



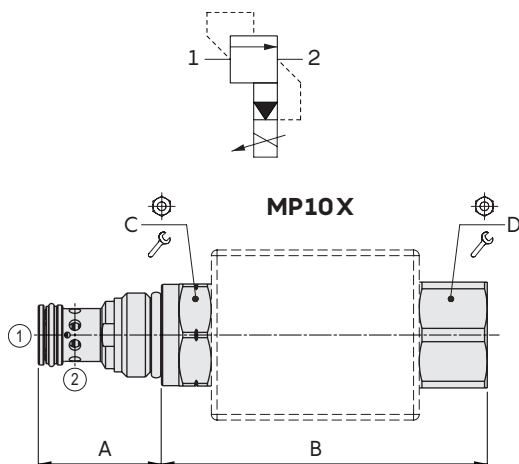
MP..X type pressure relief valves – 2 way

- Solenoid proportional type, pilot operated
- Spool type
- Increasing pressure with increasing current (N.O)
- Applications for high flow rates (max. 200 l/min – 52.8 US gpm)
- System of purging of air
- From SAE10 to SAE12 cavities

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

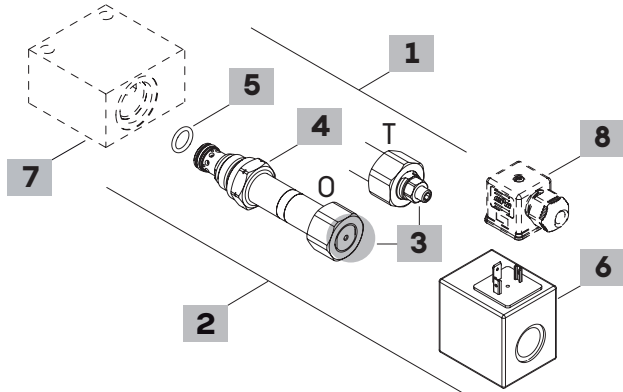
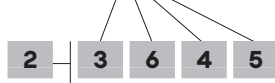
MP10X		MP12X
Max. flow	120 l/min (31.7 US gpm)	200 l/min (52.8 US gpm)
Max. pressure	350 bar (5100 psi)	
Oil leakage	at 80% of max. pressure setting	<150 cm ³ /min (9.15 in ³ /min)
Fluid	mineral based or synthetic hydraulic fluid with lubricating properties	
Viscosity	10–200 cSt	
Max level of contamination	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 10/2	SAE 12/2
Coil type*	BH or BQP19	
Nominal voltages	12VDC – 24VDC	
Power rating	33 W (BH) – 15 W (BQP19)	
Max. control current	12V->1.70 A – 24V->0.85 (BH) 12V->1.25 A – 24V->0.63 A (BQP19)	
Dither frequency	150–200 Hz	
Hysteresis	<5%	
Weight	0.76 kg (1.67 lb)	0.88 kg (1.94 lb)

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



Valve type	A		B				C			D		
			N / O without emergency		T screw							
	mm	in	mm	in	mm	in	Nm	lbf		Nm	lbf	
MP10X	32.6	1.28	86	3.38	104.2	4.10	27	50	37	28	5	3.7
MP12X	45	1.77	103	4.05	118.3	4.66	32	85	62.7	28	5	3.7

Ordering codes and description composition
MP10X/001B

MP10X/031B

1 Cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 10/2		
MP10X/001B	OMP10002054	Pressure range 1
MP10X/002B	OMP10002055	Pressure range 2
MP10X/003B	OMP10002056	Pressure range 3
MP10X/004B	OMP10002057	Pressure range 4
SAE cavity 12/2		
MP12X/001B	OMP12002031	Pressure range 1
MP12X/002B	OMP12002032	Pressure range 2
MP12X/003B	OMP12002033	Pressure range 3
MP12X/004B	OMP12002034	Pressure range 4

2 Complete cartridges

TYPE	CODE	DESCRIPTION
SAE cavity 10/2		
MP10X/031B	OMP10002044	Pressure range 1 , 12VDC
MP10X/032B	OMP10002045	Pressure range 2 , 12VDC
MP10X/033B	OMP10002046	Pressure range 3 , 12VDC
MP10X/034B	OMP10002047	Pressure range 4 , 12VDC
SAE cavity 12/2		
MP12X/031B	OMP12002023	Pressure range 1 , 12VDC
MP12X/032B	OMP12002024	Pressure range 2 , 12VDC
MP12X/033B	OMP12002025	Pressure range 3 , 12VDC
MP12X/034B	OMP12002026	Pressure range 4 , 12VDC

3 Emergency

TYPE	DESCRIPTION
0	Without override
T	With screw

4 Pressure range

TYPE	DESCRIPTION
1	Pressure range 10÷120 bar (145÷1740 psi)
2	Pressure range 10÷160 bar (145÷2320 psi)
3	Pressure range 10÷230 bar (145÷3335 psi)
4	Pressure range 10÷350 bar (145÷5100 psi);

Note: for further pressure range contact Sales Dept

5 Seals

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

6 Coils

TYPE	CODE	DESCRIPTION
2) BH 12VDC	4SLD001200A	12VDC-ISO4400 coil
3) BQP19 12VDC	4SL5000126A	12VDC-ISO4400 coil
4) BH 24VDC	4SLD002400A	24VDC-ISO4400 coil
5) BQP19 24VDC	4SL5000245A	24VDC-ISO4400 coil

For complete coils list see from page 201

7 Valve body

TYPE	CODE	DESCRIPTION
SAE10/2-SAE8	3CC1020K11	Aluminium body for cavity 10 valve, SAE8 std thread
SAE12/2-SAE10	3CC1220L11	Aluminium body for cavity 12 valve, SAE10 std thread

Note: aluminium body can stand up to 210 bar (3050 psi)
 For steel bodies or different threading see from page 208

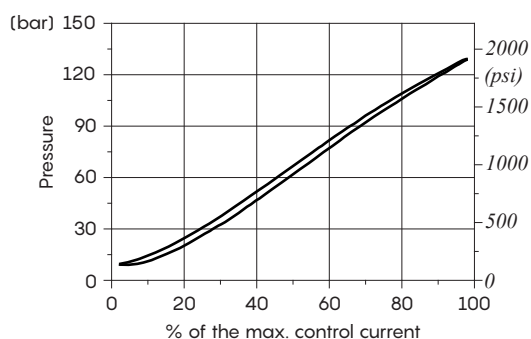
8 Connector

TYPE	CODE	DESCRIPTION
ISO4400	4CN1009995B	Connector

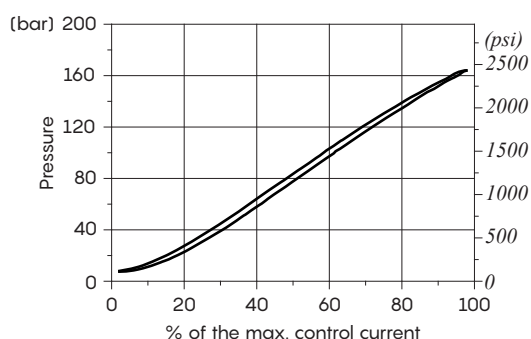
For complete connectors list see from page 201

Rating diagrams

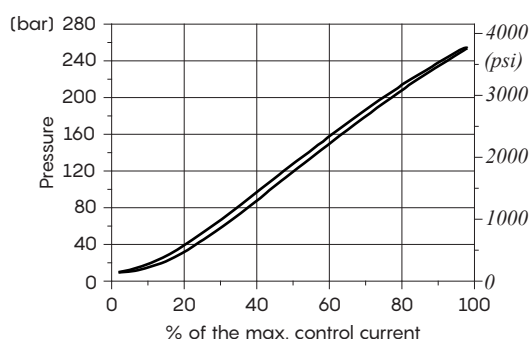
MP10X pressure setting vs. % max. control current
at 5 l/min (1.32 US gpm)



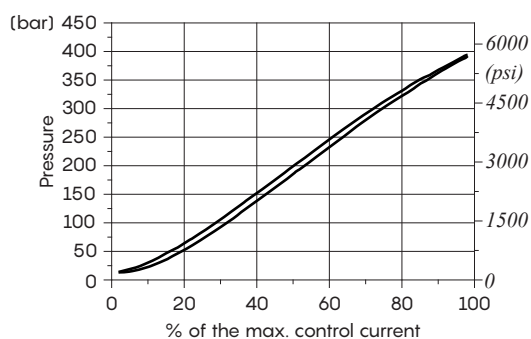
MP10X pressure setting vs. % max. control current
at 5 l/min (1.32 US gpm)



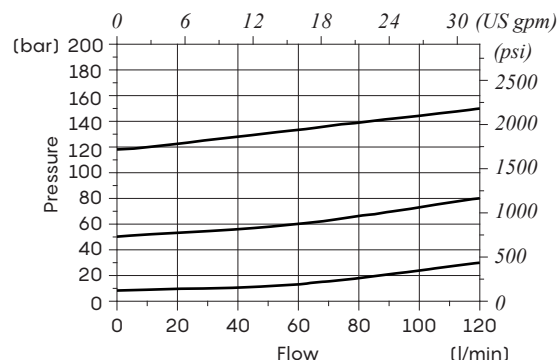
MP10X pressure setting vs. % max. control current
at 5 l/min (1.32 US gpm)



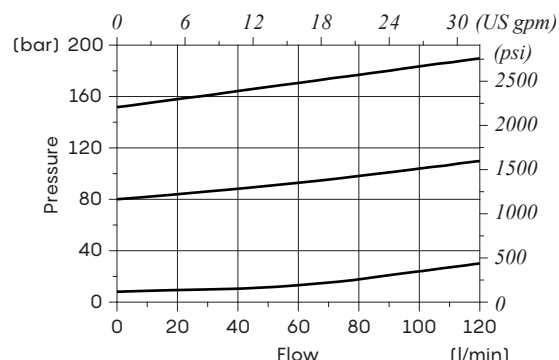
MP10X pressure setting vs. % max. control current
at 5 l/min (1.32 US gpm)



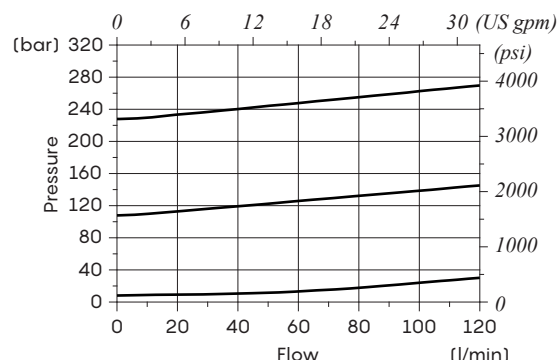
MP10X pressure vs. flow 1->2
for % of control current - Pressure range 1



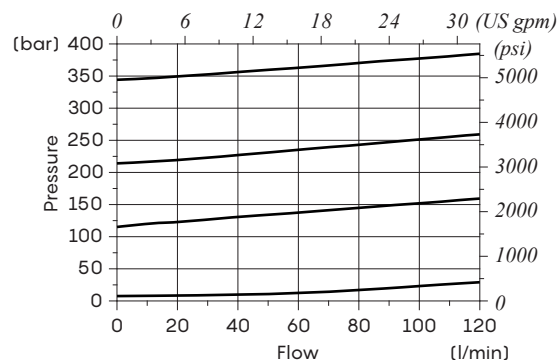
MP10X pressure vs. flow 1->2
for % of control current - Pressure range 2



MP10X pressure vs. flow 1->2
for % of control current - Pressure range 3

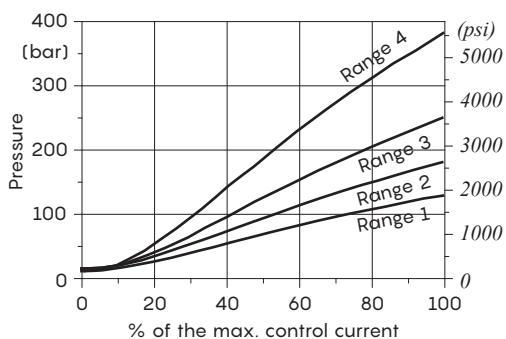


MP10X pressure vs. flow 1->2
for % of control current - Pressure range 4

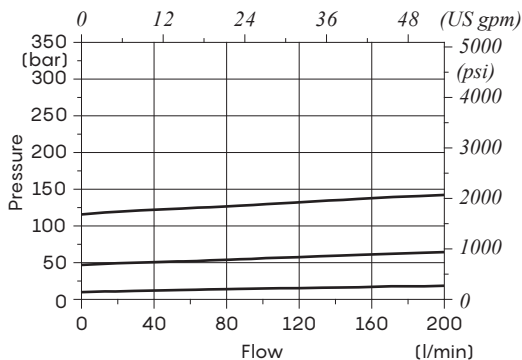


Rating diagrams

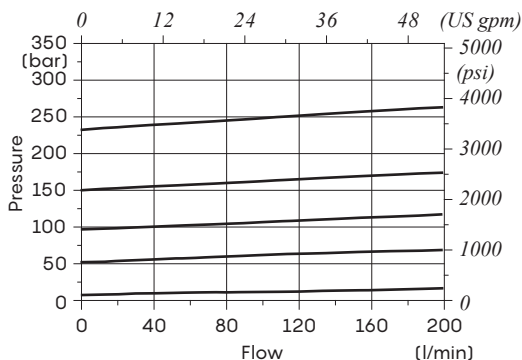
MP12X pressure setting vs. % max. control current
at 10 l/min (2.64 US gpm)



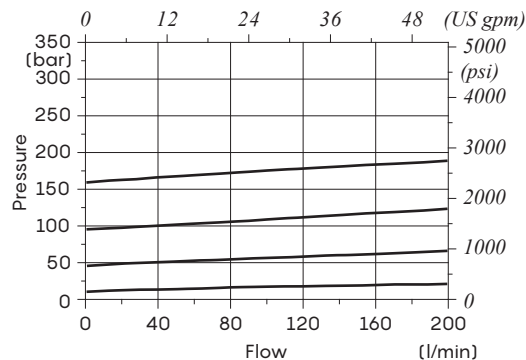
MP12X pressure vs. flow 1→2
for % of control current - Pressure range 1



MP12X pressure vs. flow 1→2
for % of control current - Pressure range 3



MP12X pressure setting vs. flow 1→2
for % of control current - Pressure range 2



MP12X pressure vs. flow 1→2
for % of control current - Pressure range 4

