

**Extracted from RA 26 570/06.98**

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Issue: 01.01

See Section 16 for applicable  
Preferred/Spotlight part numbers  
and unit price.**Pressure reducing valve, direct operated  
Model ZDR 6 D sandwich mounted**

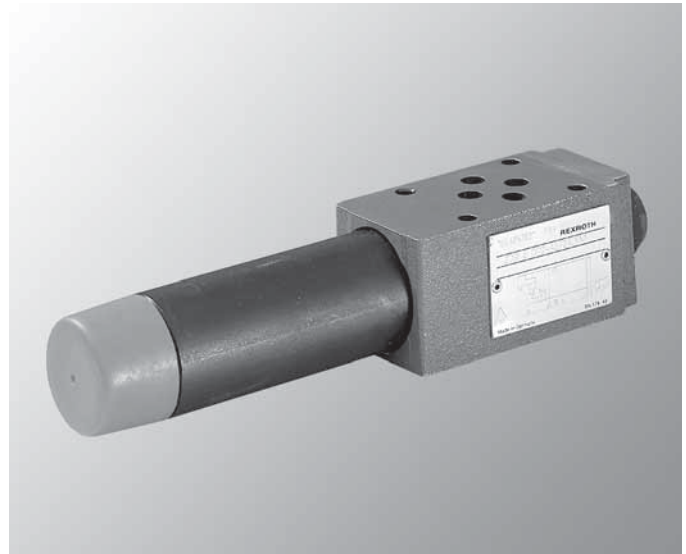
Size 6

Series 4X

Maximum operating pressure 210 bar (3050 PSI)

Maximum flow 50 L/min (13 GPM)

- Direct operated pressure reducing valve, of sandwich plate design, for use in vertical stacking assemblies
- Porting pattern to ISO 4401-03, NFPA T 3.5.1 M R1 and ANSI B 93.7 D 03
- Pressure adjustment options
- Four pressure adjustment ranges available to 3000 PSI
- Optional built-in reverse free flow check valve



Model ZDR 6 DP 2-4X/...YM...

**Ordering code**

Z	DR	6	D		-4X/	Y	/	*
Sandwich plate design = Z	Pressure reducing valve = DR	Size 6, D 03 = 6	Direct operated = D					Further details to be written in clear text
								<b>Gauge port connection</b>
								no code = metric threads
								12 = SAE threads
								no code = NBR seals, suitable for petroleum oils (HM, HL, HLP)
								no code = with reverse free-flow check valve (Model ZDR 6 "DA" only)
								M = without reverse free-flow check valve
								Y = Internally piloted, externally drained
								<b>Adjustable secondary "reduced" pressure range</b>
								25 = ... 25 bar (365 PSI)
								75 = ... 50 bar (1090 PSI)
								150 = ... 150 bar (2175 PSI)
								210 = ... 210 bar (3050 PSI)

**Technical data**

Nominal Size	Size	6
Hydraulic fluid		Petroleum oils (HM, HL, HLP); Phosphate ester fluids (HFD-R)
Operating pressure (Inlet)	bar (PSI)	... 315 (4600)
Reduced pressure (Outlet)	bar (PSI)	... 25 (365), ... 50 (1090), ... 150 (2175), ... 210 (3050)
Back pressure Port T(Y)	bar (PSI)	... 160 (2320)
Maximum permissible flow	L/min (GPM)	... 50 (13.2)
Weight (approx.)	kg (lbs.)	1.2 (2.6)

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Issue: 01.01See Section 16 for applicable  
Preferred/Spotlight part numbers  
and unit price.**Pressure reducing valve, direct operated  
Model ZDR 10 D sandwich mounted**

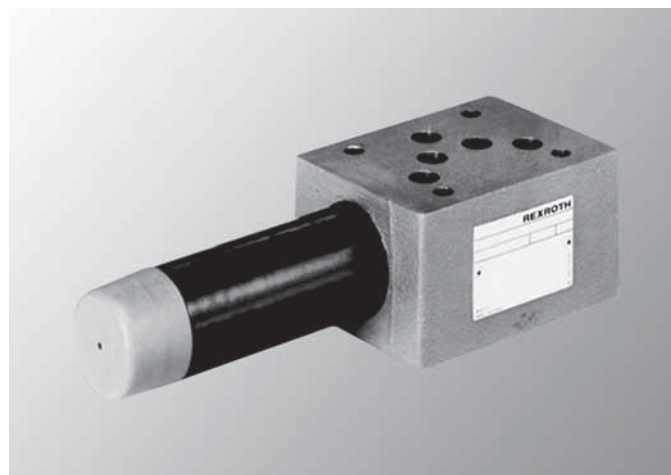
Size 10

Series 5X

Maximum operating pressure 210 bar (3050 PSI)

Maximum flow 80 L/min (21 GPM)

- Direct operated pressure reducing valve, of sandwich plate design, for use in vertical stacking assemblies
- Porting pattern to ISO 4401-05, NFPA T 3.5.1 M R1 and ANSI B 93.7 D 05
- Option of pressure reduction in pressure supply line or in one of the service lines
- Four pressure adjustment options
  - Rotary handwheel
  - Screw adjustment with locknut and protective cap



Model ZDR 10 DP 2-5X/.Y. .

- Key lock rotary handknob with adjustment scale
- Rotary handknob with adjustment scale
- Four pressure adjustment ranges available to 3000 PSI
- Optional built-in reverse free flow check valve
- Maximum spring setting, valve is permitted to 4600 PSI

**Ordering code**

Z	DR	10	D			- 5X/	Y		/ 12	*
Sandwich plate design = Z	Pressure reducing valve = DR	Size 10, D 05 = 10	Direct operated = D							Further details to be written in clear text
									12 =	<b>Gauge port connection</b> SAE threads
									no code =	NBR seals, suitable for petroleum oils (HM, HL, HLP)
									no code =	with reverse free-flow check valve (Model ZDR 6 "DA" only)
									M =	without reverse free-flow check valve
								Y =		Internally piloted, externally drained
									<b>Adjustable secondary "reduced" pressure range</b>	
								25 =		... 25 bar (365 PSI)
								75 =		... 75 bar (1090 PSI)
								150 =		... 150 bar (2175 PSI)
								210 =		... 210 bar (3050 PSI)

**Technical data** (For applications outside these parameters, please consult us!)

Hydraulic fluid		Petroleum oil (HL; HLP); phosphate ester (HFD-R)
Temperature range of fluid	°C (°F)	NBR seals: -30 to +80 (-22 to +176) FPM seals: -20 to +80 (-4 to +176)
Viscosity range	mm²/s (SUS)	10 to 800 (60 to 3710)
Fluid cleanliness		Maximum permissible degree of contamination to ISO 4406, class 18/15. For this, we recommend a filter with a minimum retention rate of $\beta_{10} \geq 75$ .
Operating pressure (inlet)	bar (PSI)	315 (4600)
Reduced pressure (outlet)	bar (PSI)	25 (365); 75 (1090); 150 (2175); 210 (3050)
Back pressure	Port T (Y) bar (PSI)	160 (2320)
Maximum permissible flow	L/min (GPM)	80 (21)
Weight (approx.)	kg (lbs.)	2.8 (6.1)

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See Section 16 for applicable  
Preferred/Spotlight part numbers  
and unit price.**Pressure reducing valve, direct operated  
Model DR 6 DP**

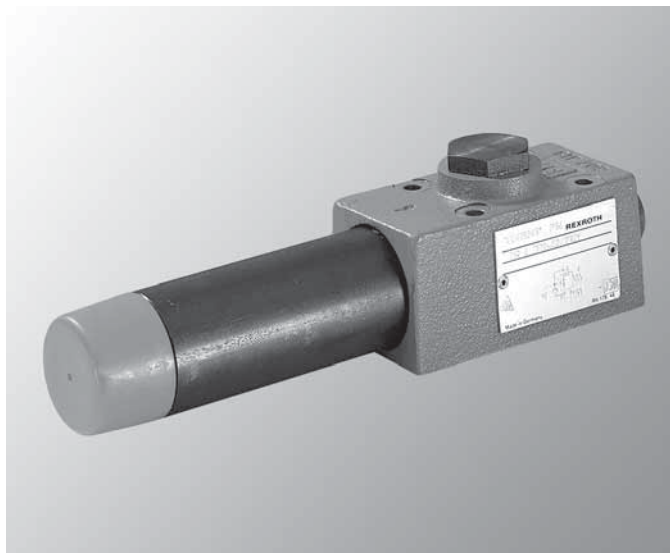
Size 6

Series 5X

Maximum operating pressure 315 bar (4600 PSI)

Maximum flow 60 L/min (16 GPM)

- Direct operated pressure reducing valve
- Mounts on standard ISO 5781-03, NFPA/ANSI P 03
- For subplates, see datasheet RA 45 052
- Pressure adjustment options
- Four pressure adjustment ranges available to 315 bar (4600 PSI)
- Optional built-in reverse free flow check valve



Model DR 6 DP 2-5X/...YM...

**Ordering code**

<div> <div>DR</div> <div>6</div> <div>D</div> <div>P</div> <div>-5X/</div> <div>Y</div> <div></div> <div>/</div> <div>*</div> </div>									
Pressure reducing valve	= DR								
Size 6, P 03		= 6							Further details to be written in clear text
Direct operated			= D						<b>Gauge port connection</b>
Subplate mounted				= P				12 =	SAE threads
Adjustment mechanism								no code =	NBR seals, suitable for petroleum oils (HM, HL, HLP)
Rotary handwheel					= 1				
Screw adjustment with locknut and protective cap					= 2				
Series 50 to 59 (50 to 59; externally interchangeable)						= 5X			
<b>Adjustable secondary "reduced" pressure range</b>									
... 25 bar (365 PSI)									= 25
... 75 bar (1090 PSI)									= 75
... 150 bar (2175 PSI)									= 150
... 210 bar (3050 PSI)									= 210
								no code =	With reverse free-flow check valve
								M =	Without reverse free-flow check valve
								Y =	Internally piloted, externally drained

**Technical data**

Hydraulic fluid			Petroleum oils (HM, HL, HLP); Phosphate ester fluids (HFD-R)
Operating pressure	Port P	bar (PSI)	... 315 (4600)
Reduced pressure	Port A	bar (PSI)	... 25 (365), ... 75 (1090), ... 150 (2175), ... 210 (3050)
Back pressure	Port T (Y)	bar (PSI)	... 160 (2320)
Maximum permissible flow		L/min (GPM)	... 60 (16)
Weight (approx.)		kg (lbs.)	1.2 (2.6)

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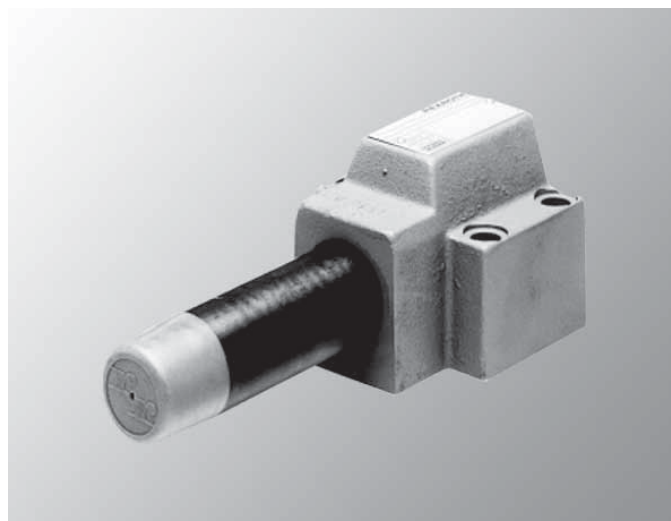
**Pressure reducing valve, direct operated  
Model DR 10 DP**

Sizes 10, Series 5X

Maximum operating pressure 210 bar (3050 PSI) <sup>1)</sup>

Maximum flow 80 L/min (21 GPM)

- Direct operated pressure reducing valve
- Mounts on standard ISO 5781-06, NFPA/ANSI P 06 interfaces
- For subplates, see datasheet RA 45 062
- Pressure adjustment options
- Four pressure adjustment ranges available to 210 bar (3050 PSI)
- Optional built-in reverse free flow check valve
- Pressure gauge port



Model DR 10 DP 2-4X/...YM...

<sup>1)</sup> Maximum spring setting, however valve is permitted to 4600 PSI**Ordering code**

DR	10	D	P	-4X/	Y				*
Pressure reducing valve	= DR								Further details to be written in clear text
Size 10, P 06	= 10								
Direct operated		= D						12 =	SAE threaded gauge port
Subplate mounted			= P					no desig. =	NBR seals suitable for petroleum oils (HM, HL, HLP)
Rotary handknob				= 1				no desig. =	With reverse free-flow check valve
Screw adjustment with locknut and protective cap				= 2				M =	Without reverse free-flow check valve
Series 4X (40 to 49, installation and connection dimensions remain unchanged)				= 4X				Y =	Internally piloted, externally drained
Adjustable secondary "reduced" pressure range									
... 25 bar (365 PSI)				= 25					
... 75 bar (1090 PSI)				= 75					
... 150 bar (2175 PSI)				= 150					
... 210 bar (3050 PSI)				= 210					

**Technical data**

Hydraulic fluid			Petroleum oils (HM, HL, HLP), Phosphate ester fluids (HFD-R)
Fluid temperature range		°C (°F)	NBR seals: −30 to +80 (−22 to 176) FPM seals: −20 to +80 (−4 ... 176)
Viscosity range		mm²/s (SUS)	10 ... 800 (60 ... 3710) (dependent on fluid)
Maximum degree of fluid contamination			Class 18/15 according to ISO 4406. Therefore, we recommend a filter with a retention rate of $\beta_{10} \geq 75$ .
Operating pressure	Port B	bar (PSI)	up to 315 (4600)
Adjustable secondary pressure (output)	Port A	bar (PSI)	... 25 (365), ... 75 (1090), ... 150 (2175), ... 210 (3050)
Back pressure	Port Y	bar (PSI)	up to 160 (2300)
Maximum flow	L/min (GPM)		up to 80 (21)
Installation position			optional
Weight	kg (lbs.)		approx. 3 (6.6)