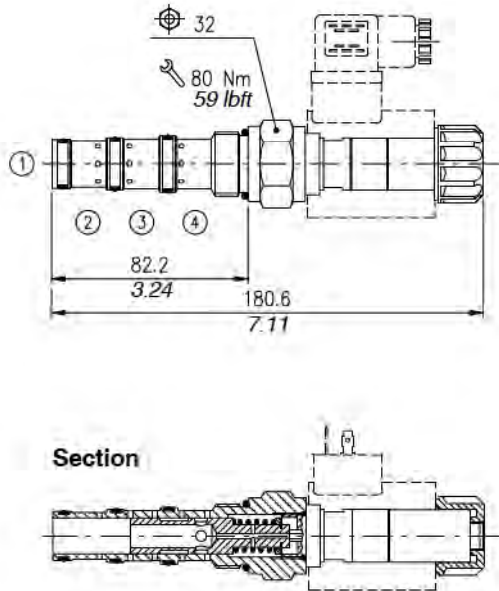
Manual override option
(see page 163)

N) No emergency (standard)
P) Button

Seals

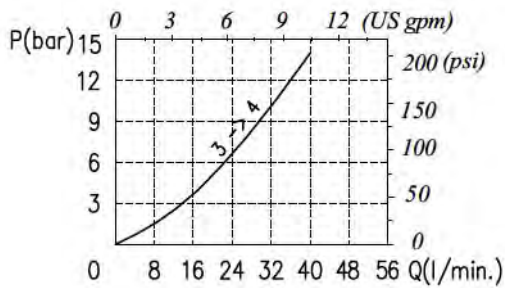
B) Buna
V) Viton

Dimensions and hydraulic circuit

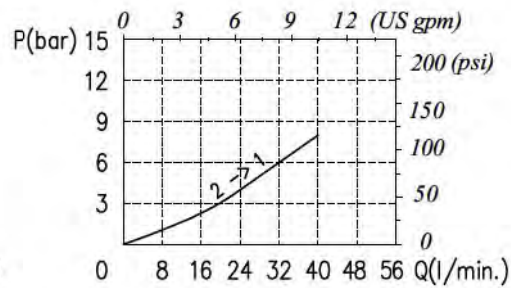


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



Order code

ER 12A / 40 P □

Seals

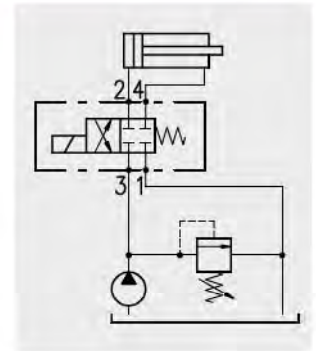
B) Buna
V) Viton



Operation

When the spool is deenergized the valve keeps all ways shut.

When the solenoid is energized the valve allows free oil flow from 3 to 4 and from 2 to 1.



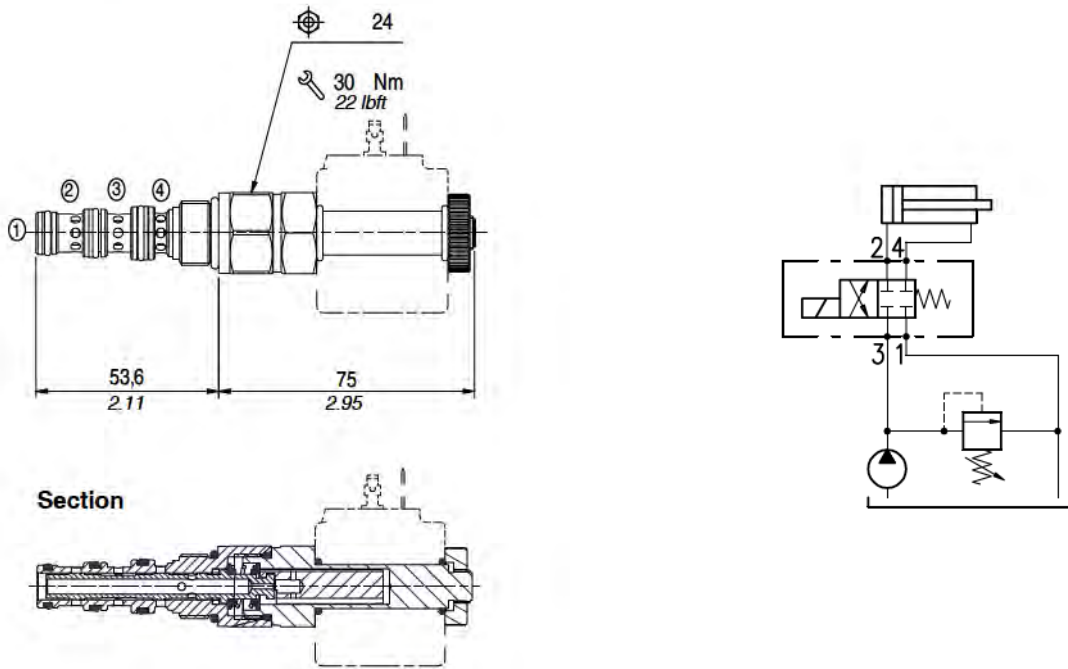
Performance

Cartridges

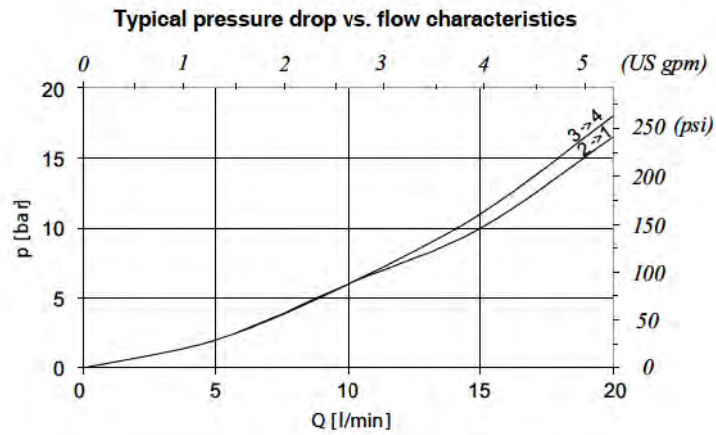
Type	Maximum flow		Maximum pressure		Solenoids	*Oil leaks from 1 to 2	Weight		Cavity and tools
	l/min	US gpm	bar	psi			kg	lb	
ER08M/5	18	4.7	210	3050	BE/EC 36 see page 157	40 cm ³ /min. - 2.44 in ³ /min at 210 bar - 3050 psi	0,200	0.44	see cavity SAE 8-4 page 173
ER10M/5	40	10.5			BC 16 see page 160	80 cm ³ /min. - 4.88 in ³ /min at 210 bar - 3050 psi	0,45	0.99	see cavity SAE 10-4 page 173
ER10A/5	30	8			BIN 19 see page 158	30 cm ³ /min. - 1.92 in ³ /min at 210 bar - 3050 psi	0,380	0.84	
ER12A/5	40	10.5			BIN 22 see page 159	30 cm ³ /min. - 1.92 in ³ /min at 210 bar - 3050 psi	0,490	1.08	see cavity SAE 12-4 page 173

*with oil viscosity of 46 cst

Dimensions and hydraulic circuit



Rating diagrams



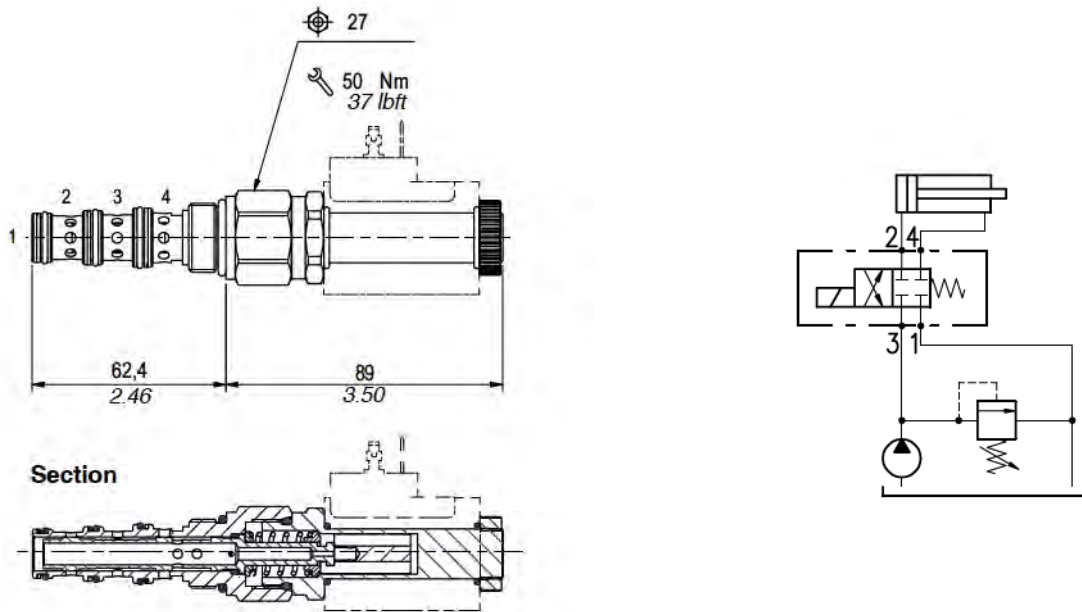
Order code

ER 08M / 50 N □

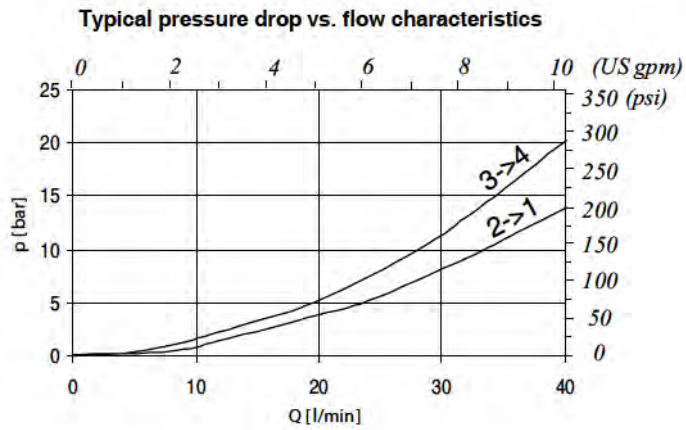
Seals

B) Buna
V) Viton

Dimensions and hydraulic circuit



Rating diagrams



Order code

ER 10M / 50 □ □

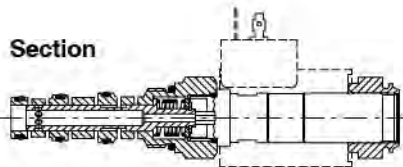
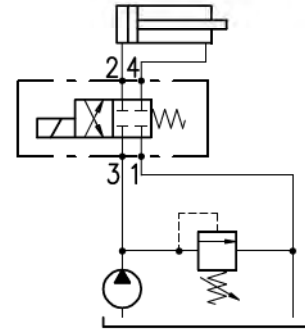
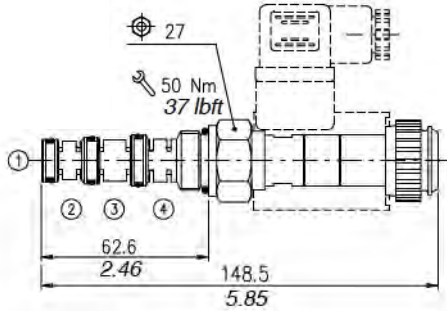
Manual override option
(see page 163)

- N) No emergency (standard)
- T) Screw
- F) Pull button

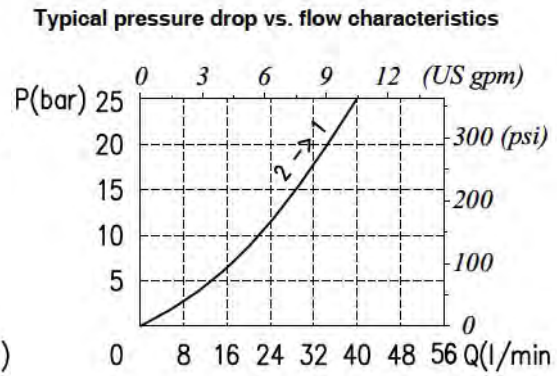
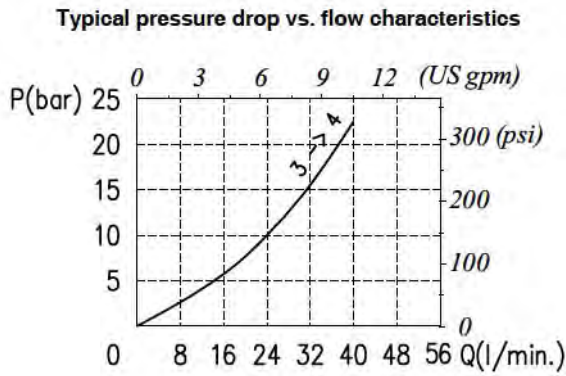
Seals

- B) Buna
- V) Viton

Dimensions and hydraulic circuit



Rating diagrams



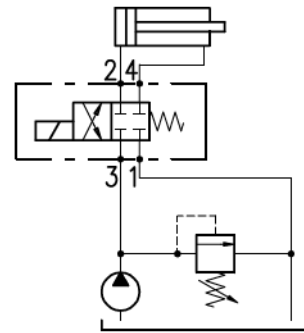
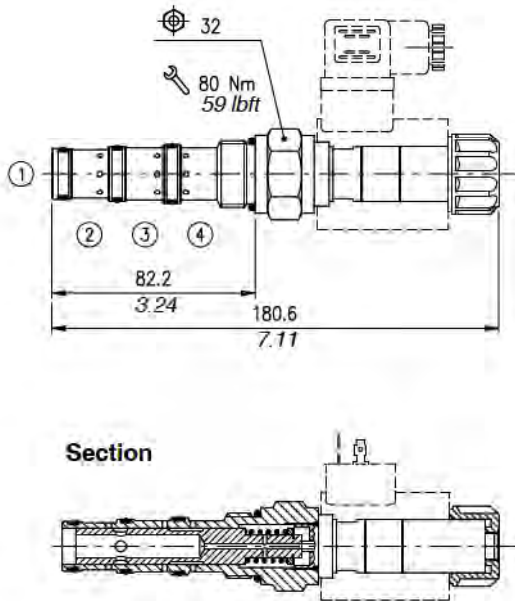
Order code

ER 10A / 50 P □

Seals

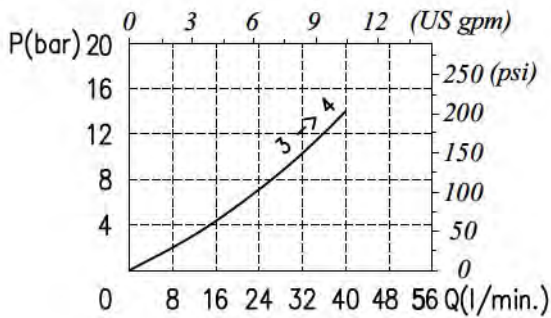
B) Buna
V) Viton

Dimensions and hydraulic circuit

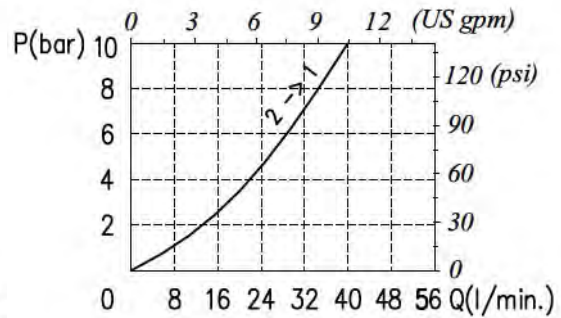


Rating diagrams

Typical pressure drop vs. flow characteristics



Typical pressure drop vs. flow characteristics



Order code

ER 12A / 50 P □

Seals

B) Buna
V) Viton