

Multi-functional Gas Combined Control Valve MB-ZRDLE



Overview

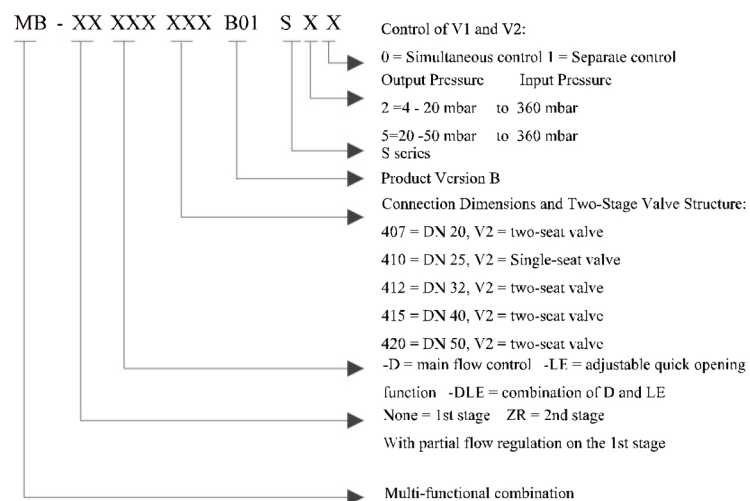
The MB-ZRDLE gas multi-functional combined control valve is compactly integrated with a filter, pressure regulator, valves and pressure monitoring devices. Different system configurations can be achieved through various combination methods:

- Dirt Deposition Device: Precision filter
- One Regulator and Two Valves
- One Single - stage Valve and One Two - stage Valve
- One Quick - opening Valve and One Slow - opening Valve
- Adjustable Output Pressure
- High flow output can be achieved even at low-pressure differentials
- Main flow of valve V2 is adjustable, partial adjustable
- Hydraulic slow opening
- Easy installation, small size and light weight

Applications

This combined system provides specialized solutions for gas safety and regulation technologies. It is suitable for gas types 1, 2, and 3, as well as other neutral gaseous media.

Product Model Description

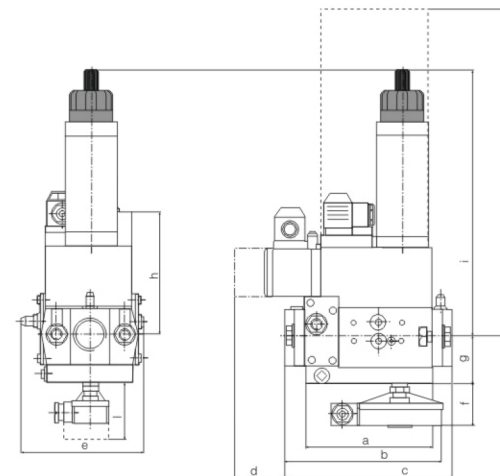


Technical Specifications

Nominal inner diameter	MB-ZRDLE 407	MB-ZRDLE 410/412	MB-ZRDLE 415/420
Flange with pipe thread to 1807/1 (DIN 2999)	Rp3/4 And other combinations	Rp1, Rp1-1/4 And other combinations	Rp1-1/2, Rp2 And other combinations
Max working pressure	360mbar(36KPa)		
Output Pressure Range	MB...-S20/S20; Pa:4mbar to 20mbar MB...-S50/S50; Pa:4mbar to 50mbar		
Medium	1,2,3 Gas Series and Other Neutral Gaseous Media		
Ambient Temperature	-15°C to +70°C (when used in liquefied gas equipment, MB-ZR... shall not operate below 0°C. Only suitable for gaseous liquefied gas, liquid carbon dioxide with damaged sealing material)		
Dirt Deposition Device	0.8mm mesh sieve, unordered fiber filter, precision filter, two-layer filter replacement can be done without disassembling equipment		
Pressure Monitoring Device	Can be installed with our factory-produced GW...A5 type		
Pressure Regulating Unit	Pressure regulator balances input pressure, when disconnected, valve V1 can achieve tight closure		
	Fixed setting spring fixed device (spring cannot be replaced)		
	No need for top exhaust pipe settings, with built-in pulse branch head		
Solenoid Valve V1	Quick opening, quick closing		
Solenoid Valve V2	Slow opening, quick closing, with main flow restrictor		
Test and Ignition Gas Connection	G 1/8		
Burner and Pressure Monitoring Pbr	Installed after valve V2, pressure monitor can be mounted on the side fitting		
Voltage/Frequency	AC50-60Hz; 220-230V, -15%+10%, preferred voltage AC240V		
	AC110-120V, DC48VDC24-28V		
Electrical Connection	Plug connection for valves and pressure monitors compliant with DINEN175301-803		
Power/Energy Consumption VA	AC230; +20°C		
MB-ZRDLE 407S20 60	MB-ZRDLE410/412S20 74		
MB-ZRDLE 407S50 60	MB-ZRDLE410/412S50 74		
MB-ZRDLE 415S20 74	MB-ZRDLE420S20 115		
MB-ZRDLE 415S50 74	MB-ZRDLE420S50 115		
Starting Time	100%ED		
Protection Degree	IP54		
Radio Interference	Interference level N		
Materials in Contact with Gas	Housing Die-cast aluminum		
	Diaphragm, Sealing Parts NBR-based material, silicone rubber		
	Electromagnetic Drive Device Steel, brass, aluminum		
Installation Position	Vertical, magnet vertically upward or horizontal, magnet in horizontal state, or between the two positions		

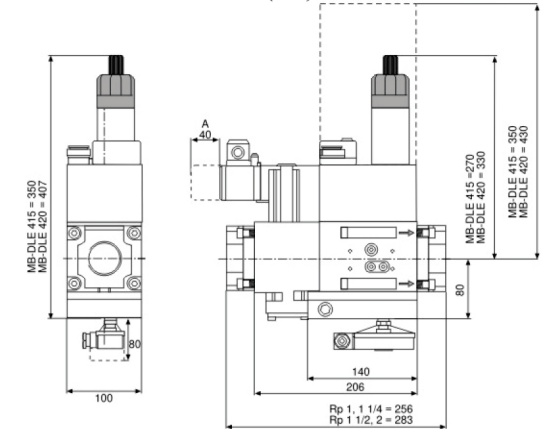
Product External Dimensions (Unit: mm)

407 - 412 Installation Dimensions:



- d = Location requirements for the pressure monitoring gas
- k = Location requirements for replacing the solenoid
- l = Location requirements for installing the terminal contact K01/1

415 - 420 Installation Dimensions (mm)

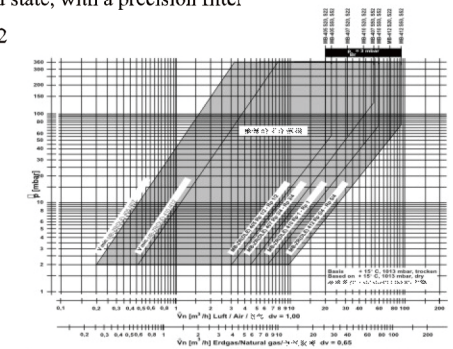


Model	Connection	Installation Dimensions										Weight [kg]	
		a	b	c	d	e	f	g	h	i	k		l
MB-ZRDLE407S20	Rp3/4	110	151	155	40	120	50	46	115	210	230	80	3.2
MB-ZRDLE407S50		3.2											
MB-ZRDLE410S20	Rp1	140	185	185	40	145	50	55	135	260	300	80	6.5
MB-ZRDLE410S50		6.5											
MB-ZRDLE412S20	Rp1-1/4	See above figure										6.5	
MB-ZRDLE412S50		6.5											
MB-ZRDLE415S20	Rp1-1/2	See above figure										8.1	
MB-ZRDLE415S50		8.1											
MB-ZRDLE420S20	Rp2	See above figure										10.2	
MB-ZRDLE420S50		10.2											

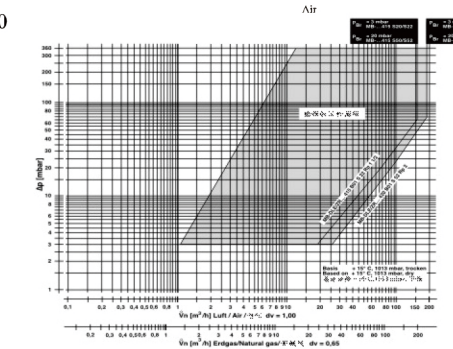
Pressure and Flow Curve Chart

Volume flow rate - pressure differential - characteristic curve in the regulated state, with a precision filter

407 - 412



415 - 420



Spec. Weight of air	Air Types	Spec. Gravity	dv	f
Spec. weight of the gas used	Natural Gas	0.81	0.65	1.24
	Gas	0.58	0.47	1.46
	Town Gas	2.08	1.67	0.77
	LPG	1.24	1.00	1.00
	Air			