



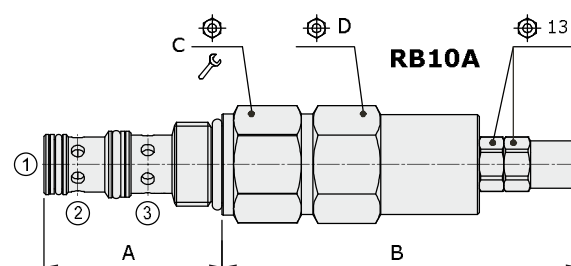
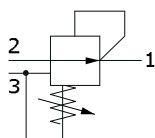
RB..A type pressure reducing valves - 3 ways

- Direct acting
- Without relieving
- Spool type
- From SAE08 to SAE10 cavities

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

		RB08A	RB10A
Nominal flow		8 l/min (0.3 US gpm)	30 l/min (1.2 US gpm)
Max. pressure		line 1=150 bar (2175 psi) line 2=350 bar (5100 psi)	
Oil leakage	at 100 bar (1450 psi)	10 cm³/min (0.61 in³/min)	40 cm³/min (2.44 in³/min)
Fluid		mineral based oil	
Viscosity		10-200 cSt	
Max level of contamination		20/18/14 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)	
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)	
Cavity		SAE 08/3	SAE 10/3
Weight		0.240 kg (0.53 lb)	0.360 kg (0.79 lb)

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

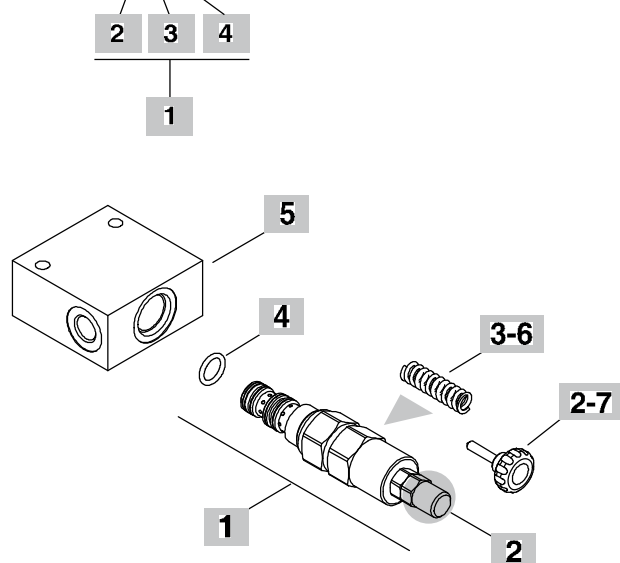


Valve type	A		B		C	D	Nm	lbf·ft
	mm	in	mm	in				
RB08A/OS	40.8	1.60	79.5	3.13	24	24	30	22
RB10A/OS	47.2	1.86	94.5	3.72	27	27	50	37

For dimensions with different type of adjustment see page 212

Ordering codes and description composition

RB08A/0S2B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
RB08A/0S2B	ORB08002000	Screw adjustment, pressure range 2
SAE cavity 10/3		
RB10A/0S2B	ORB10002001	Screw adjustment, pressure range 2

2 Adjustments

TYPE	DESCRIPTION
S	Screw
V	With handwheel see point 7

3 Pressure range

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

TYPE	DESCRIPTION
1	Pressure range 5÷50 bar (72.5÷725 psi); Std. setting 30 bar (435 psi)
2	Pressure range 20÷100 bar (290÷1450 psi); Std. setting 50 bar (725 psi)
3	Pressure range 50÷150 bar (725÷2175 psi); Std. setting 100 bar (1450 psi)

4 Seals

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

5 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3-G 1/4	3CC0830B11	Aluminium body for cavity 08 valve, G 1/4 std thread
SAE 10/3-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 215

6 Springs

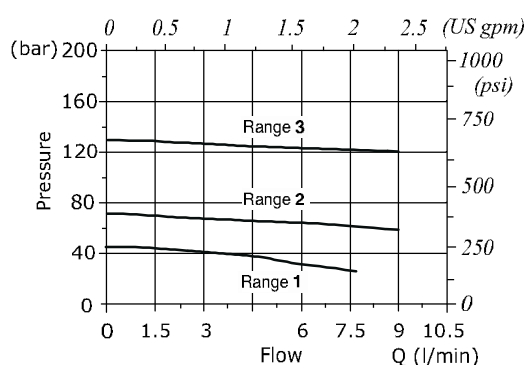
TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
1	3ML1103600	Pressure range 1
2	3ML1103601	Pressure range 2
3	3ML1104000	Pressure range 3
SAE cavity 10/3		
1	3ML1144601	Pressure range 1
2	3ML1144602	Pressure range 2
3	3ML1144603	Pressure range 3

7 Accessories

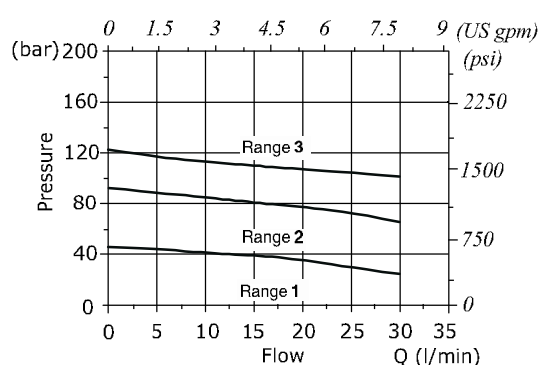
TYPE	CODE	DESCRIPTION
-	4VL2407100	handwheel

Rating diagrams

RB08A pressure reducing vs. flow 2->1



RB10A pressure reducing vs. flow 2->1





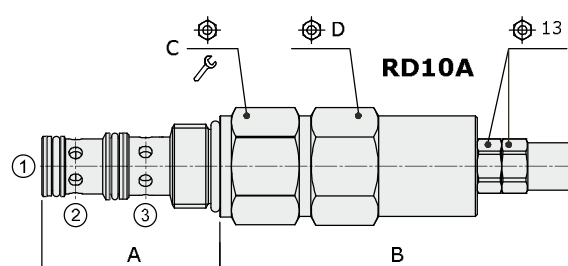
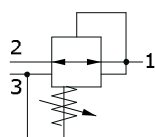
RD..A type pressure reducing valves - 3 ways

- Direct acting
- With relieving
- Spool type
- From SAE08 to SAE10 cavities

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

		RD08A	RD10A
Nominal flow		8 l/min (0.3 US gpm)	30 l/min (1.2 US gpm)
Max. pressure		line 1=150 bar (2175 psi) line 2=350 bar (5100 psi)	
Oil leakage	at 100 bar (1450 psi)	10 cm³/min (0.61 in³/min)	40 cm³/min (2.44 in³/min)
Fluid		mineral based oil	
Viscosity		10-200 cSt	
Max level of contamination		20/18/14 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)	
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)	
Cavity		SAE 08/3	SAE 10/3
Weight		0.240 kg (0.53 lb)	0.360 kg (0.79 lb)

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

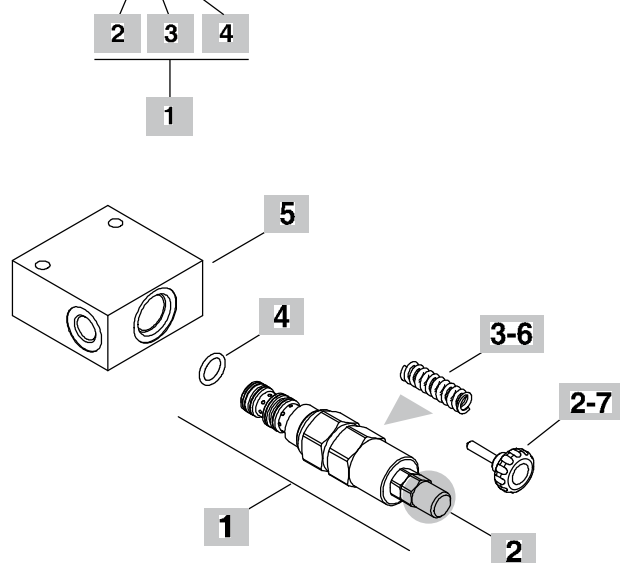


Valve type	A		B		C	D	Nm	lbf·ft
	mm	in	mm	in				
RD08A/OS	40.8	1.60	79.5	3.13	24	24	30	22
RD10A/OS	47.2	1.86	94.5	3.72	27	27	50	37

For dimensions with different type of adjustment see page 212

Ordering codes and description composition

RD08A/OS2B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
RD08A/OS2B	ORD08002005	Screw adjustment, pressure range 2
SAE cavity 10/3		
RD10A/OS2B	ORD10002001	Screw adjustment, pressure range 2

3 Adjustments

TYPE	DESCRIPTION
S	Screw
V	With handwheel see point 7

4 Pressure range

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

TYPE	DESCRIPTION
1	Pressure range 5÷50 bar (72.5÷725 psi); Std. setting 30 bar (435 psi)
2	Pressure range 20÷100 bar (290÷1450 psi); Std. setting 50 bar (725 psi)
3	Pressure range 50÷150 bar (725÷2175 psi); Std. setting 100 bar (1450 psi)

4 Seals

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

5 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3-G 1/4	3CC0830B11	Aluminium body for cavity 08 valve, G 1/4 std thread
SAE 10/3-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 page 215

6 Springs

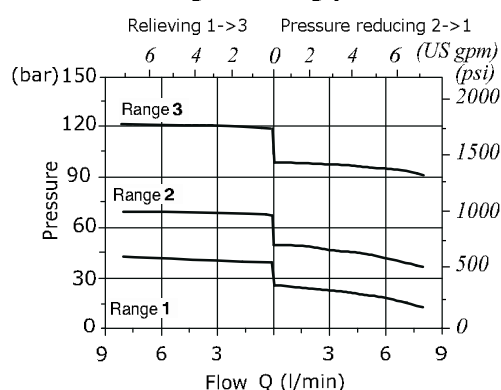
TYPE	CODE	DESCRIPTION
SAE cavity 08/3		
1	3ML1103600	Pressure range 1
2	3ML1103601	Pressure range 2
3	3ML1104000	Pressure range 3
SAE cavity 10/3		
1	3ML1144601	Pressure range 1
2	3ML1144602	Pressure range 2
3	3ML1144603	Pressure range 3

7 Accessories

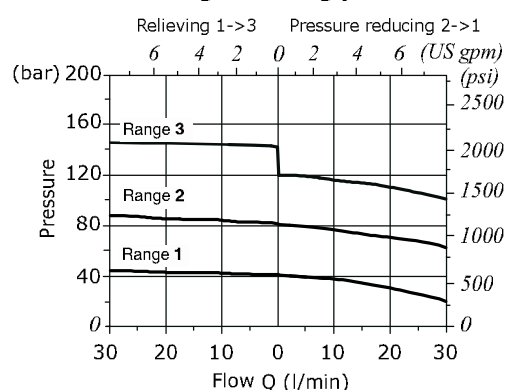
TYPE	CODE	DESCRIPTION
-	4VL2407100	handwheel

Rating diagrams

RD08A reducing/relieving pressure vs. flow



RD10A reducing/relieving pressure vs. flow





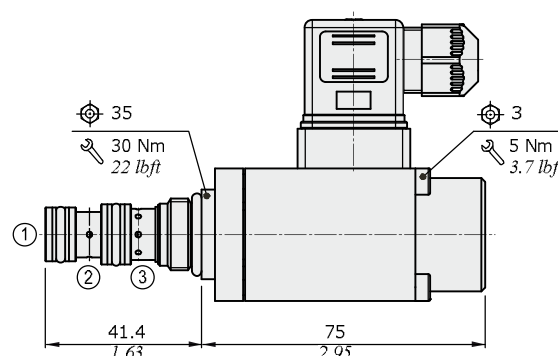
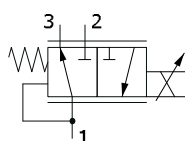
RD08W type pressure reducing valve - 3 ways

- Solenoid proportional type, direct acting
- With relieving (NO)
- Spool type

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

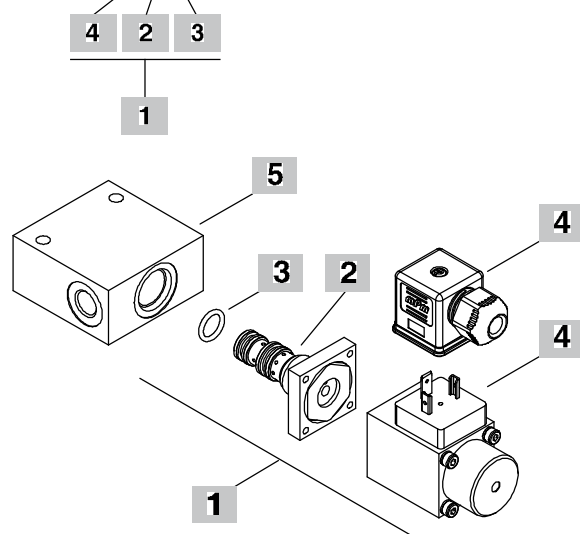
RD08W		
Nominal flow		4 l/min (1.05 US gpm)
Max. pressure		350 bar (5100 psi)
Oil leakage		-
Fluid		mineral based oil
Viscosity		10-200 cSt
Max level of contamination		18/16/13 ISO4406
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions		from -40°C (-40°F) to 100°C (212°F)
Cavity		SAE 08/3
Coil type*		MP35
Nominal voltages		12 VDC - 24 VDC
Power rating		11.2 W (12 VDC) - 11.4 W (24 VDC)
Max control current		12 V -> 1.25 A - 24 V -> 0.68 A
Dither frequency		150 Hz
Hysteresis		≤4%
Weight		0.680 kg (1.50 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - For coils further features see from page 206.



Ordering codes and description composition

RD08W/021B



1 Cartridges

TYPE	CODE	DESCRIPTION
RD08W/021B	ORD08002001	Pressure range 1, 12VDC

2 Pressure range

TYPE	DESCRIPTION
1	Pressure range 5÷25 bar (72.5÷363 psi)
2	Pressure range 0÷12 bar (0÷174 psi)

3 Seals

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

4 Coils and connectors

TYPE	CODE	DESCRIPTION
2) MP35 12VDC	5SL4000120	12VDC-ISO4400 coil
ISO4400	4CN1009995	Connector
4) MP35 24VDC	4SL4000240	24VDC-ISO4400 coil
ISO4400	4CN1009995	Connector

For complete coils and connectors list see from page 206

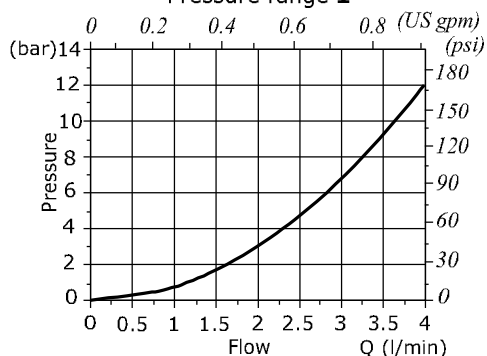
5 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3-G 1/4	3CC0830B11	Aluminium body for cavity 08 valve, G 1/4 std thread

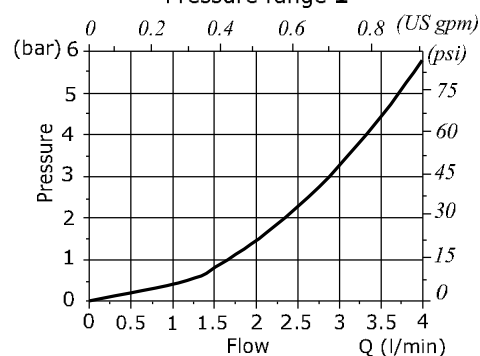
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

Rating diagrams

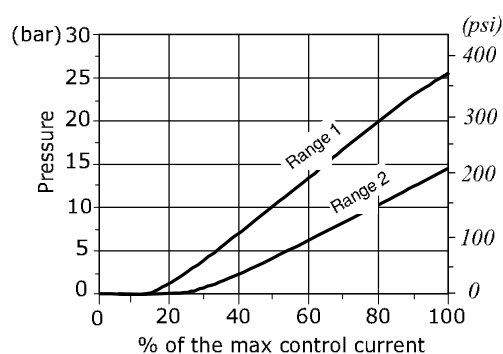
Pressure drop vs. flow 2->1
Pressure range 1



Pressure drop vs. flow 1->2
Pressure range 1

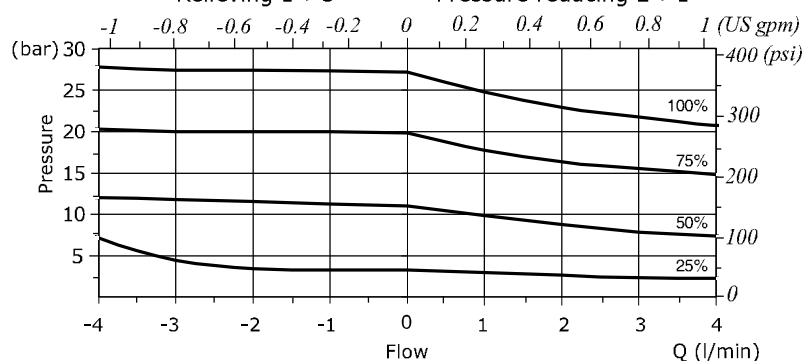


Pressure reducing vs. control current



Reducing/relieving pressure vs. flow
for % of control current - Pressure range 1

Relieving 1->3 Pressure reducing 2->1





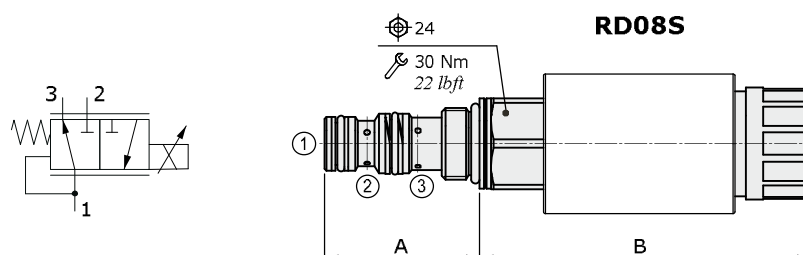
RD08S-RD08T type pressure reducing valves - 3 ways

- Solenoid proportional type, direct acting
- With relieving (NO)
- Spool type

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

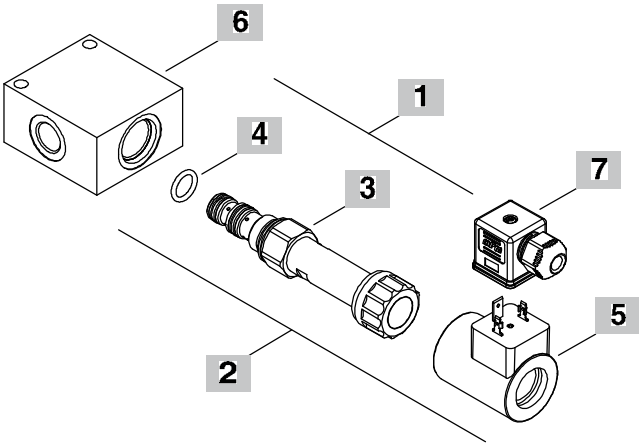
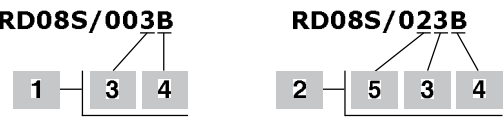
	RD08S	RD08T
Nominal flow	4 l/min (1.05 US gpm)	12 l/min (3.17 US gpm)
Max. pressure	210 bar (3050 psi)	
Oil leakage	-	-
Fluid	mineral based oil	
Viscosity	10-200 cSt	
Max level of contamination	18/16/13 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)	
Cavity	SAE 08/3	SAE 8/3
Coil type*	MSM 19	
Nominal voltages	12 VDC - 24 VDC	
Power rating	21.6 W (12 VDC) - 22.5 W (24 VDC)	
Max control current	12 V -> 1.25 A - 24 V -> 0.68 A	
Dither frequency	150 Hz	
Hysteresis	≤4%	
Weight	0.492 kg (1.08 lb)	1.140 kg (0.79 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - For coils further features see from page 206.



Valve type	A		B	
	mm	in	mm	in
RD08S	41	1.61	87.5	1.27
RD08T	41	1.61	97	1.81

Ordering codes and description composition



1 Cartridges

TYPE	CODE	DESCRIPTION
RD08S/003B	ORD08002025	Pressure range 1
RD08T/001B	ORD08002016	Pressure range 2

2 Complete cartridges

TYPE	CODE	DESCRIPTION
RD08S/023B	ORD08002023	Pressure range 1, 12VDC
RD08T/021B	ORD08002024	Pressure range 2, 12VDC

3 Pressure range

TYPE	DESCRIPTION
1	Pressure range 5÷45 bar (72.5÷652.5 psi)
3	Pressure range 5÷35 bar (72.5÷507.5 psi)

4 Seals

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

5 Coils

TYPE	CODE	DESCRIPTION
2) MSM 19 12VDC	4SL5000128	12VDC-ISO4400 coil
4) MSM 19 24VDC	4SL5000247	24VDC-ISO4400 coil

For complete coils list see page 206

6 Valve body

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

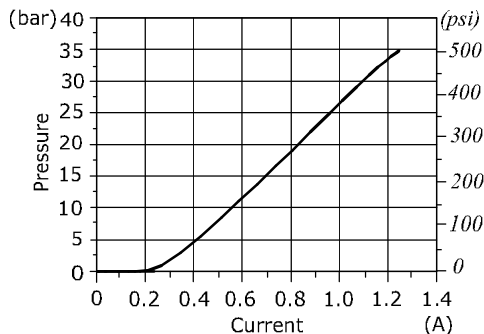
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

7 Connector

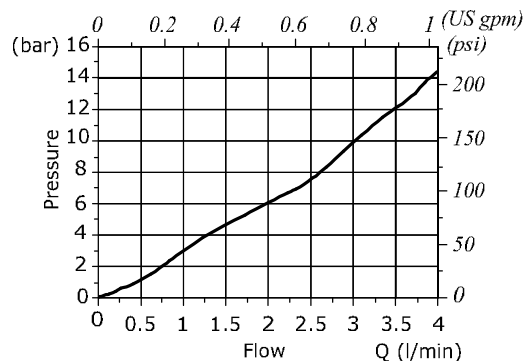
TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

For complete connectors list see from page 206

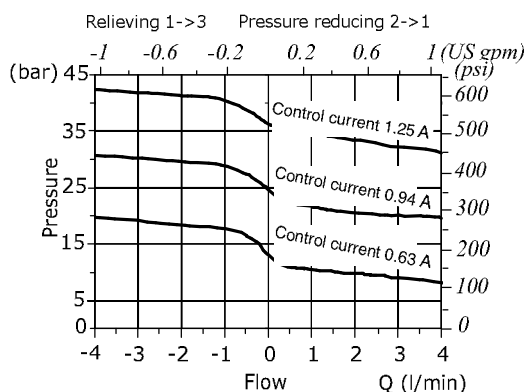
RD08S pressure reducing vs. control current
12 VDC power supply



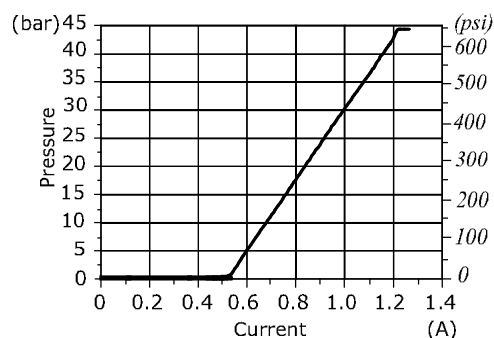
RD08S pressure drop vs. flow 2->1



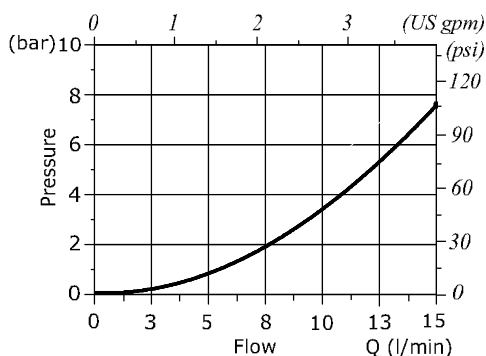
RD08S reducing/relieving pressure vs. flow
for % of control current



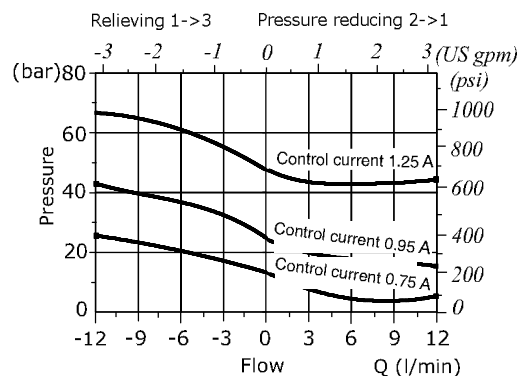
RD08T pressure reducing vs. control current
12 VDC power supply



RD08T pressure drop vs. flow 2->1



RD08T reducing/relieving pressure vs. flow
for % of control current





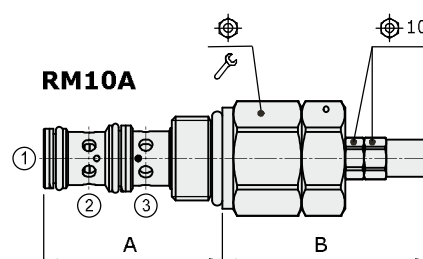
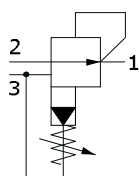
RM..A type pressure reducing valves - 3 ways

- Pilot operated
- Without relieving
- Spool type
- From SAE10 to SAE16 cavities

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

	RM10A	RM12A	RM16A
Nominal flow	50 l/min (13 US gpm)	100 l/min (26 US gpm)	150 l/min (40 US gpm)
Max. pressure		350 bar (5100 psi)	
Oil leakage		-	
Fluid		mineral based oil	
Viscosity		10-200 cSt	
Max level of contamination		20/18/14 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)	
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 10/3	SAE 12/3	SAE 16/3
Weight	0.210 kg (0.46 lb)	0.340 kg (0.75 lb)	0.470 kg (1.04 lb)

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

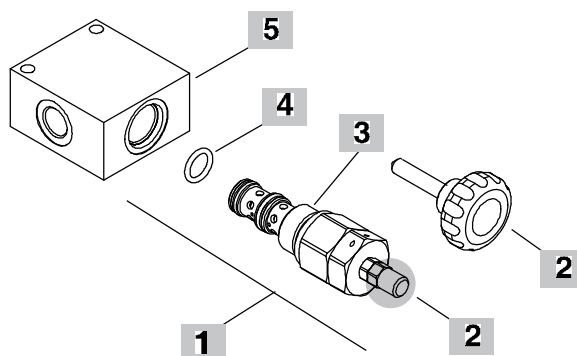
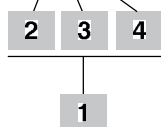


Valve type	A		B				
	mm	in	mm	in		Nm	lbft
RM10A/1S	47.2	1.86	54.5	2.15	27	50	37
RM12A/0S	73.5	2.89	51.5	2.03	32	70	52
RM16A/0S	75	2.95	50.5	1.99	41	100	74

For dimensions with different type of adjustment see page 212

Ordering codes and description composition

RM10A/1S1B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 10/3		
RM10A/1S1B	ORM10002012	Pressure range 1
RM10A/1S2B	ORM10002013	Pressure range 2
RM10A/1S3B	ORM10002014	Pressure range 3
SAE cavity 12/3		
RM12A/0S1B	ORM12002008	Pressure range 1
RM12A/0S2B	ORM12002000	Pressure range 2
RM12A/0S3B	ORM12002016	Pressure range 3
SAE cavity 16/3		
RM16A/0S1B	ORM16002008	Pressure range 1
RM16A/0S2B	ORM16002000	Pressure range 2
RM16A/0S3B	ORM16002009	Pressure range 3

3 Adjustments

TYPE	DESCRIPTION
S	Screw with cap
V	With handwheel

3 Pressure range

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

TYPE	DESCRIPTION
1	Pressure range 5÷80 bar (72.5÷1160 psi); Std. setting 50 bar (725 psi)
2	Pressure range 50÷220 bar (725÷3190 psi); Std. setting 150 bar (2175 psi)
3	For SAE cavity 10/3: pressure range 100÷350 bar (1450÷5075 psi); Std. setting 250 bar (3625 psi) For SAE cavity 12/3 and 16/3: pressure range 180÷350 bar (2610÷5075 psi); Std. setting 250 bar (3625 psi)

4 Seals

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

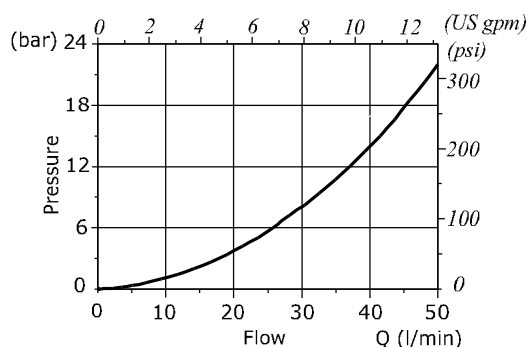
5 Valve body

TYPE	CODE	DESCRIPTION
SAE 10/3-G 3/8	3CC1030C11	Aluminium body for cavity 10 valve, G 3/8 std thread
SAE 12/3-G 1/2	3CC1230D11	Aluminium body for cavity 12 valve, G 1/2 std thread
SAE 16/3-G 3/4	3CC1630E11	Aluminium body for cavity 16 valve, G 3/4 std thread

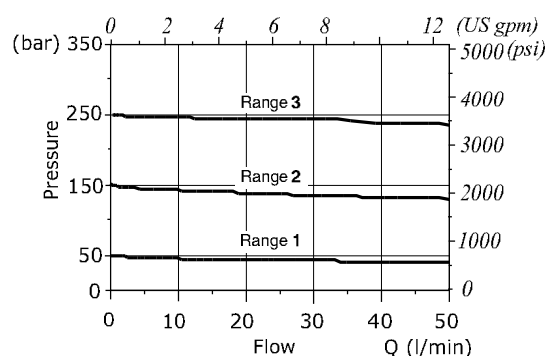
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

Rating diagrams

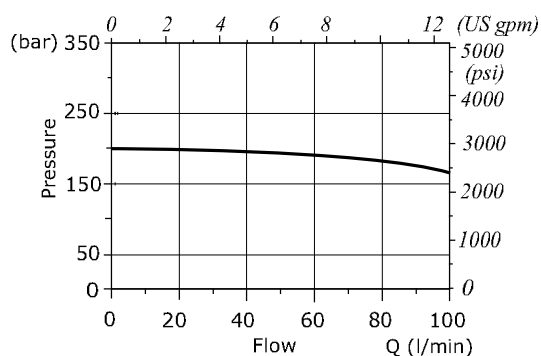
RM10A pressure drop vs. flow 2->1



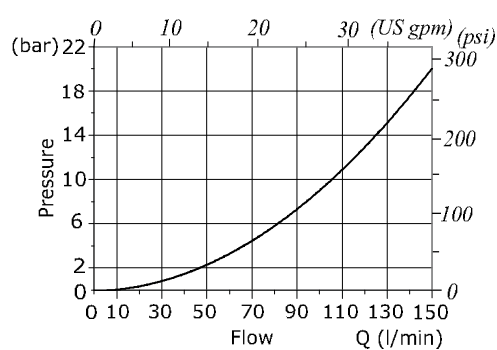
RM10A pressure reducing vs. flow 2->1



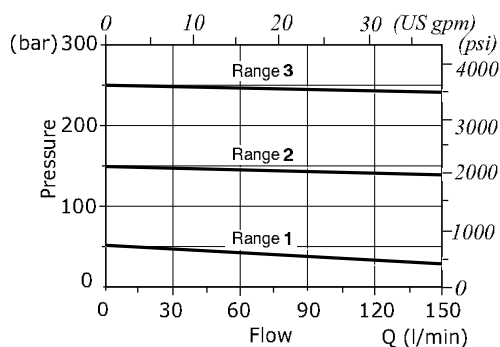
RM12A pressure reducing vs. flow 2->1



RM16A pressure drop vs. flow 2->1



RM16A pressure reducing vs. flow 2->1





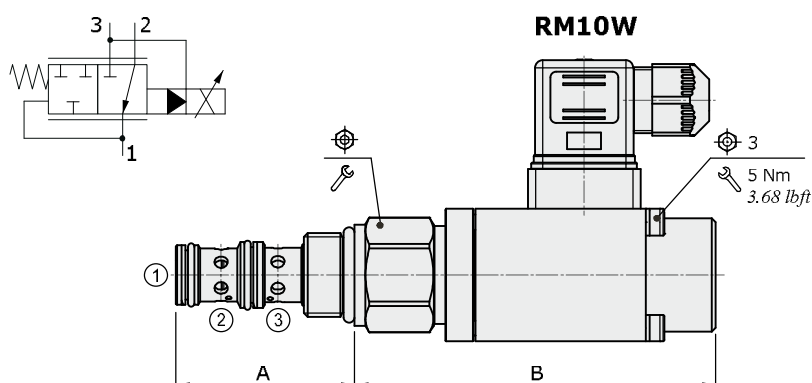
RM..W type pressure reducing valves - 3 ways

- Solenoid proportional type, pilot operated
- Without relieving
- Spool type
- From SAE10 to SAE16 cavities

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

	RM10W	RM12W	RM16W
Nominal flow	50 l/min (13 US gpm)	100 l/min (26 US gpm)	150 l/min (40 US gpm)
Max. pressure		350 bar (5100 psi)	
Oil leakage		-	
Fluid		mineral based oil	
Viscosity		10-200 cSt	
Max level of contamination		18/16/13 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)	
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 10/3	SAE 12/3	SAE 16/3
Coil type*		MP35	
Nominal voltages		12 VDC - 24 VDC	
Power rating		11.2 W (12 VDC) - 11.4 W (24 VDC)	
Max control current		12 V -> 1.25 A - 24 V -> 0.68 A	
Dither frequency		150 Hz	
Hysteresis		≤4%	
Weight	0.680 kg (1.50 lb)	0.820 kg (1.81 lb)	0.930 kg (2.05 lb)

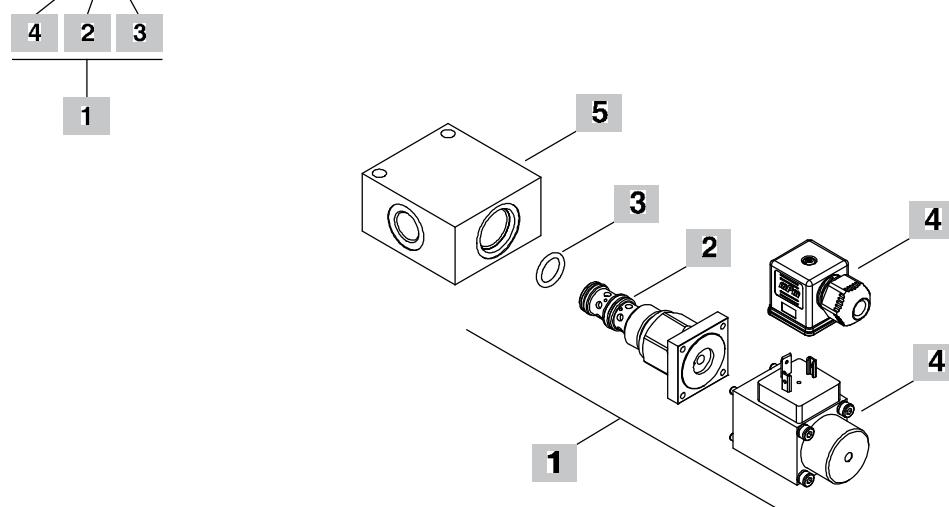
NOTE - For different conditions, please contact Walvoil Sales Dpt. - For coils further features see from page 206.



Valve type	A		B		Torque		Weight	
	mm	in	mm	in	Nm	lbft	kg	lb
RM10W	47.2	1.86	95.6	3.76	27	50	37	
RM12W	73.5	2.89	93.5	3.68	32	70	52	
RM16W	75	2.95	92	3.62	41	100	74	

Ordering codes and description composition

RM10W/121B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 10/3		
RM10W/121B	ORM10002015	Pressure range 1 , 12VDC
RM10W/122B	ORM10002016	Pressure range 2 , 12VDC
RM10W/123B	ORM10002017	Pressure range 3 , 12VDC
RM10W/124B	ORM10002018	Pressure range 4 , 12VDC
SAE cavity 12/3		
RM12W/021B	ORM12002003	Pressure range 1 , 12VDC
RM12W/022B	ORM12002005	Pressure range 2 , 12VDC
RM12W/024B	ORM12002001	Pressure range 4 , 12VDC
SAE cavity 16/3		
RM16W/021B	ORM16002004	Pressure range 1 , 12VDC
RM16W/022B	ORM16002005	Pressure range 2 , 12VDC
RM16W/023B	ORM16002006	Pressure range 3 , 12VDC
RM16W/024B	ORM16002001	Pressure range 4 , 12VDC

2 Pressure range

TYPE	DESCRIPTION
1	Pressure range 5÷50 bar (72.5÷725 psi)
2	Pressure range 50÷200 bar (725÷2900 psi)
3	Pressure range 80÷350 bar (1160÷5100 psi)
4	Pressure range 20÷100 bar (290÷1450 psi) Pressure range 10÷80 bar (145÷1160 psi) only for RM12W/024B

3 Seals

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

4 Coils and connectors

TYPE	CODE	DESCRIPTION
2) MP35 12VDC	5SL4000120	12VDC-ISO4400 coil
ISO4400	4CN1009995	Connector
4) MP35 24VDC	4SL4000240	24VDC-ISO4400 coil
ISO4400	4CN1009995	Connector

For complete coils and connectors list see from page 206

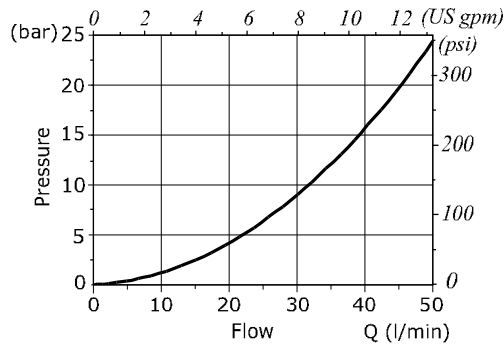
5 Valve body

TYPE	CODE	DESCRIPTION
SAE 10/3-G 3/8	3CC1030C11	Aluminium body for cavity 10 valve, G 3/8 std thread
SAE 12/3-G 1/2	3CC1230D11	Aluminium body for cavity 12 valve, G 1/2 std thread
SAE 16/3-G 3/4	3CC1630E11	Aluminium body for cavity 16 valve, G 3/4 std thread

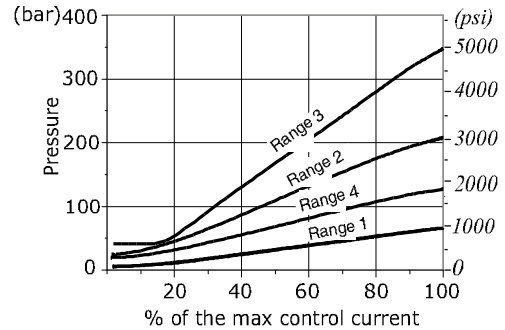
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

Rating diagrams

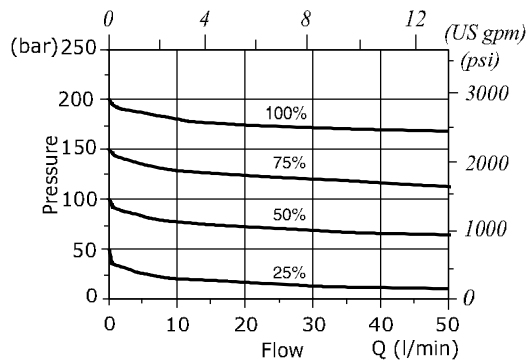
RM10W pressure drop vs. flow 2->1



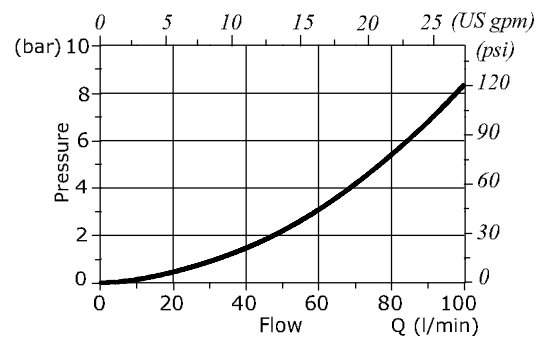
RM10W pressure reducing vs. control current



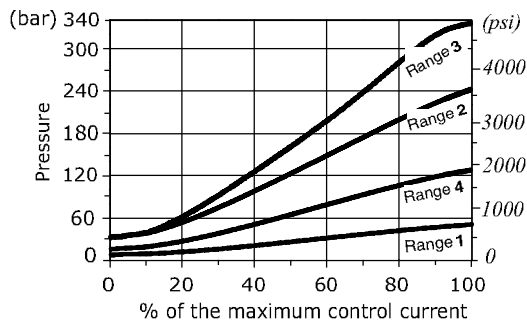
RM10W pressure reducing vs. flow
for % of control current - Pressure range 2 -



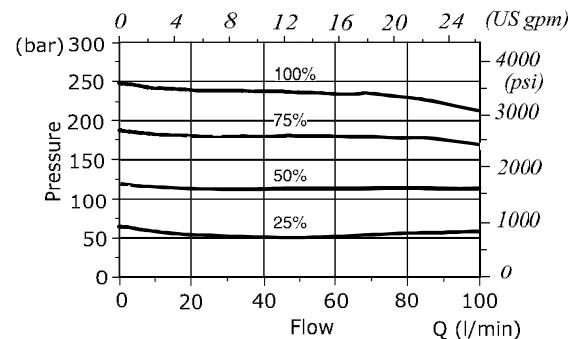
RM12W pressure drop vs. flow 2->1



RM12W pressure reducing vs. control current

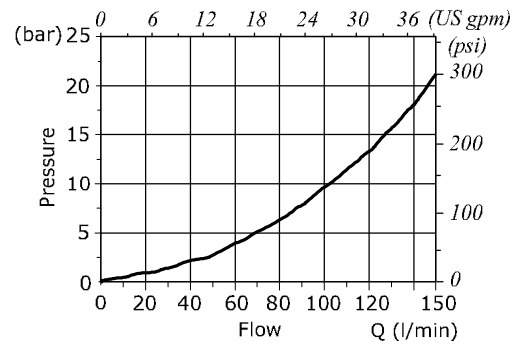


RM12W pressure reducing vs. flow
for % of control current - Pressure range 2 -

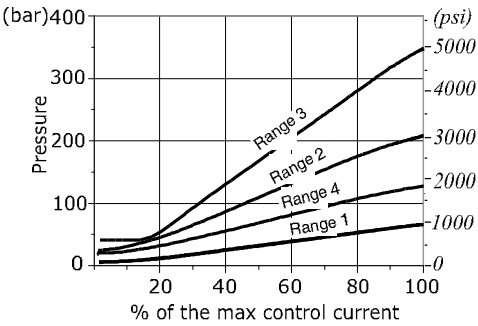


Rating diagrams

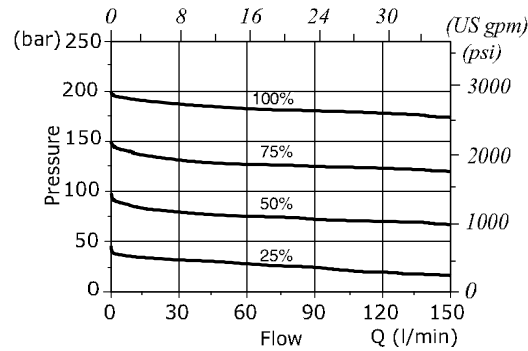
RM16W pressure vs. flow 2->1



RM16W pressure setting vs. % max. control current



RM16W pressure reducing vs. flow
for % of control current - Pressure range 2 -





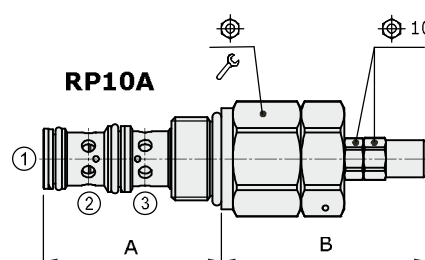
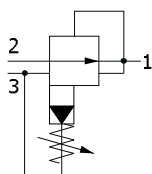
RP..A type pressure reducing valves - 3 ways

- Pilot operated
- With relieving
- Spool type
- From SAE10 to SAE16 cavities

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

	RP10A	RP12A	RP16A
Nominal flow	50 l/min (7.9 US gpm)	100 l/min (26 US gpm)	150 l/min (40 US gpm)
Max. pressure		350 bar (5100 psi)	
Oil leakage		-	
Fluid		mineral based oil	
Viscosity		10-200 cSt	
Max level of contamination		20/18/14 ISO4406	
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)	
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)	
Cavity	SAE 10/3	SAE 12/3	SAE 16/3
Weight	0.210 kg (0.46 lb)	0.330 kg (0.72 lb)	0.420 kg (0.92 lb)

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

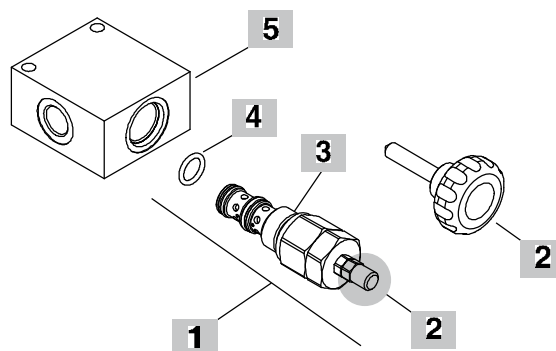
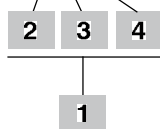


Valve type	A		B				
	mm	in	mm	in			
RP10A/1S	47.2	1.86	54.5	2.15	27	50	37
RP12A/0S	73.5	2.89	51.5	2.03	32	80	59
RP16A/0S	75	2.95	50.5	1.99	41	100	74

For dimensions with different type of adjustment see page 212

Ordering codes and description composition

RP10A/1S1B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 10/3		
RP10A/1S1B	ORP10002016	Pressure range 1
RP10A/1S2B	ORP10002017	Pressure range 2
RP10A/1S3B	ORP10002018	Pressure range 3
SAE cavity 12/3		
RP12A/0S1B	ORP12002002	Pressure range 1
RP12A/0S2B	ORP12002003	Pressure range 2
RP12A/0S3B	ORP12002000	Pressure range 3
SAE cavity 16/3		
RP16A/0S1B	ORP16002006	Pressure range 1
RP16A/0S2B	ORP16002000	Pressure range 2
RP16A/0S3B	ORP16002011	Pressure range 3

2 Adjustments

TYPE	DESCRIPTION
S	Screw with cap
V	With handwheel

3 Pressure range

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

TYPE	DESCRIPTION
1	Pressure range 5÷80 bar (72.5÷1160 psi); Std. setting 50 bar (725 psi) at 5 l/min (1.32 US gpm)
2	Pressure range 50÷220 bar (725÷3190 psi); Std. setting 150 bar (2175 psi) at 5 l/min (1.32 US gpm)
3	For SAE cavity 10/3: pressure range 100÷350 bar (1450÷5075 psi); Std. setting 250 bar (3625 psi) For SAE cavity 12/3 and 16/3: pressure range 180÷350 bar (2610÷5075 psi); Std. setting 250 bar (3625 psi)

4 Seals

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

5 Valve body

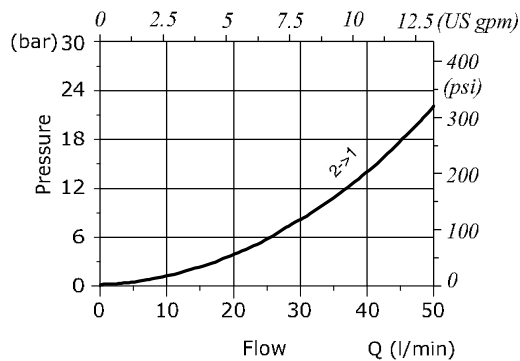
TYPE	CODE	DESCRIPTION
SAE 10/3-G 3/8	3CC1030C11	Aluminium body for cavity 10 valve, G 3/8 std thread
SAE 12/3-G 1/2	3CC1230D11	Aluminium body for cavity 12 valve, G 1/2 std thread
SAE 16/3-G 3/4	3CC1630E11	Aluminium body for cavity 16 valve, G 3/4 std thread

Note: aluminium body can stand up to 210 bar (3050 psi)

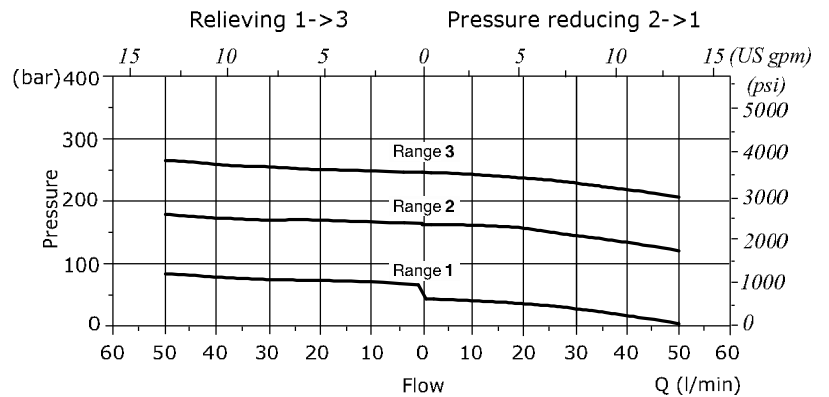
For steel bodies or different threading see from page 215

Rating diagrams

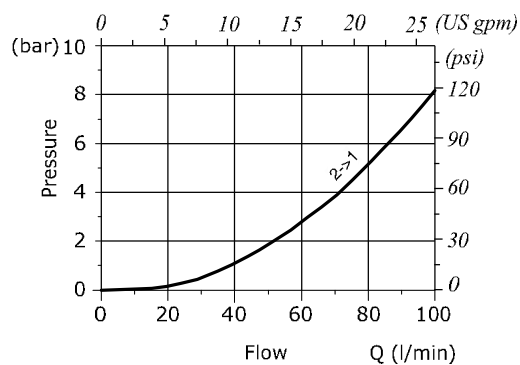
RP10A pressure drop vs. flow



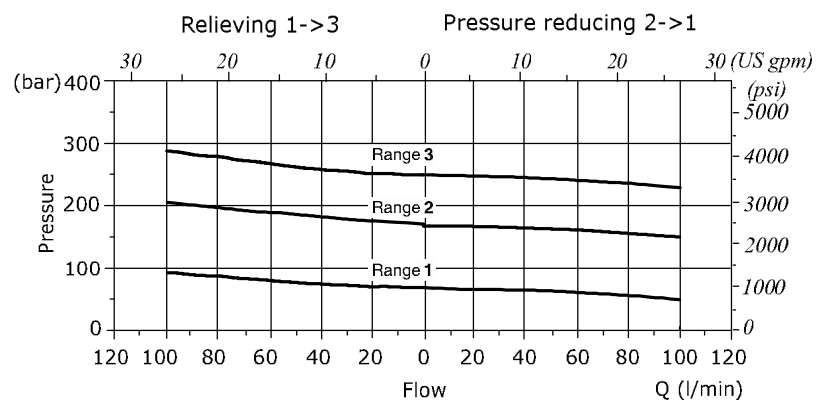
RP10A reducing/relieving pressure vs. flow



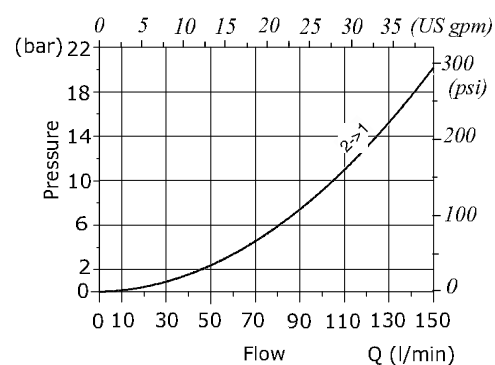
RP12A pressure drop vs. flow



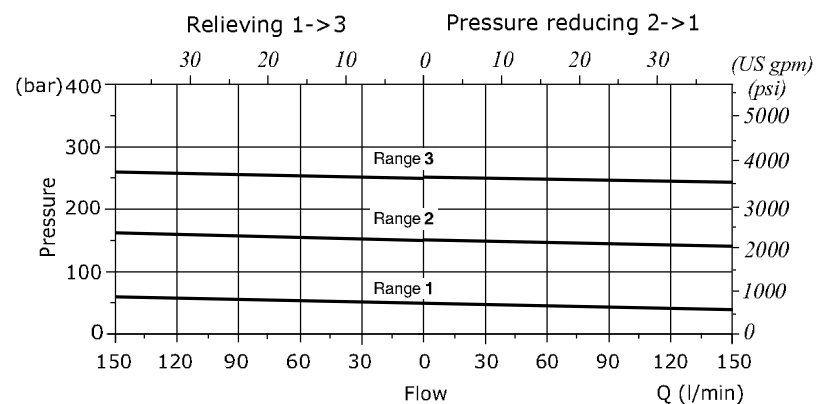
RP12A reducing/relieving pressure vs. flow



RP16A pressure drop vs. flow



RP16A reducing/relieving pressure vs. flow





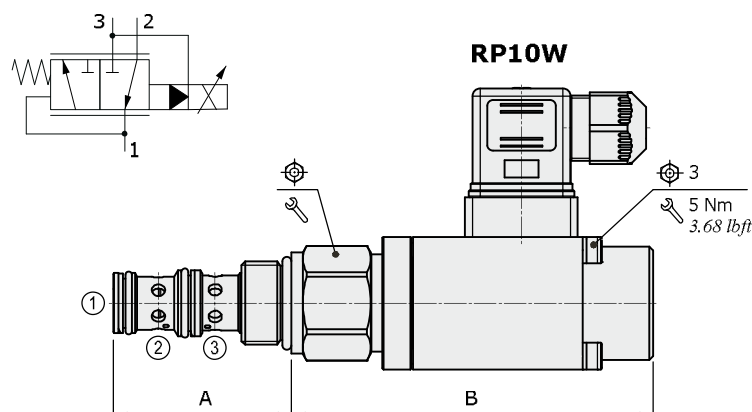
RP..W type pressure reducing valves - 3 ways

- Solenoid proportional type, pilot operated
- With relieving
- Spool type
- From SAE10 to SAE16 cavities

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

	RP10W	RP12W	RP16W
Nominal flow	50 l/min (13 US gpm)	100 l/min (26 US gpm)	150 l/min (40 US gpm)
Max. pressure	350 bar (5100 psi) - in 3=210 bar (3045 psi)		
Oil leakage	-	-	
Fluid	mineral based oil		
Viscosity	10-200 cSt		
Max level of contamination	18/16/13 ISO4406		
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)	
Environmental temp. for working conditions	from -20°C (-4°F) to 50°C (122°F)		
Cavity	SAE 10/3	SAE 12/3	SAE 16/3
Coil type*	MP35		
Nominal voltages	12 VDC - 24 VDC		
Power rating	11.2 W (12 VDC) - 11.4 W (24 VDC)		
Max control current	12 V -> 1.25 A - 24 V -> 0.68 A		
Dither frequency	150 Hz		
Hysteresis	≤4%		
Weight	0.680 kg (1.50 lb)	0.820 kg (1.81 lb)	0.930 kg (2.05 lb)

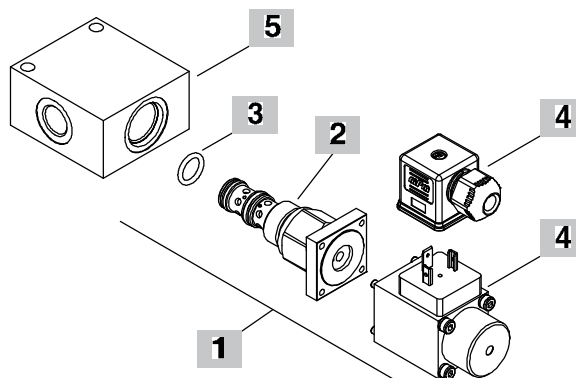
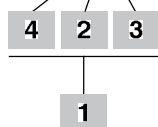
NOTE - For different conditions, please contact Walvoil Sales Dpt. - For coils further features see from page 206.



Valve type	A		B				
	mm	in	mm	in		Nm	lbf·ft
RP10W	47.2	1.86	95.6	3.76	27	50	37
RP12W	73.5	2.89	93.5	3.68	32	70	52
RP16W	75	2.95	92	3.62	41	100	74

Ordering codes and description composition

RP10W/121B



1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 10/3		
RP10W/121B	ORP10002020	Pressure range 1 , 12VDC
RP10W/122B	ORP10002021	Pressure range 2 , 12VDC
RP10W/123B	ORP10002022	Pressure range 3 , 12VDC
RP10W/124B	ORP10002023	Pressure range 4 , 12VDC
SAE cavity 12/3		
RP12W/021B	ORP12002007	Pressure range 1 , 12VDC
RP12W/022B	ORP12002009	Pressure range 2 , 12VDC
RP12W/024B	ORP12002005	Pressure range 3 , 12VDC
SAE cavity 16/3		
RP16W/021B	ORP16002004	Pressure range 1 , 12VDC
RP16W/022B	ORP16002008	Pressure range 2 , 12VDC
RP16W/023B	ORP16002009	Pressure range 3 , 12VDC
RP16W/024B	ORP16002001	Pressure range 4 , 12VDC

2 Pressure range

TYPE	DESCRIPTION
1	Pressure range 5÷50 bar (72.5÷725 psi)
2	Pressure range 50÷200 bar (725÷2900 psi)
3	Pressure range 80÷350 bar (1160÷5075 psi)
4	Pressure range 20÷100 bar (290÷1450 psi) Pressure range 10÷80 bar (145÷1160 psi) only for RP12W/024B

3 Seals

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

4 Coils and connectors

TYPE	CODE	DESCRIPTION
2) MP35 12VDC	5SL4000120	12VDC-ISO4400 coil
ISO4400	4CN1009995	Connector
4) MP35 24VDC	4SL4000240	24VDC-ISO4400 coil
ISO4400	4CN1009995	Connector

For complete coils and connectors list see from page 206

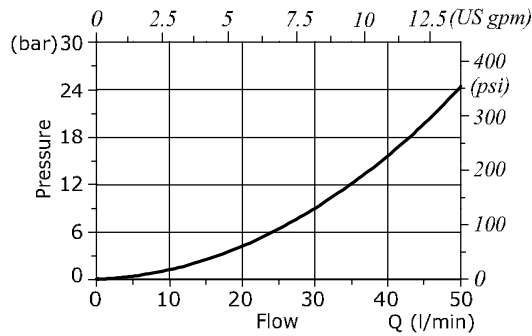
5 Valve body

TYPE	CODE	DESCRIPTION
SAE 10/3-G 3/8	3CC1030C11	Aluminium body for cavity 10 valve, G 3/8 std thread
SAE 12/3-G 1/2	3CC1230D11	Aluminium body for cavity 12 valve, G 1/2 std thread
SAE 16/3-G 3/4	3CC1630E11	Aluminium body for cavity 16 valve, G 3/4 std thread

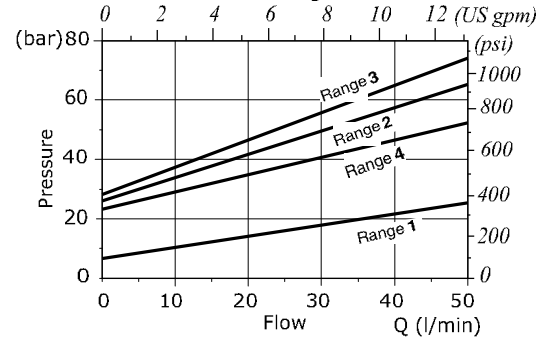
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 215

Rating diagrams

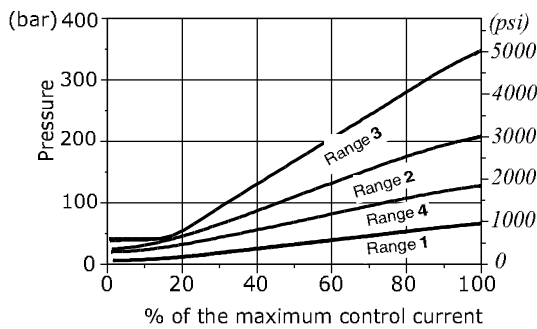
RP10W pressure drop vs. flow 2->1



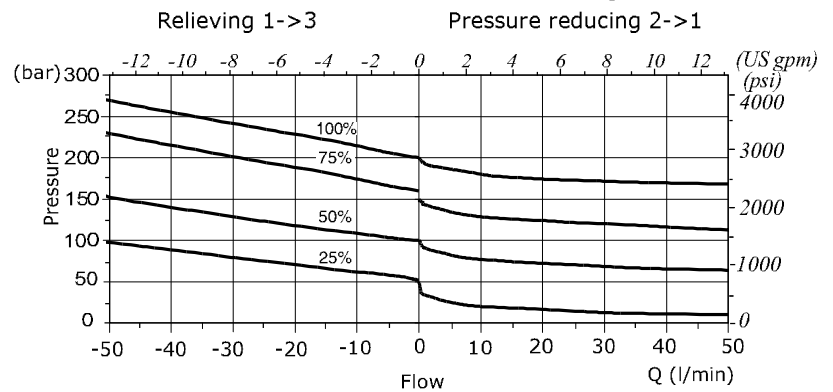
RP10W pressure drop vs. flow 1->3 with de-energized coil



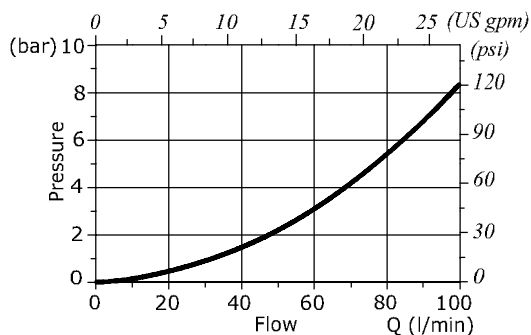
RP10W pressure reducing vs. control current



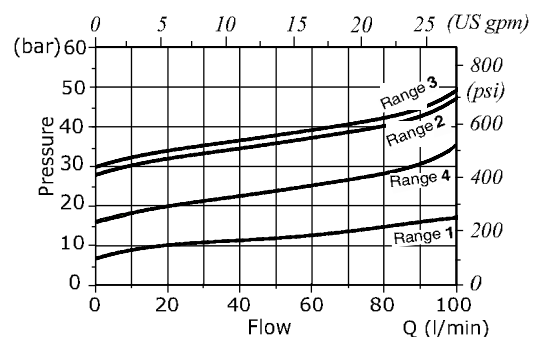
RP10W reducing/relieving pressure vs. flow for % of control current - Pressure range 2



RP12W pressure drop vs. flow 2->1

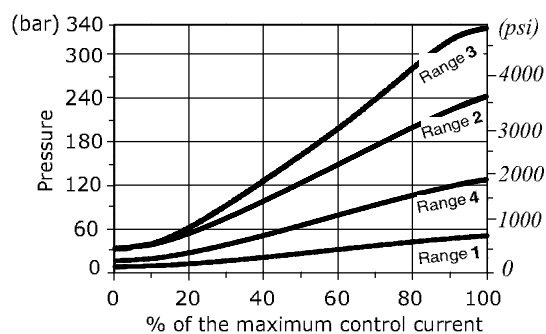


RP12W pressure drop vs. flow 1->3 with de-energized coil



Rating diagrams

RP12W pressure reducing vs. control current

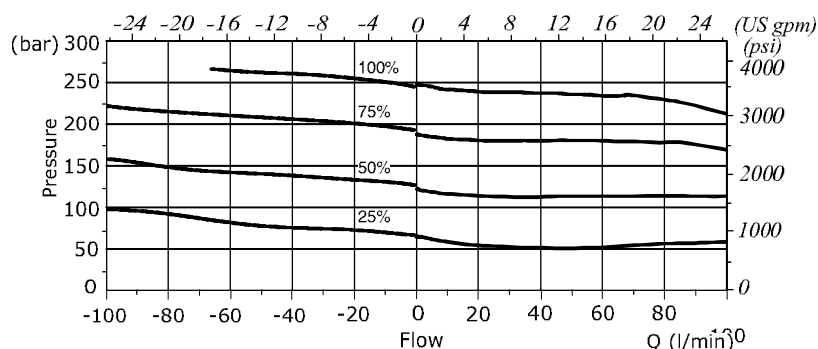


RP12W reducing/relieving pressure vs. flow

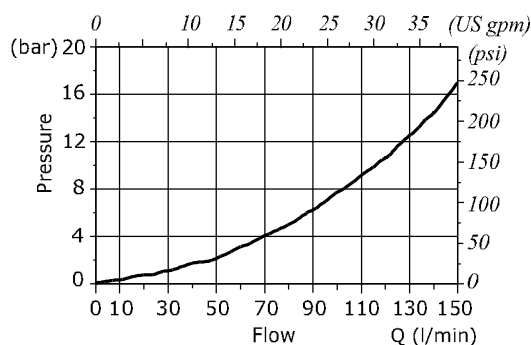
for % of control current - Pressure range 2 -

Relieving 1->3

Pressure reducing 2->1

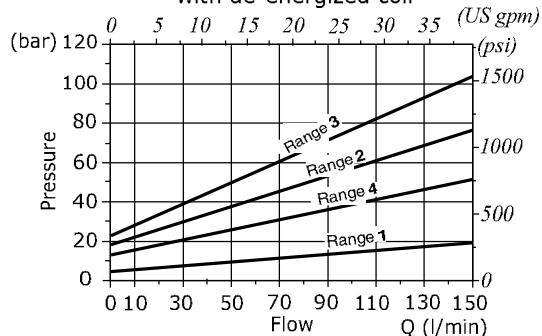


RP16W pressure drop vs. flow 2->1

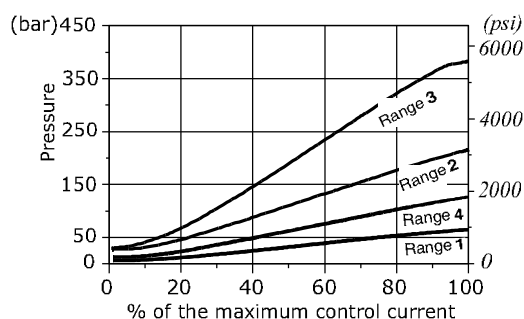


RP16W pressure drop vs. flow 1->3

with de-energized coil



RP16W pressure reducing vs. control current

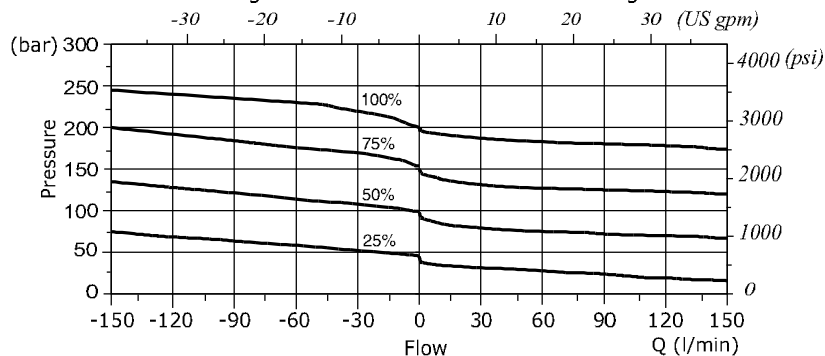


RP16W reducing/relieving pressure vs. flow

for % of control current - Pressure range 2 -

Relieving 1->3

Pressure reducing 2->1





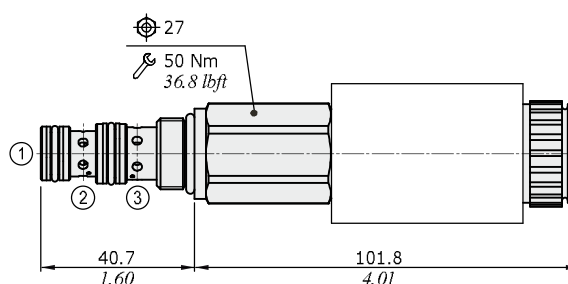
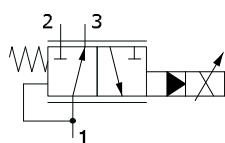
RP08X type pressure reducing valves - 3 ways

- Solenoid proportional type, pilot operated
- With relieving (NO)
- Spool type

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

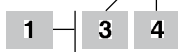
RP08X		
Nominal flow		15 l/min (4 US gpm)
Max. pressure		350 bar (5100 psi)
Oil leakage		-
Fluid		mineral based oil
Viscosity		10-200 cSt
Max level of contamination		18/16/13 ISO4406
Fluid temperature	with NBR seals with FPM seals	from -20°C (-4°F) to 80°C (176°F) from -20°C (-4°F) to 100°C (212°F)
Environmental temp. for working conditions		from -20°C (-4°F) to 50°C (122°F)
Cavity		SAE 08/3
Coil type*		BDP19
Nominal voltages		12 VDC - 24 VDC
Power rating		13 W (12 VDC) - 13.25 W (24 VDC)
Max control current		12 V -> 1.9 A - 24 V -> 0.9 A
Dither frequency		150 Hz
Hysteresis		≤4%
Weight		0.56 kg (1.23 lb)

NOTE - For different conditions, please contact Walvoil Sales Dpt. - For coils further features see from page 206.

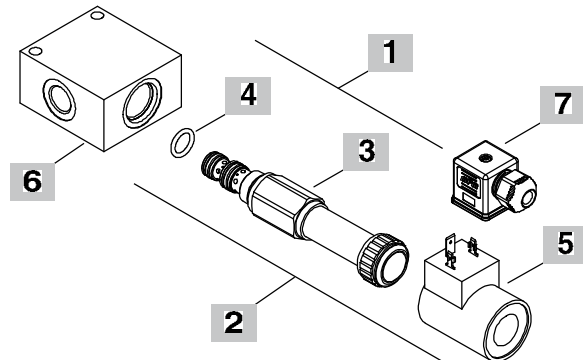


Ordering codes and description composition

RD08X/001B



RD08X/021B



1 Cartridges

TYPE	CODE	DESCRIPTION
RP08X/001B	ORP08002010	Pressure range 1
RP08X/002B	ORP08002011	Pressure range 2
RP08X/003B	ORP08002012	Pressure range 3
RP08X/004B	ORP08002013	Pressure range 4

2 Complete cartridges

TYPE	CODE	DESCRIPTION
RP08X/021B	ORP08002007	Pressure range 1, 12VDC
RP08X/022B	ORP08002001	Pressure range 2, 12VDC
RP08X/023B	ORP08002002	Pressure range 3, 12VDC
RP08X/024B	ORP08002003	Pressure range 4, 12VDC

3 Pressure range

TYPE	DESCRIPTION
1	Pressure range 10÷50 bar (145÷725 psi)
2	Pressure range 50÷200 bar (725÷2900 psi)
3	Pressure range 80÷350 bar (1160÷5075 psi)
4	Pressure range 20÷100 bar (290÷1450 psi)

4 Seals

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

5 Coils

TYPE	CODE	DESCRIPTION
2) BDP19 12VDC	4SL5000120	12VDC-ISO4400 coil
4) BDP19 24VDC	4SL5000240	24VDC-ISO4400 coil

For complete coils list see page 206

6 Valve body

TYPE	CODE	DESCRIPTION
SAE 08/3-G 3/8	3CC0830C11	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 215

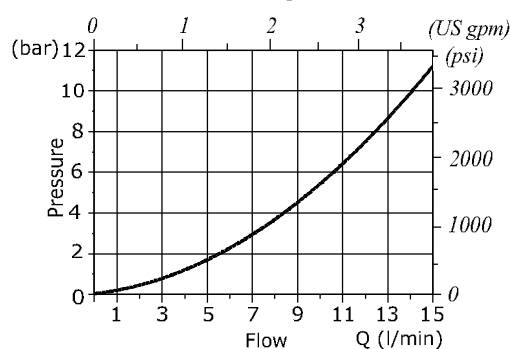
7 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995	Connector

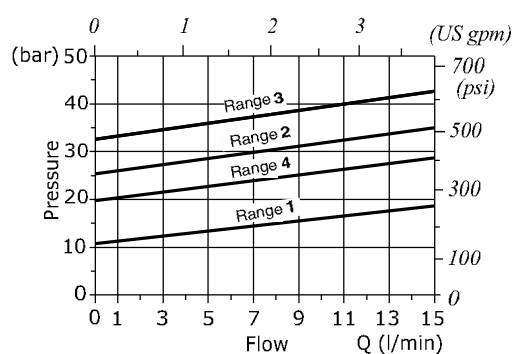
For complete connectors list see from page 206

Rating diagram

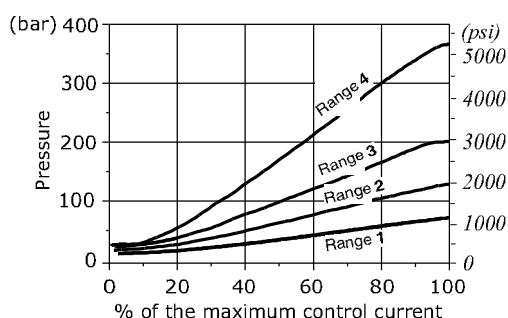
Pressure drop vs. flow 2->1
with de-energized coil



Pressure drop vs. flow 1->3



Pressure reducing vs. control current



Reducing/relieving pressure vs. flow
for % of control current - Pressure range 2

