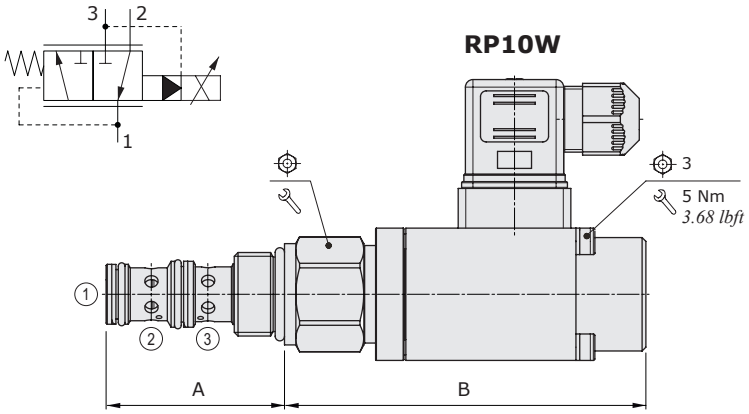
RP..W type
pressure reducing valves - 3 way

- 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)*

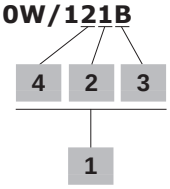
NOTE - For different conditions, please contact Walvoil Sales Dpt. - For coils further features see from page 206.

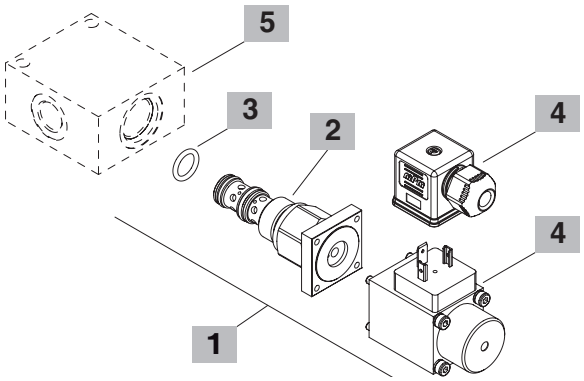


Valve type	A		B				
	mm	*in*	mm	*in*		Nm	*lbft*
RP10W	47.2	*1.86*	95.6	*3.76*	27	50	*37*
RP12W	73.5	*2.89*	93.5	*3.68*	32	70	*52*
RP16W	75	*2.95*	92	*3.62*	41	100	*74*

Ordering codes and description composition

RP10W/121B





1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 10/3		
RP10W/121B	0RP10002020	Pressure range **1**, 12VDC
RP10W/122B	0RP10002021	Pressure range **2**, 12VDC
RP10W/123B	0RP10002022	Pressure range **3**, 12VDC
RP10W/124B	0RP10002023	Pressure range **4**, 12VDC
SAE cavity 12/3		
RP12W/021B	0RP12002007	Pressure range **1**, 12VDC
RP12W/022B	0RP12002009	Pressure range **2**, 12VDC
RP12W/024B	0RP12002005	Pressure range **3**, 12VDC
SAE cavity 16/3		
RP16W/021B	0RP16002004	Pressure range **1**, 12VDC
RP16W/022B	0RP16002008	Pressure range **2**, 12VDC
RP16W/023B	0RP16002009	Pressure range **3**, 12VDC
RP16W/024B	0RP16002001	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

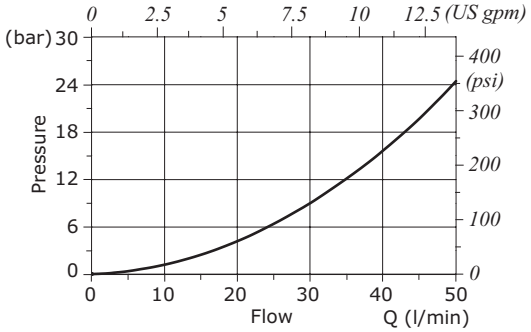
5 Valve body

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

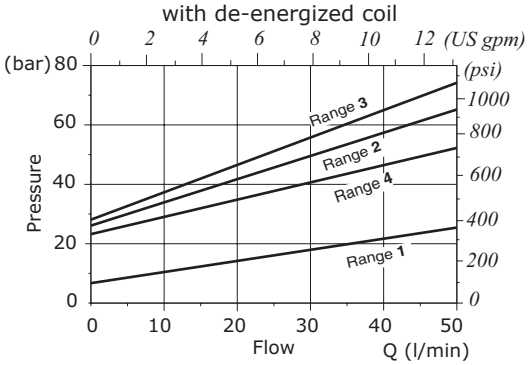
Note: aluminium body can stand up to 210 bar *(3050 psi)*
For steel bodies or different threading see from page 217

Rating diagrams

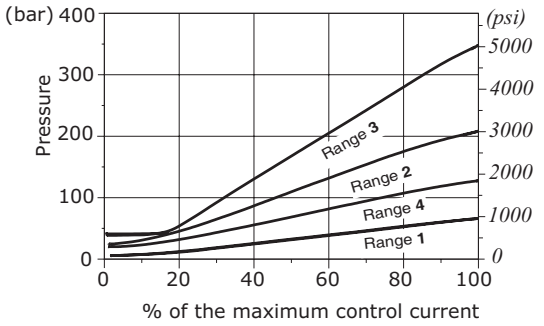
RP10W pressure drop vs. flow 2->1



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

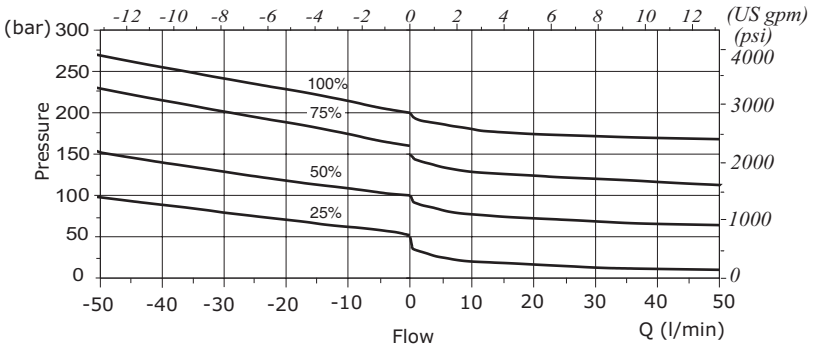


RP10W pressure reducing vs. control current

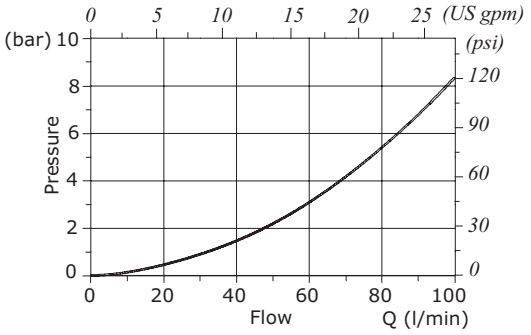


RP10W reducing/relieving pressure vs. flow
for % of control current - Pressure range **2**

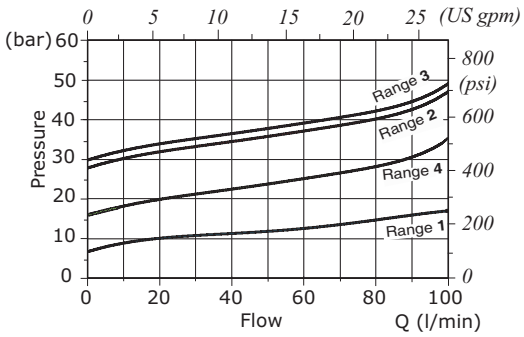
Relieving 1->3 Pressure reducing 2->1



RP12W pressure drop vs. flow 2->1

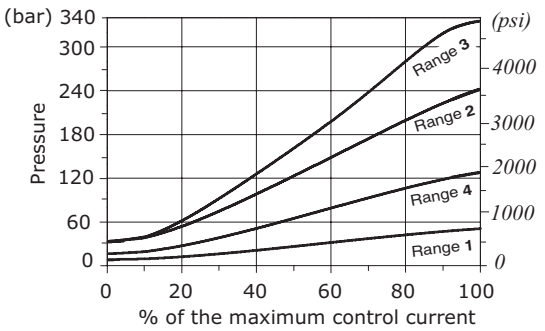


RP12W pressure drop vs. flow 1->3
with de-energized coil



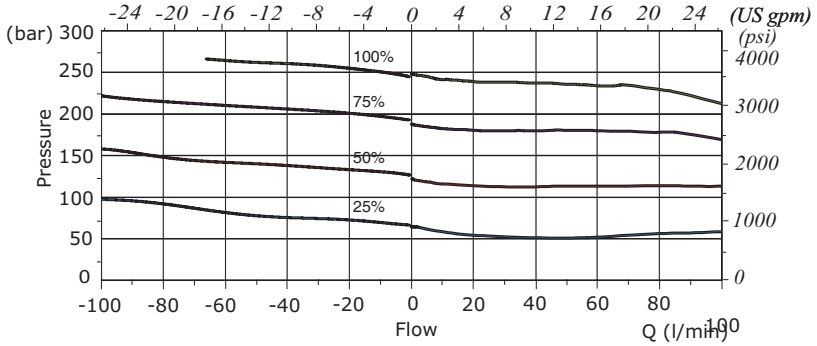
Rating diagrams

RP12W pressure reducing vs. control current

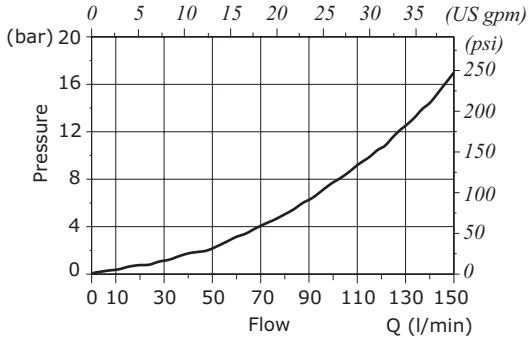


RP12W reducing/relieving pressure vs. flow
for % of control current - Pressure range **2 -**

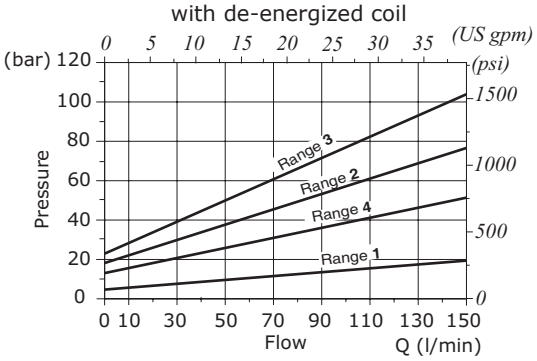
Relieving 1->3 Pressure reducing 2->1



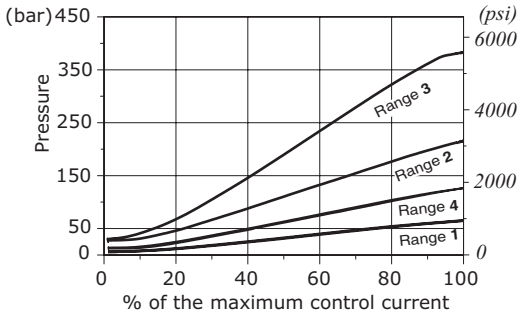
RP16W pressure drop vs. flow 2->1



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