



RD08L type pressure reducing valves – 3 way

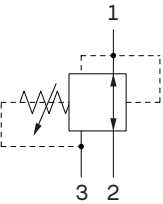
- Direct acting damped with relieving
- Spool type
- Mechanical control with screw adjustment
- Different springs available to vary pressure range (from 10 to 150 bar - 145 to 2175 psi)
- Applications for high flow rates (max. 350 bar - 5100 psi) and low flow rates (15 l/min - 4 US gpm)
- Available with or without filter (mesh-type 90 microns)
- The backpressure values on line 3 must be added to valve nominal setting

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

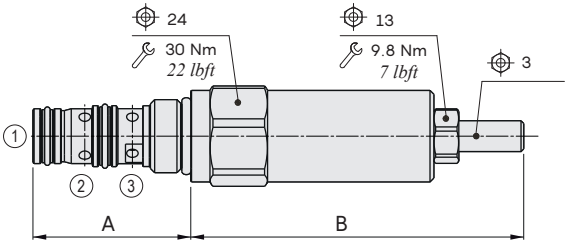
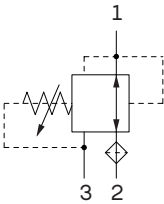
Nominal flow	15 l/min (4 US gpm)	
Max. pressure	Port 2 = 350 bar (5100 psi) Port 3 = 30 bar (435 psi)	
Oil leakage	-	
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties	
Viscosity	10-200 cSt	
Max level of contamination	20/18/14 ISO4406	
Fluid temperature	with NBR seals+Polyurethane with FPM seals	from -25°C (-13°F) to 90°C (194°F) from -20°C (-4°F) to 110°C (230°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 60°C (140°F)	
Cavity	SAE 08/3	
Weight	0.250 kg (0.55 lb)	

NOTE - For different conditions, please contact Walvoil Sales Dpt.

Configuration
without filter



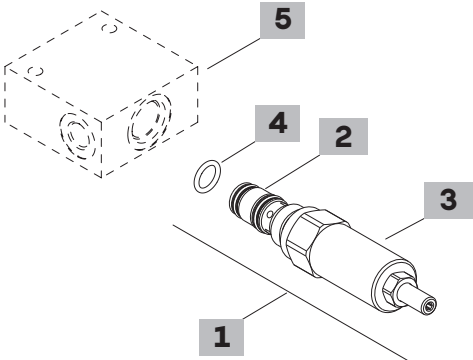
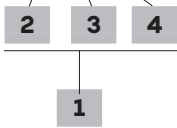
Configuration
with filter



Valve type	A		B	
	mm	in	mm	in
G1B	41.1	1.62	86.7	3.41
RD08L/ G2B	41.1	1.62	86.7	3.41
G3B	41.1	1.62	81.6	3.21

Ordering codes and description composition

RD08L/1G1B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
RD08L/0G1B	ORD08002038	Pressure range G1 , without filter
RD08L/1G1B	ORD08002037	Pressure range G1 , with filter
RD08L/0G2B	ORD08002033	Pressure range G2 , without filter
RD08L/1G2B	ORD08002039	Pressure range G2 , with filter
RD08L/0G3B	ORD08002034	Pressure range G3 , without filter
RD08L/1G3B	ORD08002040	Pressure range G3 , with filter

2 Filter

TYPE	DESCRIPTION
0	Without filter
1	Mesh filter: 90 micron

3 Pressure range

Standard setting is referred to 5 l/min (1.32 Us gpm) flow

TYPE	DESCRIPTION
G1	Pressure range 10÷50 bar (145÷725 psi); Std. setting 30 bar (435 psi)
G2	Pressure range 40÷100 bar (580÷1450 psi); Std. setting 50 bar (725 psi)
G3	Pressure range 70÷150 bar (1015÷2175 psi); Std. setting 100 bar (1450 psi)

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna)+Polyurethane o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

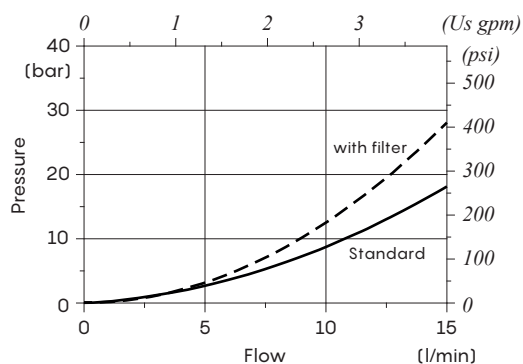
5 Valve body

TYPE	CODE	DESCRIPTION
SAE08/3-G 3/8	3CC0830C11	Aluminium body for cavity 08 valve, G 3/8 std thread

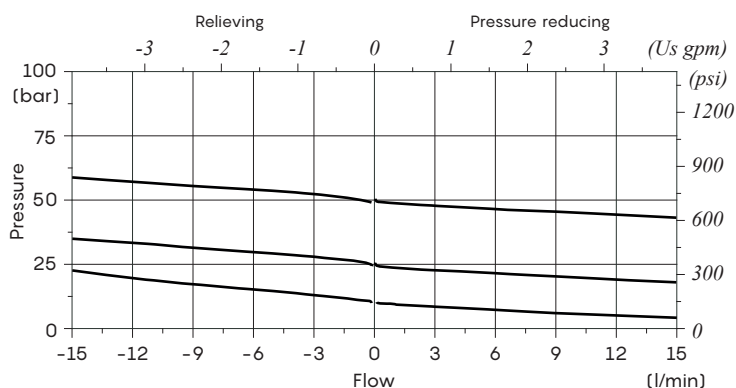
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 210

Rating diagrams

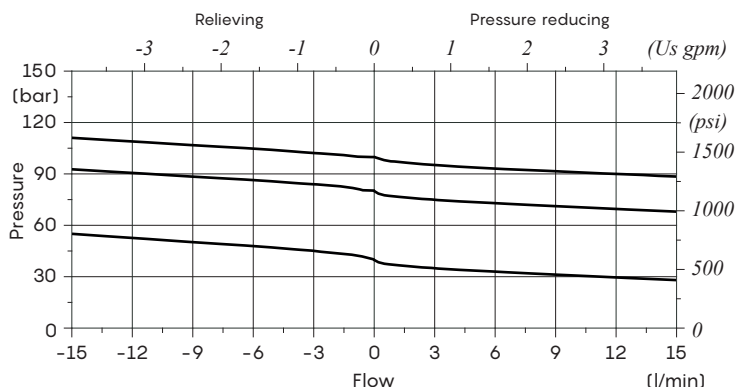
Pressure vs. flow 2->1



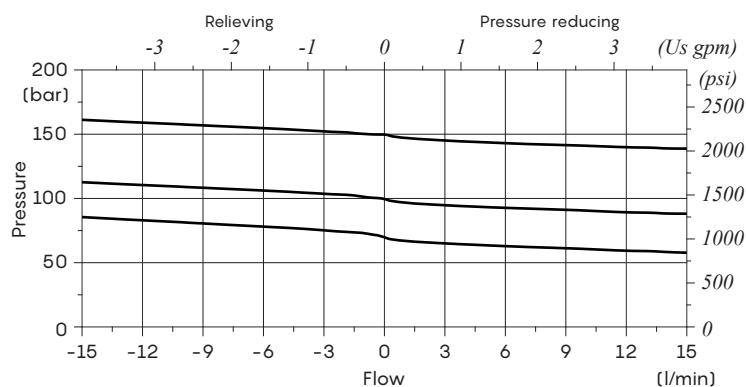
**G1 pressure range
reducing/relieving pressure vs. flow**



**G2 pressure range
reducing/relieving pressure vs. flow**



**G3 pressure range
reducing/relieving pressure vs. flow**





**RD08LH type
pressure reducing valves – 3 way**

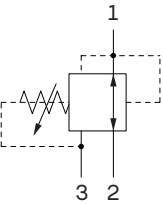
- Direct acting damped with relieving
- Spool type
- Mechanical control with screw adjustment
- Different springs available to vary pressure range (from 10 to 150 bar - 145 to 2175 psi)
- Applications for high flow rates (max. 350 bar - 5100 psi) and high flow rates (30 l/min - 7.9 US gpm)
- Available with or without filter (mesh-type 90 microns)
- The backpressure values on line 3 must be added to valve nominal setting

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

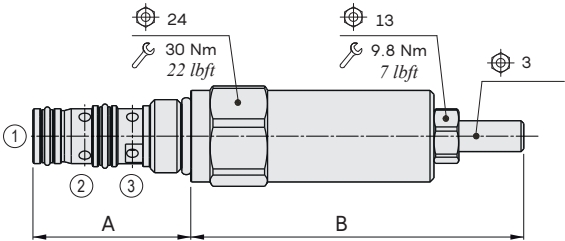
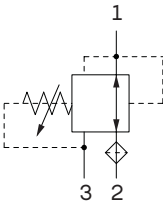
Nominal flow	30 l/min (7.9 US gpm)	
Max. pressure	Port 2 = 350 bar (5100 psi) Port 3 = 30 bar (435 psi)	
Oil leakage	-	
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties	
Viscosity	10-200 cSt	
Max level of contamination	20/18/14 ISO4406	
Fluid temperature	with NBR seals+Polyurethane with FPM seals	from -25°C (-13°F) to 90°C (194°F) from -20°C (-4°F) to 110°C (230°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 60°C (140°F)	
Cavity	SAE 08/3	
Weight	0.250 kg (0.55 lb)	

NOTE - For different conditions, please contact Walvoil Sales Dpt.

**Configuration
without filter**



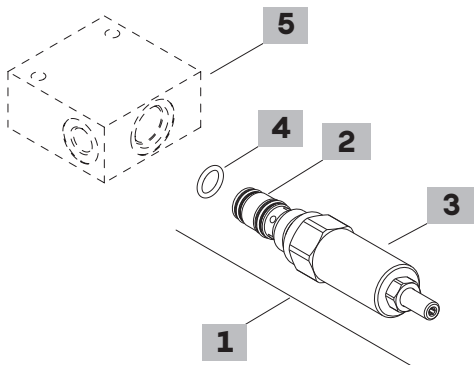
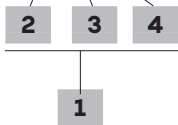
**Configuration
with filter**



Valve type	A		B	
	mm	in	mm	in
G1B	41.1	1.62	86.7	3.41
RD08LH/ G2B	41.1	1.62	86.7	3.41
G3B	41.1	1.62	81.6	3.21

Ordering codes and description composition

RD08LH/1G1B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
RD08LH/0G1B	ORD08002053	Pressure range G1 , without filter
RD08LH/1G1B	ORD08002054	Pressure range G1 , with filter
RD08LH/0G2B	ORD08002055	Pressure range G2 , without filter
RD08LH/1G2B	ORD08002056	Pressure range G2 , with filter
RD08LH/0G3B	ORD08002057	Pressure range G3 , without filter
RD08LH/1G3B	ORD08002058	Pressure range G3 , with filter

2 Filter

TYPE	DESCRIPTION
0	Without filter
1	Mesh filter: 90 micron

3 Pressure range

Standard setting is referred to 5 l/min (1.32 Us gpm) flow	
TYPE	DESCRIPTION
G1	Pressure range 10÷50 bar (145÷725 psi); Std. setting 30 bar (435 psi)
G2	Pressure range 40÷100 bar (580÷1450 psi); Std. setting 50 bar (725 psi)
G3	Pressure range 70÷150 bar (1015÷2175 psi); Std. setting 100 bar (1450 psi)

4 Seals

TYPE	DESCRIPTION
B	NBR (Buna)+Polyurethane o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

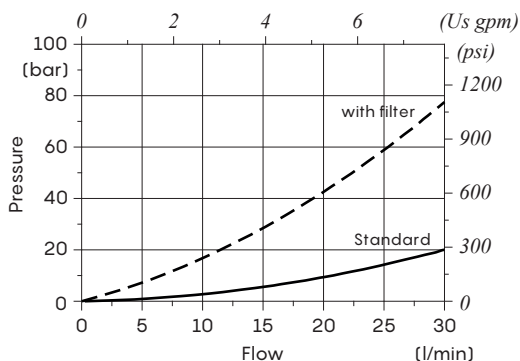
5 Valve body

TYPE	CODE	DESCRIPTION
SAE08/3-G 3/8	3CC0830C11	Aluminium body for cavity 08 valve, G 3/8 std thread

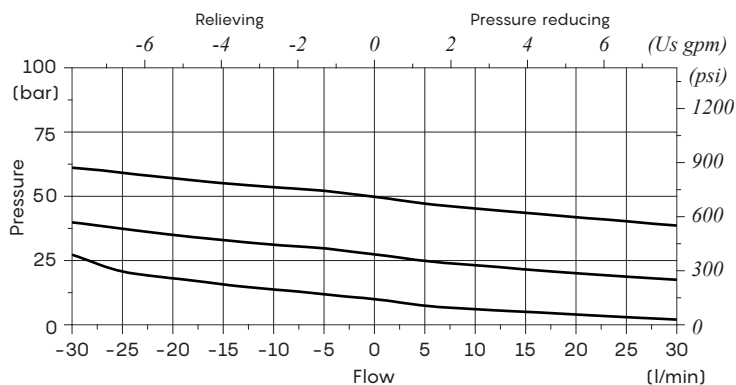
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 210

Rating diagrams

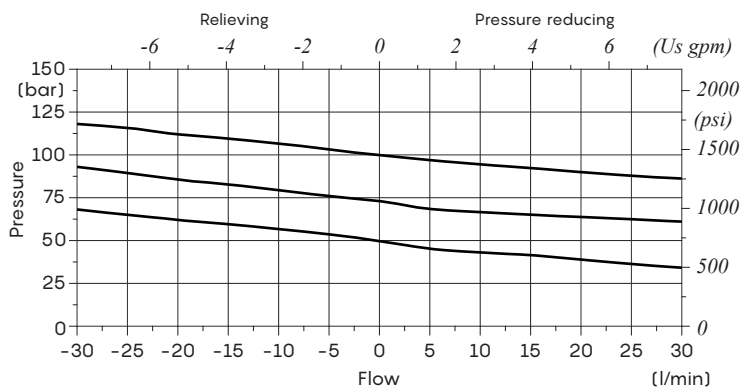
Pressure vs. flow 2->1



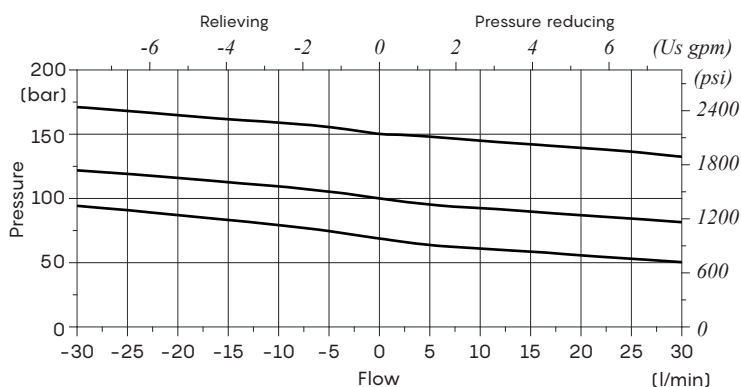
**G1 pressure range
reducing/relieving pressure vs. flow**



**G2 pressure range
reducing/relieving pressure vs. flow**



**G3 pressure range
reducing/relieving pressure vs. flow**





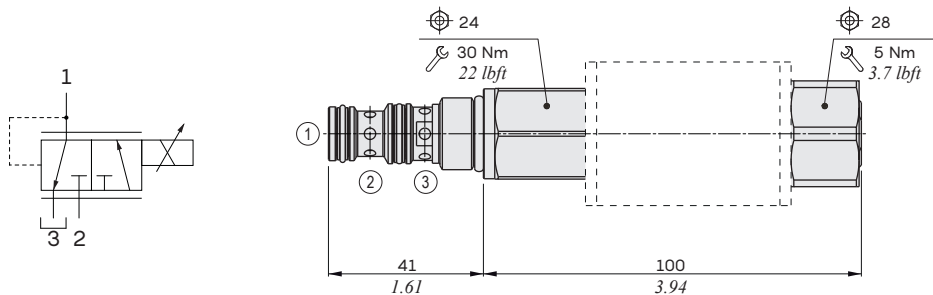
RD08TX type pressure reducing valves - 3 way

- Direct acting with relieving
- Spool type
- Control with proportional solenoid
- System of purging of air
- Applications for high flow rates (max. 210 bar - 3050 psi)
- The backpressure values on line 3 must be added to valve nominal setting

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

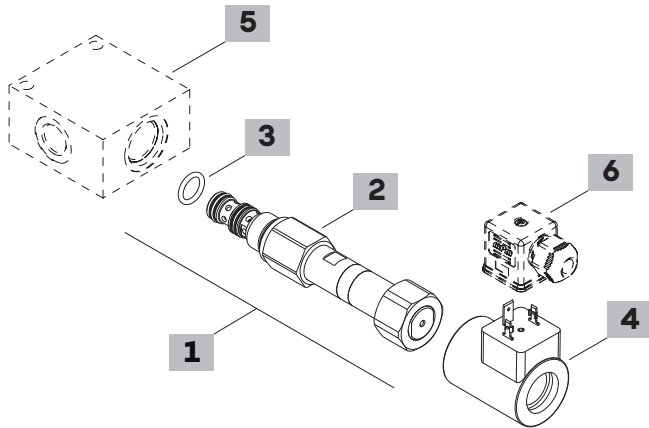
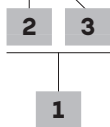
Nominal flow	12 l/min (3.17 US gpm)	
Max. pressure	Port 2 = 210 bar (3050 psi) Port 3 = 30 bar (435 psi)	
Oil leakage	-	
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties	
Viscosity	12-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals+Polyurethane with FPM seals	from -25°C (-13°F) to 90°C (194°F) from -20°C (-4°F) to 110°C (230°F)
Environmental temp. for working conditions	from -20°C (-4°F) to 60°C (140°F)	
Cavity	SAE 08/3	
Coil type*	BH	
Nominal voltages	12 VDC - 24 VDC	
Max. control current	12 V -> 1.7 A - 24 V -> 0.85 A	
Dither frequency	150-200 Hz	
Weight	0.350 kg (0.77 lb)	

NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 201.



Ordering codes and description composition

RD08TX/002B



1 Cartridges

TYPE	CODE	DESCRIPTION
RD08TX/001B	ORD08002041	Pressure range 1
RD08TX/002B	ORD08002042	Pressure range 2

2 Pressure range

TYPE	DESCRIPTION
1	Pressure range 0÷45 bar (0÷652.5 psi);
2	Pressure range 0÷35 bar (0÷507.5 psi);

3 Seals

TYPE	DESCRIPTION
B	NBR (Buna)+Polyurethane o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

4 Coils

TYPE	CODE	DESCRIPTION
BH 24VDC	4SLD002400A	24VDC-ISO4400 coil

For complete coils list see from page 201

5 Valve body

TYPE	CODE	DESCRIPTION
SAE08/3-G 3/8	3CC0830C11	Aluminium body for cavity 08 valve, G 3/8 std thread

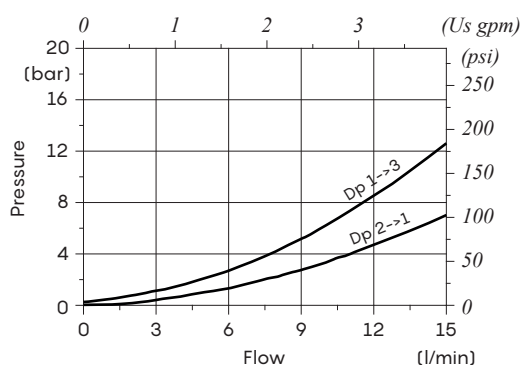
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 210

6 Connector

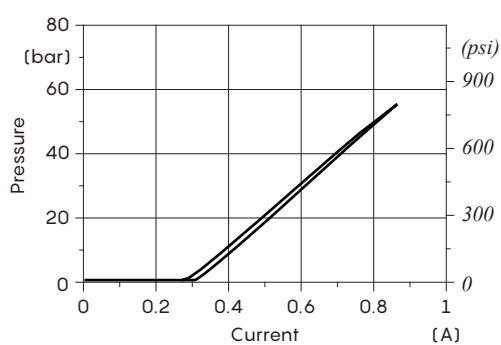
TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995B	Connector

For complete connectors list see from page 201

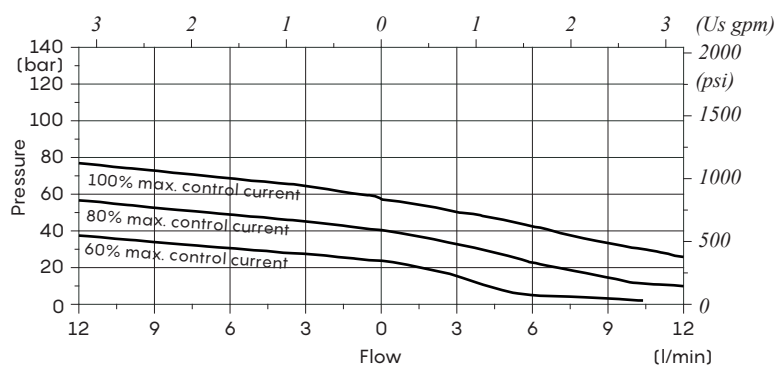
Pressure drop



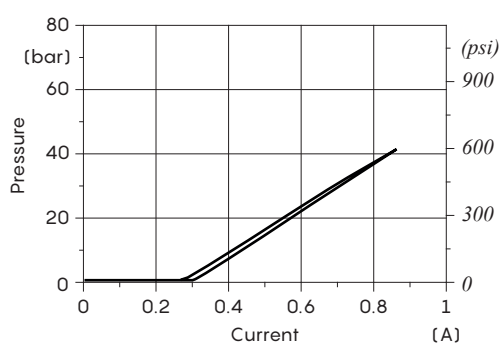
Pressure range 1
Reduced Pressure vs Control Current



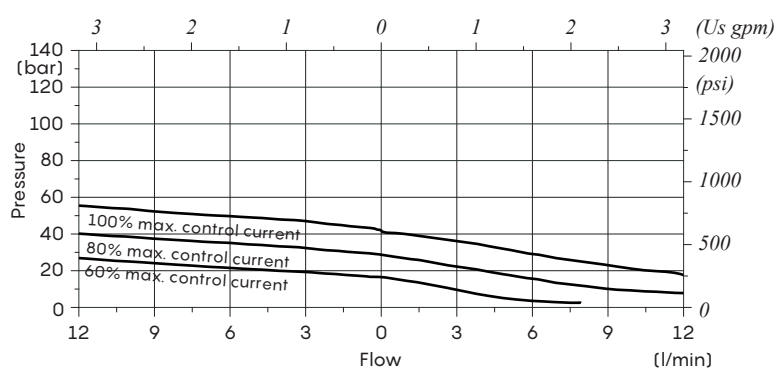
Pressure range 1
reducing/relieving pressure vs Flow rate



Pressure range 2
Reduced Pressure vs Control Current



Pressure range 2
reducing/relieving pressure vs Flow rate





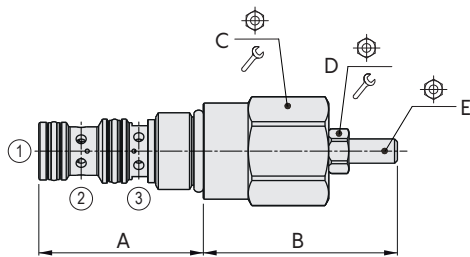
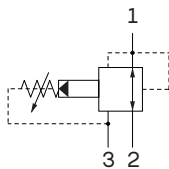
**RP..M type
pressure reducing valves – 3 way**

- Piloted acting with relieving
- Spool type
- Mechanical control with screw adjustments
- Available in fixed or adjustable version (range from 5 to 350 bar - 72.5 to 5100 psi)
- Applications for high flow rates (max. 350 bar - 5100 psi)
- The backpressure values on line 3 must be added to valve nominal setting
- From SAE08 to SAE10 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	RP08M	RP10M
Nominal flow	50 l/min (13 US gpm)	70 l/min (18.5 US gpm)
Max. pressure	Port 2= 350 bar (5100 psi) Port 3= 30 bar (435 psi)	
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties	
Viscosity	12–200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals+Polyurethane with FPM seals	
Environmental temp. for working conditions	from -25°C (-13°F) to 90°C (194°F) from -20°C (-4°F) to 110°C (230°F)	
Cavity	SAE 08/3	SAE 10/3
Weight	0.160 kg (0.35 lb)	0.200 kg (0.44 lb)

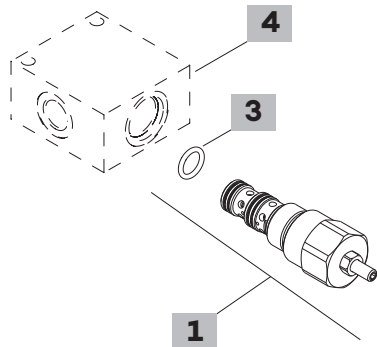
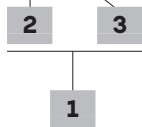
NOTE – For different conditions, please contact Walvoil Sales Dpt.



Valve type	A		B		C			D			E	
												
	mm	in	mm	in	Nm		lbft	Nm		lbft		
RP08M	40.8	1.61	48.1	1.89	24	30	22	10	6.6	4.9	3	
RP10M	47.2	1.86	46.3	1.82	27	50	37	10	6.6	4.9	3	

Ordering codes and description composition

RP10M/1G1B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
RP08M/1G1B	ORP08002019	Pressure range 1
RP08M/1G2B	ORP08002020	Pressure range 2
RP08M/1G3B	ORP08002021	Pressure range 3
SAE cavity 10/3		
RP10M/1G1B	ORP10002038	Pressure range 1
RP10M/1G2B	ORP10002039	Pressure range 2
RP10M/1G3B	ORP10002034	Pressure range 3

2 Pressure range

Standard setting is referred to 5 l/min (1.32 US gpm)	
TYPE	DESCRIPTION
G1	Pressure range 5÷80 bar (72.5÷1160 psi); Std. setting 50 bar (725 psi)
G2	Pressure range 20÷200 bar (290÷2900 psi); Std. setting 150 bar (2175 psi)
G3	Pressure range 90÷350 bar (1305÷5075 psi); Std. setting 250 bar (3625 psi)

3 Seals

TYPE	DESCRIPTION
B	NBR (Buna)+Polyurethane o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

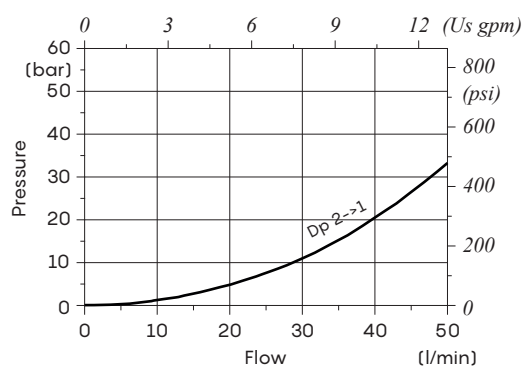
4 Valve body

TYPE	CODE	DESCRIPTION
SAE08/3-G 3/8	3CC0830C11	Aluminium body for cavity 08 valve, G 3/8 std thread
SAE10/3-G 3/8	3CC1030C11	Aluminium body for cavity 10 valve, G 3/8 std thread

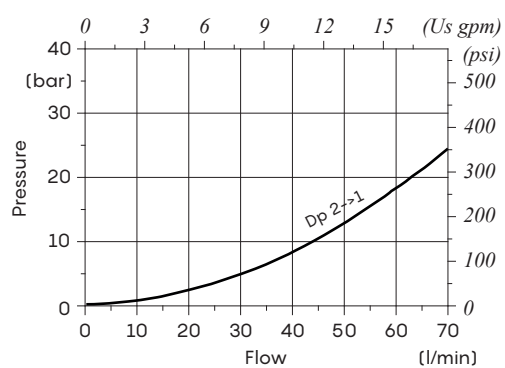
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 210

Rating diagrams

RP08M pressure drop



RP10M pressure drop





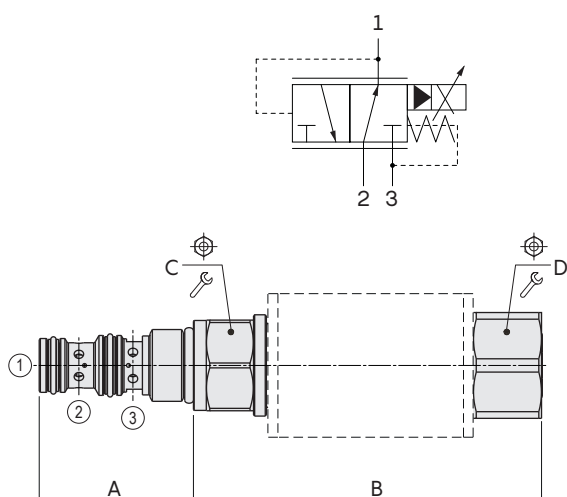
RP..X type pressure reducing valves – 3 way

- Piloted acting with relieving
- Spool type
- Control with proportional solenoid
- External zinc-plated and corrosion-proof components
- Excellent stability throughout the range
- Suitable for applications where high flow rates and low pressure drop are required
- From SAE08 to SAE12 cavities

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

	RP08 X	RP10X	RP12X
Nominal flow	50 l/min (13 US gpm)	70 l/min (18.5 US gpm)	70 l/min (18.5 US gpm)
Max. pressure		Port 2= 350 bar (5100 psi) Port 3= 30 bar (435 psi)	Port 2= 350 bar (5100 psi) Port 3= 50 bar (725 psi)
Oil leakage	-		
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties		
Viscosity	12-200 cSt		
Max level of contamination	18/16/13 ISO4406		
Fluid temperature	with NBR seals+Polyurethane with FPM seals	from -25°C (-13°F) to 90°C (194°F)	
Environmental temp. for working conditions		from -20°C (-4°F) to 110°C (230°F)	
Cavity	SAE 08/3	SAE 10/3	SAE 12/2
Coil type*	BQP19/BH		
Nominal voltages	12 VDC - 24 VDC		
Power rating	15 W (BQP19) - 33 W (BH)		
Max. control current	12V->1.25 A - 24V->0.63 A (BQP19) 12V->1.7 A- 24V->0.85 A (BH)		
Dither frequency	150-200 Hz		
Hysteresis	-	-	-
Weight	0.44 kg (0.97 lb)	0.49 kg (1.08 lb)	0.61 kg (1.34 lb)

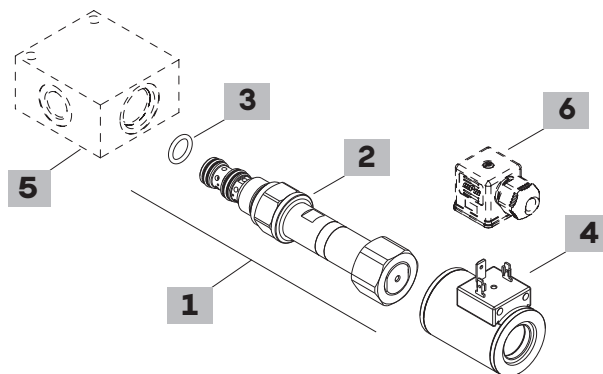
NOTE - For different conditions, please contact Walvoil Sales Dpt. - *For coils further features see from page 201.



Valve type	A		B		C		D	
	mm	in	mm	in	Nm	lbf·ft	Nm	lbf·ft
RP08X	40.8	1.61	92.3	3.63	24	30	22	28
RP10X	47.2	1.86	90.5	3.56	27	50	37	28
RP12X	73.5	2.89	93	3.66	32	80	59	28

Ordering codes and description composition

RP08X/001B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
RP08X/001B	ORP080002016	Pressure range 1
RP08X/002B	ORP080002015	Pressure range 2
RP08X/003B	ORP080002017	Pressure range 3
RP08X/004B	ORP080002018	Pressure range 4
SAE cavity 10/3		
RP10X/001B	ORP10002035	Pressure range 1
RP10X/002B	ORP10002033	Pressure range 2
RP10X/003B	ORP10002036	Pressure range 3
RP10X/004B	ORP10002037	Pressure range 4
SAE cavity 12/3		
RP12X/001B	ORP12002019	Pressure range 1
RP12X/002B	ORP12002020	Pressure range 2
RP12X/003B	ORP12002021	Pressure range 3
RP12X/004B	ORP12002022	Pressure range 4

2 Pressure range

TYPE	DESCRIPTION
1	Pressure range 10÷50 bar (145÷725 psi);
2	Pressure range 10÷170 bar (145÷2465 psi);
3	Pressure range 90÷350 bar (1300÷5075 psi);
4	Pressure range 10÷90 bar (145÷1300 psi);

3 Seals

TYPE	DESCRIPTION
B	NBR (Buna)+Polyurethane o-ring seals, std configuration
V	FPM (Viton) o-ring seals, contact Sales Dept

4 Coils

TYPE	CODE	DESCRIPTION
BH 12VDC	4SLD001200A	12VDC-ISO 4400 coil
BQP19 12VDC	4SL5000126A	12VDC-ISO 4400 coil

For complete coils list see from page 201

5 Valve body

TYPE	CODE	DESCRIPTION
SAE08/3-G 3/8	3CC0830C11	Aluminium body for cavity 08 valve, G 3/8 std thread
SAE10/3-G 3/8	3CC1030C11	Aluminium body for cavity 10 valve, G 3/8 std thread
SAE12/3-G 1/2	3CC1230D11	Aluminium body for cavity 12 valve, G 1/2 std thread

Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 210

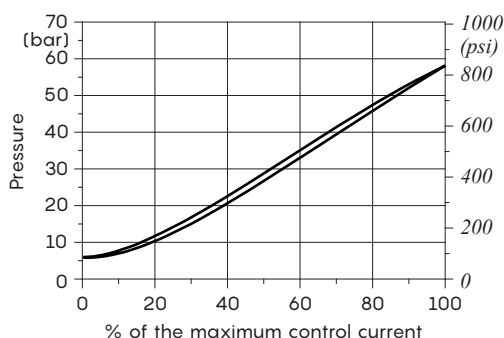
6 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995B	Connector

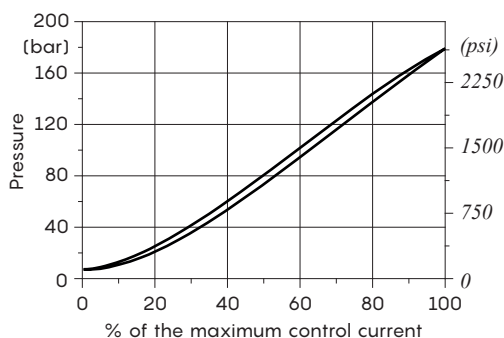
For complete connectors list see from page 201

Rating diagrams

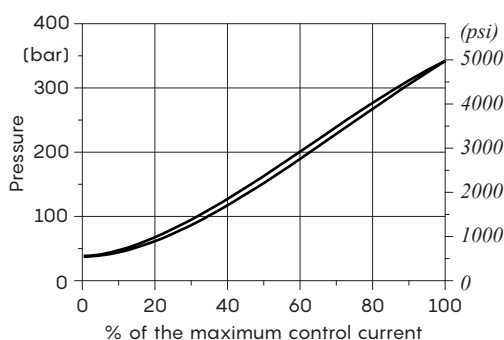
**Pressure reducing vs. control current
RP08X/001B**



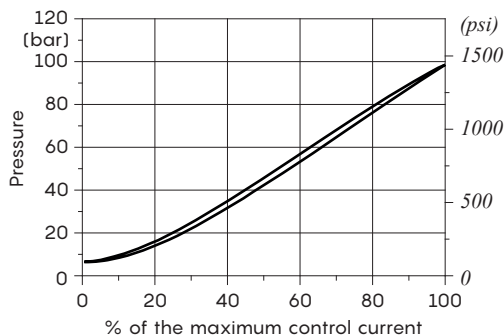
**Pressure reducing vs. control current
RP08X/002B**



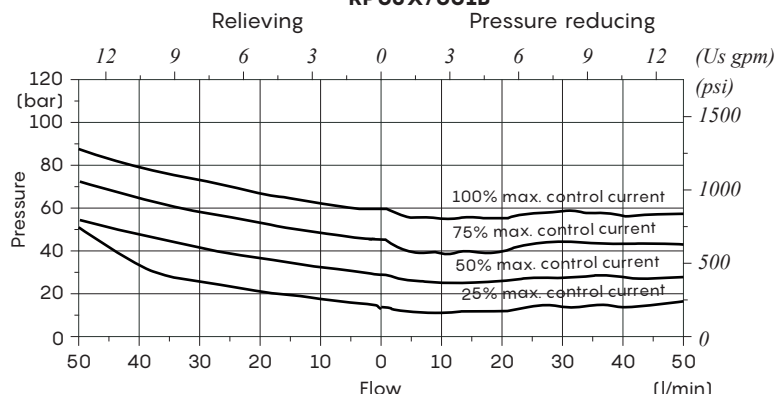
**Pressure reducing vs. control current
RP08X/003B**



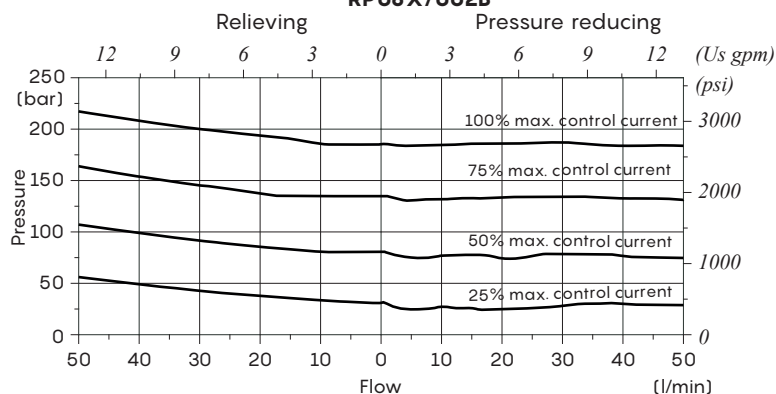
**Pressure reducing vs. control current
RP08X/004B**



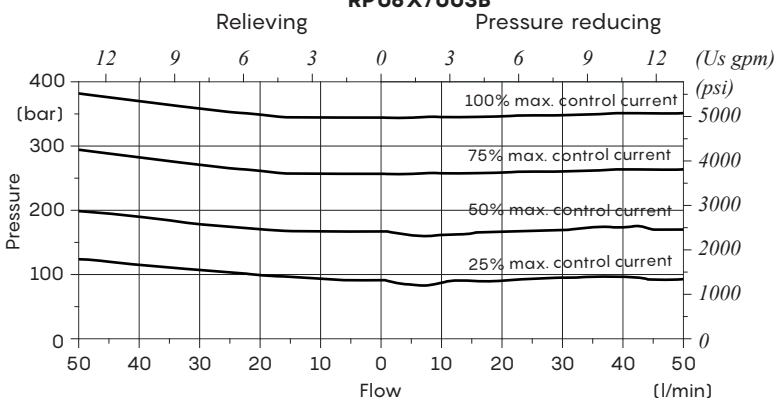
**Reducing/relieving pressure vs. flow
RP08X/001B**



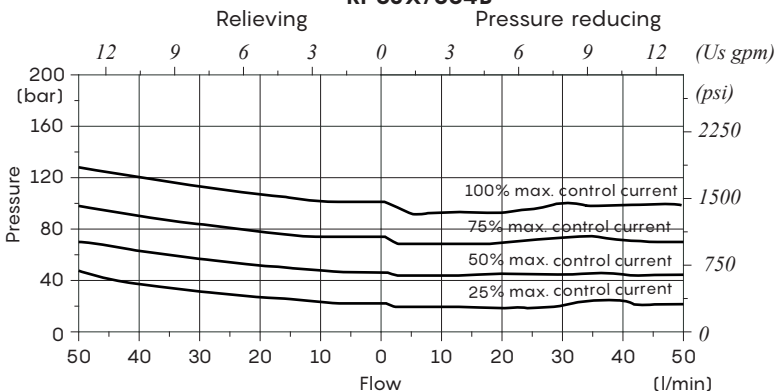
**Reducing/relieving pressure vs. flow
RP08X/002B**



**Reducing/relieving pressure vs. flow
RP08X/003B**

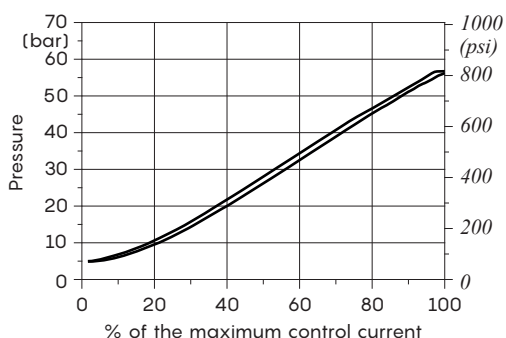


**Reducing/relieving pressure vs. flow
RP08X/004B**

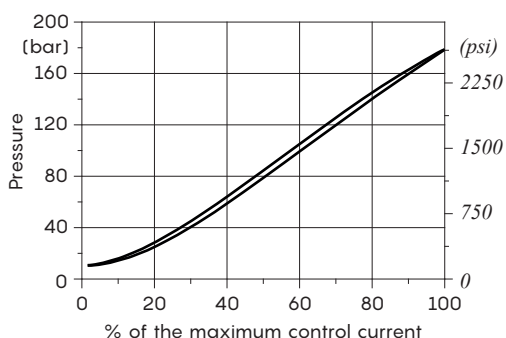


Rating diagrams

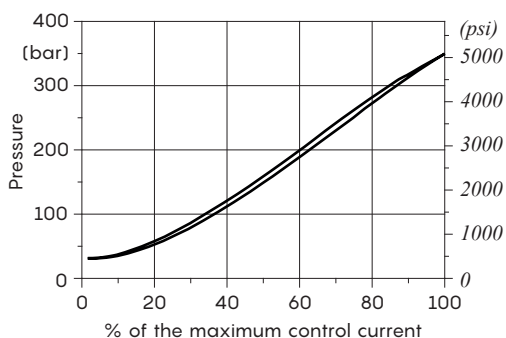
Pressure reducing vs. control current
RP10X/001B



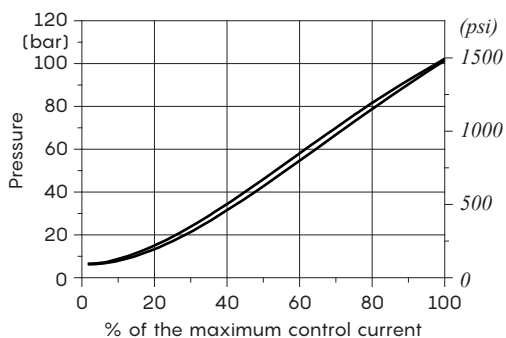
Pressure reducing vs. control current
RP10X/002B



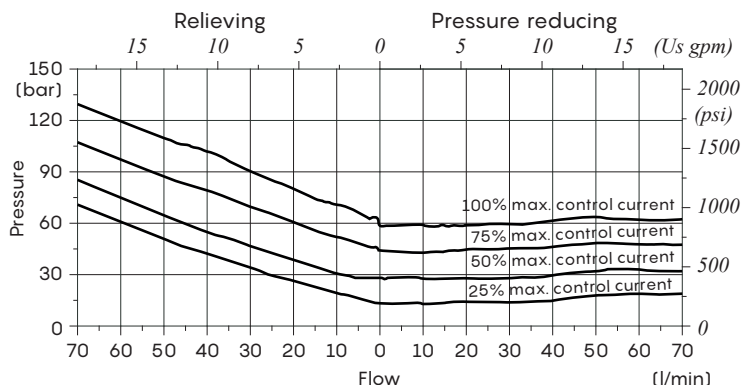
Pressure reducing vs. control current
RP10X/003B



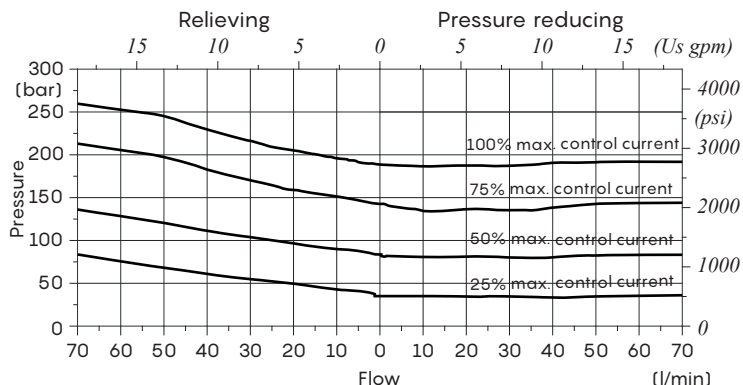
Pressure reducing vs. control current
RP10X/004B



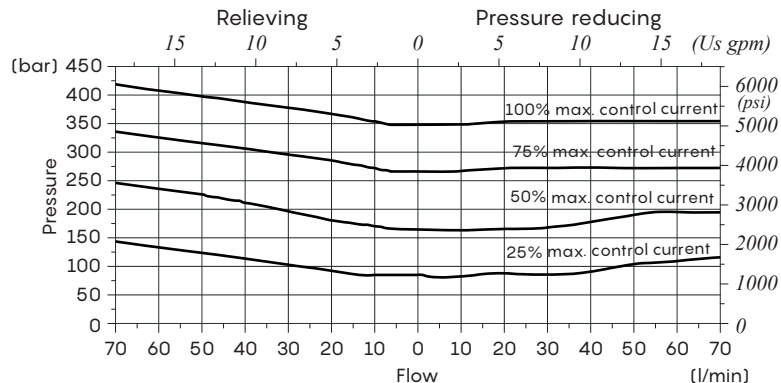
Reducing/relieving pressure vs. flow
RP10X/001B



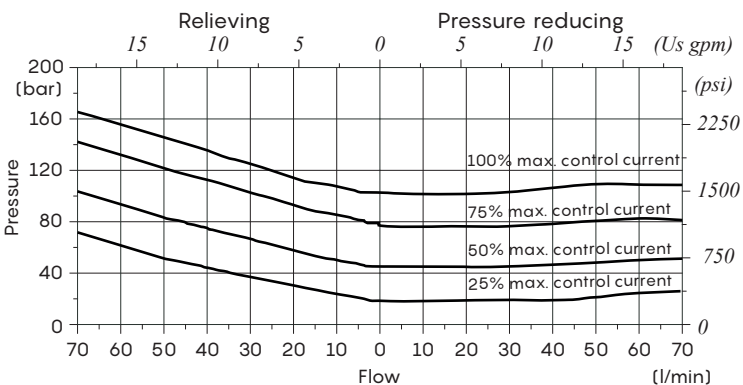
Reducing/relieving pressure vs. flow
RP10X/002B



Reducing/relieving pressure vs. flow
RP10X/003B

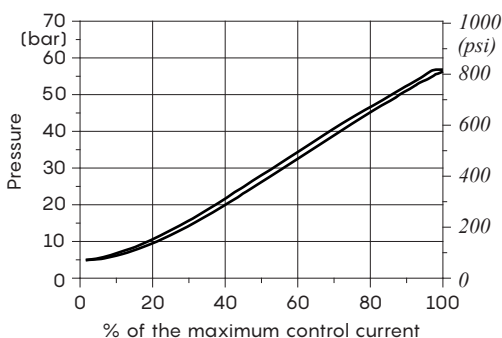


Reducing/relieving pressure vs. flow
RP10X/004B

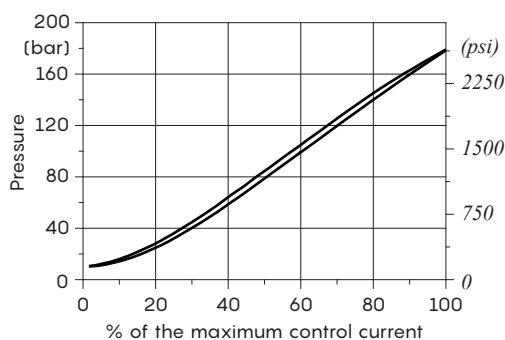


Rating diagrams

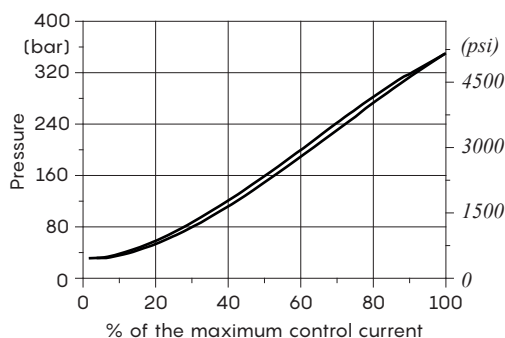
**Pressure reducing vs. control current
RP12X/001B**



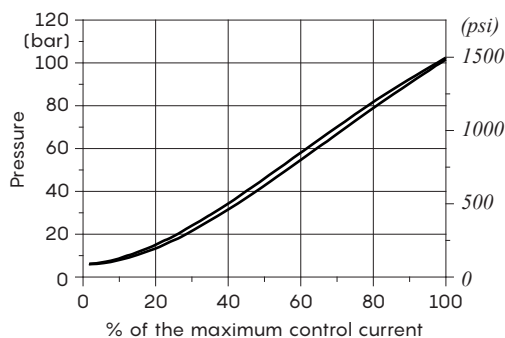
**Pressure reducing vs. control current
RP12X/002B**



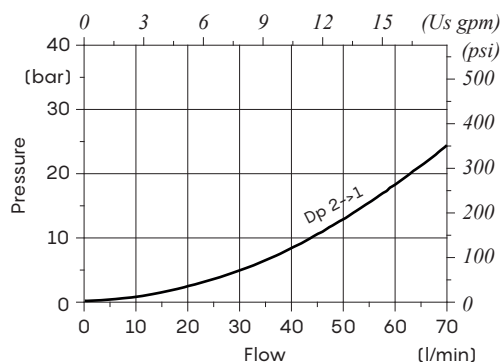
**Pressure reducing vs. control current
RP12X/003B**



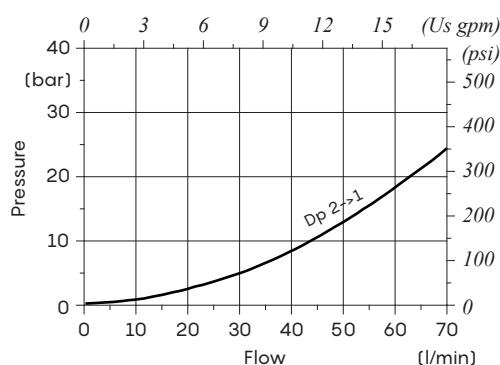
**Pressure reducing vs. control current
RP12X/004B**



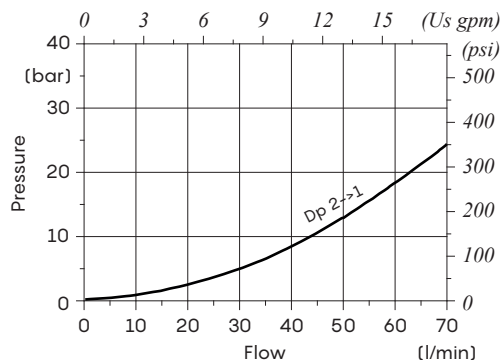
**Reducing/relieving pressure vs. flow
RP12X/001B**



**Reducing/relieving pressure vs. flow
RP12X/002B**



**Reducing/relieving pressure vs. flow
RP12X/003B**



**Reducing/relieving pressure vs. flow
RP12X/004B**

