



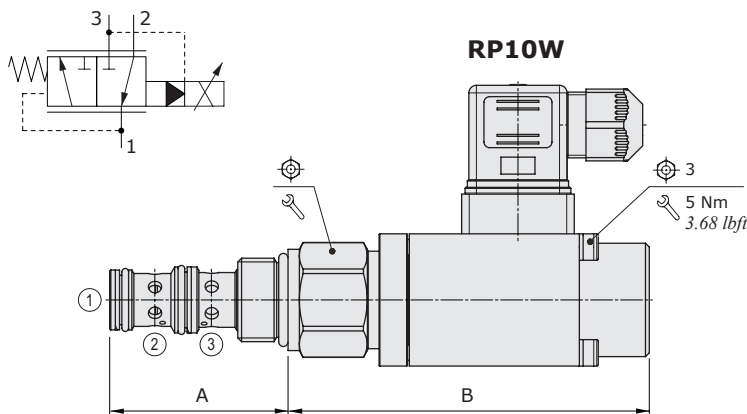
RP..W type pressure reducing valves - 3 way

- 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)

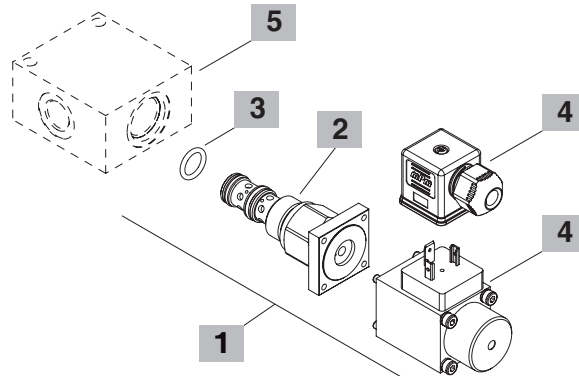
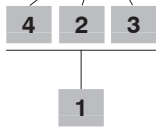
NOTE - For different conditions, please contact Walvoil Sales Dpt. - For coils further features see from page 206.



Valve type	A		B		⌀	⌘	Nm	lbft
	mm	in	mm	in				
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

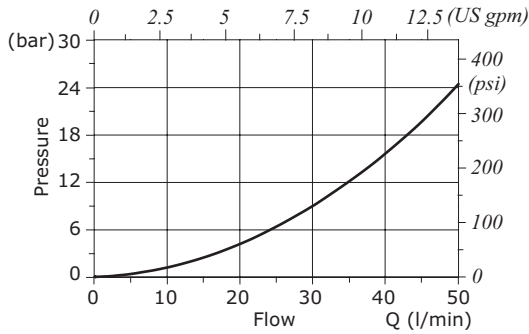
5 Valve body

TYPE	CODE	DESCRIPTION
SAE 10/3-SAE8	3CC1030K11	Aluminium body for cavity 10 valve, SAE8 std thread
SAE 12/3-SAE10	3CC1230L11	Aluminium body for cavity 12 valve, SAE10 std thread
SAE 16/3-SAE12	3CC1630M11	Aluminium body for cavity 16 valve, SAE12 std thread

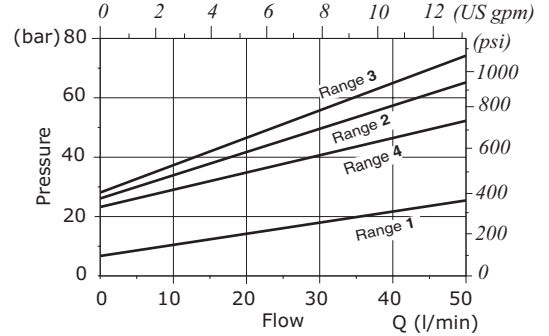
Note: aluminium body can stand up to 210 bar (3050 psi)
For steel bodies or different threading see from page 217

Rating diagrams

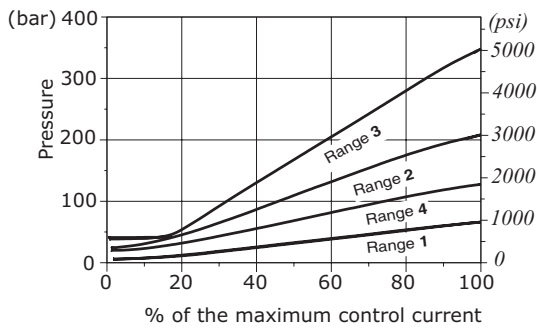
RP10W pressure drop vs. flow 2->1



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

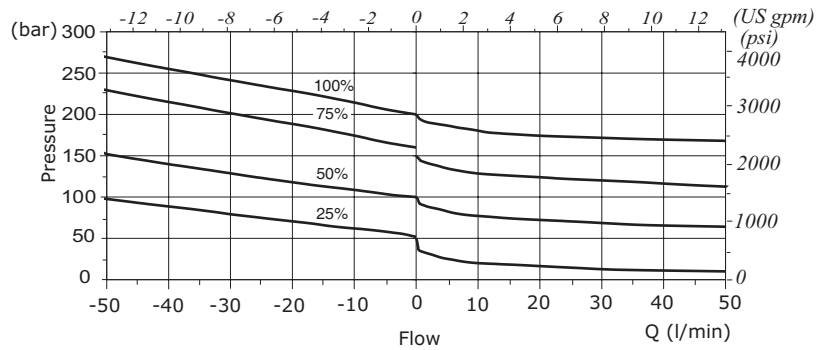


RP10W pressure reducing vs. control current

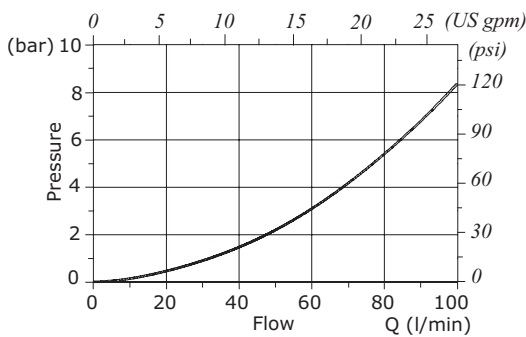


RP10W reducing/relieving pressure vs. flow for % of control current - Pressure range 2

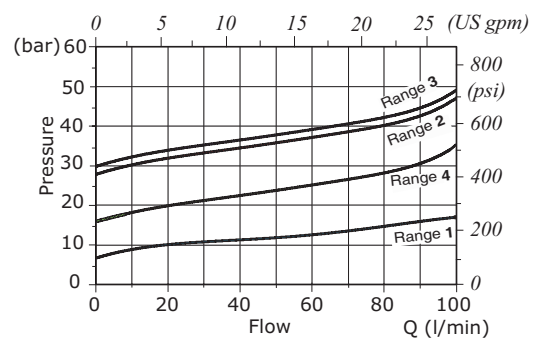
Relieving 1->3 Pressure reducing 2->1



RP12W pressure drop vs. flow 2->1

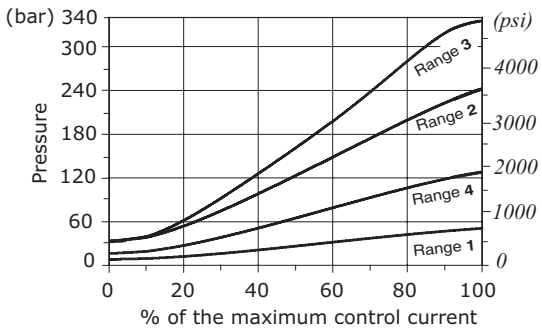


RP12W pressure drop vs. flow 1->3 with de-energized coil



Rating diagrams

RP12W pressure reducing vs. control current

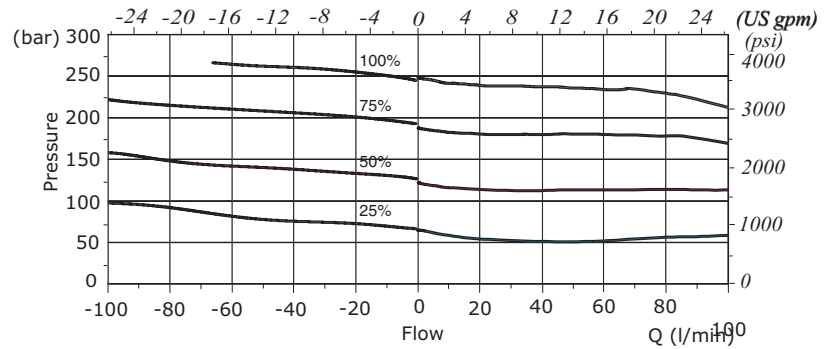


RP12W reducing/relieving pressure vs. flow

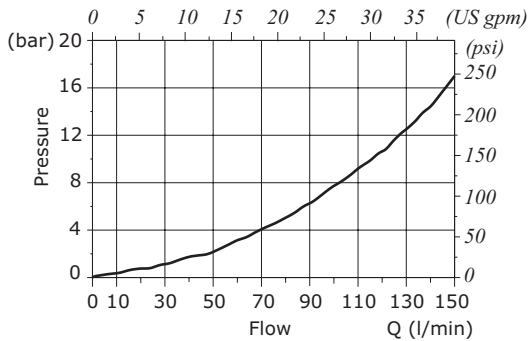
for % of control current - Pressure range 2 -

Relieving 1->3

Pressure reducing 2->1

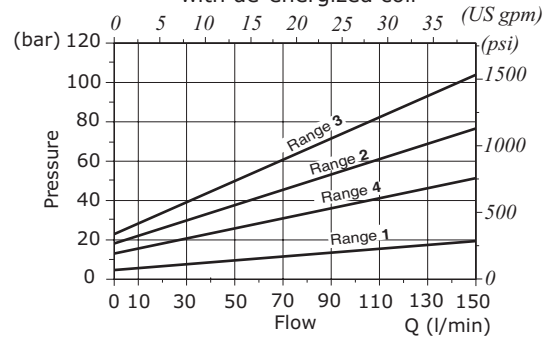


RP16W pressure drop vs. flow 2->1

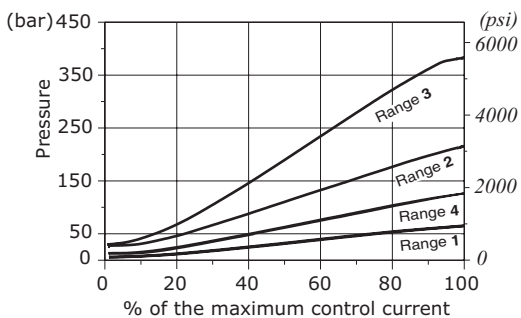


RP16W pressure drop vs. flow 1->3

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

