

BR-DR26-00EN

DR-1

S E R I E S

Direct Acting
Pressure Reducing Valve



FLOWmaxi

DR-1 SERIES

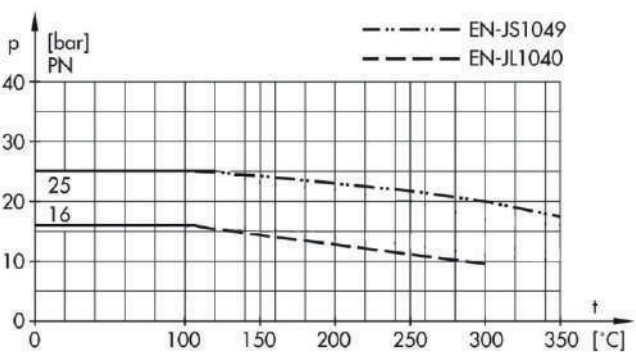
Direct Acting Pressure Reducing Valve

Operating Range

A self-operating pressure control valve is a useful device for stabilizing line pressure at a set point. The adjustable pressure range varies between 0.2 and 6 bar, and its size ranges from DN15 to DN100. The nominal pressure is PN16 or PN25, and the maximum temperature is 350°C. This device is manufactured according to DIN standards. The Type 10 valve is suitable for steam lines.

Function

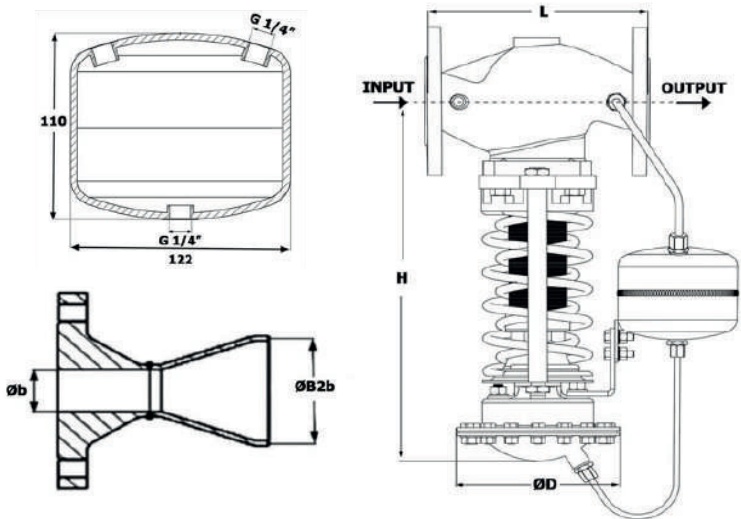
The Type 10 steam pressure reducing valve controls the outlet pressure and automatically keeps it at a specific set point. The valve is normally open and gradually closes as the outlet pressure increases. The correct steam direction in the valve is indicated by an arrow on its body. The outlet pressure is transmitted to the actuator via a balancing tank and connection pipe and is delivered to the diaphragm surface. This force is transferred by the rod to the plug and changes the distance between the seat and the plug. In this way, the pressure is stabilized at the set point. This device has a bellows part that balances the inlet and outlet pressure and also acts as a mechanical seal. This valve is self-operating and does not require any extra power.



Pressure – Temperature Diagram

These diagrams are drawn according to DIN standards and show different functions and pressure ranges as a result of different temperatures and materials.

How to Order	
Size	DN
Working Pressure	PN
Output Pressure Range	Bar
Input Pressure	P1
Output Pressure	P2
Steam Temperature	°C





Condensate (Balancing) Pot:

This equipment is used to protect the diaphragm from extra heat and exposure to steam. This vessel must be filled with water before operating the valve.

Control Line (3/8" pipe):

This line transmits the main process pressure to the actuator, ensuring sensitive and stable control of the valve. Thanks to the integrated design, there is no need to install an external control line.

Conic Reducer:

It is beneficial to enlarge the outlet diameter of the valve to increase the steam volume to the required amount.

Connection Bolt:

To connect the control line to the actuator and the main body of the valve.

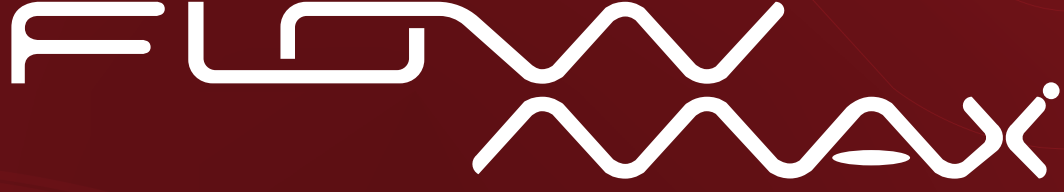
Water Injection Orifice:

It is for filling the condensate pot, control line, and actuator with water.

Technical Data:									
Size	DN	15	20	25	32	40	50	65	80
Flow Rate	Kvs.	3.1	5	8	12.5	20	32	50	75
Working Press. Difference	Ap bar	25						20	
Working Press.	PN16/25								
Leakage Rate	0.05% ≤ of Kvs Valve for metal sealing								
Working Temp	See: Press. – Temp. Table								
Adjustable Press. Range	bar	0.2 ... 1 , 0.8 ... 2.5 , 2 ... 5 , 4.5 ... 10 , 8 ... 16							
Ambient Allowed Temperature	°C	-10 ... + 80							

Parts Material			
Seat and Plug		Standard	Stainless steel 410
		Special	Stainless steel 304
Nominal Pressure	DIN	PN25	PN16
Body Material		Cast iron	Cast iron
		GGG-40.3 EN-JL1049	GG25 EN-JL1040
Metal Accordion Piece		Stainless steel 316L/ (WN 1.4435)	
Body Washer		Graphite with Metal Core	
Actuator		ST	
Diaphragm		(Reinforced with fiber) EPDM	

Dimensions and Weights:									
Size	DN	15	20	25	32	40	50	65	80
Orifice Diameter		22						65	
Length	L	130	150	160	180	200	230	290	310
0.2 ... 1	Weight Approx. PN16	19	19	20	26	27	29	52	57
0.8 ... 2.5		15	15	16	22	23	25	49	54
		12	12	13	19	20	22	45	50
If working pressure is PN25, 10% will be added to weights									
0.2 ... 1	H	420			450			590	
	ØD	ØD = 285 . A350cm²							
	Spring Tork	4600N							
0.8... 2.5	H	410			440			570	
	ØD	ØD = 230 . A160cm²							
	Spring Tork	4600N							
2... 5	H	390			440			570	
	ØD	ØD = 175 . A80cm²						ØD = 230 . A160cm²	
	Spring Tork	4600N						8500N	
4.5... 10	H	390			440			550	
	ØD	ØD = 175 . A40cm²			ØD = 175 . A80cm²				
	Spring Tork	4600N			8500N			7500N	
8... 16	H	390			440			550	
	ØD	ØD = 175 . A40cm²						ØD = 175 . A80cm²	
	Spring Tork	8500N							



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