

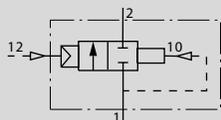
# Valves for Special Applications

2/2 - 2 Way, 2 Position Valves G 1/4 to G 1 and 1/4" to 1" NPT

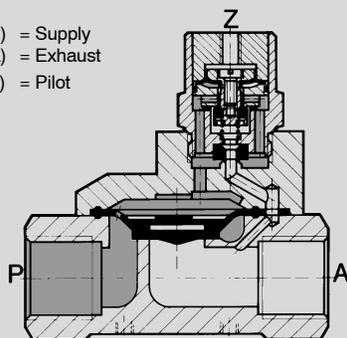
**FESTO**

## Single Pilot Valve

Brass Housing (NPT or ISO connections)  
Type VLX-...-MS



1 (P) = Supply  
2 (A) = Exhaust  
12 (Z) = Pilot



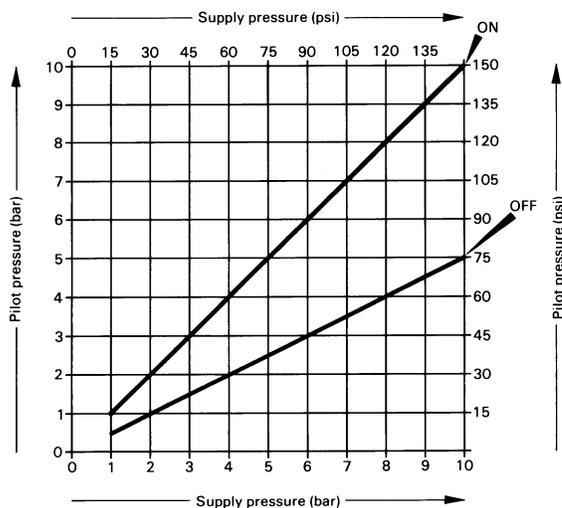
The valve is actuated only while pilot pressure is applied.

Note: When pressure is applied, the return diaphragm opens briefly.



Type VLX-...-MS

Minimum Pilot Pressure versus Supply Pressure



Note: Minimum supply pressure is 15 psi / 1 bar.

Order Number	ISO Connection (Brass Housing)	34432	34433	34434	34435	34436
	NPT Connection (Brass Housing)	VLX-2-1/4-MS	VLX-2-3/8-MS	VLX-2-1/2-MS	VLX-2-3/4-MS	VLX-2-1-MS
	Hardware	9769 HRM-1			9770 HRM-2	
Medium		Compressed air (filtered, lubricated or unlubricated)				
Mounting		Two holes through housing or on mounting bracket or in-line				
Connection	Working Ports	1/4 NPT / G 1/4 ISO	3/8 NPT / G 3/8 ISO	1/2 NPT / G 1/2 ISO	3/4 NPT / G 3/4 ISO	1 NPT / G 1 ISO
	Pilot Port	M5 suitable for 10-32 UNF				
Orifice Size		0.51 in / 13 mm	0.51 in / 13 mm	0.51 in / 13 mm	0.79 in / 20 mm	0.98 in / 25 mm
$C_v$ Factor 1 → 2 (P→A)		2.4 $C_v$ / 2400 l/min	3.9 $C_v$ / 3800 l/min	4 $C_v$ / 4000 l/min	10.7 $C_v$ / 10500 l/min	14.2 $C_v$ / 14000 l/min
Supply Pressure Range*		15-150 psi / 1-10 bar				
Pilot Pressure Range		See graph				
Min. Differential Pressure to Open		12 psi / 0.8 bar				
Response Time at 90 psi / 6 bar	On	20 ms	20 ms	20 ms	30 ms	30 ms
	Off	12 ms	12 ms	12 ms	20 ms	30 ms
Design		Diaphragm seat valve				
Materials		Housing: Brass; Diaphragm: Buna N				
Weight	Brass Housing	1.213 lb / 0.550 kg	1.157 lb / 0.525 kg	1.102 lb / 0.500 kg	2.734 lb / 1.240 kg	2.425 lb / 1.100 kg

\* 14 to 140°F / -10 to +60°C

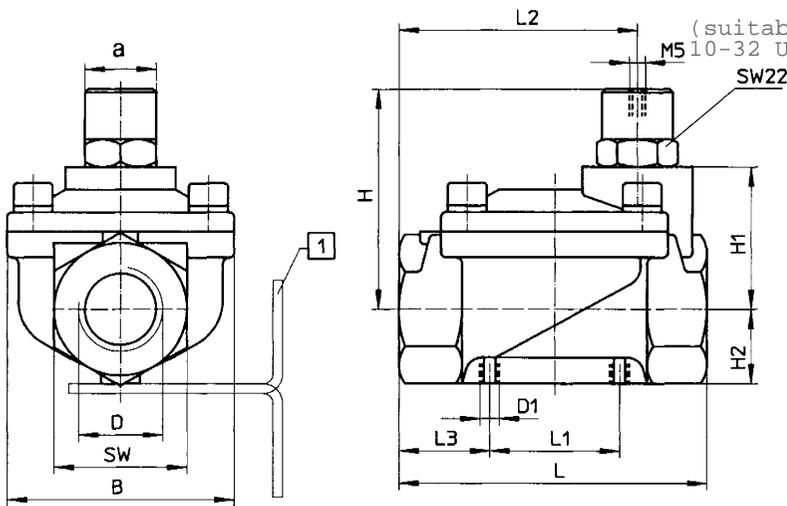
# Valves for Special Applications

## Dimensions, Type VLX-...-MS

Type VLX-...-MS

Max. tightening torque:

Connection A and P - 1/4" NPT / G 1/4 ISO.....43.40 lb in / 5 N·m  
 3/8" NPT / G 3/8 ISO.....133.20 lb in / 15 N·m  
 1/2" NPT / G 1/2 ISO.....177.60 lb in / 20 N·m  
 3/4" NPT / G 3/4 ISO.....266.40 lb in / 30 N·m  
 1" NPT / G 1 ISO.....355.20 lb in / 40 N·m



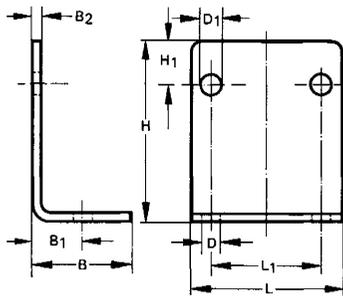
### Dimensions

a 0.866 in / 22 mm

① Mounting Bracket Type HRM-...  
 SW = wrench size, mm

Valve Type	B in / mm	D in / mm	D <sub>1</sub>	H in / mm	H <sub>1</sub> in / mm	H <sub>2</sub> in / mm	L in / mm	L <sub>1</sub> in / mm	L <sub>2</sub> in / mm	L <sub>3</sub> in / mm	SW in / mm
VLX-2-1/4-MS	1.89 / 48	1/4 NPT / G 1/4 ISO	M 4	2.22 / 56.5	1.28 / 32.5	0.61 / 15.5	2.64 / 67	0.98 / 25	1.85 / 47	0.83 / 21	1.06 / 27
VLX-2-3/8-MS	1.89 / 48	3/8 NPT / G 3/8 ISO	M 4	2.22 / 56.5	1.28 / 32.5	0.61 / 15.5	2.64 / 67	0.98 / 25	1.85 / 47	0.83 / 21	1.06 / 27
VLX-2-1/2-MS	1.89 / 48	1/2 NPT / G 1/2 ISO	M 4	2.22 / 56.5	1.28 / 32.5	0.61 / 15.5	2.64 / 67	0.98 / 25	1.85 / 47	0.83 / 21	1.06 / 27
VLX-2-3/4-MS	2.76 / 70	3/4 NPT / G 3/4 ISO	M 6	2.68 / 68	1.73 / 44	0.91 / 23	3.74 / 95	1.57 / 40	2.89 / 73.5	1.10 / 28	1.61 / 41
VLX-2-1-MS	2.76 / 70	1 NPT / G 1 ISO	M 6	2.68 / 68	1.73 / 44	0.91 / 23	3.74 / 95	1.57 / 40	2.89 / 73.5	1.10 / 28	1.61 / 41

Type HRM-...



Hardware	B	B <sub>1</sub>	B <sub>2</sub>	D	D <sub>1</sub>	H	H <sub>1</sub>	L	L <sub>1</sub>
Type	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm	in / mm
HRM-1	0.98 / 25	0.49 / 12.5	0.08 / 2	0.23 / 6	0.20 / 5	1.46 / 37	0.39 / 10	1.57 / 40	0.98 / 25
HRM-2	1.37 / 35	0.69 / 17.5	0.12 / 3	0.27 / 7	0.27 / 7	2.60 / 66	0.63 / 16	2.16 / 55	1.57 / 40

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PLC's, operator interfaces, sensors and I/O devices

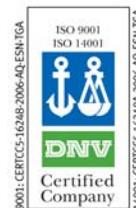
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