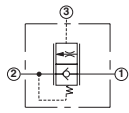
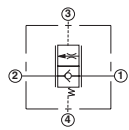
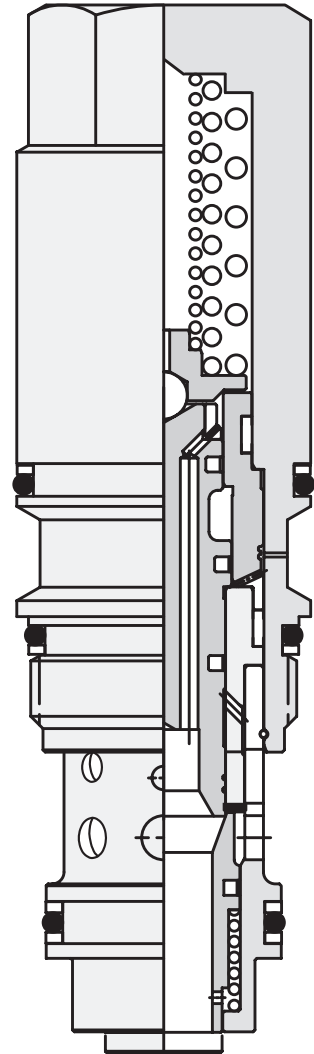
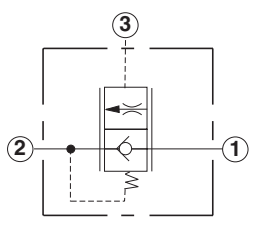
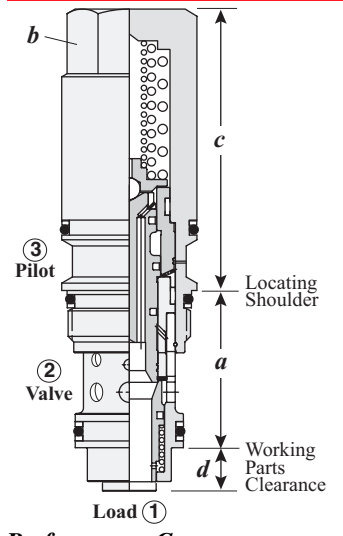


Load Control: Balanced Cartridge Valves

	<i>Cartridge Type</i>	<i>Page</i>
	Non-vented, Non-relieving	70
	Vented, Non-relieving	71

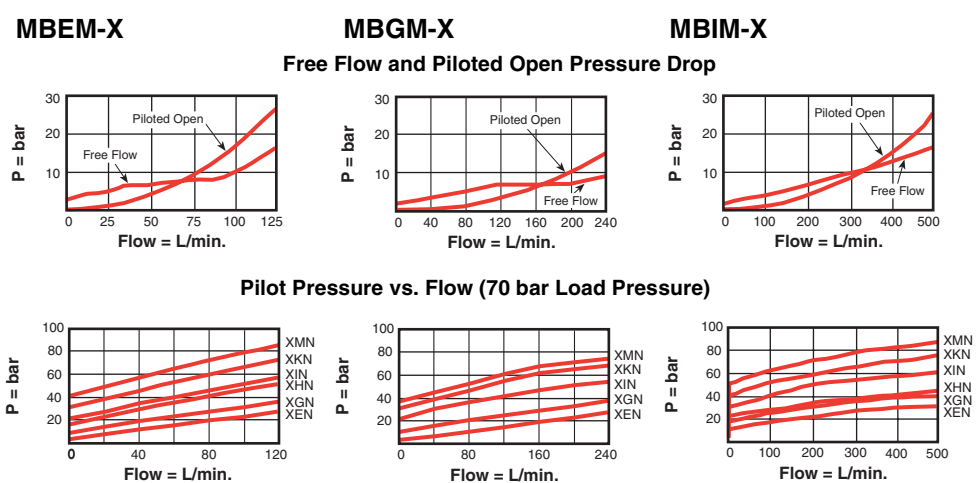


NON-VENTED, NON-RELIEVING



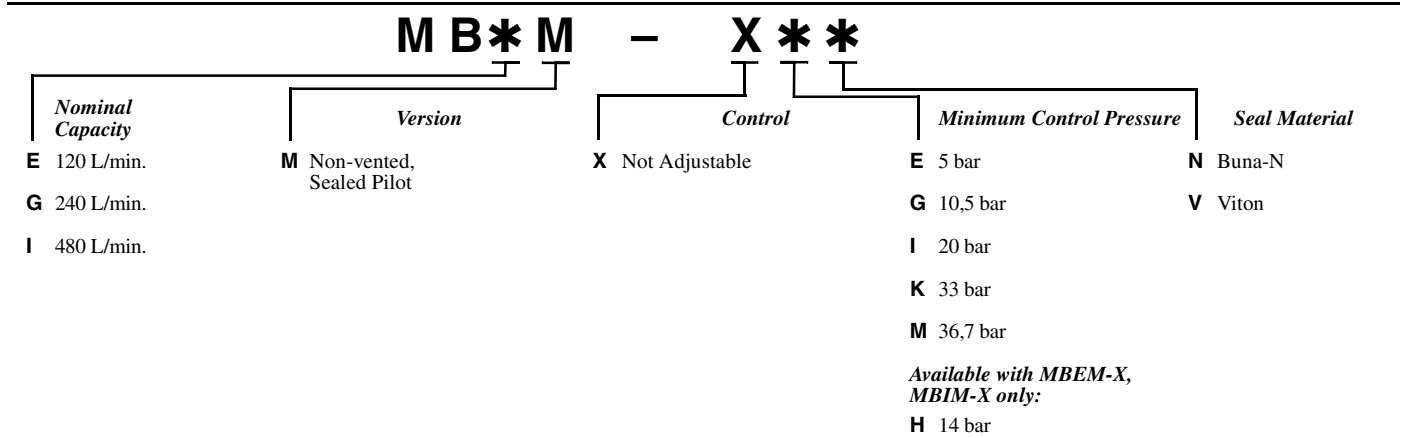
Capacity	Typical Cartridge Model Code	Cavity	Cartridge Dimensions				Installation Torque (Nm)
			a	b	c	d	
120 L/min.	MBEM- XIN	T-2A	35,1	28,6	92,7	7,1	60 - 70
240 L/min.	MBGM- XIN	T-17A	46,2	31,8	107,5	12,7	200 - 215
480 L/min.	MBIM - XIN	T-19A	63,5	41,3	114,3	5,8	465 - 500

Performance Curves



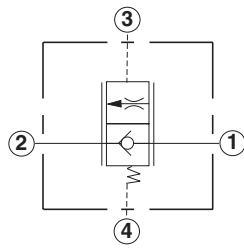
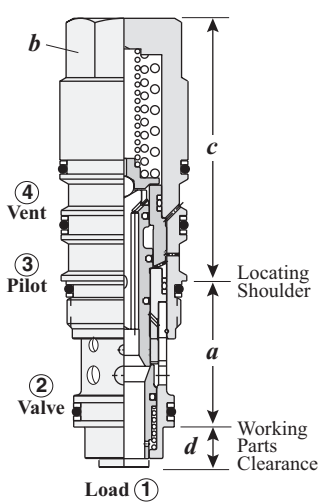
- Maximum operating pressure = 350 bar.
- Maximum valve leakage at reseal = I, K, M ranges: 0,4 cc/min. at 14 bar below cracking pressure; E, G, H ranges: 50 cc/min. at 3,5 bar below cracking pressure.
- Reverse flow check cracking pressure = 2 bar.
- Back pressure at port 2 directly opposes pilot pressure at port 3.
- This valve has no relief function, not even thermal expansion relief.
- This valve is balanced against load pressures and therefore exhibits self-compensation. Flow is controlled by the pilot pressure. Because of dynamic seals, performance is best in the meter-out mode with port 1 being the load and port 2 being tank.

OPTION ORDERING INFORMATION



Visit www.sunhydraulics.com for current list pricing and complete technical information on all Sun products.

VENTED, NON-RELIEVING



Capacity	Typical Cartridge Model Code	Cavity	Cartridge Dimensions				Installation Torque (Nm)
			a	b	c	d	
120 L/min.	MWEM-XIN	T-22A	35,1	28,6	92,7	7,1	60 - 70
240 L/min.	MWGM-XIN	T-23A	46,2	31,8	107,5	9,4	200 - 215
480 L/min.	MWIM-XIN	T-24A	63,5	41,3	114,3	5,8	465 - 500

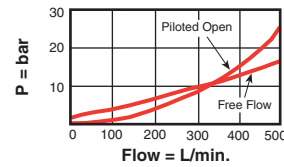
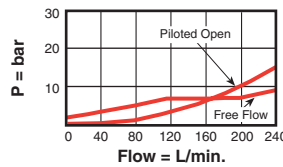
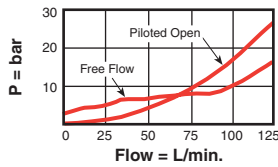
Performance Curves

MWEM-X

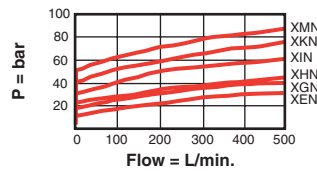
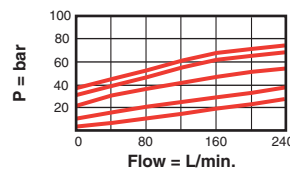
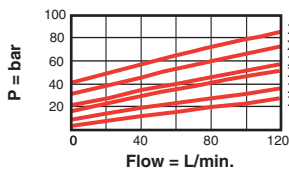
MWGM-X

MWIM-X

Free Flow and Piloted Open Pressure Drop

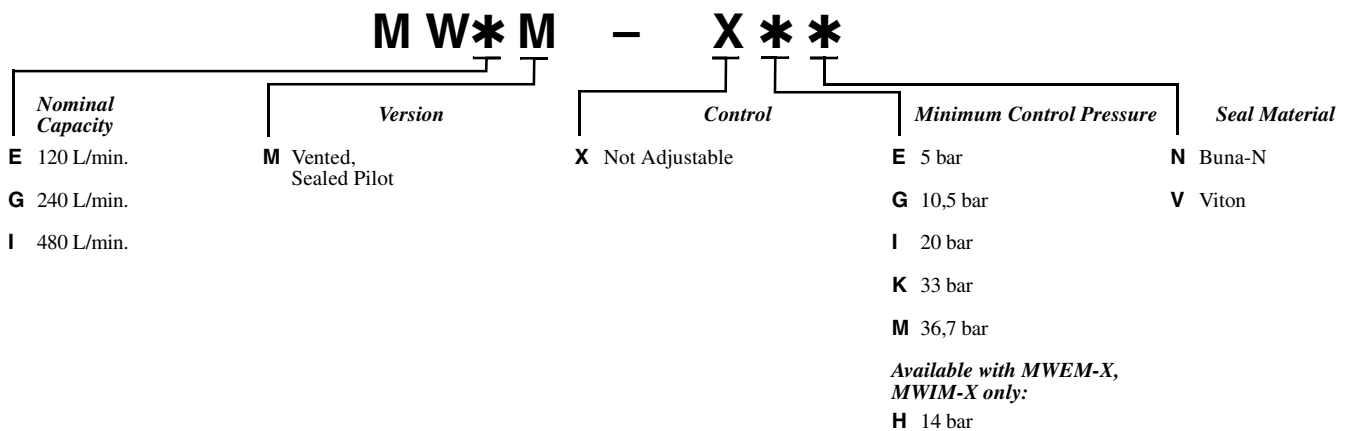


Pilot Pressure vs. Flow (70 bar Load Pressure)



- Maximum operating pressure = 350 bar.
- Maximum valve leakage at reseal = I, K, M ranges: 0,4 cc/min. at 14 bar below cracking pressure; E, G, H ranges: 50 cc/min. at 3,5 bar below cracking pressure.
- Reverse flow check cracking pressure = 2 bar.
- This valve has no relief function, not even thermal expansion relief.
- This valve is balanced against load pressures and therefore exhibits self-compensation. Flow is controlled by the pilot pressure. Because of dynamic seals, performance is best in the meter-out mode with port 1 being the load and port 2 being tank.

OPTION ORDERING INFORMATION



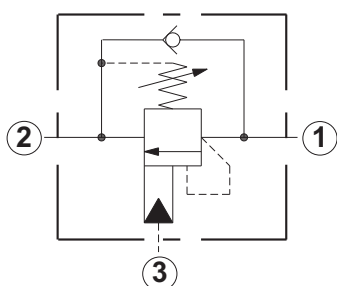
Visit www.sunhydraulics.com for current list pricing and complete technical information on all Sun products.



SUN FIXED SETTING COUNTERBALANCE VALVES FEATURE LOWER PROFILE

Sun recently introduced four new, standard fixed setting counterbalance valves in the series 1 frame size (T-11A cavity). These valves are pre-set to a nominal value at the factory and are offered with a 1,7 bar integral check. Because there is no adjustment mechanism in these cartridges, they are approximately 40% shorter than adjustable versions (dimension from locating shoulder of cartridge to end of hex body).

COUNTERBALANCE CARTRIDGE VALVES, NON-VENTED, FIXED SETTING



	<i>Model Code</i>	<i>Pilot Ratio</i>
	T-11A	
	40 L/min.	
Semi-restrictive	CBBL-X**	2.3:1
	CBBC-X**	3:1
	CBBD-X**	4.5:1
	10 L/min.	
Restrictive	CBAB-X**	1.5:1
	CBAA-X**	3:1
	20 L/min.	
Restrictive	CBBA-X**	3:1
	CBBG-X**	4.5:1
	60 L/min.	
Standard	CBCL-X**	2.3:1
	CBCA-X**	3:1
	CBCG-X**	4.5:1
	CBCH-X**	10:1

Other alternatives are available as custom part numbers. Contact your Sun Distributor for more information.

For detailed information on these new fixed setting counterbalance cartridges consult

www.sunhydraulics.com

Products: Cartridges: Counterbalance: View All Counterbalance Cartridges